MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: April 15, 1998

SUBJECT: Groundfish Issues for Discussion

ESTIMATED TIME
6 HOURS

ACTION REQUIRED

(a) Western/Central Gulf Management Committee report.
(b) Pollock density specifications.
(c) IR/IU Committee report.
(d) Draft groundfish SEIS status report.

Western/Central Gulf Management Committee report

As a result of Council action on the stand-down and vessel registration program in February 1998, the Council modified the mandate and membership of the Gulf Trip Committee. The new Western/Central Gulf Management Committee's charge is to address management of at-risk fisheries in the Western and Central Gulf, specifically pollock and Pacific cod. The Council has tasked the committee with identifying possible management solutions for analysis. The committee met on Wednesday, April 1, 1998. Chairman Al Burch will present the committee recommendations (Item D-2(a)).

Pollock density specifications

At its February 1998 meeting, NMFS informed the Council that it had revised pollock density rates used by observers for the 1998 pollock fishery to 0.98 mt/m^3 for bin volumes and 1.02 mt/m^3 for codend volumes. The rate used in 1997 was 0.93 mt/m^3, based on estimates from the 1992 fishery, now known to be inaccurate. This change affects only the offshore sector (since onshore is monitored through plant delivery weights).

If the 1998 density factor had been applied in 1997 the reported pollock harvest would have been 2% higher. NMFS informed the Council that it would delay implementation of the revised rate until the 1998 pollock B season due to concerns about public notification (Item D-2(b)(1)). NMFS Observer Program staff has responded formally to ADF&G and industry comments (Item D-2(b)(2)) and are available to discuss this issue further with the Council.

NMFS distributed two reports related to this issue at the February meeting: AFSC Processed Report 97-07, "Evaluation of haul weight estimation procedures used by at-sea observers in pollock fisheries off Alaska" (with a red cover) and "Determination of Catch Quantity and Composition in the Federal Fisheries off Alaska."

IR/IU Committee report

The Improved Retention/Improved Utilization program was implemented with the 1998 groundfish fisheries. The IR/IU Implementation Committee met on March 12-13, 1998 to discuss a range of program implementation issues identified by NMFS staff and committee members. Implementation issues are described in a NMFS discussion paper attached to the minutes (Item D-2(c)(1)). NMFS clarified two implementation issues via information bulletins following the meeting (Item D-2(c)(2)). Chairman Joe Kyle will present the committee recommendations.

Draft Groundfish SEIS status report

Tamra Faris, NMFS, will provide a status report on the draft Groundfish Supplemental Environmental Impact Statement. It was prepared so the federally managed groundfish fisheries are more fully in compliance with NEPA, given more than 50 amendments to each of the BSAI and GOA FMPs.

Western/Central Gulf Committee Meeting
Final Minutes
April 1, 1998

The committee convened on Wednesday, April 1, 1998 at approximately 11 am. Committee members in attendance were Al Burch (chairman), Steve Hughes, Dale Schwartzmiller, Jim McManus, John Foster, Jonathan Spool and Alvin Osterback. Corey Wilson was absent. Jane DiCosimo provided staff support. Beth Stewart also attended. The committee noted the absence of Dutch Harbor and Kodiak processors on the committee.

The committee agreed to add two items to the agenda for discussion: 1) protection of the second trimester pollock fishery; and 2) a separate GOA regulatory area between 165 and 170° W. The committee briefly discussed the memo from NOAA GC on closing groundfish fisheries prior to publication of closure notices in the Federal Register and its relation to Western/Central Gulf fisheries (Appendix).

The committee's first action was to identify its management goal and develop a problem statement. The goal was identified as developing options for management of 'at risk' fisheries in the Western/Central Gulf. It agreed that at risk fisheries can be defined by preemption and management/biological reasons (exceeding TACs). It decided to focus on the two problems separately. It reviewed the NMFS list of at risk fisheries from the EA/RIR to implement a stand-down and vessel registration program and concurred that those fisheries at risk of preemption included: 1) pollock in all areas in the GOA, 2) Pacific cod in all areas of the GOA, 3) rockfish in the GOA, 4) Atka mackerel in the AI, and 5) POP in the AI. It also identified management/biological problems in the GOA deep water and shallow water flatfish fisheries and deferred discussion of these fisheries until a later date.

Western/Central Gulf Committee Problem Statement

In recent years, several BSAI and GOA fisheries have been at risk of exceeding their specified total allowable catch (TAC) or prohibited species catch (PSC) limits. The fisheries that are at risk are characterized as:

(a) Fisheries that are short in duration, usually less than two weeks, with TACs that are small relative to the fishing effort.
(b) Longer fisheries that are subject to sudden increase and unpredicted effort from other catcher fleets.
(c) Fisheries in which some gear types get earlier start dates than others.

The effects of the pending License Limitation Program are expected to have a great impact, potentially doubling the fleet in these fisheries. Unknown, but perceived, negative effects are anticipated by adding additional effort in these fisheries.

The GOA fleets in local communities face huge competition in these short (24 hours to two weeks long) fisheries, and preemption by other fleets need to be addressed.

The harvesting effort must be contained in order to preserve the balance in these fisheries, and significant measures are justifiably required.

The committee identified pollock and cod as the species of highest priority to address; it will address other at risk fisheries at later meetings. The second trimester (June 1) pollock season was identified as the season requiring the highest priority for solution. The small boat fleet in local communities face huge competition in this short (24 hr) fishery.

The Pacific cod fishery in Area 610 in January, following the BSAI 'A' season, is next in priority for a management solution. The second trimester fishery will not be affected by the vessel registration and stand-down programs. The committee discussed recent reports on the need for variety in Steller sea lion diets and the relationship between forage food and sea lion recovery. The committee also discussed that an increase in the quota during the second trimester, approved by the Council in February 1998, is not preferable for the fishery or perhaps for sea lions. Pollock weigh less and are lower in ex-vessel value during summer months. Greater numbers of fish are harvested due to their decreased weight (non-spawning) to meet seasonal allocations. The committee discussed that this might have ramifications on future pollock biomass.

The committee achieved consensus on three recommendations for Western/Central Gulf fishery management:

I. The committee recommends that the Council review trimester allocations and reapportion pollock into 'A' and 'B' seasons, as occurs in the BS, as a first priority for solving preemption problems in the W/C Gulf pollock

fishery. The committee noted that the Council-approved 80,000 mt trigger for reviewing the trimester apportionment was reached in 1998. New information regarding feeding habits of sea lions (i.e., variety of food sources, increase in pollock abundance) supports establishing A and B seasons. Since quarterly allocations were adopted for this fishery, the Council has approved numerous measures to protect Steller sea lions (e.g., seasonal apportionments of pollock TAC, a prohibition on development of commercial forage fisheries, buffer zones and seasonal trawl exclusion zones around rookeries).

The committee noted that the success of the stand-down program will be measurable in September 1998, when the third trimester opens (pending implementation). The committee noted that the stand-down does not work for the first trimester. This leads to instability in the fisheries.

II. The committee identified a preemption issue in the GOA Pacific cod fishery and recommended that a fair start opening on January 20 in Areas 610-640 in the GOA be implemented for the longline and trawl fisheries. It agreed that the pot fishery did not pose a problem at this time. It expressed concern that freezer longliners could preempt this fishery, particularly as BSAI P. cod biomass declines. Gear allocations on small quotas, and effort increases under the pending LLP, may exacerbate management/biological problems, and up to half of quota may be preempted.

III. The committee recommended that the Council initiate an amendment to the stand-down program so that the stand-down (with the same hours) would not be based on a calendar year. The proposed stand down program requirements would roll from one trimester to the next (possibly from the 'B' season to the 'A' season). It would result in the standdown being effective for the first fishing period. The committee discussed that the stand-down may have both negative and positive economic effects to all sectors. It noted that the P. cod trawl fishery is basically one season, although it is sometimes reopened if it is closed too soon.

The committee reviewed, but did not recommend, the following management measures.

Trip Limit. Trip limits remain a controversial topic for the committee and it tabled further discussion of them until subsequent meetings. The committee acknowledged that no new information on the need for trip limits would occur until after September fishery and implementation of stand-down. The registration program would not be in effect until sometime in 1999. The committee noted that the Improved Retention/Improved Utilization program would affect these fisheries, that observer coverage would be costly, and that trip limits may need to be graduated to the size of vessels to meet fairness issues.

Exclusive registration. Peninsula Marketing Association members supported both a trip limit and exclusive registration in the BSAI and GOA to stabilize the economic status of the fisheries; while BSAI and GOA processors opposed them due to concerns about fair and equitable access to the fisheries. A proposal for creating a separate GOA regulatory area between 165 and 170° W, separated from Area 610, will be developed for the committee's next meeting. The committee noted that fish move back and forth between GOA and BSAI at the eastern edge of Unimak Pass. In winter and spring, P. cod are BSAI fish, but in the summer they are GOA fish. The committee will consider whether to tie exclusive registration to this new area.

Vessel allocations. The committee felt that this topic was covered tied to trip limits and also tabled.

Staggered openings. The committee felt that this topic was not an applicable solution to the problem.

Subarea reserves. The committee rejected this topic since the State of Alaska has already created this under the State water P. cod fishery.

IFQs. IFQs were rejected because it would then give credibility to creation of CDQs in the GOA. IFQs would have great instability due to possible increases in the State water fishery.

Observer Program. These were addressed under above items, where appropriate.

Enforcement. These will be addressed during analysis and Council deliberation.

Marine Mammals. The committee requested participation of a Marine Mammal Lab scientist at future meetings

The committee adjourned at 4:15 pm. The committee will schedule its next meeting after the April 1998 Council meeting.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of General Counsel
P.O. Box · 21109
Juneau, Alaska 99802-1109

APPENDIX

March 12, 1998

MEMORANDUM FOR: North Pacific Fishery Management Council

FROM: Jonathan Pollard
Attorney-Advisor Jonathan Pollard

SUBJECT: Closing groundfish fisheries prior to publication of closure notices in the Federal Register

This memorandum briefly examines the public notice requirements for closing groundfish fisheries off Alaska. The memorandum concludes that making inseason closures in these fisheries effective prior to publication of those closures in the Federal Register raises serious problems of public notice and is impracticable under federal law.

Discussion:

Closure notices issued pursuant to the groundfish fishery regulations and published in the Federal Register have the full force and effect of law and may be enforced as such. A person charged with a violation of a notice of closure duly promulgated and published in the Federal Register cannot assert ignorance of the closure as a defense. However, if the closure notice were not published in the Federal Register, the closure could not be enforced against anyone who did not have prior actual notice of the terms of the closure. Section 1507 of the Federal Register Act, 44 U.S.C. § 1507, provides in part that

> [a] document required by [44 U.S.C. § 1505(a)] to be published in the Federal Register is not valid as against a person who has not had actual knowledge of it until the duplicate originals or certified copies of the document have been filed with the Office of the Federal Register and a copy made available for public inspection as provided by [44 U.S.C. § 1503]. Unless otherwise specifically provided by statute, filing of a document, required or authorized to be published by [44 U.S.C. § 1505], except in cases where notice by publication is insufficient in law, is sufficient to give notice of the contents of the document to a person subject to or affected by it.

Section 552(a) of the Administrative Procedure Act, 5 U.S.C. § 552(a), also provides in part that

> [e]xcept to the extent that a person has actual and timely notice of the terms thereof, a person may not in any manner be required to resort to, or be adversely affected by, a matter required to be published in the Federal Register and not so published.

There is no doubt that a notice of fishery closure is a document required to be published in the Federal Register. 5 U.S.C. § 552(a)(1); 44 U.S.C. § 1505(a).

Publication in the Federal Register makes the closure legally binding on, and enforceable against, every person subject to its terms, even though he or she might be wholly ignorant of its existence. On the other hand, a closure not published in the Federal Register cannot be enforced unless the government proves that the person who allegedly violated it had prior actual knowledge of its terms. This requirement for proof of actual notice in the absence of publication has been strictly applied by courts; it cannot be satisfied by a mere showing that the agency made the closure generally available to the public through means other than publication in the Federal Register. Proving such actual notice would impose unreasonably heavy administrative burdens on NMFS and United States Coast Guard enforcement personnel given the relatively large number and diversity of fishery participants, the vast geographic area involved, and the rather complicated nature of the fishery closures in the groundfish fisheries.

Although the current practice of publishing closures in the Federal Register can, in some instances, result in closures being delayed, the current practice is nevertheless superior to one that would require the government to prove actual notice on a case-by-case basis against every person who may have violated a closure. The requirement of proof of actual notice would effectively render prepublication violations unenforceable.

cc: Clarence Pautzke
Steve Pennoyer
Steve Meyer
Joel La Bissonniere
Garland Walker
Lisa Lindeman

INFORMATION BULLETIN (98-08)
Steven Pennoyer
907-586-7221

February 12, 1998
4:20 p.m
For Immediate Release

CLARIFICATION OF STANDARD POLLOCK DENSITY FACTORS TO BE USED IN THE 1998 POLLOCK FISHERIES

The National Marine Fisheries Service (NMFS) is clarifying the use of standard pollock density factors used by the agency to derive volumetric estimates of pollock catch, according to Steven Pennoyer, Administrator, Alaska Region, NMFS.

NMFS has revised pollock density factors employed by observers to estimate catches of pollock aboard processor vessels in 1998. The density factor of 0.98 mt/m3 for bins and 1.02 mt/m3 for codends is based on extensive, controlled research carried out by the agency as part of a catch weight determination study aboard the F/T American Triumph in 1996 and 1997. The original density factor of 0.93 mt/m3 was based on a small number of measurements made by observers in 1993 and employed a method now known to be inaccurate.

NMFS intends to manage the total harvest of Bering Sea pollock based on the best available data so that the total allowable catch (TAC) is not exceeded. NMFS estimates that the revised density factors will result in about a 2 percent adjustment of the total pollock catch during 1998. Although the impact on resource management will be minimal, the agency recognizes that the effect of the revised density factors on individual operations may be different. The agency is willing, therefore, to delay the implementation of the revised density factors until mid 1998 to provide the industry adequate time to make any necessary adjustments to their fishing operations and to comment on the planned revisions and the research upon which these changes are based. NMFS will respond to all comments received. This delay will not affect the agency's ability to manage the 1998 pollock TAC given the minor impact the revised density factors have on overall pollock catch estimates. In the event that the overall 1998 "A" season pollock catch estimate exceeds the original allocation, an adjustment in the amount of pollock available for the "B" season will be made.

Observers have been instructed to use the new density factors and will continue to be required to do so in the open access and pollock community development quota (CDQ) fisheries. Mid season changes to observer instructions can create confusion and potentially impact the quality of catch estimates used by NMFS to manage the pollock fisheries. Therefore, adjustments in fleet wide and CDQ pollock catch estimates, which reflect the policy to delay implementation of the new density factors until mid-year, will be made by management staff at the NMFS Alaska Region office.

This information bulletin provides clarification of existing catch estimation procedures. To obtain further information, contact the Sustainable Fisheries Division, NMFS, 907-586-7228.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

March 20, 1998

Mr. David Benton
Deputy Commissioner
Alaska Department of Fish and Game
P.O. Box 25526
Juneau, Alaska 99802-5526

Dear Dave,

Thank you for your letter expressing your concerns about a mid-season implementation of a revision to the assumed pollock density factor used to calculate volumetric catch weight measurements for at-sea processing operations. As you are aware, we published an information bulletin that explains NMFS's position on the revised density factors and our belief that a delay in the implementation of these factors would not pose conservation concerns. You disagree with this position and believe that the delay causes an inappropriate reallocation of pollock between inshore and offshore components.

We determined that a delay in the implementation of new pollock density factors was appropriate for several reasons. First, the density factor issue was not explored with the North Pacific Fishery Management Council (Council) or industry prior to the 1998 total allowable catch (TAC) specification process and only became apparent to the industry when observers started to apply the revised factors during the 1998 "A" season. Second, discussions with some participants in the Community Development Quota (CDQ) program indicated that CDQ groups and their corporate partners needed time to adjust their business arrangements to respond to the increased density factors and resulting harvest adjustments. Third, a delay would result in only a 2 percent adjustment of the offshore pollock harvest based on an analysis of 1997 data and the proportion of catch measured using bin or codend catch weight measurements. This equates to 6,000 mt of pollock, or about one half day of fishing. This magnitude of catch relative to the large volume pollock fishery is of questionable short term significance from a conservation perspective.

Last and most importantly, a mid season adjustment of density factors does not have to result in any overharvest of pollock TAC amounts given the seasonal apportionment of TACs. We can adjust 1998 catch weight estimates once we have provided the public and the Council opportunity to comment on the revised factors and/or the methodology employed by NMFS to derive those numbers. We have met with some industry members in response to their

stated concerns about our density factor determinations. We still believe that our revised density factors better represent reality compared to the number previously used. Nonetheless, we understand the political and long-term allocative concerns that the revised pollock density factors pose. We are striving to provide opportunity for full public and Council input on the revisions at the upcoming April Council meeting. We believe our decision to allow a mid year implementation of the revised pollock density factors keeps the issues surrounding these factors in perspective. It reflects a balance between moving towards better catch weight measurements and reasonable management of the pollock fisheries using the best information available.

Sincerely,

Steven Pennoyer
Administrator, Alaska Region

cc: Rick Lauber, NPFMC

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

P.O. BOX 25526
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February 27, 1998

Steven Pennoyer
Director
Alaska Region, NMFS
P.O. Box 21668
Juneau, AK 99802

Dear Steve:

I am writing regarding a recent information bulletin (98-08) issued by your agency entitled "Clarification of Standard Pollock Density Factors to be used in the 1998 Pollock Fisheries." Based on this bulletin and information presented at the February meeting of the North Pacific Fishery Management Council, it is my understanding that your agency has little doubt that the revised density factors of 0.98 mt/m^3 for bins and 1.02 mt/m^3 for codends are more appropriate than the density factor that was used previously (0.93 mt/m^3) to estimate pollock catches aboard catcher-processor vessels. However, the bulletin goes on to indicate that implementation of the revised density factors will be delayed and that 1998 "A" season catches in the offshore sector will be monitored by your agency on the basis of the old, inaccurate density factor.

As I indicated to you at the February meeting of the North Pacific Fishery Management Council, I am concerned about a mid-season implementation of the revised density factors. There are several reasons for my concerns. First, a mid-season implementation in the manner suggested represents an explicit reallocation of harvest between the A and the B seasons towards the A season harvest. I believe that the apportionment between the A and B seasons should be adjusted only with the concurrence of the Council. Second, a policy of knowingly exceeding the current A season apportionment should not be condoned given the level of existing concern for Stellar sea lions. Finally, this could be interpreted to be a reallocation to the offshore component of the A season which amounts to an economic allocation that could be conservatively estimated to be $4-$6 million. I do not believe that this scale of economic allocation should be effected outside the Council process.

It was my understanding based upon discussion at the February Council meeting that your agency would not deviate from uniform application of the revised density estimates without further consultation with the Council. I do not understand the decision to delay implementation of the new density factors until mid-year as announced in the bulletin.

Sincerely,

David Benton
Deputy Commissioner

11-K2LH

NRC
NATURAL RESOURCES CONSULTANTS INC.

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SEATTLE, WASHINGTON 98199, U.S.A.
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DRAFT

MEMORANDUM

DATE: January 29, 1998

TO: Cory Swasand, Eric Brevick, et al.

FROM: Steve Hughes and Jeff June
Natural Resources Consultants, Inc.

SUBJECT: Critique of NMFS AFSC Processed Report 97-07 "Evaluation of Haul Weight Estimation Procedures Used by At-sea Observers in Pollock Fisheries Off Alaska," December 1997.

As you requested we have started our evaluation of subject report which has resulted from NMFS research conducted aboard the F/T *American Triumph* during the 1996 "B" and 1997 pollock "A" seasons in the Bering Sea. This is a fairly major and complex study with several aspects which evaluate observer measurements of coded volumes, fish bin volumes using two methods, flow scale performance and pollock density coefficients. Of immediate concern are the changed pollock density coefficients from the historically used 0.93 mt/m^3 up to 0.98 mt/m^3 for fish bin volumes and 1.02 mt/m^3 for codend volumes. These changes, as you know, are effective with the beginning of the 1998 Bering Sea pollock "A" season for the offshore sector. Below is a summary of our findings to date. Separately, we have more details.

Summary

- The AFSC processed report 97-07 was apparently completed in December 1997, has not been peer reviewed, was not presented at

the December NPFMC meeting, but the density coefficient changes have been implemented.

- During the 1996 "B" season study phase, pollock catches were generally handled in the normal commercial fishing manner--hauled aboard into the trawl alley, the codend was measured and the catch was immediately dumped into the below deck fish bins where fish bin volume was measured.

- During the 1997 "A" season study phase, NMFS initiated measures to deviate from the normal codend handling procedures used in 1996.

- These measures required that codends be held on deck for 5 minutes for draining before dumping. Drained water was reportedly removed from the trawl alley using drain holes cut into the trawl alley sides.

- Collectively, these measures substantially reduced normal amounts of water which enter the below deck fish bins during codend dumping procedures employed in the commercial fishery.

- Normal water in bins was included in bin volume measurements, but excluded from flow scale, fish weights resulting in higher than real back calculated pollock density coefficients.

- Water in bins is the norm, not the exception in the commercial fishery. In fact, water is often added intentionally to augment fish flow prior to recording bin volume.

- Water in bins was excluded from flow scale weights (contrary to the RFP p. 8), which specified that all bin contents be weighed.

- The special density sampler employed on the *American Triumph* was apparently filled with fish by hand outside the fish bin and did not sample a "bin sample" density. Accordingly, the density sampler did not measure "in situ" meaning "in bin" density which would have included some water. The special density sampler apparently contained no water.

- *American Triumph* has four below deck fish bins, two upper fish bins with a depth of about 1.9 meters (6.3-ft) and two lower fish bins with a depth of about 4.0 meters (13.2-ft).

- Bin depths of 13-ft in the pollock fleet is, to the best of our knowledge, excessive and certainly not representative of the fleets typical bin ≈ 7-ft high.

- "Deep bin" density measurements were consistently higher than normal bin density measurements (p. 38 Table 4)

  – 0.916 for normal bins in 1996
  – 0.963 for normal bins in 1997
  – 0.999 for deep bins in 1996
  – 0.983 for deep bins in 1997

- Fish bin conditions were coded by how fish lay in the bins and apparently by water content.

- We interpret Code 4 and 5 to be bins with some water although 1997 conditions reportedly deviated from normal commercial practice to exclude water.

- Fish densities measured from tanks with water (Code 4 and 5) had densities of 0.922-0.942 in 1996.

- This measurement is, in our view, most reflective of a normal commercial operation, the mid-point of which equals 0.932--essential equal to the historically used 0.930 pollock density factor.

- The 1996 rate of 0.932 for bins with water has been ignored and instead the 1997 rate of .980 is being used, which is clearly an over estimate of true pollock density because these measurements were "artificially dry" and include data from deeper than normal fish bins.

- The impact of the "drained codends" on density determinations, in the most representative fish bins, can be measured, simply by comparing the 1996 upper fish bin densities with the 1997 upper fish bin densities. The effect of draining is:

  0.963 for 1997
  0.916 for 1996
  0.047 for water

- We conclude that at least 0.047 of the 0.980 bin density is due to artificially manipulating normal commercial operations.

- We conclude that at least 0.02 of the 0.980 bin density is due to packing in the deeper than normal bins (Table 4).

- On some vessels, measured codend volumes rather than bin volumes are used to calculate catch weight using a density coefficient.

- The study reported most observers had problems accurately measuring codends aboard *American Triumph* larger than 135 m^3.

- Volumes of codends larger than 135 m^3 were reportedly over estimated by 9.8% in 1996 and by 7.8% in 1997.

- If an observer over estimates codend volume and then back calculates a density coefficient from the known weight of fish in the codend as done in this study, the density coefficient would be lower than if the codend volume was estimated accurately.

- If an observer over estimates codend volume and uses an ideal density coefficient derived from the density sampler to calculate weight, the weight is overestimated.

- All data from 1996 was apparently not used in the final analysis and all data from large codends in 1997 was apparently also excluded, at least for codend density calculations.

- Thus, for the calculated 1.02 codend density now being used, only smaller than 135 m^3 codends were considered which biased the data and produced a higher than actual density factor.

- Large codends are common and must be considered.

- In 1996, 22.4% of the catch weight reportedly came from codends exceeding 135 m^3.

- In 1997, 52% of the catch weight reportedly came from codends exceeding 135 m^3.

- Excluding the observer tendency to overestimate codend volume of large codends as was done in the study and then applying an artificially high density coefficient in the commercial fishery will substantially overestimate actual catch weights in the commercial fishery.

- In our opinion, over estimation of codend volume normally occurs anyway because the substantial volume of the codend web, rigging and water is not subtracted.

As a final comment, we as the industry need accurate weights and measures. However, we need to be sure that procedures used to collect pertinent data are reflective of the normal commercial fishery and of commercial conditions. The final density coefficient numbers resulting from the AFSC report 97-07, certainly in 1997, were not reflective of normal commercial operations. The bin volume densities of 0.98 are artificially high largely because of the exclusion of water. The codend density measurements of 1.02 are biased both because of the exclusion of water and because larger codends were apparently excluded from the analysis.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Alaska Fisheries Science Center
Resource Ecology and Fisheries
Management Division
BIN C15700, Building 4
7600 Sand Point Way NE
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March 6, 1998

Mr. Steve Hughes
Natural Resources Consultants
4055 21st Avenue West, Suite 100
Seattle, WA 98199

Dear Steve,

Thank you for providing us with a copy of your critique of the report entitled, "Evaluation of haul weight estimation procedures used by at-sea observers in pollock fisheries off Alaska" (AFSC Processed Report 97-07). Staff have reviewed this critique and drafted a response. A copy is enclosed with this letter.

We appreciate the concerns expressed by you and your clients regarding the derivation and applicability of density factors used by observers to obtain volumetric estimates of total catch in the pollock fisheries. While the scientific basis for these density factors is supported in the report and the enclosed memorandum, I feel that it is important to provide interested members of the fishing industry and the public with the opportunity to review this work and provide comments. Therefore I have requested that the North Pacific Fishery Management Council place the "Pollock Standard Density" issue on the agenda of their April, 1998 meeting.

In the meantime, if you would like to hold further discussions with staff regarding catch weight determination issues; please call me at 526-4172, and I will arrange a meeting.

Sincerely,

Richard Marasco
Director, Resource Ecology &
Fisheries Management Division

Enclosure

cc: S. Pennoyer
R. Lauber
C. Pautzke

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Alaska Fisheries Science Center
Resource Ecology and Fisheries
Management Division
7600 Sand Point Way Northeast
Bin C15700, Building 4
Seattle, Washington 98115-0070

March 4, 1998

MEMORANDUM FOR: Bill Karp, Rich Marasco

FROM: Martin Dorn, Sarah Gaichas MMD SG

SUBJECT: Comments on the Natural Resources Consultants review of AFSC Processed Report 97-07

This memorandum is a response to a review of AFSC Processed Report 97-07, "Evaluation of haul weight estimation procedures used by at-sea observers in pollock fisheries off Alaska" provided in a memo by Steve Hughes and Jeff June of Natural Resources Consultants (NRC), dated January 29, 1998. We thank Steve Hughes and Jeff June for their careful reading of the report and their comments.

The NRC review focused exclusively on recommendations of the report concerning the densities for use in catch estimation using bin and codend volumetric methods. The crux of the NRC critique is its characterization of the recommended *in situ* bin pollock density of 0.98 t/m^3 as "clearly an overestimate of true pollock density because these measurements (sic) were "artificially dry" and include data from deeper than normal fish bins." Each of these issues is addressed separately below through additional analysis. We also provide specific responses to secondary issues raised by the NRC review.

Bin depths on the FT *American Triumph*

Bin depths for all vessels currently targeting pollock were determined from bin drawings on file at the observer program. All vessels where observers estimated total catch weight using bin volumes at least once were included. Approximately 90% of these bin drawings are certified by marine engineers, while the remainder of the drawings were done by observers. For 81 bins on 26 vessels, the average bin depth is 270 cm or 8.85 feet (Figure 1). The range of average bin depths was 150 cm to 620 cm. Seven of the 26 vessels have a combination of shallow upper bins and deep lower bins, as on the FT *American Triumph*, while the

remainder of the fleet has side-by-side bins of relatively equal depth.

-The average depth of the upper bins on the FT *American Triumph* (165 cm) is the second shallowest in the fleet. (The floors of the upper bins on the FT *American Triumph* slope upwards significantly towards the stern from 185 cm (6.1 feet) to 115 cm (3.8 feet)). The average depth of the lower bins on the FT *American Triumph* is 380 cm. These lower bins are deeper than the fleetwide average, but considerably shallower than the deepest bins in the fleet. Fifteen percent of the bins are deeper than the lower bins on the FT *American Triumph*. The upper bins are 105 cm shallower than the fleetwide average, while the lower bins are 110 cm deeper than the fleetwide average.

Although neither set of bins on the FT *American Triumph* could be considered "average," the upper and lower bins do bracket the mean depth, and are fairly typical of those vessels with upper and lower bins. The average depth of all four bins on the FT *American Triumph* is 272.5 cm, which is nearly equal to fleet average bin depth. A density suitable for the mean fleetwide bin depth must use data from *both* the upper and lower bins on the FT *American Triumph*. The recommended bin density of 0.98 t/m^3 is derived from all data collected from all bins during both seasons aboard the FT *American Triumph*.

The effect of water on *in situ* bin densities

The discussion of the effect of water in bins is hampered by imprecise language. Figure 2 shows a hypothetical experiment where water is gradually added to a bin containing fish. We define the following terms: "dry" - no water present in the interstitial spaces between fish; "partially-flooded" - water present in the bin, but below the level of fish; "fully-flooded" - water level equals fish level; and "over-flooded" - water in the bins exceeds the fully-flooded level. In the analysis that follows, we refer to the water/fish ratio, or percent, which is defined as water level divided by the fish level. This ratio goes from zero for a dry bin to one (or 100% flooded) for a fully-flooded bin. If the water in the bins exceeds the fully-flooded stage, the water/fish ratio cannot increase further because some fish will float at the surface, and remains one for over-flooded bins.

During the 1997-A season, measuring strips were placed outside the bins next to the viewing windows. Using these strips, observers recorded both the level of water and the level of fish in the viewing window. No data on water levels were collected

during the 1996-B season. The upper bin windows on the FT *American Triumph* extend from 50 cm above the bin floor to 180 cm above the floor. Since the total height of the bin at the window is 185 cm, approximately 70% of the total bin depth is visually accessible for water measurement. The minimum measurable water/fish ratio in the upper bins is approximately 0.30. The lower bin windows on the American Triumph extend from 250 cm above the bin floor to 360 cm above the floor. The total height of the bin at the window is 380 cm, so approximately 29% of bin depth is visually accessible for water measurement. The minimum measurable water/fish ratio in the lower bins is approximately 0.70.

Observers were able to measure both fish and water levels during 1997-A season volume measurements for 161 bins; in the remainder of bins either the water level was below the window (46 bins) or both fish and water levels were below the window (74 bins). The water level was below 30% of the fish level (i.e., a "dry" bin) for at most 22% of the bins where the fish level was visible in the window. The water level in the bins was at least 90% of the fish level for over half of the bin volumes where both water and fish could be measured (88 of 161 bins) (Figure 3). These data indicate that the densities obtained during the 1997-A season were not from dry bins, as asserted by the NRC review, but from partially-flooded and fully-flooded bins.

An examination of the relationship between calculated *in situ* bin density and the measured water to fish ratio revealed no statistically significant trend of density with increasing water content (Figure 4). Therefore, measured water in bins had no detectable effect on bin density for the 58% of bins where water could be measured, even though water height ranged between 48% and 100% of fish height. For the 16% of bins in which fish could be measured but water was below the window, the mean density was 1.00 t/m^3 for the lower bins and 1.025 t/m^3 for the upper bins. Since any completely dry bins would be included in these mean densities, these results suggest that the pollock density of 0.98 t/m^3 already includes a 2 to 4% "correction" (underestimate) for water in bins relative to the pollock density for completely dry bins.

Unfortunately, we cannot address effect of water on *in situ* bin densities for the remaining 26% of bin volumes measured, when both the water and fish levels were below the window.

Specific responses to other issues raised by the NRC review:

Density sampler

The prototype density sampler was designed to provide a more accurate estimate of fish density than can be obtained by following standard observer program procedures with sampling baskets. The report makes no claim, however, that the density sampler provides an *in situ* density estimate. The work with the density sampler evaluated whether densities similar to *in situ* densities can be obtained using a semi-portable device that can be operated by a single observer. The recommended pollock densities for codend and bin volumetric estimates are based exclusively on *in situ* density data from codends and bins, and do not use data from the density sampler.

Changes in methodology between the 1996-B season and 1997-A season.

During the 1997 phase of the study, the crew was required to hold codends on deck for a *minimum* of 5 minutes. The measurements which were taken for all codends during both seasons required about 2.5 minutes to complete, so the additional amount of time that codends were required to be held on deck was 2.5 minutes during 1997-A season. Many codends were held on deck longer than 5 minutes during both seasons. We recognize that on many vessels codends are emptied within a few minutes being brought onboard, but it is also not uncommon for codends to be left on deck up to several hours.

The presence of drainage holes in the sides of the trawl alleys is not unusual. The drainage holes that were cut at the request of NMFS consisted of one drainage hole on each side of the trawl alley about 50 cm in length. The drainage holes were located at the aft end of the trawl alley near the stern ramp, and had vertical bars welded across the opening. They were frequently plugged with small fish. Based on our observations while on board the FT *American Triumph*, the drainage holes and the 5 min waiting period did not substantially change the amount of water draining into the bins. Although waiting 5 min did allow water to drain from the codend, the water was usually dammed up beneath the codend, and drained into the bin when the codend was emptied.

Codend volumetric estimation.

The NRC review summarizes the information contained in the report relating to the density for codend volumetric estimation, but puts forward no specific criticism of the analysis or the

recommendations. The report describes the overestimation of codends larger than the trawl alley on the FT *American Triumph* (135 m^3) that occurred for 4 of the 5 observers participating in the project. Apparently this problem arises because observer estimation methods change from direct measurement to visual observation. Analyses in the report suggest that oversize codends (i.e., codends larger than the trawl alley) may represent 20-30% of the total catch by weight for the fleet as a whole. The report recommends that these problems be addressed during observer training by identifying the potential problems of estimating the volume of codends larger than the trawl alley and developing specific estimation procedures for codends of this size. Perhaps the most important contribution that industry can make to reduce this bias would be to give observers the necessary time to safely measure oversized codends directly, thus avoiding volume overestimates due to visual estimation of measurements.

The NRC review contends that the densities for codend volumetric estimation do not take into account the netting and floats. This is incorrect. The density for codends was derived from observer measurements of the codends which include the displaced volume of netting and floats and the flow scale weight of the catch. The correction for netting and floats is incorporated in the codend density factor.

The NRC review contends the codend densities were high because water was excluded. This also is incorrect. During the research charter of the FT *American Triumph*, observers measured the codends immediately after they came on deck, in accordance with standard observer practices.

"Normal commercial operations"

Repeated use of the phase "normal commercial operations" in the NRC review gives a misleading impression that codend handling procedures are similar on all vessels. We e-mailed a brief questionnaire to observers on pollock boats, asking them to characterize codend handling and draining procedures on their vessels. The questions, along with the responses received to date, are appended below to demonstrate the wide range of conditions encountered. In particular, note the response of the observer on vessel 1, who states that codends are held on deck for 2 hrs, and describes numerous drainage holes in the sides of the trawl alley. Both of the conditions are considerably *more* extreme than the relatively minor changes in codend emptying procedures instituted on the FT *American Triumph* during A-season.

Summary

In summary, we conclude the following:

- *In situ* density data from both the upper and the lower bins on the FT *American Triumph* must be used to obtain a density appropriate for fleetwide mean bins depths

- The NRC review inferred that the data collected during the A-season was from "dry" bins because of a short waiting period which was implemented during the A-season. However, the data on fish and water levels collected during the A-season demonstrate that the bins were either "partially-flooded" or "fully-flooded."

- There is no apparent affect on density as long as fish are partially to fully flooded with water. Since observers are instructed to use other methods of haul weight estimation when flooding is severe, the density for bin volumetric estimation should not be representative of over-flooded bins.

- The analyses described in this memo of 1) fleetwide bin depths and 2) water levels recorded during the A-season further support the use of 0.98 t/m^3 as the density factor for converting bin volume to weight.

- We agree that additional data should be collected on the prevalence of water in bins during commercial operations. This can be accomplished by asking observers to record the conditions under which their catch estimates are made using reliability codes similar to those employed during the FT *American Triumph* research project. Where possible, water and fish levels should also be recorded.

Questions sent to observers aboard pollock vessels:

Trawl deck: Does your vessel have any drainage channels, drainage holes, grates, or any other apparatus to allow water to escape from the trawl alley when a codend is brought aboard? If yes, please describe number, size, location, and apparent effectiveness of drainage. If no, please describe where the water goes.

Codend measurements: If you are making codend volume measurements, how much time do you generally have to complete your measurements before the codend is dumped?

Observer responses to questionnaire on codend handling procedures.

Vessel 1.
The X is an active CDQ vessel. So we use certified bin volume measurements for our estimates. We make no codend estimates, but we do watch the haulbacks. With that in mind here are the answers to your questions. The trawl alley has several drainage holes in the side walls to allow water to escape. It looks like four major sluices and then ten minor drainage channels. They are very effective at draining the water that comes onboard with the codend. Codend Measurements are not taken, but if they were we would definitely have time. The bag sits on deck for at least two hours.

Vessel 2.
Trawl alley: the water just comes out and usually drains, for the most part, back out over the stern ramp (when trawl door is down, which since they set again before dumping means that it has time to drain). No grates, holes, etc. Sometimes there might be some pooled towards the stern, but not more than an inch or two I would say.

Vessel 3.
The trawl deck does not have any drainage channels, but the codend only fills about 2/3 of the deck. So, I guess part of the trawl deck can be considered a drainage alley. The water drains off the stern ramp. I was doing codend measurements once in while, but the numbers were consistently lower than the bin volumes. When I did measure I took about ten or fifteen minutes to complete everything. The deck crew helped with the tape measure and did not rush me.

Vessel 4.
Trawl deck: There are two small drainage gates on either side of

the trawl alley if the water ever got that high which I have never seen. Most of the water runs off of the end of the alley toward the stern ramp where there is a space where water can run down. This water then goes through a drainage pipe/waterway that leads to the side of the boat and outside. It seems to be very effective since there is hardly any water floating around in the trawl alley. Codend Measurements: We have about 1 to 2 minutes to measure the codend.

Vessel 5.
Here are the answers to the questions you sent the other day. Question #1: in the center of the trawl deck there are 20 2 inch circular holes draining to the side of the trawl deck. On each side of the trawl deck are 5 7 inch by 3 foot draining scuppers.

Vessel 6.
The trawl deck has a number of drainage holes along the port side of the alley. They are 6"" wide and 4"" high they are spaced every 12"". The starboard side only has 12 and they are located on the aft end of the trawl deck. These holes lead to scupper holes that drain overboard. They seem to be very effective in draining water although they plug up once in awhile with fish. I have been making codend measurements. I have between 2 and 3 min. before the bag is dumped.

Vessel 7.
The X has 9 drainage channels that run the length of the trawl alley (approx. 19 m). each channel ridge is less than a meter apart. the channels are pretty effective for bleeding the codend. water escapes through the stern ramp, and puddles rarely form. CODEND MEASUREMENTS: Sometimes I have less than 5 minutes if I'm down there right as they bring the codend up, or as much as an hour while they process what's already in the tanks.

Vessel 8.
In answer to your questions-- VOLUMETRICS: The trawl alley does not have drainage channels, etc. The trawl alley is enclosed by walls 1.05 m high on each side for 14 m up the deck. From 1-2 m at the extreme aft end of the trawl alley there are two sections that open outside of the wall of approx. 2 m. x 1 m. x 0.5 m high. These are not used for drainage, per se, but do have one 1"" drainage hole for each. Actual drainage is done out the back of the trawl alley under the roller and works very well under all conditions seen to date (waves washing up the trawl alley, water retained by jellyfish on deck during haulback). CODEND: During any haul if I let them know if I am measuring for an estimate, I am allowed all the time necessary (never more than a couple minutes).

Vessel 9.
A) The X has 28 drainage channels in the trawl alley. Water flows aft to the bin doors and exits out the factory, or to the sides and out one of more than 25 drainage holes (2""x4"") along each side of the alley which allow the water to flow over the outer deck, overboard or it flows forward to a channel where the grooves end and out one of the drainage holes in the vicinity. It is quite effective. B) I generally have all the time I need, usually a couple of minutes.

Vessel 10.
Answers to questions; the trawl alley has two areas on the side of the alley for water drainage. I have anywhere from 5-60min to measure to codend.

Vessel 11.
1. Yes we do have drainage holes on this vessel. There are side drainage holes that measure 4inches by 4 inches and are 20 in number. I can not comment on the effectiveness of these holes to drain water as but I would assume they become plugged with fish after codend is dumped. A majority of the water flushes off the stern ramp when the ship enters a swell. I hope this answers the question sufficiently.

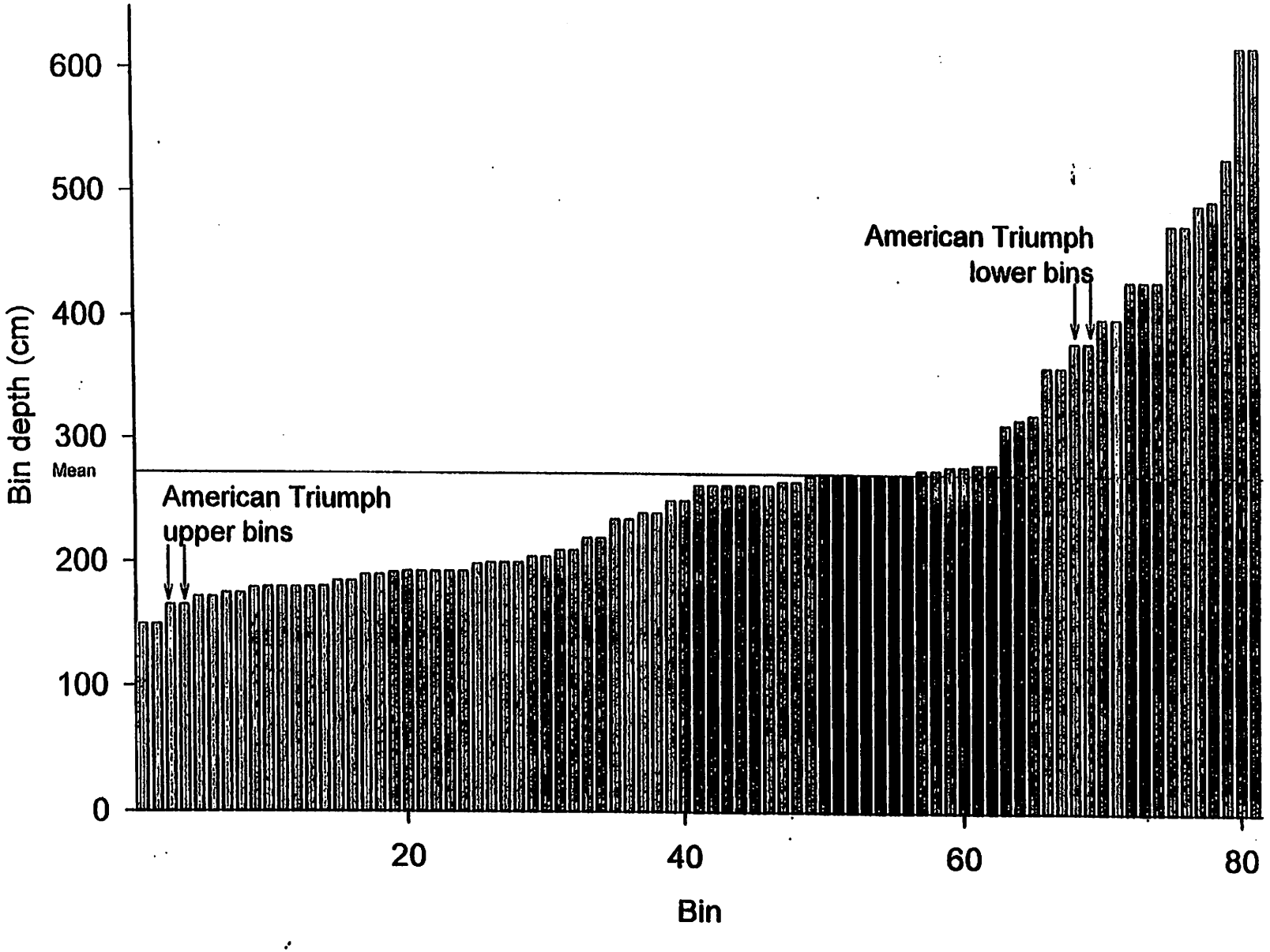

Figure 1. Average depth of each bin on vessels presently fishing pollock. The plot includes all pollock vessels where observers have used bin volume estimates of total catch weight at least once. Mean of all average bin depths = 271.4 cm.

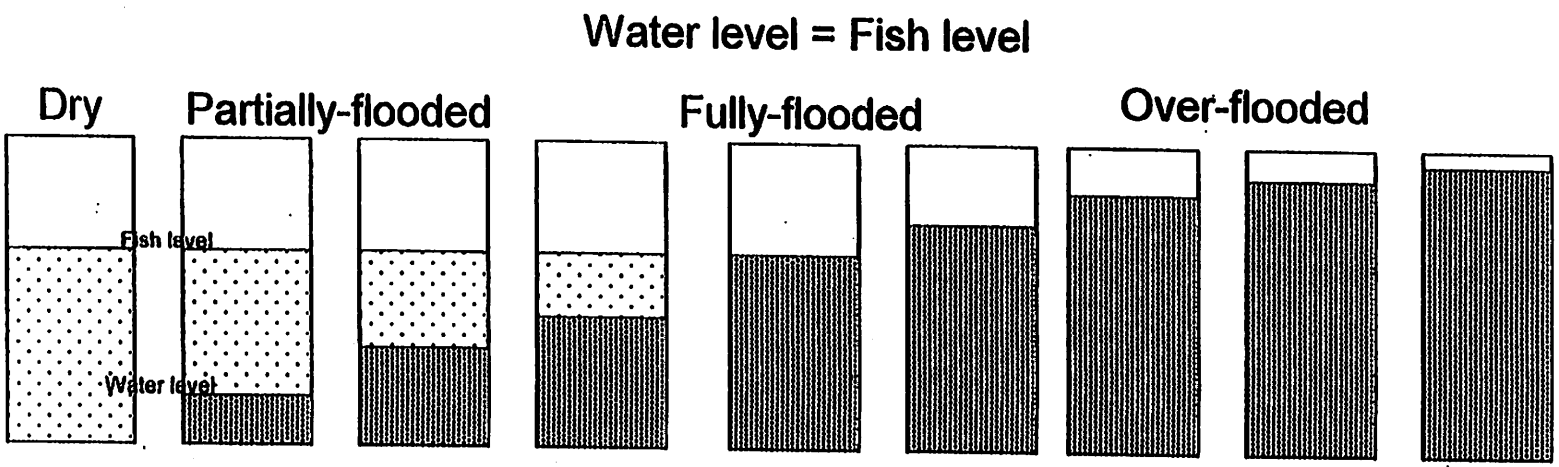

Figure 2. Hypothetical experiment where water is gradually added to a bin partially filled with fish. Initially no water is present. As water is added, the interstitial spaces between the fish fill with water. A bin in which the water level is below the fish level is called "partially-flooded". A "fully-flooded" is a bin where the water equals the fish level. An "over-flooded" is a bin where the water in the bin exceeds the fully-flooded level. Observers are instructed to use other methods of haul weight estimation when bins are "over-flooded"

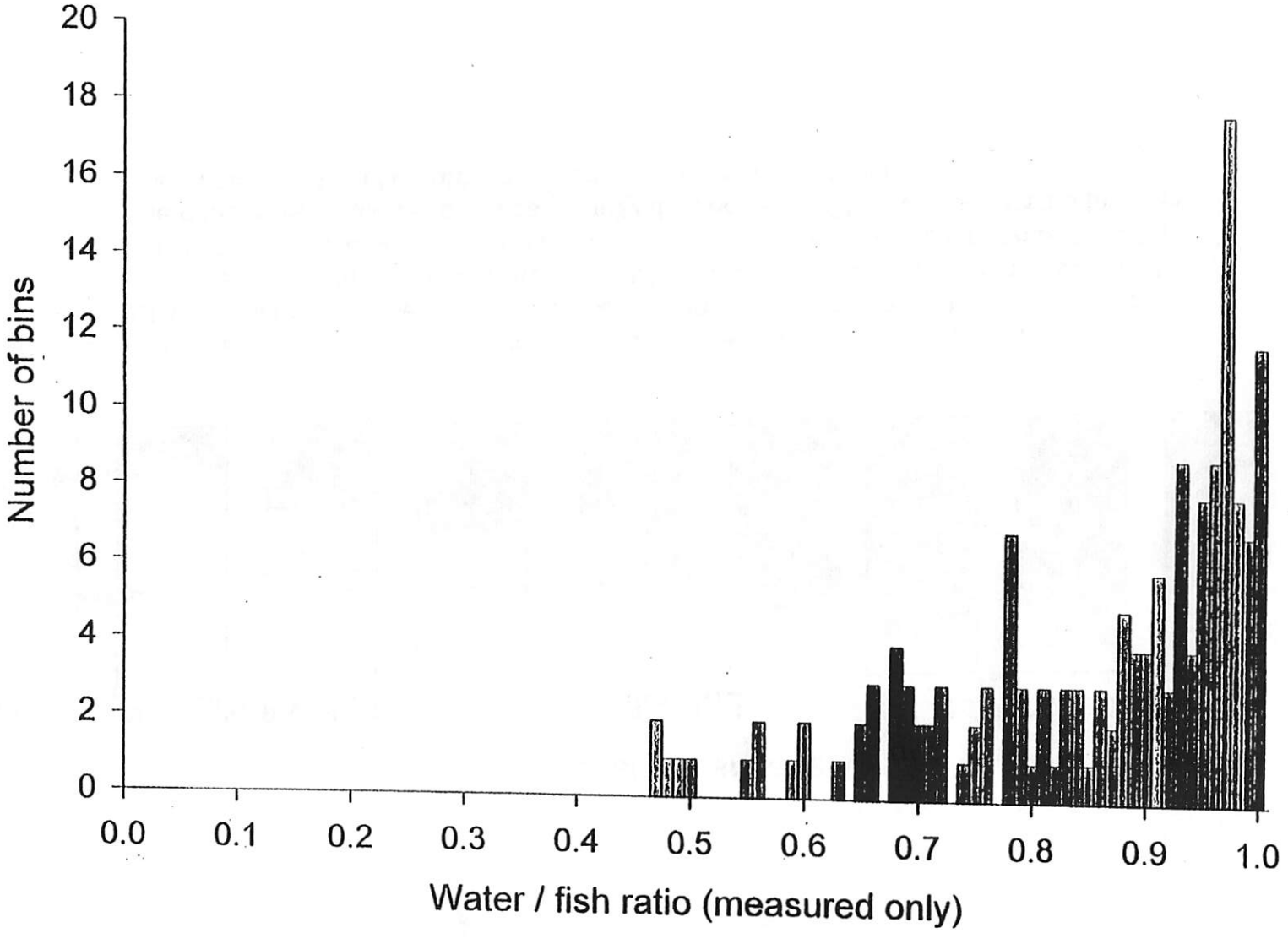

Figure 3. Distribution of water / fish ratios in bins where both levels could be measured.

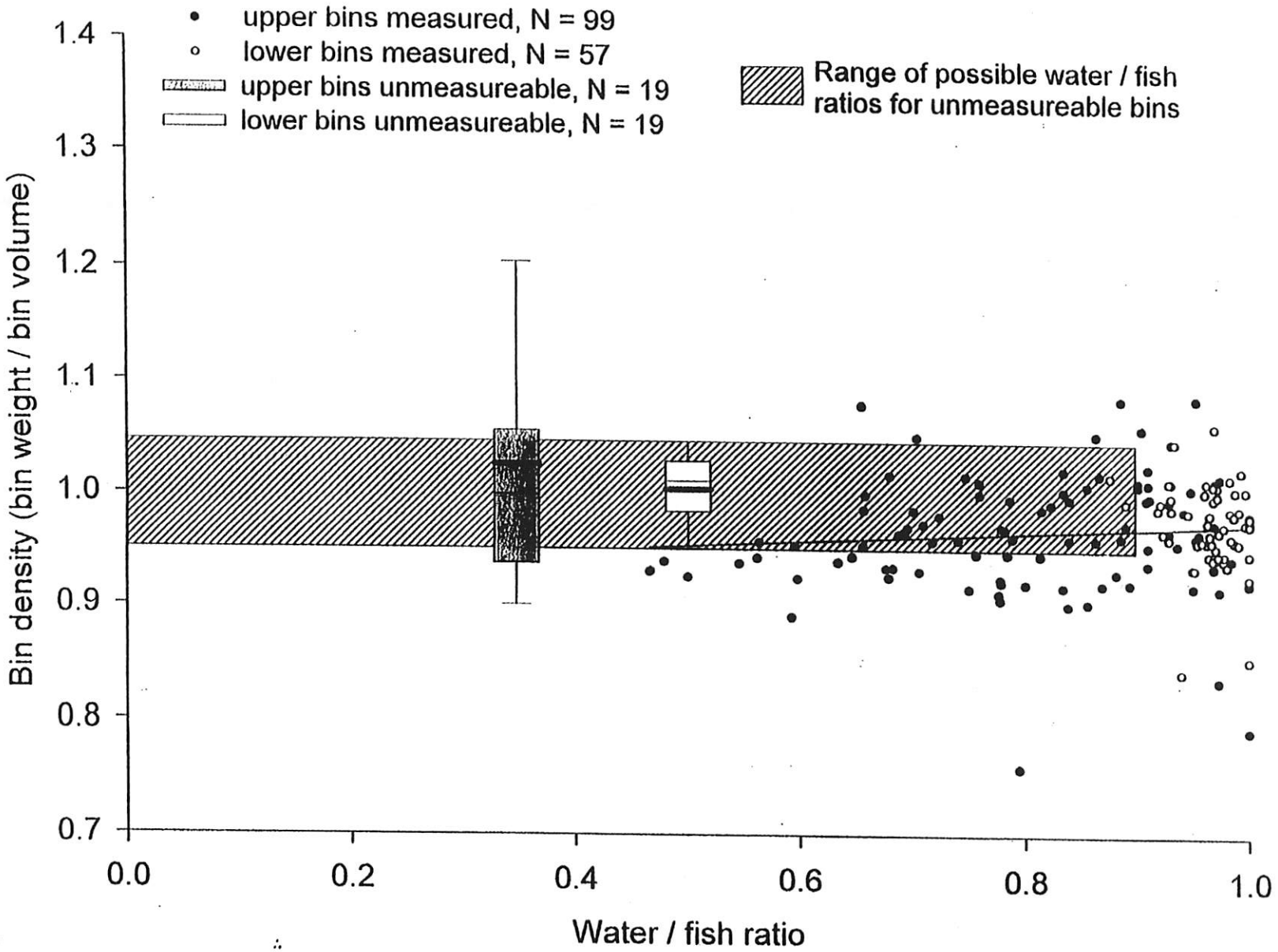

Figure 4. Relationship of *in situ* bin density with water / fish ratio measured in bins.

Improved Retention/Improved Utilization Implementation Committee Meeting
Final Minutes
March 12-13, 1998

Members attending were Joe Kyle (Chairman), Chris Blackburn, John Gauvin, Steve Hughes, John Iani, Teressa Kandianis, and Arni Thomson. Alternates attending were Dale Myer for Paul MacGregor and Susan Robinson for Thorn Smith. Denby Lloyd and Bob Mikol were absent.

The IR/IU Implementation Committee meeting convened Thursday afternoon, March 12, at 1:15 pm at the NMFS/AFSC in Seattle. The committee welcomed new member John Gauvin, who replaced John Henderschedt. Agency staff in attendance were Jane DiCosimo, Kent Lind, Steve Meyer, Martin Loefflad, Lew Queirolo, and Earl Krygier. CAPT. Vince O'Shea submitted a written report.

The committee briefly reviewed a USCG report which detailed IR/IU enforcement through February 1998. Mr. Krygier reported that shoreside IR/IU regulations for pollock were implemented via the roe-stripping authority by the Board of Fisheries (BOF). A bill to implement IR/IU for shore plants was approved by the House and is under review in the Senate.

During introductory remarks, the committee identified two Observer Program issues for discussion. Some committee members felt that the reported 1% pollock discard rate was higher than actual discards and inquired whether some observers may be routinely reporting 99% retention rates for those fish that are inevitably lost during gear retrieval and processing. Mr. Loefflad assured the committee that observers had not been instructed to automatically report less than 100% retention, but are instructed to make their best estimate of retained percentages. He staff also noted that since most pollock A season observers are still deployed in the field, these numbers had not been subject to debriefing and review.

The committee indicated that the 1% pollock discard rate may be a result of observer sampling and extrapolation. If the observer total catch estimate is higher than the captain's estimate, then the observer's species composition of IR/IU species will be greater than the captain's estimate. This may result in "phantom" fish, fish that never really existed (see H(a) below). Poor sampling methodologies and small samples may also result in erroneous data and phantom fish. The committee supports the use of random sampling, in bins or throughout the length of the trawl codend or longline set, in calculating this estimate, as recommended in Observer Program guidelines. For trawlers, this will address natural sorting of the fish in a codend and natural sorting of the fish due to dumping of a codend into the live tank. For the longliners and pot boats, this will address the species occurrence seen at differing depths throughout the length of the set.

The committee requested that NMFS track and routinely report regulatory discards of IR/IU species which are separate from IR/IU fish that are not are not retained because they are: adulterated fish, research fish, discarded for safety reasons, consumed onboard or used as bait. The committee also requested a report on the amount of retained product (formerly discarded) going into meal as a primary product and requested that a reporting category be created to track the amount of fish going into meal, if the data is available at year-end, to determine the amounts of bycatch being avoided or ground into meal.

The main business of the committee was to provide recommendations to the Council on a list of IR/IU implementation issues in a discussion memo prepared by Mr. Lind. The committee identified five additional issues for discussion (Attachment).

A. Conflict with BSAI offshore pollock stand-down periods.

The committee concurred with the NMFS recommendation to take no action on BSAI stand-down periods. Pollock bycatch under the IR/IU program has been dramatically reduced. The Council is currently considering

an FMP amendment to make pollock a pelagic-trawl fishery only. If such an amendment is approved, the issue of regulatory discards during the stand down period would be moot because regulatory discards would be possible at any time of the year for vessels using non-pelagic trawl gear.

B. Revision or elimination of pollock roe stripping regulations that are redundant under IR/IU (possible FMP amendment to merge IR/IU program and roe stripping prohibition).

The committee identified some complications with the IR/IU regulations and industry attempts to maximize yield and allowable product forms. The committee recommended that a product recovery rate (PRR) code for pollock kirimi (e.g., tail-cut, mid-cut), and other new product forms being developed, be added to the NMFS primary and ancillary product list. The committee noted that the basis for the PRRs for new product forms were still being developed by industry this early in the program. The committee was interested in this PRR so that pollock roe could be retained against these products. The committee recommended that it, or a subcommittee, review the NMFS product codes for recommendations for revision, where appropriate.

The committee noted that IR/IU and pollock roe-stripping regulations were duplicative, but wanted to maintain the prohibition. The committee concurred that two options be examined by the Council: 1) increase the percent of roe that can be retained against round-weight equivalent of pollock catch in the Aleutian Islands from 7 to 8%; and 2) the roe-stripping regulations should be combined with the IR/IU regulations into a uniform set of regulations to eliminate redundancy. This approach of unifying the regulations would be consistent with BOF action in combining roe-stripping and IR/IU regulations.

The committee further noted that NMFS should be aware that increases in the production of mince and meal from combined cod and pollock will result in a blended product that may be difficult to report and monitor. Additional PRRs may be necessary.

C. Retention of parasitized, diseased, or damaged fish and conflicts with HACCP requirements.

The committe noted that having sand-flea infested or diseased fish on board a catcher/processor would be a violation of other State or Federal law regarding seafood safety. The committee discussed the applicability of the State of Alaska Department of Conservation Seafood Processing and Inspection language related to unwholesome and adulterated fish, which comports with Federal Food and Drug Administration regulations. To address sand flea-infested or otherwise diseased fish in the groundfish fisheries, the language defines 'adulterated' to mean, "it consists, in whole or in part of a diseased, contaminated, filthy, putrid, or decomposed substance, or if it is otherwise unfit for food," along with other applicable language. The committee recommends that NMFS define a product code(s) for fish that are adulterated and allow such fish to be discarded from trawl and fixed gear to distinguish them from regulatory and economic discards. The committee also discussed bruised or damaged fish, but did not reach consensus to include them as adulterated fish.

D. Enforcement policy regarding catcher vessel deliveries that exceed the 20 percent MRB amounts.

Mr. Meyer reported on a change in the policy for dealing with MRB overage amounts by catcher vessels delivering to shoreside processors. The committee concurred with this approach.

E. Recordkeeping and reporting issues.

The committee concurred with the NMFS recommendation to eliminate haul-by-haul logbook reporting of round-weight catch of IR/IU species by catcher vessels since catcher vessels do not process on board. A second issue related to PRR code 97 will be addressed if NMFS creates additional product codes for kirimi, etc. The committee recommends that NMFS make this change on the recordkeeping and reporting forms for 1999.

F. Accounting for IR/IU species used as bait or consumed on board the vessel.

The committee recommended that NMFS should not count catch used as bait or consumed by the crew as "discards."

G. Retention of fish damaged by observer sampling.

The committee recommended that fish sampled by observers should be treated by NMFS as 'research' fish and not counted as discards.

H. Other issues

a) Phantom fish. Mr. Lind noted that the agency recognizes that vessel and observer estimates of total catch of IR/IU species may not match, and for that reason, the agency is using vessel estimates rather than observer estimates as the primary means of monitoring the 15 percent minimum utilization rate. The committee recommended that NMFS examine the 'blend' methodology used to determine whether the observer or WPR catch estimate will be used by NMFS to calculate removals. The calculation of discards from an inaccurate catch estimate based on an estimate of species composition of the catch using non-random sampling methods may result in discrepancies between observer and captain estimates of product and PRRs. This discrepancy can be significant. A return to random sampling for estimating catch composition by observers may solve this problem.

b) Deck loads. The committee discussed the issue of deck loads and noted that fish retained on deck on small vessels may be washed overboard before the vessel returns to port, especially in rough weather, resulting in a violation of the 100% retention requirement. The committee discussed the issue of deck loads in the small catcher boat fleet and reemphasized that 'deck load' fish should be logged as discards in the vessel logbook.

c) Codend transfers. If a tow results in fish in excess of the MRBs or IR/IU, the fish must be retained (up to the legal limit). The committee recommended that the circumstances of the excess fish should be noted by the captain on the logbook, and the codend should be transferred to the mothership at the next opportunity. The committee requested that NMFS examine whether retention of excess fish could be done under these circumstances without subjecting these catcher vessels to observer coverage requirements.

d) VIP rates. As predicted during the design of the IR/IU program, the industry has changed its fishing methodology in response to the IR/IU program. Due to changes in gear (i.e., nets), current VIP rates do not relate to current fishing practices. The committee encourage continued publication of vessel-specific bycatch rates, and identified that those rates along with SEASTATE facilitated industry-based peer pressure to make the VIP program effective even though it is minimally enforceable. The committee noted that VIP rates should not be raised. Because of changes in fishing methodologies under IR/IU, the Council should reexamine the merits of the VIP program. Vessels that have adopted more selective fishing techniques to reduce their bycatch of IR/IU species may inadvertently increase their VIP rates because they end up with less total groundfish catch against which to compare their halibut bycatch. While these vessels may not be catching greater numbers of halibut than before, their rates nonetheless may increase because they are fishing more selectively for groundfish.

e) MRBs. Committee members noted that regulatory amendments are in development by the Council to change GOA arrowtooth flounder and Pacific cod MRBs, for reasons unrelated to IR/IU.

The committee adjourned on Friday, March 13, at approximately 1 pm.

Others at the meeting included Dave Benson, John Henderschedt, Pete Nicklason, Marie Windrow, Ken Tippet, Brent Paine, Mark McAllister.

MEMORANDUM FOR: Improved Retention/Improved Utilization Committee and Agency Staff

FROM: Kent Lind
NMFS-Alaska Region

DATE: March 4, 1998

SUBJECT: Discussion of Implementation Issues for Improved Retention/Improved Utilization (IR/IU) Implementation Committee Meeting

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The following is a discussion of IR/IU implementation issues that have arisen since the IR/IU program became effective in January of this year. Following the discussion of each issue is NMFS recommendation or a list of possible options.

ISSUE: **An apparent conflict exists between IR/IU full retention objectives and stand-down periods in effect prior to the pollock A and B seasons in the BSAI.**

Existing regulations provide for a stand down period prior to the pollock A and B seasons to prevent pollock vessels from participating in other fisheries during the week prior to the start of each pollock season. The regulations state:

> Directed fishing for pollock by the offshore component, or vessels delivering pollock to the offshore component is prohibited through 1200 hours, A.l.t., February 5, for those vessels that are used to fish prior to 1200 hours, A.l.t., January 26, for groundfish in the BSAI, groundfish in the GOA, as defined at § 679.2, or king or Tanner crab in the Bering Sea and Aleutian Islands Area, as defined at § 679.2
>
> [and]
>
> Directed fishing for pollock is prohibited during the second pollock season defined at paragraph (e)(2)(i) of this section through 1200 hours, A.l.t., September 8, for any vessel that is used to fish with trawl gear for groundfish in the BSAI or the GOA as defined at § 679.2 of this part, between 1200 hours A.l.t., August 25, and 1200 hours A.l.t., September 1.

As a consequence of this regulation, offshore sector vessels that are engaged in directed fishing for other groundfish species such as Pacific cod during the days prior to the pollock A season and all vessels that engage in directed fishing for other species prior to the pollock B season are prohibited from engaging in directed fishing for pollock until February 5 and September 8, respectively. Under the IR/IU regulations, these vessels are required to retain any pollock catch up to the 20 percent MRB and discard any pollock in excess of the MRB amount. The result of this stand down requirement is that vessels fishing for species other than pollock may have regulatory discards of pollock during the first week of both the pollock A and B seasons.

OPTIONS AND RECOMMENDATIONS

Two possible options exist: (1) Do nothing, and (2) increase the MRB amount for pollock during the first week of the pollock A and B seasons.

Option 1: Do nothing. Many vessels fishing for species other than pollock have significantly reduced their bycatch of pollock under the IR/IU program. Consequently, it is not apparent at this point that the stand down periods prior to the pollock A and B seasons are generating significant amounts of regulatory discards of pollock. In addition, the Council is currently considering an FMP amendment that would make pollock a pelagic-trawl fishery only. If such an amendment is approved, the issue of regulatory discards during the stand down period would be moot.

Option 2: Raise the MRB during the stand down period. The MRB for pollock could be raised to 30 percent, 40 percent or some other amount during the first week of the pollock A and B seasons to reduce the likelihood that non-pollock vessels will have regulatory discards of pollock during this period.

ISSUE: **An apparent conflict exists between the IR/IU requirements and older regulations intended to prohibit roe stripping.**

Since implementation of the IR/IU program, it has become apparent that the existing roe stripping regulations which were put in place to implement Amendments 14/19 may be redundant or in conflict with the newer IR/IU program regulations. Existing roe stripping regulations are as follows:

> (g) Allowable retention of pollock roe
>
> (1) Percentage of pollock roe.
> (i) Pollock roe retained on board a vessel at any time during a fishing trip must not exceed 7 percent of the total round-weight equivalent of pollock, as calculated from the primary pollock product on board the vessel during the same fishing trip.
> (ii) Determinations of allowable retention of pollock roe will be based on amounts of pollock harvested, received, or processed during a single fishing trip.
> (iii) Pollock or pollock products from previous fishing trips that are retained on board a vessel may not be used to determine the allowable retention of pollock roe for that vessel.
>
> (2) Primary product.
> (i) For purposes of this paragraph (g), only one primary pollock product per fish, other than roe, may be used to calculate the round-weight equivalent.
> (ii) A primary pollock product that contains roe (such as headed and gutted pollock with roe) may not be used to calculate the round-weight equivalent of pollock.
> (iii) The primary pollock product must be distinguished from ancillary pollock products in the DCPL required under § 679.5. Ancillary products are those such as meal, heads, internal organs, pectoral girdles, or any other product that may be made from the same fish as the primary product.

(3) Pollock product recovery rates (PRRs). Only the following product types and standard PRRs may be used to calculate round-weight equivalents for pollock for purposes of this paragraph (g):

Product code	Product description	Standard product recovery rate
07	Headed and gutted, western cut	0.65
08	Headed and gutted, eastern cut	0.56
10	Headed and gutted, without tail	0.50
20	Fillets with skin & ribs	0.35
21	Fillets with skin on, no ribs	0.30
22	Fillets with ribs, no skin	0.30
23	Fillets, skinless, boneless	0.21
24	Deep skin fillets	0.16
30	Surimi	0.16
31	Mince	0.22
32	Meal	0.17

(4) Calculation of retainable pollock roe--(i) Round-weight equivalent. (A) To calculate the amount of pollock roe that can be retained on board during a fishing trip, first calculate the round-weight equivalent by dividing the total amount of primary product on board by the appropriate PRR.

(B) To determine the maximum mount of pollock roe that can be retained on board a vessel during the same fishing trip, multiply the round-weight equivalent by 0.07.

(C) Pollock roe retained on board from previous fishing trips will not be counted.

(ii) Two or more products from different fish.

(A) If two or more products, other than roe, are made from different fish, round-weight equivalents are calculated separately for each product.

(B) To determine the maximum amount of pollock roe that can be retained on board a vessel during a fishing trip, add the round-weight equivalents together; then, multiply the sum by 0.07.

(iii) Two or more products from same fish. If two or more products, other than roe, are made from the same fish, the maximum amount of pollock roe that can be retained during a fishing trip is determined from the primary product.

(5) Primary pollock product

(i) Process prior to transfer. Any primary pollock product used to calculate retainable amounts of pollock roe must be frozen, canned, or reduced to meal by the vessel retaining the pollock roe prior to any transfer of the product to another vessel.

(ii) No discard of processed product. Any pollock product that has been processed may not be discarded at sea unless such discarding is necessary to meet other requirements of this part. [effective January 3, 1998]

(h) Standard product types and standard PRRs

(1) Calculating round-weight equivalents from standard PRRs. Round-weight equivalents for groundfish products are calculated using the product codes and standard PRRs specified in Table 3 of this part.

Two examples illustrate how these roe stripping regulations may conflict with the objectives of the IR/IU program. First, some vessels processing surimi have indicated that at the end of the roe season, the vessel's surimi recovery rate declines because the fish are losing flesh while at the same time the roe recovery rate increases as the roe absorbs more water. Under these conditions, the vessel may be getting substantially less than the NMFS standard surimi PRR of 0.16 and substantially greater roe recovery than the 7 percent maximum allowed for retention. Under these circumstances, the roe stripping requirement would require the vessel discard a percentage of its roe, however, to do so could place the vessel in violation of the IR/IU 15 percent utilization requirement if the discarded roe dropped the vessel's utilization rate to below 15 percent. Anecdotal evidence suggests that these circumstances are only likely to happen at the very end of the pollock roe season.

The second problem is faced by vessels that have not traditionally processed pollock. These include the freezer longline fleet and many H&G factory trawlers. Many of these vessels are developing new products for pollock, such as pollock kirimi (head and tail off) in an attempt to comply with the IR/IU requirements. However, these vessels have found that the roe stripping regulations prohibit them from retaining any pollock roe because the pollock products they are retaining are not the list of approved product types against which roe may be retained.

OPTIONS AND RECOMMENDATIONS

Option 1: Repeal the existing roe-stripping regulations. When Amendments 14/19 (roe stripping) were under analysis by the Council in 1990, one option under consideration was a full retention/full utilization requirement for pollock, which was rejected as unnecessarily burdensome at that time. When the Council adopted the IR/IU program as Amendments 49/49, it, in effect, revisited the roe stripping issue and selected the more restrictive option originally under consideration for Amendments 14/19. As a consequence, the Council's original roe stripping prohibitions are largely redundant. These two programs could be merged in the FMP into a single coherent program addressing the retention and utilization of pollock and the entire roe stripping section of the regulations could be repealed. Minor changes to the IR/IU regulations would also be warranted to state explicitly that pollock roe cannot be used as a primary product to meet the retention requirements of the IR/IU program (but could, presumably, be used to meet the 15 percent minimum utilization requirement).

Option 2: Adjust the existing roe stripping regulations. Adjustments to the roe stripping regulations could be made to accommodate changes in the fishery that have occurred under the IR/IU program. For example, the list of products against which roe could be retained could be expanded and the 7 percent maximum retainable roe percentage could be increased.

ISSUE: **Retention of sand flea damaged fish by fixed gear vessels is unreasonable and may conflict with HACCP requirements.**

At its February 1998 meeting, the Council received testimony regarding the problem of sand flea damaged fish on longline vessels and directed NMFS to proceed with a solution to the problem. In the short-term, NMFS-Enforcement is working with industry to develop a work-around solution to the problem of sand flea damaged fish. However, for the longer term, this issue could be addressed through a specific regulatory provision to allow discarding sand flea damaged fish.

OPTIONS AND RECOMMENDATIONS

Option 1: Add a provision to the IR/IU regulations to allow discarding of sand flea damaged fish by fixed gear vessels. To avoid opening a substantial loophole to the IR/IU program, such a provision should be limited to sand flea damage only (as opposed to any disease or parasite) and should be limited to fixed gear vessels as no evidence exists to suggest that sand fleas are a problem for trawl vessels. A new discard code would be established for this purpose.

Option 2: Do nothing.

ISSUE: Enforcement policy regarding catcher vessel deliveries that exceed the 20 percent MRB amounts.

NMFS-Enforcement is developing a policy to address overages of MRB amounts by catcher vessels delivering to shoreside processors and may be prepared to discuss that policy at this committee meeting..

ISSUE: Changes to recordkeeping and reporting requirements

NMFS has identified several changes to recordkeeping and reporting requirements that may be implemented prior to the 1999 fishing season. They are presented here for comment.

Eliminate haul-by-haul logbook reporting of IR/IU species by catcher vessels. When the IR/IU program was implemented, all vessel daily fishing logbooks were revised to add a requirement that all vessels log their round-weight catch of IR/IU species on a haul-by-haul basis. This logbook requirement is necessary to monitor compliance with the 15 percent minimum utilization requirement of the IR/IU program. Otherwise, enforcement officers would have no number against which to determine if a vessel is in compliance with the 15 percent minimum utilization requirement. However, it has since become clear that reporting of this number by catcher vessels serves no purpose. Since catcher vessels do not process on board, the minimum utilization requirements do not apply. NMFS therefore proposes to eliminate this reporting requirement in the 1999 catcher vessel logbooks.

Reporting of product code 97 (other retained product). NMFS recordkeeping and reporting requirements allow products for which no NMFS code exists to be reported using product code 97 (other retained product). In the past, when NMFS received weekly production reports with product code 97, these were not entered into the weekly production database but were set-aside until NMFS inseason management staff could contact the processor and determine the product type and approximate PRR. However, since implementation of the IR/IU program, the use of product code 97 by processors has increased dramatically, overwhelming the ability of NMFS inseason management staff to investigate each product on a timely basis. Therefore, to accommodate timely entry of these products into the weekly production databases which is used for inseason management, NMFS has assigned a standard PRR of 0.15 to product code 97 on an interim basis. NMFS welcomes comments or suggestions by industry on how to deal with reporting of products for which no product code or standard PRR exists.

ISSUE: Accounting for IR/IU species used as bait or consumed on board the vessel.

The Council did not explicitly address the issue of IR/IU species deployed as bait or consumed on board vessels. In drafting the IR/IU regulations, NMFS included a provision to allow IR/IU species to be deployed as bait provided that the bait is physically attached to authorized fishing gear. However, the regulations are silent with respect to fish consumed on board a vessel.

Current recordkeeping and reporting requirements have discard code 92 for whole fish used as bait and discard code 94 for fish or fish products consumed on board the vessel or taken off for personal use. NMFS proposes to clarify the regulations to specifically allow the consumption of IR/IU species on board vessels and to clarify the utilization requirements with respect to both bait and fish consumed on board a vessel. Rather than to try and monitor utilization rates in a vessel's galley NMFS recommends that the amount of fish used as bait and consumed on board a vessel be taken off the top before any minimum utilization rate calculation is made. In other words, the 15 percent minimum utilization rate would only apply to products retained on board and not to bait or fish consumed in the galley.

ISSUE: Retention of fish damaged by observer sampling.

In limited instances, observes may damage fish during sampling during the the collection of otoliths, stomach samples, or tissue samples. While such fish may still be usable for some products, such as fishmeal, they may not be suitable for processing into standard product forms such as fillets or H&G product because they may not go through the processing machinery properly, or because fish with slit bellies may be unsuitable for H&G product. NMFS recommends an adjustment to the regulations and reporting codes to allow the discard of fish that have been damaged through observer sampling. Fish that have been simply weighed or counted by observers would not be included in such an exemption.

ATTACHMENT: Current IR/IU Regulations (50 CFR 679.27)

§ 679.27 Improved Retention/Improved Utilization Program.

(a) Applicability. The owner or operator of a vessel that is required to obtain a Federal fisheries or processor permit under § 679.4 must comply with the IR/IU program set out in this section while fishing for groundfish in the GOA or BSAI, fishing for groundfish in waters of the State of Alaska that are shoreward of the GOA or BSAI, or when processing groundfish harvested in the GOA or BSAI.

(b) IR/IU species. The following species are defined as "IR/IU species" for the purposes of this section:

(1) Pollock.

(2) Pacific cod.

(3) Rock sole in the BSAI (beginning January 1, 2003).

(4) Yellowfin sole in the BSAI (beginning January 1, 2003).

(5) Shallow-water flatfish species complex in the GOA as defined in the annual harvest specifications for the GOA (beginning January 1, 2003).

(c) Minimum retention requirements--(1) Definition of retain on board. Notwithstanding the definition at 50 CFR 600.10, for the purpose of this section, to retain on board means to be in possession of on board a vessel.

(2) The following table displays minimum retention requirements by vessel category and directed fishing status:

IF YOU OWN OR OPERATE A	AND	YOU MUST RETAIN ON BOARD UNTIL LAWFUL TRANSFER
(i) Catcher vessel	(A) Directed fishing for an IR/IU species is open	all fish of that species brought on board the vessel.
	(B) Directed fishing for an IR/IU species is prohibited	all fish of that species brought on board the vessel up to the MRB amount for that species.
	(C) Retention of an IR/ IU species is prohibited	no fish of that species.

(ii) Catcher/ processor	(A) Directed fishing for an IR/IU species is open	a primary product from all fish of that species brought on board the vessel.
	(B) Directed fishing for an IR/IU species is prohibited	a primary product from all fish of that species brought on board the vessel up to the point that the round-weight equivalent of primary products on board equals the MRB amount for that species.
	(C) Retention of an IR/IU species is prohibited	no fish or product of that species.
(iii) Mothership	(A) Directed fishing for an IR/IU species is open	a primary product from all fish of that species brought on board the vessel.
	(B) Directed fishing for an IR/IU species is prohibited	a primary product from all fish of that species brought on board the vessel up to the point that the round-weight equivalent of primary products on board equals the MRB amount for that species.
	(C) Retention of an IR/IU species is prohibited	no fish or product of that species.

(d) Bleeding codends and shaking longline gear. Any action intended to discard or release an IR/IU species prior to being brought on board the vessel is prohibited. This includes, but is not limited to bleeding codends and shaking or otherwise removing fish from longline gear.

(e) At-sea discard of product. Any product from an IR/IU species may not be discarded at sea, unless such discarding is necessary to meet other requirements of this part.

(f) Discard of fish or product transferred from other vessels. The retention requirements of this section apply to all IR/IU species brought on board a vessel, whether harvested by that vessel or transferred from another vessel. At-sea discard of IR/IU species or products that were transferred from another vessel is prohibited.

(g) IR/IU species as bait. IR/IU species may be used as bait provided that the deployed bait is physically secured to authorized fishing gear. Dumping of unsecured IR/IU species as bait (chumming) is prohibited.

(h) Previously caught fish. The retention and utilization requirements of this section do not apply to incidental catch of dead or decomposing fish or fish parts that were previously caught and discarded at sea.

(i) Minimum utilization requirements. If you own or operate a catcher/processor or mothership, the minimum utilization requirement for an IR/IU species harvested in the BSAI is determined by the directed fishing status for that species according to the following table:

IF...	then your total weight of retained or lawfully transferred products produced from your catch or receipt of that IR/IU species during a fishing trip must...
(1) directed fishing for an IR/IU species is open,	equal or exceed 15 percent of the round-weight catch or round-weight delivery of that species during the fishing trip.
(2) directed fishing for an IR/IU species is prohibited,	equal or exceed 15 percent of the round-weight catch or round-weight delivery of that species during the fishing trip or 15 percent of the MRB amount for that species, whichever is lower.
(3) retention of an IR/IU species is prohibited,	equal zero.

[Section 679.27 effective January 3, 1998; except for reference to the GOA, which becomes effective January 12, 1998]

INFORMATION BULLETIN (98-26) March 16, 1998
Steven Pennoyer 8:45 a.m.
907-586-7221 For Immediate Release

GROUNDFISH RECORDKEEPING & REPORTING CLARIFICATION
FOR GEAR CODE TYPE "PTR TRANSFER"

The National Marine Fisheries Service (NMFS) is clarifying use of the gear type "PTR transfer" for shoreside processors participating in groundfish fisheries in the Gulf of Alaska and in the Bering Sea and Aleutian Islands management area, according to Steven Pennoyer, Regional Administrator, Alaska Region, NMFS.

The gear type "PTR transfer" was introduced with the 1998 recordkeeping and reporting revisions to 50 CFR 679 for use with processor daily cumulative production logbooks (DCPLs) and weekly production reports (WPRs) to document transfer of groundfish from one processor to another processor.

Shipping processor: Groundfish received from a catcher vessel or buying station should be recorded in the DCPL delivery information section indicating the gear type with which the groundfish were harvested. After sorting and weighing the fish, the groundfish should be recorded in the landings information section by species and product codes. If these landings are subsequently transferred to another processor before processing, an entry should be made in Part II of the DCPL indicating the condition of the fish transferred through use of the product code, e.g., code 01 for whole fish or code 03 for bled only, primary product, and the weight of fish transferred. The landings information and the product information should be recorded on the WPR. The shipping processor does not utilize the "PTR transfer" gear code on the WPR. All data should be recorded under the gear type of the harvesting vessel.

Receiving processor: Groundfish received from another processor should be recorded in the DCPL delivery information section using the gear type "PTR transfer" and later in the product section as reprocessed product after production occurs. No entries are required in the landings section of the DCPL for fish received through a PTR transfer. Reprocessed product information is recorded in the product section of the WPR. Delivery information logged as "PTR transfer" is not reported on a WPR.

This clarification of the regulations will appear at 50 CFR 679.5 in the 1998 final rule for recordkeeping and reporting, to be published in the near future. The proposed rule for recordkeeping and reporting was published in the Federal Register at 63 FR 8389, February 19, 1998.

To obtain information concerning this clarification or existing regulations, consult the applicable regulation published in the Federal Register, or contact the Sustainable Fisheries Division, NMFS, 907-586-7228.

Fishermen's Finest

Fishermen's Finest, Inc.

4039 21st Ave. W. #201 ■ Seattle, WA 98199
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MEMO

Date: March 19, 1998

To: Jane DiCosimo, North Pacific Fishery Mgmt. Council
Joe Kyle, Chairman, IR/IU Implementation Committee

From: Susan Robinson

RE: IR/IU DISEASED AND DAMAGED FISH

We have received a very useful and detailed response from one of our trawlers regarding the incidence and description of diseased, parasite-ridden, damaged and bruised fish. I passed on this same information to Kent Lind, since he will be doing the final language when the time comes. Kent advised me to send it as Public Comment for the IR/IU agenda item. I will do that (not in the same format as you find here, and somewhat edited) however, I thought you might want to look at it prior to finalizing your minutes.

We did not address the issue of bruising in the IR/IU Committee meeting quite as thoroughly as this message from the boat does. It is important that these damaged and bruised fish are treated in the same manner as the 'adulterated' fish. Thanks for your time. Comments on the draft minutes will follow under separate cover.

---

1. DISEASED FISH

We have seen approximately .5 to 1 percent diseased pollock during the Rock sole fishery. As to how periodic these fish are, it is difficult to say. It varies by depth and area. Some areas contain noticeably more cancerous and sick fish. The percentage of diseased cod seems higher than that of pollock. I estimate we see about 1 to 2.5 percent cod with lesions, etcetera in the Bering Sea.

I have observed two other issues concerning IR/IU pollock that might be addressed:

A. ABC pollock (already been caught, code 98) We see 'ABC' pollock with far more regularity than we do diseased fish. I have been discarding these fish.

B. Minnow pollock. We occasionally catch a very small percentage of baby pollock that are no larger than 8cm long. Without a meal plant, it seems unrealistic to process anything other than garbage with these minnows. We have the same problem with minnow cod.

2. DAMAGE/BRUISING

A. Excessive bruising. There are times when fish are completely bruised inside and out. The meat becomes soft and pink, and the skin is mottled with red. There are not many fish that ever get this bad. In the yellowfin sole fishery, you tend to catch more 'flora and fauna'. The starfish and such really take a toll on the round fish. I would like to see a five percent allowance for damaged/bruised beyond marketability fish during YFS.

B. Damaged fish. There is an occasional fish that will get stuck in a conveyor transition until it gets beat to a pulp by the conveyor flights. A few pollock may also get damaged by the hydraulic live tank door. Again, we're not talking about big numbers here, just a couple of fish.

3. PARASITE RIDDEN FISH

I am not familiar with any way to detect parasites on a round fish. However, once the fish is headed and the belly is slit (CBO), you may be able to pick out a few parasite infested fish. I believe it is important to discard the parasite infested fish, rather than disguise them in 'fish chunks' or portions. These fish are a potential health hazard when intended for human consumption.

I would anticipate that we would have a *minimum* of five percent of the Aleutian Cod that we would want to discard for parasites, lesions, diseases. It may be as high as 20 percent in certain tows. (**note that in the Fish & Fisheries Products Hazards and Controls Guide, FDA, Office of Seafood, page 54 addresses parasites which, just by their number alone, can constitute "filth" and as such, an adulterated product.)

D-2a

Alaska Groundfish Data Bank P.O. Box 2298 • Kodiak, Alaska 99615

RECEIVED
APR 16 1998
N.P.F.M.C

TO: RICK LAUBER, CHAIRMAN
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

DATE: APRIL 15, 1998

SENT BY FAX: 4 pp

COMMENTS ON WESTERN/CENTRAL GULF MANAGEMENT COMMITTEE REPORT AGENDA ITEM D-2(A)

At the pre-council meeting of AGDB members the chair of the At Risk Fisheries Committee (previously known at the trip limit committee and then the Central/Western Gulf Management Committee) briefed AGDB on the results of the committee's meeting earlier this month.

AGDB members unanimously supported changing the Gulf pollock fishery from the current trimester system to an A and B season matching the opening dates of the Bering Sea A and B pollock seasons.

HOWEVER, we all realize that the decline of sea lions in the Central/Western Gulf area is an impediment to resolving the Gulf pollock allocation problems through an A and B season. The residents of the Central/Western Gulf have had experience in rebuilding stocks -- most notably the Pacific Ocean perch stock.

They have also had experience with "false alarms" due to inadequate data series, notably Shelikof pollock which biologists felt was "in trouble" when the biomass dropped from the highs of the late 70's and early 80's to a lower level which now seems accepted as normal.

We would like to see the recommendation for a Gulf A and B pollock season put on hold as a potential management action pending a review by the marine mammal biologists and, hopefully, some outside reviewers, of the current state of the research and management measures.

REASONS WE REQUEST A REVIEW OF MARINE MAMMAL PROTECTION MEASURES

It seems that the marine mammal biologists remain focused on pollock as a key to the decline of Steller Sea Lions and feel that lack of access to pollock may be part if not all of the reason for the sea lion decline.

Our argument against the focus on pollock is as follows:

A. The steepest declines in the sea lion population occurred during the late 70's thru the 80's. Assuming that the declines were caused by inadequate food for juvenile pups which return to the rookeries (at least the females) around 4 to 6 years after birth, the decline started in the mid 1970's coincidentally with a major increase in pollock. (Hallowed, et al. 1997 and Stick, et al. 1997) See Table 1 and Figure 1.
B. During the 1970's pollock was fished off the shelf by foreign fleets. The sea lion was actually increasing in the mid to late 1970's in most areas. However, the sea lion declines which started in the late 70's, assuming due to high pup mortality, would have started in the mid 70's -- a time when pollock was off the shelf and fished by foreign fleets.
C. There seems to be little correlation between sea lion declines and the amount of 2 year old pollock available. Table 1 and Figure 1

Chris Blackburn • Director • (907) 486-3033 • FAX (907) 486-3461 • e-mail 7353974@mcimail.com

D. The Western Gulf sea lion numbers on the trend sites are very similar to the number found in 1976. From 1976 to 1978 the sea lions increased and then declined 1979 to 1989. (Figure 1). To infer a steep decline in the Western Gulf requires ignoring the 1976 population numbers. (AGDB is assuming that the count data presented in Sick, et al, 1997 is comparable among all years shown. Neither the text nor the figure suggest otherwise.)

E. Recent research suggests that a diversity of diet is associated with sea lion survival. (Merrick, et al).

F. A feeding study conducted on captive California Sea lions (Fadely et al, 1994) used two animals which were feed pollock for a period of time and herring for a period of time. This was an asimilation efficiency study. The discussion of the results notes that adult pinnipeds eating low fat fish "are presumably just meeting the requirement" for protein; that juvenile pinnipeds protein requirements "should be greater" than that of adults and that the amount of fat present in prey species varies seasonally.

The authors also note that "One issue remaining is whether dietary composition is adequate to support long-term maintenance and growth requirements".

G. Andrew Trites presentations to the North Pacific Fishery Management Council suggest that pollock does not provide the needs of sea lions.

REQUEST FOR ADDITIONAL ANALYSIS FOR REAPPORTIONMENT OF POLLOCK BETWEEN THE SECOND AND THIRD TRIMESTERS

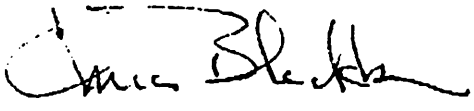
Moving 10 percent of the Gulf 2nd trimester pollock quota to third trimester has been approved by the Council. We realize the marine mammal biologists felt some new measure had to put in place quickly to avoid possible legal action and acquiesced gracefully. AGDB also realizes that there was not time to do an appropriate analysis and still implement the reapportionment in 1998.

The analyses we would like to see completed are as follows:

1. Identify the areas fished second and third trimesters
2. Identify the use of these areas by sea lions during the time the pollock fisheries occur.
3.. Provide Data regarding whether localized depletion occurs during the fishing period,
4. Provide data on how long localized depletion exits in this areas, if localized depletion occurs.
5. Provide data on the number of pollock by age which would be taken in 1998 under the 1997 apportionment of Gulf pollock among trimesters and under the 1998 reapportionment. Because pollock gain weight between the 2nd and 3rd trimester fisheries, more fish will be taken under the reapportionment, particularly among the young year classes, than would have been taken under the 1997 apportionment.

AGDB members appreciate the work of the Seattle Marine Mammal Lab biologists and their efforts to protect sea lions. Should a review of their work and a completed analysis of the reapportionment of pollock between the 2nd and 3rd trimesters still strongly point to access to pollock as an important element in helping sea lions recover, we will sadly let go of the hope for an A and B season Gulf pollock fishery.

Thank you for your consideration of our comments.



Chris Blackburn, Director
Alaska Groundfish Data Bank

TABLE 1
CENTRAL/WESTERN GULF OF ALASKA -- ALL YEARS
WHERE AGE 2 RECRUITS EXCEED 1 BILLION ANIMALS

AGE 2 YEAR	#AGE 2 RECRUITS MILLIONS	SPAWN YEAR	FEMALE* SPAWNER BIOMASS 1000 MT	RETURN YEARS FOR SEA LION PUPS
1972	1206	1970	223	1974-76
1974	2825	1972	212	1976-78
1977	1748	1975	351	1979-81
1978	2213	1976	448	1980-82
1979	2127	1977	528	1981-83
1980	3026	1978	551	1982-84
1981	1755	1979	565	1983-85
1986	2064	1984	890	1988-90
1990	1353	1988	445	1992-94
1996	2136	1994	399	1998-2000

*Female spawning biomass as of year age 2 fish were spawned
Pollock Data from Hallowed et al, 1997

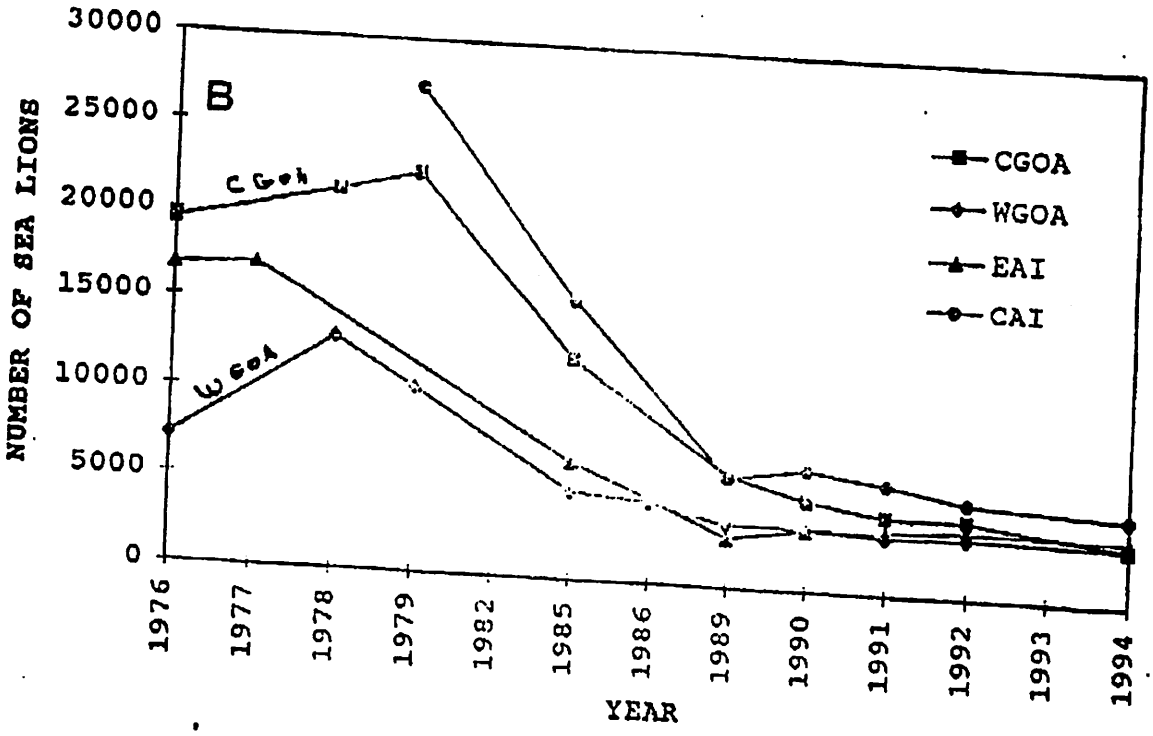


Figure 3.--Number of adult and juvenile Steller sea lions counted on trend rookeries and haulouts (A) and on trend rookeries (B) in the Kenai to Kiska area by region, 1976 to 1994: central (CGOA) and Western (WGOA) Gulf of Alaska; eastern (EAI) and central (CAI) Aleutian Islands.

REFERENCES

Fadely,B.S., J.A. Zeligs and D.P. Costa 1994. Assimilation efficiencies and maintenance requirements of California sea lions (*Zalophus Californianus*) fed walleye pollock (*Theragra Chalcogramma*) and herring (*Clupea Harengus*). Submitted to National Marine Mammal Laboratory, Alaska Fisheries Science Center, Seattle, Washington. 33 PP.

Hallowed,A.B., E. Brown, J.Ianelli, P.Livingston, B.Megrey and C.Wilson. 1997. In: Stock Assessment and Fishery Evaluation Report for the Groundfish Resources of the Gulf of Alaska. North Pacific Fishery Management Council. PP 29-120.

Merrick,R.L., M.K.Chumbly and B.V.Byrd. 1996. Diet diversity of Steller sea lions (*Eumetopias jubatus*) and their population decline in Alaska: a potential relationship. *Can. J. Fish. Aquat. Sci.* 54:1342-1348

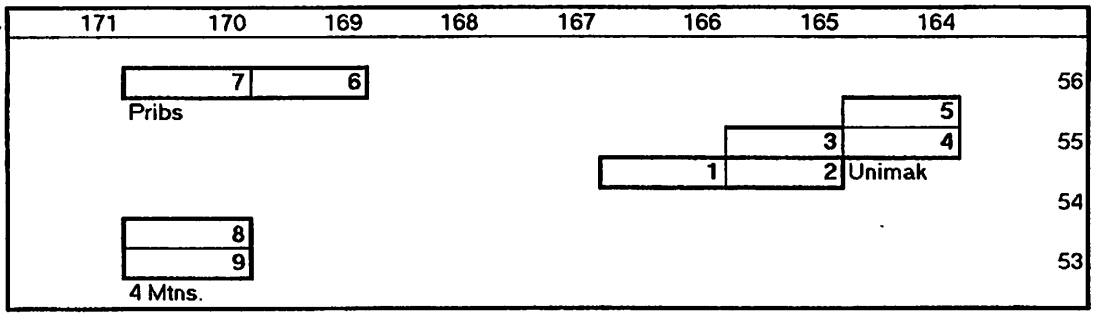
Stick,J.M., L.W. Fritz and J.P. Lewis. 1997. Aerial and ship-based surveys of Steller sea lions (Eumetopias jubatus) in Southeast Alaska, the Gulf of Alaska, and Aleutian Islands during June and July 1994. NOAA Technical Memorandum NMFS-AAFSC-71. 55 PP.

CHNKMODL.XLS

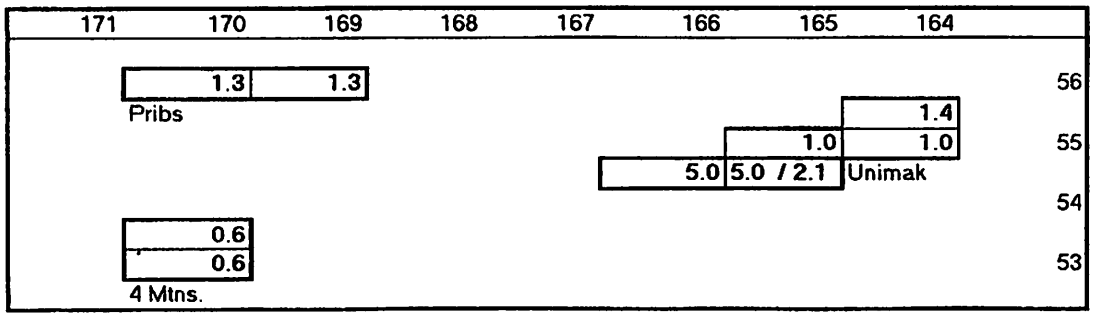
MW Pollock Chinook Bycatch - 1990-1994 Observer Data

Area (see below for code)	All areas	1 & West half of 2	East half of 2	5	6 & 7	3 & 4	8 & 9	sum of 9	All minus 1- 9	All minus 1 & West half of 2
All Tows	14,442	*865*	652	558	1,023	1,993	824	5,915	8,527	13,577
# of Tows w Chinook	3889	*682*	372	115	285	813	90	2357	1532	3207
% of Tows w Chinook	27%	*79%*	57%	21%	28%	41%	11%	40%	18%	24%
"#" of Chinook *	50,502	*15,211*	4,678	2,663	4,743	7,249	1,763	36,308	14,194	35,291
Ave. Rate/100MT	3.50	*17.59*	7.18	4.77	4.64	3.64	2.14	6.14	1.66	2.60
% of all Tows in area	100%	*6%*	5%	4%	7%	14%	6%	41%	59%	94%
% of Chinook taken by area	100%	*30%*	9%	5%	9%	14%	3%	72%	28%	70%
Goodness/Badness index *	1.0	*5.0*	2.1	1.4	1.3	1.0	0.6	1.8	0.5	0.7

Block identifiers



Goodness/Badness Index



NPFMC Discussion
Atka Mackerel Allocation Analysis
April 26, 1998

NOTE: To save time and space, the formality of seeking and receiving recognition from the Chair, and addressing the Chair at the beginning of each statement, has not been transcribed.

TAPE 60

Lauber: Back in session., Mr. Benton.

Benton: We're done with public testimony, are we not?

Lauber: Yes, sorry, I didn't announce that.

Benton: I have a motion, and it's in two parts. The first part is a draft problem statement and the second part is a motion regarding the EA/RIR. I would move the following: That we would adopt as a draft problem statement the following, and I'll read it into the record. I have it written and can give it to Clarence later.

> There are concerns relating to the potential effects on Steller sea lions arising from removals of Atka mackerel from waters within Steller sea lion critical habitat areas. Presently, the Council and National Marine Fisheries Service do not have regulatory measures in place to address these concerns. Therefore, the Council seeks to institute management measures to address concerns regarding potential depletion of Atka mackerel in sea lion critical habitat in BSAI management areas 541, 542, and 543.

End of the problem statement.

Lauber: O.K., you say there's another part of your motion?

Benton: There's another part of the motion. . .in addition to adopting the problem statement I would move that the Council release the EA/RIR for public review subject to the following: (1) provide the information requested by the AP. Mr. Chairman, I'd read that into the record: The AP requests the following information be added to the analysis: (1) attempt to look at biomass estimates (a) inside/outside critical habitat areas; (b) inside/outside no-trawl zones, and (c) east and west distribution in area 543; and (2) time series on biomass estimates from past SAFE documents. That's on page 6 of the AP minutes. Secondly, the analysts would provide BSAI-specific data on sea lion movements and foraging. Where data are from somewhere else, some other locale, that should be noted and the limitations on the use of that data should be discussed. Third, concerns raised by the SSC and limitations on data and analyses should also be noted and discussed in the draft EA/RIR, and fourth, I'd modify alternative number 4 to read, and I'm referring now to Alternative 4 on page 2 of the EA/RIR, . . . I would modify this alternative to be more of a framework alternative than it presently is. The new alternative would read:

> Seasonal split in all three regulatory areas, or in critical habitat in Area 542, 543, or both, plus setting of maximum TAC in any season/area based on estimates of initial biomass and application of a target harvest rate.

If I have a second to that, I'll speak to it.

Pennoyer: Second.

Benton: I'll start with the problem statement. It was noted by I think Mr. Pennoyer, I certainly noted it myself, that we did not have a problem statement in the EA/RIR and I think we need to have one. Given the discussion

that we had today and public testimony that we've had, I think the draft problem statement that I have provided describes the concerns that we have and the problem. I think that it's fairly clear from the discussion that there is sufficient disagreement over what the present analysis says or does not say that we cannot say at this time definitively that Atka mackerel removals are causing a problem, or maybe they're not causing a problem. So, what I did was try and identify that we have these concerns. Certainly we, from the EA/RIR, our public testimony, and the actions that we've taken so far to look at this issue, I think there's a recognition we don't have the kind of regulatory structure in place to address these Steller sea lion concerns if Atka mackerel depletions prove to be a problem. Because of that, I drafted a problem statement, it is a draft problem statement. I think if it was put into the analysis it should be highlighted as a draft problem statement because this would go out for public review and I would like to see, I think all of us would like to see, how that problem statement set with the public and whether or not other concerns might come up. With regard to the second part of the motion, we've had a lot of discussion about the sufficiency and insufficiencies of the analysis, the limitations on the data that's available on Steller sea lions, the limitations of the data that's available on the distribution of Atka mackerel inside and outside these critical habitat areas and the no-trawl zones and we have a request for information from the AP after they had many of same extensive discussions, and we have concerns raised by the SSC. I tried to incorporate those into this motion. I think those are very serious issues. By putting this into the motion I want to underscore the seriousness of these matters to the analysts, that they need to be addressed, and I think it provides a way for the analysis to get modified without it being stopped all together. But, I think it needs to be fixed before it goes out for public review. The Council, I know a number of us around here, had real concerns with the notion of sending out an analysis that the SSC said was insufficient and I did not for one want to vote fort sending an analysis out that the SSC said was insufficient and should not go forward. So I think those problems need to be addressed. At the same time, because of concerns with regard to Steller sea lions it seems to me that we need to keep the momentum going, get the analysis fixed and get it out to the public for their review as expeditiously as they can. I think it's particularly important that we have a discussion about the limitations of the data that we are using in this analysis and that would be used by the Council to make its decisions. I think that that is a critical part of what we are doing. That doesn't necessarily mean that we cannot make a decision; I think we would make that determination once we have all this information in front of us. But, in order to make a reasoned decision we must have a discussion of those limitations. Lastly, the reason that I modified Alternative 4 from the alternative that's in the EA/RIR, is that Alternative 4 as it's presently in the document relies solely on the Leslie Model. I asked the analysts whether or not it would be reasonable to delete that. They thought it was. I asked in public testimony whether or not industry could see benefits of having possibly other kinds of analyses be the basis on which you make the determinations of what actions you would take to protect Steller sea lions and because of that, I rewrote the motion so that it is more of a framework that would allow for these determinations to be made through the normal process the Council engages in; it would allow for the various kinds of models to be brought to the plan team and to other scientific venues so that they can be reviewed, discussed and the best methodology for determining the status of stocks and the consequences of our actions would be brought to the Council. That's my statement, Mr. Chairman.

Pennoyer: I'm going to support the motion. I'm wondering if this would be a friendly amendment or an addition. But, this morning we engaged in a lot of discussion with the staff on various other elements and aspects of Steller sea lion and Atka mackerel biology and I think there were a few in there that weren't specifically covered in this request. And our intent would be to address as many of those as possible in the response in the document and indeed in the presentation in Dutch Harbor, so if that's a friendly amendment then I would sort of incorporate by reference all the things the Council brought up this morning and try and address as many as possible.

Benton: That was the sense of my motion and it's a friendly amendment.

Mace: I'm really concerned about the SSC's comments and I think that failure to address them and resolve them would be a fatal flaw with respect to this. In your motion, you mentioned "discussed" and, I don't know, some other adjective, but in my view it's not a very strong direction to correct the SSC's concerns.

Benton: I share those concerns; what I was trying to do was strike a balance between the ability of the analysts to fully address all the concerns raised by the SSC and in those instances where they cannot, I would like to see, and the intent of my motion is, for them to include a thorough discussion of the limitations of what they've provided to us. In other words, if they are providing to us a model that receives some fairly significant criticisms, I would like to see those criticisms discussed and identified so that we know when the analysis comes back to us, what the upsides and downsides are, and we know what the limitations are.

Mace: I think that one of the critical points is a June finalization of this, and if the analysis still is incomplete and we don't have much confidence in it, is it possible to extend that final acceptance or action until October?

Benton: My motion did not have a date specific for when the analysis would come to us. And, I specifically left that out. Now, Mr. Pennoyer may have some concerns about when we have to take some action in order to deal with Steller sea lions concerns for 1999. I left that one specifically out of this motion because I see the problem you're raising, Mr. Mace, and I didn't know whether or not staff could address these issues and these concerns by the June meeting.

Pennoyer: In response, I thought the motion still included the concept that we would go to public review and then in June, if we decided that whatever was presented was inadequate, there's a no-action alternative in there. This did not require the Council to take any particular action. It allows the SSC to review whatever's provided, the Council and the public to review whatever is provided, then decide based on that where we go. I think the staff has indicated for most of these this analysis can be provided in time to go out for public review. The sufficiency of what's provided is going to be judged by the SSC, and the AP and the Council and the public. So I don't think we've done a disservice to our ability to take what we think is a rational action at that time.

Austin: I think that my question is along the same lines. I'm extremely concerned, as Mr. Mace is, about the recommendation of the SSC and yet the apparent need to, as Mr. Pennoyer just indicated, need to go forward on something. I think there's two opportunities here. There's one, the document that has to go out for public review that literally needs to be done as I understand within a couple of weeks. There's the other opportunity to further this discussion of scientific merit with the SSC at the June meeting and I would hope that included in this motion to address the SSC concerns is both of those opportunities, that we're not saying that the opportunity is only the public document. If there's an opportunity for further discussion, debate, on this issue at the June meeting then we would ask the NMFS staff to prepare themselves for that sort of presentation/discussion at the June meeting with the SSC.

Benton: It was certainly the intent of my motion that staff address the concerns that the SSC has raised to the maximum extent that they can, and I refrained from putting in a specific time of when this document would come back to us because I in my mind would leave it to agency discretion of when they think they are able to do that. Now, I think, listening to Mr. Pennoyer, that the plan would be then for them to bring the document to us in June; that we would certainly engage in that discussion and hopefully by the June meeting the staff would be working with other members of the agency. Hopefully maybe they could discuss this with the SSC between now and them, or some members of the SSC, but certainly show up at the June meeting if they're going to bring the document, prepared to address the concerns the SSC has raised. They know they've got to go to the SSC, they know they have to be in front of the SSC and address those concerns. So, I agree with you. I think that if they're gong to bring the document. . .if they're going to fix the document and release it for public review they had best be ready to address the concerns that the SSC raises. If the SSC has the same concerns again and we don't see these kinds of questions that we've been debating here today addressed, then I think it's going to be very difficult to get this thing approved by the Council in June. We will have that debate and I hope the message is sent loud and clear that that's the case.

Fluharty: I have two questions of the maker of the motion. First, would it be considered a friendly amendment to ask that we include the two peer reviews and the response. . .a short response of the agency, as an appendix to this report so the public can see what the criticisms were and how they were responded to. So, it makes it a

formal component but it's in the back so that people don't get confused that they're seeing a document that hasn't been fixed. The can see the responses and I think it'll help all of us in looking at what's been done to change this document, it's a different document that's going out than what the SSC actually reviewed, and I want to keep that clear in the public's eye.

Lauber: Weren't there more than two peer reviews, as I heard him say?

Fluharty: Two sets of peer review. One done by National Marine Fisheries Service and one that was given to the Council.

Lauber: I thought there was one from UC Davis or something like that?

Fluharty: If I'm not mistaken that was the one that the. . .

Pennoyer: Mr. Chairman, that's fine. And, we've been given one by Mr. Gauvin, already gave us their review, and Mr. Ragen referenced another review done by the agency and I warrant before we get into June we'll probably have done a few more. So, we'll definitely append those and provide whatever other information's available.

Benton: That's fine with me.

Fluharty: Sort of as a technical appendix. . .and the second part of my question is, on your framework plan, do you intend for this to be a framework under which the Council would have a model, a process, and state our methods and criteria for making decisions? Is that. . .[re-stating for Benton]. . .with respect to the framework, what you have in mind is an explicit method that would be used for the Council to make decisions concerning what we need to do for Atka mackerel. Something similar to what we had with the POP rebuilding plan, I mean, something that sort of says, . . .it makes an explicit process that we use to do this so that we can, for example, I think part of the SSC concern was that we operate this in a way to gain information so that we analyze the effects of the changes to see if they're making a difference or not and that that becomes part of this framework that you're offering.

Benton: . . .The framework that I've provided which was a modification of Alternative 4. . .Alternative 4 doesn't set out a specific formula for determining TAC. There are a number of those in other alternatives in this document presently. What it does do, it is more a regulatory framework under which the Council, using an analytical tool and an analytical formula that has yet to be decided on, because we have these alternatives, but it's a regulatory framework that then would allow the Council to specify areas and/or time and/or TAC in some of those areas to address the problem. We have to identify a problem, we have to have an analysis that verifies that it is a problem and specifies here's the things you need to do. My change to Alternative 4 would make sure that we're not relying on just one analytical tool to make that decision, but would set up a regulatory framework that allows us then to sort of pick and choose amongst alternatives once we have decided on a methodology for choosing a number.

Fluharty: But that would also include explicitly monitoring and reviewing the effects of those. So, for example, if we find that a measure improves what is termed localized depletion that that then feeds back into our process. Or if we don't find that it makes that change, we can seek further measures.

Benton: I think that's right. Because what I was trying to do is provide an alternative here for analysis and public comment that would then, depending on how it was modified, allow us to have some flexibility in how we deal with the Atka mackerel-Steller sea lion interaction issue. I don't know if in this overall package, suite of alternatives we have here, if there's a scientific feedback loop, if you would, that explicitly says to NMFS, go out there and monitor the status of Atka mackerel and the impacts of various management alternatives on Steller sea lions. I think it's a darn good idea to do that because we often times put measures in place thinking they're going to do something but then we don't have a research program in place to see whether or not they're actually having

the intended consequences or have they done something totally unintended. We oftentimes neglect that part, but. . .

Fluharty: So. . .you would accept that last part to which you were speaking as a friendly amendment, that if there is a scientific feedback loop that is part of your framework. . .

Benton: I would consider that a friendly amendment, Mr. Chairman.

Kyle: I think I'm going to be able to support this motion, but I guess I really have a question for Mr. Pennoyer. If we have a document in June that doesn't pass muster, then were are we for '99?

Pennoyer: You've sent lots of things out to public review you've later decided either not to do, or delay, or do something else with based on the analysis at the time. Because you have a document out doesn't mean you are automatically going to do any specific thing. If you're asking me what the outcome would be from that, I guess it sort of depends on the assessment of where you think you are in June and how that bears up in the world in general in looking at it. You come up with a particular reason to choose Alternative 1, 2, 3, or 4, and it's a compelling reasons after analysis, then that's obviously what we'll carry forward. I think my main concern is it is on the table, the ability to take the action or take whatever action is warranted. So, I don't know how to answer your question exactly because I don't know how the discussion is going to play out in June.

Kyle: So, if I understand the answer to the question that you didn't understand that I asked, I guess. . .your main goal, I mean there's a lot of urgency to get this addressed, but you're not so concerned about what we do as you are that we vette this issue and that we. . .

Pennoyer: I'm not going to tell you that I'm not concerned about what you do. I'm concerned that you have the ability to address it. I'm concerned about what you do, certainly, but I'm going to look at what comes back in June to the answers to these questions, too, and decide in my mind at that point what we need to do. I think at this time we brought something to you, we think some action needs to be taken, we proposed a set of alternatives and I'm anxious that you be able to deal with them.

Pereyra: I think it would be appropriate at this point in time and take a break in place and so we can have this written out; I think it's a requirement that we have that anyway, and I would appreciate that because we're putting together a problem statement here and so forth and I would appreciate that.

Lauber: That's is legitimate request.

[break]

[Tape seems to have been re-started after discussion had already begun]

Lauber: . . .address concerns regarding potential depletion. . .

Behnken: How about develop management procedures?

Pereyra: . . .develop possible management measures. . .

Benton: As warranted sounds fine. . .put it at the end?

Pereyra: Of, if warranted. . .

Lauber: if warranted

Pereyra: if warranted would be better

Lauber: Where do you insert that, whatever you're inserting here?

Hanson: Right after management measures.

Behnken: To develop management measures if warranted. . .

Benton: Or, as necessary, or if warranted, whatever . . .

Lauber: Well, somebody find what you want and then we'll work from there.

Pereyra: I can buy off on if warranted.

Benton: Done.

Lauber: Now, we've got two votes for if warranted, how about the other nine of you, you . . .O.K., it's if warranted as it reads now. Now, anything else? Next, is. . .were you done?

Pereyra: Well, on that issue, but I did want to speak to the motion. I reluctantly can't support the motion. I understand what we're trying to do here and so forth, but the SSC's concerns are pretty extensive. It isn't like it was sort of an afterthought that they came up with. They do in several paragraphs express their concerns and the fact that they feel this analysis is not ready to go out for public review, and I think what we're doing here is we're sort of putting the cart before the horse and that's what my concern is. The SSC feels that this document needs to be modified, then it needs to come back for a thorough review, and that's the wording that they use in the SSC minutes, and so I think the way in which we're going about this is wrong. We're putting this document out, it's going to go out to the public. In the interim we're going to be going ahead and doing some more analyses and so forth and then we're going to come back in June. But what is the public review? The public has reviewed (?) a document which we already are admitting by the procedure that we're using that it's not a complete document yet, it's not a thorough document and I have a problem with that. We're supposed to be doing things based upon the best scientific evidence available and the best scientific evidence that I see is from our SSC and the SSC is making some fairly strong statements regarding this. So, I can't support the motion. I do think that we do have a mechanism and the mechanism would be that when we come here in June we will be in a position, because we will have another draft; based on that draft we would be in a position to, if we felt it was necessary, to establish a procedure for emergency action. This would be a biological emergency and I would think that at that point in time we could go forward with a emergency action to have some interim measure put in place for 1999 while we went through the process of having a proper review of this document before we took our final action. So, that I think would be a more appropriate way to proceed and I think it's also consistent with the recommendation or suggestion from the SSC and also is more consistent with what the AP had recommended.

Behnken: I wanted to offer a friendly amendment on wording and then speak to the motion. The friendly amendment would be to re-word the second sentence to read, 'The Council and NMFS may need additional management measures to address these concerns.' And, my reason for offering that is we do have some management measures in place already to address concerns of removals of Atka mackerel; other species in the critical habitat areas, and I wasn't quite comfortable with the wording that was there, so if that's a friendly amendment. . .

Benton: I'd accept that as a friendly amendment.

Lauber: How would it now read? You strike presently. . .

Behnken: The second sentence would now read: The Council and National Marine Fisheries Service may need additional management measures to address these concerns.

Lauber: So you strike 'do not have' and add ' may need' . . .

Benton: And strike regulatory.

Lauber: Strike regulatory . . . do not need. . .may need measures?

[several people talking at once]

Lauber: . . .in place to address these concerns. . .no 'in place'

Benton: Strike 'in place' as I understand it.

Behnken: Right. . . .'may need additional management measures to address these concerns.'

Lauber: All right, speak to the motion.

Behnken: I think we heard some really valid concerns raised today by members of the Council and by the industry, with this analysis, by our SSC, by the AP, but I think we're in a little bit of a unique position here where we need to move ahead because of the implications of dealing with endangered species and the possibility of having a solution imposed on us and the industry without us being part of developing it if we drag our feet on this issue and I guess with regard to the SSC comments, I don't have a sense that we're overriding the recommendations by the SSC. We've had very firm commitments from the analysts that they will address the concerns that have been raised to the best of their ability and when this analysis comes back to us in June I'm sure all of us will evaluate whether that's an adequate analysis at that point for us to actually take action. So, I think this is a good motion that sort of keeps us moving but tries to insure that we'll have the information in front of us in June that we need to make our decision.

O'Shea: I have a concern and a suggestion and I certainly recognize that you still have to decide on the connection between whether there's localized depletion and what action you're going to take. My concern is that in the document there's no discussion about enforcement and I'm sure by my comments now that that would be taken up for inclusion, but the nature of the suggestions that are in the alternatives right now deal with what I would call heavy duty-type enforcement in that it's closed areas, specific times, and it's an area that's probably the furthest that we have from Kodiak to get to. We had some information from NMFS suggesting that there's some vessels that are either accidentally logging themselves as fishing in the area that's closed now; we also had information that it's a relatively small fleet that's operating there in a fishery that's worth about $32 million. My suggestion is that somewhere in here you all might consider an analysis of a vessel monitoring system for this particular fleet, for this particular fishery. And, it would seem to me that this would be worthwhile work for you all to do because whether or not you decide to do anything on the depletion issue, it would be a tool that you could apply to an action you've already taken and that's to close these areas for trawling now. So, where you put that in this process I'm not exactly sure, but that would be my suggestion. I point out that in the past when this issue has come up, the two concerns that I've heard is that, number one, it's a high cost to the industry; I don't think that would apply here. And, the second is the size of the units and what have you, I heard pretty clearly that 4,000 horsepower vessels and they don't have an exvessel price 'cause they're so big they have to process and carry product out there, so it's something for you all to consider.

Steve Meyer: I want to go on record supporting Capt. O'Shea's comments here very strongly and I've been making these suggestions in a lot of forums. We also have a great deal of information from both the Hawaiian fishery and the East Coast fishery using VMS, so again I would be happy to help any analysis along that way with

information from some of the other fisheries. But, I think it's a very needed tool any time you're around those closed rookery areas.

Lauber: There ought to be a lot of those units available cheap, shouldn't there, Steve? That we required all the foreigners to put on their vessels that they aren't allowed to fish here. . .

Pennoyer: I'm not aware of the fact they gave them back to us when they left! . . .have to track that down.

O'Leary: I'm going to support the motion with a great deal of reservation because of other concerns industry has brought forward. But I don't want to put ourselves in the kind of box I believe we will if we don't take action at this time. The major concern that I hear from industry right now that's going to need to be addressed and certainly affect how I reflect on the action we take in June, is going to be basically the need for a methodology and protocol to define and evaluate localized depletion and the efficacy of the management measures we purport to take. And the ability to review that before we move on to another other incremental stage of action on our part so that we aren't doing something that puts an automatic rachet process without really understanding the effects on industry and the effects of the efficacy of what we're doing. So, I'll support this and in June, depending on the quality of the analysis that comes back, the ability of the SSC and staff to assure us that. . .I realize that it'll be a process to develop these things, some of these processes from what I understand from the tone of the discussion aren't necessarily fully developed now, but industry is absolutely terrified of where this could go without adequate peer on a specified basis and I full well understand their concerns and what we can do in June, at least from my perspective, is going to depend on what kind of a response we get back from staff and the SSC.

Pennoyer: I had two comments on the content of the amendment, and I don't think there's a problem, but there was discussion of various other discussion and responses from the Council that would also be informally part of the amendment that we would do our best to respond to them. That was a friendly amendment and I think wording could be added to this that I don't think anybody needs to see it printed out right now, but that the content of the discussion that we had and the questions asked, the analysts would do their best to come back with their responses to those before the June meeting. And then, we didn't actually formally amend it, but it's also a friendly amendment to the maker of the motion, the VMS question by Capt. O'Shea I think is a very good one, and we did it for chinook, I don't think it would be any different here in terms of the analysis, so I think it's simple to do and I would very definitely think we ought to do it as a management tool.

Benton: Question, before I accept that as a friendly amendment. Is that just to put VMS on vessels fishing the Atka mackerel fishery in the Aleutian Islands?

Pennoyer: Well, we also have an amendment out to look at it for chinook closures in the Bering Sea, too. I think we also have an analysis for that, but those are the only two places we specifically discussed it.

Benton: O.K., I would accept that as a friendly amendment.

Pereyra: I have a question for the maker of the motion. Your last item, we talk about setting a maximum TAC in any season, area, based on initial biomass and application of target harvest rates. I've been thinking about that and I am at a loss as to see how we can estimate any kind of initial biomass in an area. The only biomass estimate that we have at the beginning of the season is that which is generated by the age-structured model which is the population as whole. The biomass estimate we have which has led to this discussion on localized depletion is one which comes by hindcasting and regression analysis, so it's sort of. . .you know, you've got to have the fishery first before you can find out what your regression analysis. . .and that's why I thought that maybe this might be a non-starter to begin with.

Benton: I picked up on the language that was already in the alternative. And, talking with staff they believe they have a methodology. I guess this is their chance to explain it and see if it flies. That's about all I can say about it, Wally, I don't know whether it works or doesn't work.

Pereyra: My ears will be open. . .and my mind will be, too.

Fluharty: This is a question of the maker of the motion. On your item, revised alternative four, it seems to me we want to make sure that the wording is in there that I was requesting, that this would be peer-reviewed and that it would be. . .we would seek information to assess the effects of those actions. I'm also wondering if you would accept as a friendly amendment that this framework that you've set up would be. . .I don't want to say be limited to. . .but would take into consideration the fact that the analysts and others have placed specific numbers in the other three things, like a 50/50 split, or. . .you know, so that we're bracketing this one to within the range specified in those other three alternatives.

Benton: If I understood what Dr. Fluharty just said, I support that very much so. Yes, which is, if I've got it right, what you're saying is, looking at the alternatives, for example alternative 3 has different values that could be looked at in terms of TAC reductions or TAC modifications and that that would be the range in which that would occur, one of those numbers if the Council so chose, and I support that, that would be a friendly amendment.

Lauber: Ready for the question? Call the roll.

Pautzke:	Fluharty	Yes
	Kyle	Yes
	Mace	No
	O'Leary	Yes
	Pennoyer	Yes
	Pereyra	No
	Samuelsen	[Absent]
	Austin	Yes
	Behnken	Yes
	Benton	Yes
	Lauber	Yes

Passed.

Lauber: O.K., is there anything else under this agenda item?

Pautzke: I think we did it.

[End of this Agenda Item]