MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: June 16, 1992

SUBJECT: Amendments to the Groundfish Fishery Management Plans

ACTION REQUIRED

Consider final action on Amendment 21 to the BSAI FMP and on Amendment 26 to the GOA FMP.

BACKGROUND

At the April Council meeting, staff presented draft amendment packages for proposed Amendment 21 to the BSAI FMP and proposed Amendment 26 to the GOA FMP. The Council approved proposed Amendment 26 and portions of the proposed Amendment 21 for public review.

AMENDMENT 26

At the April Council meeting the SSC requested minor changes to the Environmental Assessment/Regulatory Impact Review (EA/RIR). Staff incorporated these suggestions and released the draft EA/RIR for public review. It was sent to you on May 6, 1992. Included in the EA/RIR for Amendment 26 to the GOA Groundfish FMP are the following amendment topics:

1. Prohibit trawl gear from fishing for groundfish in waters east of 140 degrees West longitude in the eastern Gulf of Alaska:

An FMP amendment is proposed which would prohibit trawl groundfish fisheries in waters east of 140 degrees West longitude. Alternatives include:

Alternative 1: no action;

Alternative 2: prohibit all groundfish trawling in waters east of 140°W. longitude;

Alternative 3: prohibit on-bottom trawling only; and

Alternative 4: establish separate TACs by FMP species group for the new Southeast District.

2. Re-establish the no-trawl crab protection time/area closures around Kodiak Island:

An FMP amendment is proposed which would re-establish the time and area restrictions on non-pelagic trawling around Kodiak Island to protect king and Tanner crab resources. This action is being considered because the crab protection time and area closures established under Amendment 18 to the GOA FMP will expire December 31, 1992 unless the FMP is amended. Alternatives include:

Alternative 1: no action, there would be no specific bycatch controls for the groundfish fishery in the EEZ of the GOA to protect crab after December 31, 1992;

Alternative 2: extend the existing time/area closure measures for another three years; and

Alternative 3: implement a permanent time/area closure scheme for non-pelagic trawling.

Comments received on this amendment were mailed to you on June 12.

AMENDMENT 21

Initially, Amendment 21 included three priority bycatch issues established by the Council during its January 1992 meeting. These were: (1) halibut bycatch limits for the trawl and non-trawl fisheries, (2) chinook salmon bycatch limits for the trawl fisheries, and (3) trawl closures around the Pribilof Islands. After reviewing the draft analysis of these three measures, the Council decided that additional alternatives should be analyzed for controlling salmon bycatch and protecting living marine resources near the Pribilof Islands. Therefore, Amendment 21 now only addresses the halibut bycatch limits. The other two measures (salmon bycatch and Pribilof Islands trawl closures) will be addressed in a separate document.

Amendment 21 is an FMP amendment which would establish halibut bycatch limits in the BSAI for 1993 and beyond. Earlier amendment 19 to the BSAI groundfish FMP reduced the trawl fishery halibut PSC limit from 5,333 mt to 5,033 mt and established a non-trawl fishery halibut bycatch mortality limit of 750 mt for 1992 only. Alternatives for 1993 and beyond include:

Alternative 1: status quo - would result in a halibut PSC limit of 5,333 mt for the trawl fishery and no limit for the non-trawl fishery.

Alternative 2: three options for each gear group - 50%, 100%, and 150% of the 1992 limits. These are equivalent to:

For the trawl fisheries, bycatch of 2,516 mt, 5,033 mt, and 7,550 mt.
For the non-trawl fisheries, mortality of 375 mt, 750 mt and 1,125 mt.

Alternative 3: same as Alternative 2 except replace the trawl bycatch limit with a mortality limit. Assuming that the discard mortality rate is 75%, the three options being considered are 1,887 mt, 3,775 mt, and 5,662 mt.

Alternative 4: in addition to Alternative 2 or 3, allow PSC limits to be changed by regulatory, rather than plan, amendment.

The Council needs to review public comments and take final action on these two FMP amendment proposals at the June meeting. Comments received on Amendment 21 by Thursday, June 18, are provided as item 2(a)(1).

COMMISSIONERS:

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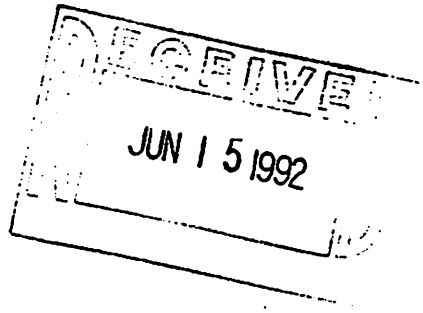

June 11, 1992

Dr. Clarence Pautzke
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, AK 99510

Dear Clarence:

The Staff of the International Pacific Halibut Commission has reviewed the EA/RIR for Amendment 21 to the Bering Sea-Aleutian Islands Groundfish Fishery Management Plan. We would like to take this opportunity to comment on Amendment 21 and other bycatch issues. As a result of probable delays in developing an individual bycatch quota system, allocation issues such as those addressed in Amendment 21 become a more important means of bycatch management. While we would prefer an IBQ to allow fishermen to decide how use bycatch, absence of IBQ's requires that the Council consider other measures to control bycatch in the groundfish fisheries.

Amendment 21. **We recommend changing to mortality-based bycatch accounting, increasing fixed gear halibut bycatch mortality limit to 1,125 mt and reducing trawl bycatch mortality limit to 2,950 mt. This change could be phased in over several years if the fixed gear cannot presently use the full 1,125 mt.** The IPHC Commissioners adopted a policy that recommended bringing all gears under halibut bycatch mortality limits, and establishing a 10 percent per year reduction in halibut bycatch mortality, starting in 1993. To meet this schedule, the 4,525 mt mortality under current limits (5,033 mt of bycatch for trawls = 3,775 mt of mortality and 750 mt of mortality for fixed gear) would become 4,075 mt in 1993. The Commission is also committed to maximize groundfish harvest (in pounds or dollars) for a given amount of halibut bycatch mortality. To this end, we recommend that the Council allocate a 50 percent increase (375 mt) to 1,125 mt in halibut bycatch mortality to fixed gear and reduce the trawl allocation by 825 mt to 2,950 mt of mortality.

Substantially lower bycatch mortality rates for halibut occurs in the Pacific cod longline fisheries (0.6%) than in Pacific cod trawl fisheries (1.4 %), as estimated in Table 1.4 of the Amendment 21 analysis. Converting Pacific cod from trawl to longline means that the proposed halibut bycatch reduction can be met with little change in landings of groundfish. As an example, adding 375 mt of halibut mortality to the 1992 fixed gear value of 750 mt will allow for 62,000 mt of additional longline harvest (375 ÷ 0.006 = 62,000). Subtracting 825 mt of halibut mortality from the 1992 trawl value of 3,775 should cost less than 59,000 mt of trawl harvest (825 ÷ 0.014 = 59,000). Even less groundfish would be lost if all reduction were for Pacific cod, because other species caught in the cod fishery lower the bycatch rate below that of a pure cod fishery. By better defining pelagic gear and improving the vessel incentive program, even more groundfish harvest should occur.

Amendment 21 economic analyses. The IPHC staff believes that the economic cost-benefit analysis does not cover important topics that we consider necessary if economic factors are to influence the decision for Amendment 21. These topics include high bycatch rates caused by open access in the groundfish fisheries; measuring benefits from status quo; and international impacts of bycatch mortality. Until these topics are fully evaluated, we recommend that emphasis should be placed on maximizing physical catch.

Bycatch rates under open access. We agree with the analysis that the race for fish causes fishermen to compete with other fishermen for short term return. Bycatch rates increase far above what is necessary as a result. Costs in foregone groundfish are greatly inflated, and higher bycatch rates cause higher foregone costs. Bycatch rates would decrease under more rational management, such as an individual fisherman quota for groundfish or an individual bycatch quota. We know that the Japanese fleets reduced bycatch rates by 50 percent in three years (although they were given five years) under Amendment 3 by implementing an individual incentive program. The domestic groundfish fleet should be held to a similar standard. The groundfish fleet rejected several years ago an opportunity for limited access. The halibut fishery should not have to pay through lower quotas for problems caused by open access in the groundfish fishery.

Measure benefits from status quo. Current bycatch and fishery management impose large costs on the halibut and groundfish fleets. Economic benefits should be measured as improvements from status quo, as well as by cost benefit ratios currently used. The Council has used non-economic benefits to set bycatch limits. We support obtaining maximum value for whatever bycatch limits are set, and recommend measuring economic benefits as improvement from status quo. We question the use of most economic analyses, as the open access nature of groundfish and halibut fisheries dissipates economic rent for both fisheries, leaving little to compare other than consumer benefits.

International implications. Under a treaty between the governments of the U.S. and Canada, the IPHC is responsible for international allocation of halibut. Yet, bycatch mortality allocates benefits from Canada to Alaska. Bycatch mortality on juvenile halibut migrating from Alaska to Canada cost the Canadian fishery an estimated 3 million pounds of lost yield in 1991.

Preferential Allocation. While action under Amendment 21 is necessary to assure bycatch limits for all gear in 1993, we recommend that the Council move forward with an evaluation of preferential allocation to gear with lowest bycatch rates. The Council has asked the National Marine Fisheries Service to analyze allocation of Pacific cod among competing gears and fisheries in the Bering Sea. The IPHC Staff strongly supports this concept, in keeping with our philosophy of obtaining maximum benefit from whatever halibut bycatch limits are set. The advantage of a preferential allocation analysis over the fixed cap approach taken in Amendment 21 is the opportunity to examine a variety of factors important to allocation. We continue to recommend that preferential allocation of PSC limits or of TAC be made to fisheries or gears with the lowest bycatch mortality rates. Such action would provide incentive for gear groups or fisheries to find ways to reduce bycatch mortality rates, and thereby become more competitive for allocations.

IPHC staff analyses. The IPHC staff is working on several halibut bycatch projects that we believe will assist NMFS and the Council make decisions for bycatch management. Our projects orient to traditional management measures, but could also be useful in individual incentive programs. These include analysis of day-night differences in halibut and crab bycatch rates; time-area differences in halibut bycatch rates; preferential allocation to clean gears or fisheries; calculation of discard mortality rates; mandatory retention of bycatch to reduce statistical problems with individual incentive programs; and gear engineering.

Day-night bycatch rates. This analysis was completed for Area 511 of the Bering Sea and is being extended to other areas. Only the Pacific cod and pollock bottom trawl fisheries show significantly higher halibut bycatch rates at night, about 30 percent above day rates. These fisheries also experience significantly higher night time bycatch rates of king and Tanner crab. Based on Area 511 results, prohibiting night fishing in the Pacific cod fishery could save about 15% in halibut or crab bycatch, or increase groundfish harvest by about 15%.

Time-area bycatch rates. Preliminary analysis of 1990 and 1991 observer data showed significant differences of halibut bycatch rates by month and area, and a generally consistent pattern among years. More detailed analysis will address quantities of bycatch savings and explanations for differences. We anticipate completion of this project during the fall of 1992.

Preferential allocation. We will be examining bycatch rates of various gears and fisheries to help our understanding of the preferential allocation issue. Our approach will be primarily on savings of bycatch mortality. While we are interested in the economic tradeoffs, the difficulty in obtaining appropriate data and justifying assumptions leads us to emphasize physical catch. We plan on completing this evaluation during the summer.

Discard mortality rates. Work is proceeding with AFSC staff to extend discard mortality rates to specific fisheries in the Gulf of Alaska and Bering Sea from the 1990 data set, and to update the rates with the 1991 data set. This work will be completed in time for Groundfish Team review during preparation of the SAFE documents in the fall.

Mandatory bycatch retention. If the Council wishes to explore the option of mandatory bycatch retention as part of an individual incentive program, we will be prepared to discuss the issue. The Commission's concerns for mandatory retention include increased mortality on juvenile halibut, already excessive bycatch rates, adequate monitoring and enforcement, marketing of halibut below the legal size limit, and suitability of time-area management, preferential allocation to clean gears, or other measures.

Gear engineering. We are coordinating with NMFS for underwater camera observations of bottom trawl gear interacting with halibut. The cruise is scheduled for around August. We are coordinating with NMFS and the Highliners Association to evaluate the benefits of a sorting grid over fish holds to separate halibut from groundfish. Two vessels are scheduled following the pollock "B" season. Halibut Commission personnel are riding along on groundfish vessels (so far with Arctic Alaska and Clipper Seafoods) to learn about fish handling to determine what experiments we may initiate to reduce halibut discard mortality.

The IPHC staff has taken a positive approach toward solving bycatch management problems. We believe the best solution is to make both groundfish and halibut fisheries better than they are now.

Sincerely,

Donald A. McCaughran
Director

cc Commissioners

KRIS POULSEN & ASSOCIATES COMMERCIAL FISHING VESSELS • M/V BERING SEA • M/V ARCTIC SEA • M/V NORTH SEA

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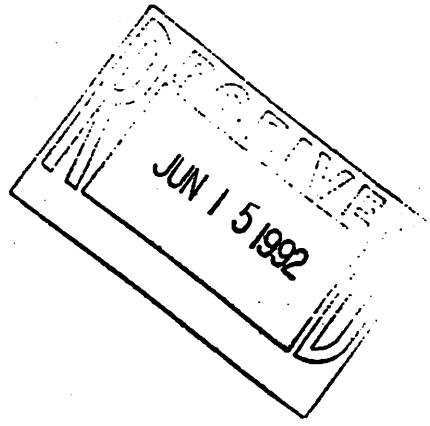
JUNE 8, 1992



MR. RICK LAUBER, CHAIRMAN
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
P.O. BOX 103136
ANCHORAGE, AK 99510

RE: HALIBUT BYCATCH AMENDMENT 21

WE WOULD LIKE TO PROPOSE THE POT FISHING FOR COD IN THE BERING SEA AND ALEUTIAN ISLANDS TO BE EXEMPTED FOR HALIBUT BYCATCH QUOTAS.

OUR FISHING EXPERIENCE USING POTS SHOWS THE HALIBUT BYCATCH TO BE EXTREMELY LOW.

IF THIS STEP IS CONSIDERED TO BE TOO GREAT AT THIS TIME, WE SUGGEST IT BE MADE FOR A ONE YEAR DURATION ONLY. IT COULD BE MADE PERMANENT PROVIDED THE BYCATCH IS AS LOW AS OUR EXPERIENCE HAS SHOWN.

PLEASE CONSIDER THIS PROPOSAL IN YOUR NEXT COUNCIL MEETING.

THANK YOU.

Kristian E. Poulsen

KRISTIAN E. POULSEN
MANAGING PARTNER

CC: STEVEN PENNOYER, DIRECTOR, ALASKA REGION, NMFS

KODIAK LONGLINE VESSEL OWNERS' ASSOCIATION

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June 17, 1992

Mr. Rick Lauber, Chairman
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
P. O. Box 103136
Anchorage, Alaska 99510

SENT BY FAX: 271-2817

Dear Rick,

I'm writing in regards to Amendment 21 (Bering Sea/Aleutian Islands halibut caps). We recently received the analysis and had the opportunity for a cursory review.

It is important that we not only look at the effects of halibut caps on the different gear groups in the Pacific cod fishery, but the entire fishery as a whole. If in review, one fishery has high halibut mortality, it would be appropriate to allocate that fishery to gear groups which have lower mortality. This would encourage vessel owners in the longline, trawl and pot fisheries to utilize improved technology and ways of fishing to reduce their bycatch.

We also recommend that the North Pacific Council look at this issue from a conservation angle rather than that of economic optimization. We would like to support implementation of a method to reduce the halibut cap each year until a 50% reduction has been achieved. Since this would put undue hardship on the fleet as it is currently structured, it is appropriate to look at how this might be accomplished and still take the optimum amount of groundfish.

It seems most reasonable to attempt to accomplish this by several different actions. The first of course, is to reduce mortality. The analysis shows how this might be accomplished in the longline fleet by cutting gangions or by using smaller hooks. In the trawl fleet, it is important to realize that not only are tow and sorting times cruicial, but also the time of day when fishing effort occurs. By eliminating night towing, we believe a substantial amount of bycatch will be saved. Other conjectures include horsepower or towing speed restrictions. We believe these have merit as well.

The second action is to closely look at the gear groups involved and to give a preference to those gear groups which may take less halibut as bycatch. For example, if some gear group could take 100,000 MT of Pacific cod with less than 1,000 tons of halibut, that might be cause for preferential treatment.

The amount of halibut that could be saved for other species of fish would enable those fisheries to achieve more of their harvest potential. We realize that it will be difficult to analyze bycatch from the entire spectrum of species in the Bering Sea area, but it would be very helpful.

We have also been apprised of some differing economic data from that used in the model in regards to H&G cod prices for freezer/longliners. It is important that the data be as accurate as possible prior to the Council making their decision.

We believe that the longline fleet has exhibited that their fishery in the Bering Sea is a clean fishery in regards to halibut bycatch and we are concerned that 750 MT will be constraining in the future. This clean fishery should be encouraged, not penalized by setting a bycatch amount too low. At the very least the number should be set at 1,125 MT for 1992 and review of possible higher numbers in the future. Other gear groups should be encouraged to begin utilizing gear that will reduce bycatch.

Sincerely,

Linda Kozak

Linda Kozak
Executive Director

AMERICAN FACTORY TRAWLER ASSOCIATION

June 17, 1992

Dr. Clarence Pautzke, Executive Director
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, AK 99501

Re: Amendment 21 to the BSAI Groundfish FMP

Dear Clarence:

The trawl industry has been trapped in a series of "one-year fixes" concerning the bycatch constraints imposed on it since Amendment 12 was implemented. We have for several years asked that a thorough analysis of the entire bycatch regime be completed so that a long-term, rationalized program -- consistent with the Magnuson Act's National Standards and its mandate that management actions provide the greatest benefit to the nation -- could be developed.

An exchange of letters between the Council and me during May, 1990 led me and other trawl groups to believe that immediately following implementation of Amendments 16 and 16A, the Council would turn itself to the task of a rationalized bycatch program for implementation by 1991. No such effort has even been scheduled, let alone initiated.

Now, we have proposed Amendment 21 and the 5,333 MT halibut cap, in its various forms, seems to have been cast in concrete forever more. The limited array of options contained in this amendment is guaranteed to preclude the attainment of OY from the nation's largest and healthiest fishery resource. This imposes a substantial cost to the nation. It also continues to deal with PSC matters one at a time rather than in an integrated fashion across the array of halibut, king crab, bairdi crab, herring, and salmon concerns even though we all know that actions on behalf of one PSC species are likely to affect impacts on other PSC species, and are additive in terms of costs to trawlers. Indeed, the adverse effects of bycatch management on trawlers will be exacerbated by this proposed amendment as it will reduce a bycatch cap that has already proven to be unduly restrictive.

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This amendment package must be expanded to include alternatives which would (1) relate PSC caps to the abundance of PSC species; (see Attachment 1 -- it is ludicrous to expect the trawl fishery to keep its halibut bycatch constant, let alone reduce it, when halibut abundance has increased substantially; see also Attachment 2 where the efficacy of floating PSC caps was acknowledged when Amendment 12A was implemented); (2) allow some percentage (e.g., 80%) of those halibut that are released within, say, 20 minutes of being taken aboard to not be counted against the cap; (3) relate the impact on trawlers of any specific PSC measure to the combined impacts of all other PSC measures; (4) because trawl halibut caps are designed to protect the longline halibut industry, halibut bycatch by longliners should be required to be retained and counted against the directed halibut fishery -- this measure would significantly reduce wastage; and, most importantly, (5) limit PSC caps to levels that balance benefits to the directed fisheries for PSC species with the costs of foregone groundfish catch to the trawl industry. This option is especially relevant given NMFS/NOAA's inability to implement a meaningful individual vessel incentive/disincentive program.

Contrary to the way that some have characterized AFTA's position on PSC bycatch, we do not advocate turning trawlers loose regardless of the cost to the directed fisheries for PSC species or of the impact on the biological health of the PSC species. However, this year close to <u>one million metric tons</u> of groundfish catch will again be out of reach primarily because of bycatch constraints. It must also be noted that all of the PSC bycatch concerns are those of allocation between user groups and have no biological rationale.

The Council has simply got to bite the bullet and address the bycatch issue in a comprehensive and rational manner consistent with maximizing national benefits from the fishery resources of the North Pacific. If it can not or will not do so during this iteration, the only alternative with even a modicum of justification is 2.1 with a trawl halibut bycatch limit of 7,550 MT. This might at least allow the groundfish industry an opportunity to take the TACs available under the 2,000,000 MT OY cap while a rationalized program, aimed at allowing the entire 2.6 - 3.0 million MT of available groundfish surplus production to be taken, is developed during the next amendment cycle.

Sincerely,

H. A. Larkins
Executive Director

Attachments (2)

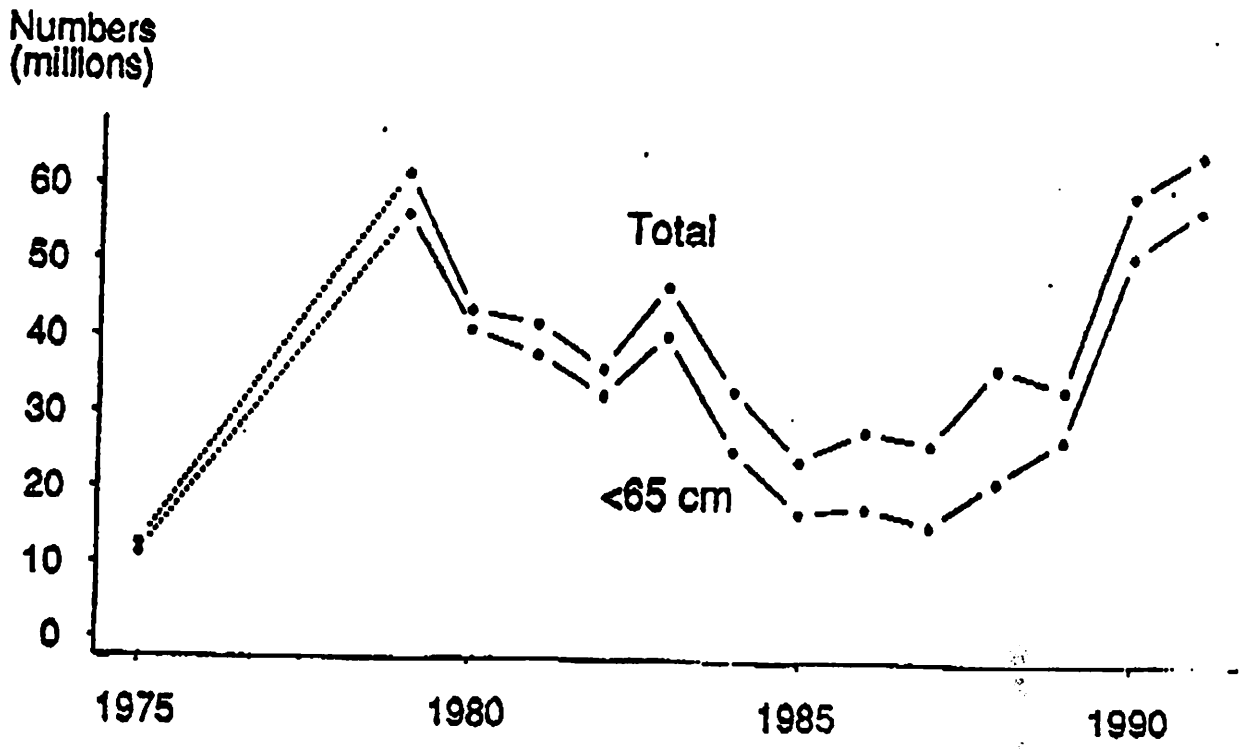

Figure 2b. Halibut numbers in the Bering Sea estimated by the NMFS trawl survey.

ATTACHMENT 1

[Source: Trends In Abundance of Juvenile Halibut Indicated by NMFS Trawl Surveys. William G. Clark and Richard G. Bakkala. January 1992]

and thereby mitigate any negative impacts on their profits. The Council heard considerable public testimony at its January 1989 meeting that, given imposition of the Amendment 12a bycatch controls, the groundfish fishery would use all available technology and expertise to reduce the bycatch of crabs and halibut to avoid costly area closures. In addition, NOAA is persuaded by the positive response to similar bycatch limits imposed on the foreign fisheries in 1963 and on the JVP fishery in 1985 which resulted in substantial reduction in observed bycatch rates without apparently costing those fisheries significant forgone groundfish harvests.

In any event, this action has been thoroughly reviewed for consistency with E.O. 12291 and other applicable law. To the extent that net quantifiable benefits may not occur despite the best efforts of trawl operators to reduce bycatches by modifying fishing behavior, unquantifiable environmental benefits still warrant taking this action. Such benefits include the reduction of crab and halibut mortality from encounters with trawl gear that do not result in their capture.

NOAA agrees that PSC limits expressed as a proportion would better accommodate changes in population abundance of crabs and halibut. This rule, in which the PSC limits are established as fixed amounts, however, will be effective only through 1990, or less than 18 months. In addition, the recommended PSC limits are based on the most recent (1988) estimates of crab and halibut population sizes. Therefore, NOAA finds that the recommended PSC limits as fixed amounts are acceptable.

Comment 2: The PSC limits on crabs violate National Standards 1, 2 and 4. The proposed rule violates National Standard 4 in that it discriminates between categories of U.S. harvesters and does not allocate PSC limits fairly and equitably. The proposed bycatch controls are not equitable in that crab bycatches in the crab fishery may be far in excess of bycatches in the trawl fishery. Amendment 12a ignores the bycatches of the longline (pot and hook) fisheries for groundfish. The assumption that the trawl fleet is the culprit in the bycatch issue is unfounded and there is inequity in the treatment between trawl and other gear types.

Response: National Standard 1 requires management measures to prevent overfishing while achieving optimum yield from each fishery (Magnuson Act section 301(a)(1)). The prescribed PSC limits serve to prevent overfishing of crab stocks by imposing a constraining limit on crab bycatches in the groundfish fishery, even though the bycatch mortality of crabs from trawl gear is not solely responsible for changes in crab abundance. In the same way, the PSC limits also assure that the optimum yield in the crab fishery is achieved insofar as impacts from the groundfish fishery affect that optimum yield of crabs. Achievement of the optimum yield of groundfish is assumed, providing trawl operators respond positively to the incentive to reduce their bycatch rates. In making this assumption, NOAA relies on previous experience controlling the prohibited species bycatches in the foreign and JVP groundfish fisheries.

National standard 2 requires that management measures be based on the best available scientific information. After review of the environmental and regulatory impact analysis supporting this action, NOAA finds that it is consistent with this standard. The analysis is based largely on crab distribution and abundance estimates derived from the 1988 crab survey of the Eastern Bering Sea performed by NMFS crab biologists. These estimates will not be revised until after the 1989 survey is complete, probably in September 1989. Bycatch assumptions used in the analysis are based on observed bycatch rates in the 1987 and 1988 JVP groundfish fisheries. NOAA recognizes the statistical limitations of its crab biomass estimates and of extrapolating the performance of DAP fisheries from JVP fisheries. However, a better and equally practical analytical approach is not apparent.

National Standard 4 prohibits management measures from discriminating between residents of different states and requires any allocation of fishing privileges to be fair and equitable, to promote conservation, and be carried out so that no particular individual, corporation or other entity acquires an excessive share of such privileges. The bycatch restrictions of this rule do not discriminate between residents of different states as trawl fishermen from all states are equally burdened to operate within the specified PSC limits.

Inherent in any allocation is the advantaging of one group to the detriment of another. To be fair and equitable, an allocation of fishing privileges should be rationally connected to the achievement of optimum yield and to an objective of an approved fishery management plan. For the reasons discussed in response to the previous comment, NOAA believes that the bycatch control measures imposed by this rule enhance the achievement of the optimum yield to the red king and *C. bairdi* Tanner crab fisheries while not necessarily preventing achievement of the groundfish optimum yield. Hence, these bycatch control measures are rationally connected to the achievement of the optimum yields of crabs and groundfish. Moreover, they serve to carry out one of the expressed management objectives of the FMP, that is, to minimize the impact of groundfish fisheries on prohibited species such as crabs and halibut (FMP at section 14.1).

In addition, an allocation scheme may promote conservation (in the sense of wise use) by optimizing yield in terms of size, value, market mix, price, or economic or social benefit of the product. The observed bycatch of crabs and halibut in the groundfish trawl fishery is composed mostly of small, pre-recruit animals. By catching and discarding these animals with probable 100 percent mortality, the groundfish fishery preempts the productive use of the discards in the crab and halibut fisheries and the associated economic and social benefits. On the other hand, PSC limits that prevent harvesting the groundfish optimum yield when every effort is made by that fishery to avoid excessive bycatches also would not be considered wise use of the crab and halibut resources. This is the essence of the allocative balance between allowing relatively unconstrained fishing for groundfish with trawl gear and limiting that fishery's use of other resources that may have potentially adverse affects on other fisheries. After lengthy debate and study, the Council appears to have made a reasonable management recommendation that strikes an appropriate balance between these competing interests.

NOAA recognizes the difficult judgement necessary in making such allocative management decisions. By implementing the Council's bycatch control recommendations in Amendment 12a, NOAA is not making any assumption that the trawl fleet is the culprit in the bycatch issue. Although it is true that about 82 percent of the catcher vessels with current Federal permits to harvest groundfish off Alaska operate longline (pots and hooks) gear, about 92 percent of the groundfish harvest through June 10, 1989 has been taken by trawl gear. While bycatch data on the groundfish longline fisheries are scant, based on the relative distribution of groundfish harvest among gear types it may be assumed that trawl gear takes most of the total prohibited species bycatch taken in all groundfish fisheries.

The bycatch of red king crabs in the *C. bairdi* Tanner crab fishery also is

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June 18, 1992

Mr. Richard Lauber, Chairman
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, Alaska 99510 VIA FAX: (907) 271-2817

Dear Rick:

HANA's goal is to reduce halibut mortality to the extent possible and consistent with the need to harvest other groundfish. Therefore, we continue our support for measures that accomplish a 50 percent cap reduction overall during the next five years at the rate of 10 percent per year. This approach will give the industry enough time to develop cleaner fishing techniques and will demonstrate the Council's commitment to a real bycatch reduction plan rather than one that simply reflects clever number manipulations.

We object to two assumptions included in the EA/RIR/IRFA on Amendment 21: that PSC reductions necessarily correspond to foregone groundfish harvest, and that all trawl caught Pacific Cod is filleted when, in fact, approximately 30 percent of the product is headed and gutted. Obviously, while the trawl fleet could lose if PSC levels are reduced and they remain dirty, the cleaner fixed gear fisheries, and more importantly, the halibut, will gain and groundfish harvest levels will be achieved nonetheless.

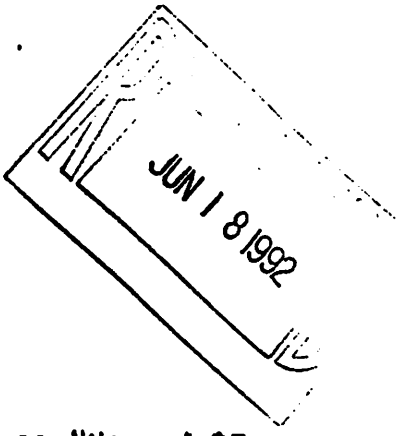
The Council is long overdue in demonstrating its commitment to reduce the amount of halibut taken and wasted as bycatch. One way you can accomplish that is by designing regulatory measures that encourage growth in "clean" fisheries. We urge you to give the fixed gear "clean" fishery the space it needs to grow by setting their cap at a realistically high level.

Thank you for your consideration.

Shari Gross

Fisheries Conservation Action Group
P.O. Box 232 Petersburg, AK 99833

June 4, 1992.



North Pacific Fishery Management Council
PO Box 103136
Anchorage, AK 99510

Dear Council members,

The Fisheries Conservation Action Group (FCAG) is a coalition of 25 fishery associations and processing companies that participate in the Bering Sea and Gulf of Alaska fisheries. We have consistently supported measures that promote long-term conservation and reduced bycatch. After reviewing the EA/RIR/IRFA on Amendment 21 to the Bering Sea/Aleutian Islands (BSAI) FMP, we believe that a 5 year plan which reduces halibut PSC limits by 10% per year is the best alternative, one which will provide an incentive to reduce bycatch, demonstrate the Council's commitment to a bycatch reduction plan and provide the industry with enough time to develop clean fishing techniques. We note that this bycatch reduction schedule is consistent with the stated goals of the IPHC Halibut Bycatch Work Group (IPHC Tech. Report No. 25; p. 29) Further we feel that the cost to the nation of a 50% halibut bycatch reduction is grossly over-stated in the analysis due to the limited scope of the document.

The economic model used in the analysis operates with the assumption that, in the absence of individual accountability, each amount of PSC reduction will result in a given amount of forgone groundfish harvest. Thus, other methods to reduce the BSAI bycatch and bycatch mortality were not evaluated in the economic analysis. These other methods include: use of more selective gear, development of hauling and handling practices that reduce mortality, implementation of a more effective VIP program, and the use of "Hot Spot" authority. This is a serious flaw in the analysis as the potential for a combination of these measures to reduce bycatch and bycatch mortality without significantly impacting groundfish harvests is considerable.

For example:

*Better Handling Practices: The analysis shows that an improvement in hauling and handling practices, resulting in a 10% reduction in halibut mortality (from a 75% rate to a 65%), the BSAI groundfish harvest would increase 15.4%, to almost 2 million mt, before a closure would be triggered. Additionally, if it became mandatory to release incidentally caught halibut by cutting gangions, the mortality rate for the hook and line fleet would decrease by 50% (from 16% to 8%).

*Improved VIP Program: Throughout the Amendment 21 analysis, individual accountability is stressed as the most effective bycatch reduction measure. The VIP program was developed to make individuals accountable for excessive bycatch. However, Table 3.2 shows that if the current halibut and crab VIP programs are 100% effective--i.e., 100% of the individuals who exceed the standard rate by 100% are removed from the fishery--the additional groundfish harvested would result in a net economic gain of $2.5 to $7 million. (note: the analysis for the North Pacific Research Plan shows that the additional observer coverage needed for a VIP program will cost $4.5 million.) This increase is minimal when compared to the $400 million net value of the BSAI fisheries and suggests that the present VIP program does not provide a strong enough incentive for individuals to reduce bycatch or move to other areas. Lowering the standard rates and increasing the penalties would increase the effectiveness of the VIP program and provide greater returns.

*Time/Area Closures: The Regional Director of NMFS now has the authority to close areas if excessive bycatch occurs. If this authority is used in a timely manner, it will augment the VIP program and further reduce bycatch without impacting the TACs.

*Selective Gear: The analysis shows that if non-trawl gear had been used to harvest the BSAI Pacific cod quota, BSAI halibut mortality would have been reduced by approximately 1,000 mt, there would have been 500,000 to 700,000 less incidentally caught crab, and approximately 4,000 to 6,000 chinook salmon would have been saved.

In summary, the FCAG believes a 10% per year reduction for 5 years is both reasonable and warranted. The analysis of Amendment 21 is mistaken in its assumption that a reduction in PSC limits translates

into a reduction in groundfish harvests. There are many options that will reduce bycatch and bycatch mortality without significantly reducing the groundfish harvest; however, this reduction will not occur without an incentive. The 5 year, 10% reduction schedule provides this incentive and allows sufficient time for the fleet to develop cleaner fishing techniques. This 50% reduction is not unprecedented. Historical data shows that in 1984 foreign and J/V vessels caught approximately 1.6 million mt of groundfish in the BSAI with just 2,538 mt of halibut bycatch. This occurred at a time when halibut biomass was similar to the current biomass (Figure 2.3b in analysis).

In conclusion, the FCAG urges the Council to recognize the potential for reducing bycatch in the BSAI fisheries, and to take the necessary steps to adopt a meaningful bycatch reduction plan.

Sincerely,

Kris Norosz

Kris Norosz
(President)

Petersburg Vessel Owners Association

P.O. Box 232
Petersburg, Alaska 99833
Phone (907) 772-9323 Voice and Fax

June 18, 1992

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

Dear Rick,

We have reviewed the EA/RIR on Amendment 21 to the Bering Sea and Aleutian Islands FMP and wish to make a few comments.

We found a few of the economic assumptions that were made in the document to be highly questionable and object to the figures used. It appears that the price cited for H & G cod for freezer/longliner is quite low and does not give an accurate indication of the price this product commanded in 1990 and 1991s. Secondly, we feel it is highly inaccurate to assume that 100% of the trawl caught Pacific Cod should be analyzed as fillet product. Using both of these assumptions presents a highly skewed economic picture.

The Council has the opportunity at this time to reduce bycatch in the BSAI. Contrary to the analysis, we firmly believe that PSC reductions can be made without corresponding reductions in groundfish harvest. We believe that measures exist, which when used in combination, could greatly reduce bycatch and bycatch mortality without significantly impacting groundfish harvests. Such measures include gear preference for gear types with low mortality rates, improved fishing and handling techniques (such as cutting gangions for the longline fleet and elimination of night time tows by trawlers, etc.), an improved VIP program, etc.

We support a 5 year plan which reduces halibut PSC limits by 10% per year. This plan is consistent with the recommendations made by the IPHC Halibut Bycatch Work Group in the IPHC Technical Report No. 25. This is an obtainable goal and one whose time has come. We do not believe that PSC reductions result in foregone groundfish harvests. In the mid 1980's, the foreign and JV fleet were able to harvest amounts and species composition of groundfish similar to that being taken by the domestic fleet today but with a fraction of the halibut bycatch. Surely we should expect at least as good a performance by our domestic trawl fleet in the 1990's. Allowing for this reduction to take place over a five year period gives industry adequate time to develop and adjust to clean fishing techniques.

Recognizing that fixed gear is much more selective and has lower bycatch mortality rates than trawl gear, we support an increase in the amount of halibut PSC allocated to fixed gear. Preference for selective gear types, such as longlines, to harvest Pacific Cod results in not only a savings in halibut, but will also reflect in a significant savings in bycatch of crab and salmon. We are concerned that the current 750 mt. PSC limit for the fixed gear fleet may be constraining for 1992. To eliminate this constraint and to encourage fishing with clean gear types, we support an increase of halibut PSC for the fixed gear fleet to 1125 mt.

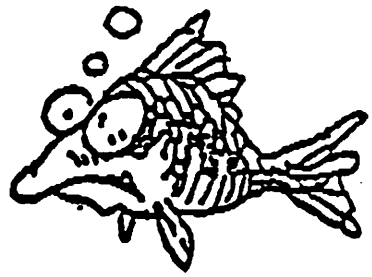
We encourage your adoption of a meaningful bycatch reduction program for the BSAI. Thank you for this opportunity to comment.

Sincerely,

Kris Norosz

Kris Norosz
Director

North
Pacific
Longline
Association



June 18, 1992

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

RE: BSAI Amendment 21 - DRAFT EA/RIR

Dear Rick:

On May 4 and 5 of this year our association submitted letters recommending that Council decisions on proposed Amendment 21 to the BSAI groundfish plan be postponed, or that the issues for analysis be expanded. Some of our recommendations have been incorporated into the revised DRAFT, and for that we are grateful. Others, however, have not. **We respectfully request that further action on Amendment 21 be delayed until the Council has weighed carefully the opportunities for more effective PSC management.** In our view no serious problems will arise if the amendment is not in place at the beginning of 1993.

I. Conservation-Oriented PSC Management

Our primary concern is that the Council does not currently have authority to conserve halibut PSC - in the sense of wise use. Regulations now governing PSC limitations were drafted at a time when only trawlers were subject to PSC caps. Apportionment of halibut PSC to fishery categories is vaguely "based on each fishery's proportional share of the anticipated incidental catch during a fishing year...and the need to optimize the amount of total groundfish harvested...." (50 CFR 671.21[b][1]). Unaccountably this language has been taken to mean that in December of each year the trawl industry should be allowed to apportion its large halibut PSC cap among its fisheries on a seasonal basis, unilaterally. The Council merely rubber-stamps the result - apparently on the theory that the trawl industry is uniquely qualified to determine how to "optimize the amount of groundfish harvestd under established PSC limits." No doubt the trawl industry knows how to maximize its revenues, but that result is not necessarily "optimal" in the sense of wise use of halibut

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PSC. In fact this process allows the trawl industry to allocate TAC to itself through PSC apportionment.

An excellent example was the apportionment of 47% of the total trawl halibut cap - some 2,359 mt - to the trawl fishery for Pacific cod, in December of 1991. Virtually all of it was to be used in the first two quarters of the year. This was a de facto allocation of cod to the trawl fleet, an open invitation to a pulse fishery during the spawning season. Only high halibut bycatch in the "A" season pollock fishery prevented this. We do not want to see this practice continued.

Our view is that in December the Council should review industry performance over the past year - by fishery and gear type - and reduce the amount of halibut PSC apportioned to fisheries which inflict high PSC mortality. In that way halibut PSC could be saved, apportioned to less-developed fisheries, or used to reward clean fisheries (the IPHC Halibut Bycatch Work Group has recommended "a downwards ratcheting of caps starting in 1993 at 10 percent per year...", IPHC Technical Report No. 25, 1992). Note that This process would allocate TAC to some degree, but probably not as dramatically as the process now in use. In the cod fishery, for example, many trawlers can switch to fixed gear and continue to participate.

We believe that the Council should have authority to conserve PSC, in the sense of wise use. This goes beyond maximization of revenues and begins to respond to the widespread public concern about bycatch noted at the National Bycatch Workshop and in the Cancun Declaration of the International Conference on Responsible Fishing. These concerns should be addressed in Amendment 21.

II. Apportionment of Non-Trawl Halibut PSC by Area

Our suggestions that non-trawl halbiut PSC be apportioned by season and fishery have been included in certain alternatives (EA/RIR, p. 1-4). Our request that alternative times and fisheries be set out and analysed for public comment does not seem to have been met, however. We find no such material in the document.

More important, there is no apparent response to our suggestion that the non-trawl halibut PSC be divided by area. This is perhaps the most important of the suggested apportionments. This year freezer-longliners were briefly forced into the Aleutians by ice, and halibut bycatch skyrocketed. FISHERIES INFORMATION SERVICES Bycatch Newssheet No. 87, Monday Issue, 6/15/92, suggests that Area 540 (the Aleutians) continues to be a high bycatch area. Local problems could cause closure of the entire BSAI to all

fixed gear fishing. Problem areas should be identified, and assigned separate PSC limits.

Establishing effective regulations to apportion non-trawl halbiut PSC by time, area and fishery will take considerable analysis, and give-and-take with industry. It does not appear that this essential work has even begun. We would prefer that action on Amendment 21 be postponed until these apportionment measures have been resolved.

III. Halibut PSC Exemptions for Non-Trawl Fisheries

While we have not recently suggested exemptions from halibut PSC limits, we did raise the issue a year ago. Our proposal was for a generic exemption, to apply to any gear - including trawl gear - which could meet a rationally - developed standard (if one can be developed). The standard should be based on considerations of halibut biology, and permissible bycatch mortality rates. The standard should be developed without regard for the performance of any particular gear type. A case-by-case approach such as that apparently suggested in the analysis runs too much risk of being politicized.

In addition, no gear type or fishery should be granted an exemption from halibut PSC limits or observer coverage until the fishery has expanded through its full geographic and temporal range, and has been subject to full observer coverage for two or three years. There are too many variables in our fisheries to grant exemptions without this data.

An example of a fishery which should not be granted an exemption from halibut PSC limits or observer coverage at this time is the BSAI pot fishery for cod - the fishery is in its infancy, and it will be some time before adequate data is available to consider exemptions.

IV. Non-trawl Halibut PSC Mortality Limit

Over the last year we have observed many times that the 750 mt halibut PSC cap was selected arbitrarily. The proposed 50% adjustments of that number are equally arbitrary, based perhaps on the theory that two arbitraries make a rational. We have also emphasized that fixed gear operators should not be punished for clean fishing, by being required to achieve a lower halibut bycatch rate than other gear types. Imagine how we felt last December when the Council allocated only 750 mt of halibut PSC to all BSAI fixed gear fisheries, while apportioning 2,359 mt of halibut PSC (more than three times as much) to the BSAI trawl fishery for cod alone.

If the council proceeds with Amendment 21 at this time, we would recommend adoption of non-trawl alternative halibut PSC mortality limit (1), no limit, or alternative (4), 1,125 mt. The current 750 mt limit may prove constraining on the fixed gear fishery in 1992. As of June 7, fixed gear had inflicted 324 mt of halibut PSC mortality in harvesting 62,661 mt of groundfish. Some 43% of the cap was used in the first five months of the year.

There are a number of factors which may contribute to achievement of the halibut PSC limit in 1992. Historical data show that halibut bycatch in the BSAI hook-and-line fishery has been substantially higher in the latter half of the year; we anticipate the same in 1992. The presence of ice on our usual grounds forced a number of freezer-longliners into the Aleutians earlier this year, where an extraordinarily high halibut bycatch was recorded. Fishing continues in the Aleutians, where bycatch continues to be relatively high. There is no area-specific PSC in place to protect operators in the rest of the Bering Sea. New operators have entered the fishery, and it may be anticipated that their halibut bycatches will be relatively high until they learn to avoid halibut concentrations. To us it seems irrational that a relatively clean gear type should be shut down by an arbitrarily-selected halbiut PSC cap, while others have utilized far more halibut PSC to catch fewer cod.

V. Tradeoff Analysis

Review of the Amendment 21 analysis revealed that a number of values used in the analysis needed to be updated - product prices, vessel production figures, output by product type. A new model run is being made with improved data today. It is anticipated that the results will differ considerably from those published in the May 26 document. For that reason, we are unable to comment on the statistical analysis at this time.

Thank you for your attention.

Sincerely,

Thorn

Thorn Smith

NORTH PACIFIC LONGLINE ASSOCIATION
720 West Blaine St.
Seattle, WA 98119
(206) 283-7700

- Fax Transmission -

DATE: May 6, 1992

TO: NPFMC - Clarence Pautzke & Co.

FROM: NPLA - Thorn Smith Thorn

SUBJECT: Attached Letter on BSAI Amendment 21

PAGES:

We are very much concerned that the portion of BSAI Amendment 21 which addresses halibut PSC caps contains very narrow alternatives which will not allow the Council to realistically address bycatch problems.

These concerns are set out in the attached materials. I hope you will be able to review these comments, and give them some thought.

We feel that the alternatives in this portion of the amendment package should be expanded and analyzed, before the package goes out for public comment.

Thanks for your time and attention.

NORTH PACIFIC LONGLINE ASSOCIATION
720 West Blaine St.
Seattle, WA 98119
(206) 283-7700

May 5, 1992

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

RE: BSAI Halibut PSC Limits - Amendment 21

Dear Rick:

To the extent that we are able to infer its content from the materials available to us, we are concerned that the halibut PSC portion of BSAI Amendment 21 may not realistically address contemporary requirements of bycatch management. We are hopeful that this portion of the Amendment and its supporting analysis will be revised substantially, before it is released for public comment.

The attached letter attempts to make the following points:

1. The proposed halibut PSC cap for fixed gear, 750 mt plus or minus 50%, may be inadequate;
2. The Council may wish to have the ability to apportion halibut PSC between fisheries and gear types to conserve PSC and to maximize harvest of all groundfish species; it may not be able to do so under the separate trawl and fixed gear caps now in the proposal; and
3. The Council should have authority to divide fixed gear apportionments of halibut PSC by time, area and fishery; in our view such divisions should be a included in the analysis, and should be in place as early as possible in the 1993 season.

As you may recall our association, together with the North Pacific Fixed Gear Coalition and the Fisheries Conservation Action Group, has been offering written and oral commentary on the halibut cap issue since June of 1991. We would be very grateful if our concerns were addressed in the Amendment 21 analysis, before it is released to the public. If the Council is provided with an adequate array of alternatives and with timely public comment, we are confident that the it will be able to select a preferred alternative which realistically addresses halibut bycatch issues in the BSAI.

Thank you for your attention.

Sincerely,

Thorn

Thorn Smith

- TRANSMITTED VIA FAX -

NORTH PACIFIC LONGLINE ASSOCIATION
720 West Blaine St.
Seattle, WA 98119
(206) 283-7700

May 4, 1992

Mr. Steve Pennoyer
Regional Director
NMFS Alaska Region
P.O. Box 21668
Juneau, AK

RE: BSAI Fixed Gear Halibut PSC Cap - Amendment 21

Dear Steve:

I have given some additional thought to the fixed gear cap issue, and I am more concerned than ever that the proposed amendment may be inadequate. Of course the analysis of this proposal has not been released to the public, so I must rely on the information in the action memo and on published regulations in making these comments. I would like to ask you again - please - to delay release of the analysis to the public, or at a minimum to add more issues and more analysis, so the Council can select a rational preferred alternative in June. I believe this is well within your authority.

At the April Council meeting we heard considerable testimony suggesting that we have entered a new era of public awareness with regard to bycatch and discards, and that we will have to take action to reduce them - restructuring our fisheries, even if it means economic loss; "No pain, no gain." This reality was emphasized by presentations at the National Bycatch Workshop and by the text of the Preparatory Committee for the United Nations Conference on Environment and Development. It was suggested that bycatch and discard reduction, not minimization of costs imposed by bycatch management, is now the most appropriate objective.

As Halibut Commissioner you are of course particularly sensitive to the need to reduce halibut bycatch in the BSAI region. Your Canadian colleagues remind you at every opportunity. The greatest halibut bycatch in the BSAI occurs in the trawl fishery for cod. Last December the Council approved an apportionment of 2,359 mt of halibut PSC to that fishery - nearly half of the 5,033 mt trawl cap. Steve, there is a problem with our PSC apportionment process when we are devoting that much halibut PSC to a fishery

which accounts for only 9% of the overall OY in the BSAI. This is especially true when we have an alternative method of harvesting cod which is far cleaner in terms of halibut bycatch - to say nothing of crab and salmon. Janet Smoker calculates that hook and line gear is two to ten times as effective in using its halibut PSC to harvest cod, depending on the time period involved and the rate used to calculate trawl halibut bycatch mortality. Consider these figures: in 1990 hook and line gear averaged 0.0058 mt of cod per ton of groundfish caught in the cod fishery - at that rate, hook and line gear could harvest 182,000 mt of groundfish (the 1992 TAC) in the cod fishery with 1,056 mt of halibut PSC. As of April 1 of this year our halibut catch rate was about 0.0034, indicating that if nothing changed we could take the whole cod TAC with about 620 mt of halibut PSC. These rates do vary, and the catch data upon which they are based is imperfect. Nevertheless it is obvious that substantial savings of halibut - to say nothing of crab and salmon - can be achieved through the use of fixed gear in the BSAI cod fishery. Trawlers can switch to fixed gear and avoid being closed out of the fishery, and the halibut savings could be banked or used to further develop the flatfish fisheries. Cod OY would be achieved, and halibut saved or used in other fisheries to increase the net benefit to the nation from our groundfish fisheries. Our PSC apportionment process should allow us to take advantage of these opportunities.

Please consider the following:

I. Status Quo

The April Council action memo on this subject states that the status quo would result in a halibut PSC limit of 5,333 mt for the trawl fishery at the beginning of 1993, and no limit for the non-trawl fishery (see Agenda D-2[f], p.2, attached). If this were the circumstance for a few months in 1993, no harm would be done. It would be a lot better than implementing an inadequate permanent plan amendment just for the sake of having it in place on January 1, 1993. On the other hand, perhaps sufficient additional alternatives and analysis can be prepared for decision in June.

II. Adequacy and Fairness of the Fixed Gear Cap

The one-year 750 mt fixed gear cap (for all BSAI fisheries) was selected arbitrarily, with some vague notion that it might not be constraining on the fixed gear fishery. We do not have adequate experience in the fixed gear fishery to make the latter determination. In the last three weeks or so fixed gear fishermen have been forced off their usual grounds by ice, and have been fishing in the Aleutians - Area 540. Halibut bycatch has increased dramatically. We are still a whole lot cleaner than the trawl fleet, but

halibut bycatch is up. This year it is anticipated that trawlers will switch to longline gear, crab fishermen will fish for cod with pots (these two items I have on good authority), and at some point shoreside delivery longliners will start fishing near the Aleutians. Halibut bycatch may increase for these reasons; 750 mt or 1,125 mt, the alternatives in the proposed amendment, may not be enough for the fixed gear fishery. As we have stated repeatedly, there is no rational basis for requiring that fixed gear fishermen fish more cleanly than mobile gear fishermen with respect to halibut bycatch - especially since they do not take significant numbers of crab or salmon, and do not discard significant amounts of other species. Nevertheless the Council approved an apportionment of 2,359 mt of halibut to the BSAI trawl fishery for cod in 1992, while apportioning only 750 mt to all fixed gear fishermen for all of their BSAI fisheries. This is irrational and unfair, a de facto preferential apportionment of PSC to dirty gear. It is also an open invitation to the trawl fleet to take all or most of the cod TAC in a pulse fishery on spawning stocks - an effective allocation of TAC to trawlers through PSC apportionment. Needless to say, we do not want to see this process enshrined in a permanent amendment.

III. Regulations Specifying BSAI Groundfish Prohibited Species Catch Limitations Should Be Amended to Allow Bycatch and Discard Reduction

The prohibited species regulations at 50 CFR 675.21 were written at a time when only trawl fisheries were subject to PSC limitations. Other gear types are now so limited, and their different bycatch characteristics offer the Council a golden opportunity to reduce bycatch - and to produce PSC savings or PSC for use in other fisheries. The regulations should be amended to give the Council adequate flexibility to address prohibited species and other bycatch problems effectively.

Standards set out for "Apportionment of PSC limits" at 50 CFR 675.21(b) are vague, and should be revised. The standards for "Apportionment to fishery categories" at 50 CFR 675.21(b)(1) are particularly inexplicit, addressing only a fishery's "proportional share of the anticipated incidental catch" of PSC's, and "the need to optimize the amount of total groundfish harvested under established PSC limits." The first standard has the tail wagging the dog, and ignores the fact that the Council should be able to determine how much of a given PSC will be taken in a fishery, by designating that amount - by gear type, if necessary. The second standard, "optimize the amount of total groundfish harvested under established PSC limits" is vague. "Optimization" under the Magnuson Act means more than catching the maximum amount of target species. Conservation is the primary goal of the Act, and

conservation of prohibited species may outweigh maximum TAC harvest - there are tensions and tradeoffs to be made between many of the standards set out in the Act. Nowhere is it written that all of the PSC allowances must be used. On the other hand if the Council wishes to reduce PSC take in a fishery like the cod fishery - as by reducing the halibut PSC apportionment to the trawl fishery - it may generate halibut PSC savings which can be used in an underdeveloped fishery like the flatfish fishery. All of these options are legitimate, and should be spelled out specifically in the regulations.

Regulations at 50 CFR 675.21(b)(2), "Seasonal apportionments of bycatch allowances", could be taken to encourage trawling on spawning stocks. Recent high halibut bycatch in the pollock roe fishery has shown us that trawling on spawning stocks does not necessarily result in high CPUE and low bycatch. Seasonal distribution of PSC's could be used to spread landings over the year, and to avoid intense fishing on spawning stocks. The regulations could be amended to allow for these considerations.

Finally, the regulations at 50 CFR 675.21(b)(4) should be amended to recognize the separate fixed gear fishery for cod.

IV. Separate Trawl and Fixed Gear Caps May not be Appropriate

The most important goal of contemporary bycatch management should be bycatch and discard reduction - even if this means some restructuring of our fisheries and some loss of revenues. The Council should have authority to shift PSC apportionments among gear types and fisheries, to reduce overall bycatch and to encourage fisheries for underutilized species. It is not clear that this can be done if fixed and mobile gear caps are considered to be inviolably separate.

V. The Council Must Have Authority to Divide the Fixed Gear Halibut PSC Cap by Time, Area and Fishery

Trawl PSC is so divided. Current events in the longline fishery demonstrate that local problems in discrete areas and fisheries could cause closure of the entire BSAI area to fixed gear fishing for all species. Not only does the Council need authority to make such specifications in the future, but PSC division of this sort should be implemented as early as possible in 1993. Area 540 might be a place to start. An enlarged overall fixed gear cap will be necessary to afford reasonable flexibility in time, area and fishery. Alternative times, areas and PSC apportionments should be set out for public comment when the Amendment analysis is released.

Steve, in my view it would be a mistake to go forward with this portion of Amendment 21, as it stands. It seems apparent that the proposal fails to recognize the conservation potential of the inclusion of fixed gear under prohibited species caps. PSC's can be apportioned among fisheries and gear types to acheive a number of goals. I think the Council should have a chance to consider those possiblities carefully and to determine for itself whether and how it wishes to use this management tool. It may be controversial and allocative, as you have suggested - but the current process, under which the trawl industry is able to influence the apportionment of a very large cap to its fisheries, is equally allocative of TAC's.

No disaster will befall us if fixed gear operators are not covered by a halibut cap for the early portion of 1993. We should take the time to figure out just what we are doing with halibut PSC caps in the BSAI region before we implement a permanent plan amendment. If you feel you must go forward now, please have your staff introduce changes to address the issues we have raised, and have those changes analysed before June. The public should have an opportunity to comment on these alternatives, in detail. The Council should have the opportunity to choose an effective preferred alternative, and should not be obliged to enshrine outmoded policy in a permanent plan amendment.

Thanks for your attention. We are deeply concerned about this matter, and think that this is the time to straighten things out.

Sincerely,

Thorn

Thorn Smith

2. Re-establish the no-trawl crab protection time/area closures around Kodiak Island:

An FMP amendment is proposed which would re-establish the time and area restrictions on non-pelagic trawling around Kodiak Island to protect king and Tanner crab resources. This action is being considered because the crab protection time and area closures established under Amendment 18 to the GOA FMP will expire December 31, 1992 unless the FMP is amended. Alternatives include:

Alternative 1: no action--there would be no specific closures to protect crab after December 31, 1992.

Alternative 2: extend the existing time/area closure measures for three years.

Alternative 3: implement permanent time/area closures for non-pelagic trawling.

AMENDMENT 21

Amendment 21 to the BSAI Groundfish FMP reflects the priority bycatch issues established by the Council. Included in the EA/RIR for Amendment 21 are the following amendment topics:

1. Establish trawl and non-trawl fishery halibut PSC limits:

An FMP amendment is proposed which would establish 1993 halibut bycatch limits in the BSAI. Amendment 19 to the BSAI groundfish FMP reduced the trawl fishery halibut PSC limit from 5,333 mt to 5,033 mt and established a non-trawl fishery halibut bycatch mortality limit of 750 mt. Both actions were only for 1992 and will sunset on December 31, 1992.

Alternative 1: status quo - would result in a halibut PSC limit of 5,333 mt for the trawl fishery and no limit for the non-trawl fishery.

Alternative 2: three options for each gear group - 50%, 100%, and 150% of the 1992 limits. These are equivalent to:

For trawl: bycatch of 2,516 mt, 5,033 mt, and 7,550 mt.
For non-trawl: mortality of 375 mt, 750 mt and 1,125 mt.

Alternative 3: same as Alternative 2 except replace the trawl bycatch limit with a mortality limit. Assuming a discard mortality rate of 75%, the three trawl options are 1,887 mt, 3,775 mt, and 5,662 mt.

Alternative 4: in addition to Alternatives 2 or 3, allow PSC limits to be changed by regulatory, rather than plan, amendment.

ALASKA CRAB COALITION

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DATE: June 18, 1992

TO: Mr. Rick Lauber, Chairman
North Pacific Fishery Management Council
PO Box 103136
Anchorage, Alaska 99510

FROM: Arni Thomson, Executive Director

RE: COMMENTS ON THE DRAFT EA/RIR OF HALIBUT BYCATCH LIMITS FOR THE TRAWL AND NON-TRAWL FISHERIES FOR AMENDMENT 21 TO THE FISHERY MANAGEMENT PLAN FOR THE GROUNDFISH FISHERY OF THE BERING SEA AND ALEUTIAN ISLANDS

INTRODUCTION:
The Alaska Crab Coalition (ACC) has reviewed the EA/RIR for the proposed Amendment 21 to the Bering Sea/Aleutian Islands Groundfish Fishery Management Plan. The following are comments on the EA/RIR and recommendations for reducing bycatch waste of halibut, crab and chinook salmon species caught in the groundfish fisheries.

As a prelude to these comments, the ACC notes that if the Council takes action on an appropriate combination of alternatives outlined in the analysis, it could provide a conservation based foundation for a phase-in of selective, non-trawl gear, into the cod fishery. Presently bottom trawl gear utilizes 2000 mt (or 40%) of its aggregate halibut bycatch allowance to harvest only 60%-70% of the cod quota. The concomitant phase-out of trawling would reduce bycatch waste in the cod fishery. Non-trawl gear would increase the economic value of the target species.

The EA/RIR demonstrates that longline and pot gears could harvest the entire cod quota of 180,000 mt with a PSC cap of about 1125 mt of halibut mortality. Thus, if a substantial portion of the cod quota were allocated to these clean gears, as the second phase of the bycatch reduction program, this would provide for a substantial savings of the trawl portion of the halibut bycatch quota which could be apportioned to other groundfish fisheries, such as the flatfish fisheries, which are not being fully utilized. Consequently, the value of these fisheries would also be increased. As noted below, this is a significant point that should be recognized in the EA/RIR.

By taking action that will encourage low bycatch impact gears to enter the cod fishery, the NPFMC would take a leadership role in developing regulations consistent with fisheries management policies recently approved at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro.

Included in the agreed upon UN policies are the following: that "States should commit themselves to the conservation and sustainable use of living marine resources" both in the Exclusive Economic Zones and on the high seas. It was recognized that "overcapitalization and excessive fleet sizes... insufficiently selective gear, and unreliable data bases" are among the problems plaguing the world's fisheries.

The UN further agreed that, "it is necessary to...promote the development and use of selective fishing gear and practices that minimize bycatch of non-target species...preserve rare or fragile ecosystems as well as habitats and other ecologically sensitive areas...take measures to increase the availability of marine living resources as human food by reducing wastage, post-harvest losses and discards, and improving techniques of processing, distribution, and transportation...and develop and promote the use of environmentally sound technology under criteria compatible with the sustainable use of marine living resources including assessment of environmental impact of major new fishery practices...."

At UNCED the theme of "sustainable development" emerged to "fuse environmentalism and economics into a single constructive force." This is already being recognized as a new philosophy of lasting significance. (Newsweek, June 15, 1992.) The philosophy will have widespread application for the commercial fishing industry. One of the most obvious policy applications for bycatch regulatory purposes is already provided for under the legal authority of the MFCMA. Language regarding "sustainable yield" can simply be substituted for "optimum groundfish yield."

Additional public awareness is developing on bycatch waste and public pressure for improved regulatory measures can be anticipated in the near future. This is evidenced in the feature article in the current issue of U.S. News and World Report, June 22, 1992, "The Rape of the Oceans, the growing threats to the nation's last frontier."

RECOMMENDATIONS:
The ACC recommends a combination of options outlined in Alternatives 2.1 through 2.4 for trawl and non-trawl fisheries.

FOR TRAWL FISHERIES BYCATCH LIMITS, the ACC recommends a five year plan which reduces halibut PSC limits by 10% per

year, focused on the allowance for the cod trawl fishery. This is the best alternative, as clean gears are already in use in that fishery. This would equate to a reduction of 500 to 750 tons per year, and ultimately would support a 2500 ton cap for the trawl fisheries in the Bering Sea.

This recommendation is consistent with the recommendations of the International Pacific Halibut Commission, as noted in the "Report of the Halibut Bycatch Work Group," Technical Report No. 25, 1992, page 29.

The cap should continue to be specified in the FMP, for both trawl and non-trawl fisheries. Although the EA/RIR makes claims that a mortality based cap will provide an incentive for reducing bycatch under the Vessel Incentive Program (VIP), the present VIP is ineffective and it becomes a false premise for changing the catch-based bycatch measurement system in Bering Sea trawl fisheries. There is further discussion about the VIP below.

The EA/RIR shows that Bering Sea trawl halibut bycatch mortality for 1991 was 5300 tons. This was more than 50% of the 1991 coast-wide bycatch mortality of 10,000 tons. (See page 2-3 and Tables 2.1 and 2.3.)

Thus it is justifiable to focus on the trawl fisheries in this area for development of a 50% bycatch reduction schedule, as this single regulatory action will return the largest benefits to the coast-wide setline fishery and the Bering Sea bairdi crab fishery.

Thus, the EA/RIR shows that if non-trawl gear is used to harvest the cod TAC (the implied alternative, if the halibut cap is reduced 50%), not only will there be a saving of approximately 1000 mt, and likely more, of halibut, but also a savings of 500,000 to 700,000 bairdi crab and approximately 4,000 to 6,000 chinook salmon. A reduction of 5000 chinook salmon will achieve a 16% reduction in the bycatch of these species, based on an annual take of 30,000 chinooks in the Bering Sea.

The potential savings of mixed stocks of chinook salmon is significant, in light of the widely publicized conservation problems facing chinook salmon off the Pacific Coast States, the Bristol Bay area and the Kenai River.

The EA/RIR analysis is not free of defects, however. It exaggerates the costs of a 50% bycatch reduction program, by greatly overstating the proportion of trawl-caught cod production for the high value fillet market. This also results in understating the overall freezer-longliner headed and gutted product. This part of the analysis needs to be revised accordingly. (Reference: Robert Alverson, FVOA, Inc. correspondence to Joe Terry, Economist, NMFS, June 12, 1992.)

The Amendment 21 analysis makes repeated reference to individual accountability being the most effective bycatch reduction measure. However, under the present Vessel Incentive Program (VIP) with no citations having been made against individuals and no fines levied, it is of little value to attempt to make any meaningful projections about bycatch reduction with the program as it is presently structured. The NMFS legal costs associated with an effective VIP and the industry costs for observers could preclude full development of the program. (The analysis for the North Pacific Research Plan shows that additional observer coverage needed for a VIP program will cost $4.5 million.) An alternative method of individual accountability may have to be developed. Thus, the conclusions drawn from this section of the analysis which support status quo for the trawl fishery limit do not relate to the reality of the limited resources of the NMFS for effective implementation of the Vessel Incentive Program.

Given NMFS limited resources for implementation of an effective bycatch accountability program for groundfish fisheries at this time, and the potential long term benefits for the halibut, crab and salmon industries, it seems the NPFMC and the NMFS have an MFCMA conservation and wise use obligation to move ahead with an aggregate halibut bycatch quota reduction program until a more progressive individual accountability program can be developed in the future to reward the clean fishermen.

The lack of funds available for the development of a VIP are not of a short term nature. They could be ongoing for two or more years. This is readily apparent as noted in the minutes of the NPFMC Observer Oversight Committee meeting of June 11, 1992.

The above discussion of the inadequacy of the VIP also leads to serious questions about the rationale for switching to a mortality based trawl bycatch limit at this time. However, these questions are not raised in the EA/RIR.

At this time it seems appropriate that the NPFMC delay moving to a mortality based system for halibut bycatch, until an effective VIP program is in place. This would provide the trawl industry with an incentive to cooperate more aggressively with the NMFS on the development and implementation of an effective VIP.

IN REGARDS TO THE NON-TRAWL FISHERIES BYCATCH MORTALITY LIMITS, the ACC recommends that the NPFMC set the limit at 1,125 mt as this will provide an incentive for clean gear types, pot and longline boats to harvest the entire cod quota, while providing the basis for reducing trawl bycatch mortality by 1000 mt. The present cap of 750 mt could be constraining on the clean gear types and become a

disincentive for them.

A review of bycatch data shows the groundfish catch to halibut bycatch ratio for non-trawl gears is conservatively 105:1. This is more than twice the ratio of the trawl cod/groundfish catch to halibut bycatch ratio of 43:1. There is a corresponding difference between the gear types in terms of the bycatch mortality rates per ton of cod/groundfish. For 1991, the rate for hook and line gear was .59%; for pot gear .10%; and for trawl gear, 1.5% halibut per mt of cod in the directed fishery. (NMFS Alaska Region, June 6, 1992).

The trawl fishery halibut bycatch mortality rate is three times that of the combined non-trawl gear halibut bycatch mortality rate in the Bering Sea cod fishery.

DEVELOPMENT OF AN EXEMPTION PROCEDURE FOR NON-TRAWL GEAR
To provide an additional incentive for clean non-trawl gear types, the ACC recommends that the NMFS, in consultation with the NPFMC, establish procedures to determine annually which non-trawl fisheries are to be exempt from the non-trawl PSC limit or allowances. The ACC notes that this request is consistent with the precedent already established for the Gulf of Alaska, where the pot gear fishery for Pacific cod, primarily by demonstrating its low halibut bycatch mortality rate of .05% has been granted an exemption from the halibut bycatch PSC cap.

Amendment 21
Supplemental

Table 3.4 **Changes in household income and total community impacts due to increases in landings.**

Fishery/Impact	Alaska	Alaska & PNW
Halibut--1 mt		
Direct Income	$1,311	$4,716
Total Impacts	$1,893	$8,671
FLL Pacific Cod--104 mt		
Direct Income	$11,530	$95,373
Total Impacts	$28,245	$216,921
F/T Pacific Cod--43 mt		
Direct Income	$3,757	$33,555
Total Impacts	$6,108	$68,966

Note: These estimates were calculated using the Alaska Fishery Economic Assessment Model (FEAM), based on 1991 cost and revenue information. The FEAM model calculates direct income as the sum of net returns to owners, fishing crew wages, and processing crew wages. Total dollar impacts (direct, indirect, and induced) are estimated using input/output type multipliers. Income and dollar impacts in Table 3.4 are not adjusted for payments to foreign interests. The economic values are estimates of the effects of the incremental tonnages in the fisheries indicated. Differences in product form and value added among fisheries, gear groups, and location affect both income and total dollar results. Halibut is modeled as a catcher vessel delivery ($1.75/lb exvessel) to a BS/AI inshore processing plant with a finished product (H&G) price of $2.52/lb. The roundweight cod tonnages are converted to product weight and value according to the following assumptions. Longline cod is harvested and processed by a BS/AI freezer-longliner based on a 52.6% yield of H&G product at $1.27/lb. Factory trawler cod is modeled as 5.9% whole ($1.25/lb), 15.9% H&G ($1.24/lb), 7.1% fillets ($2.39/lb), 1.1% mince ($1.13/lb), and 2.3% meal ($.28/lb). Roundweight tonnage was converted to product weight based on NMFS product recovery and discard rates.

AGENDA D-2(a-b)
JUNE 1992
SUPPLEMENTAL

WALTER J. HICKEL
GOVERNOR

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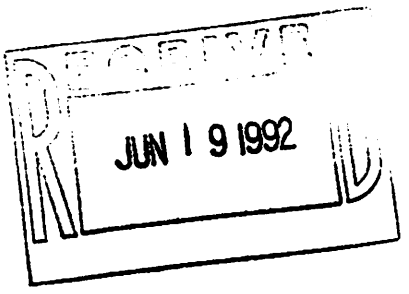

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

June 17, 1992

Mr. Richard Lauber, Chairman
North Pacific Fishery Management Council
P.O. Box 102136
Anchorage, AK 99510

Dear Chairman Lauber:

I am writing to express the support of the State of Alaska for Amendment 26, the closure of waters east of 140 degrees west longitude to all trawling. I have watched with increasing concern as factory trawlers moved into the waters off Southeast Alaska. Trawl effort is not appropriate in this area; factory trawlers threaten the Southeast resource and the Southeast coastal communities.

The area is rugged and supports an abundance of fragile, rare habitat easily damaged by bottom trawls. The geologic configuration, the ecological composition, and the socioeconomic climate of Southeast set it apart from the rest of the Gulf and the Bering Sea. The narrow shelf results in small quotas; the high volume factory trawlers regularly exceed these quotas causing management and conservation problems. The shelf is close to shore, making deep water fisheries accessible to the locally-based, small boat hook and line fleet. These vessels are dependent on local resources, and the socioeconomic health of local communities is dependent on the hook and line fleet.

Factory trawlers operating in Southeast are targeting depleted deep-water rockfish stocks, pressuring a species widely recognized as vulnerable to exploitation; meanwhile trawler bycatch of groundfish, rockfish, and other species that sustain the local hook and line fleet are exacerbating management and conservation problems.

Hook and line fishing has proven to be a sustainable method of harvesting Southeast fish stocks. At the United Nations conference in Rio, countries condemned wasteful fishing techniques and committed to promoting sustainable, environmentally-sound techniques and technology--the hook and line tradition of Southeast deserves this protection and promotion.

Finally, it is unthinkable that eleven highly mobile factory trawl vessels should be allowed to hinder over 3,000 resident fishermen of small Alaskan coastal communities in the harvesting of local resources. Southeast residents and city assemblies have clearly voiced their concern. The threat is real and the need for action immediate. Your swift approval of Amendment 26 is urged by the state as a whole and my administration in particular.

With best regards.

Sincerely,

Walter J. Hickel
Governor

ED WYMAN

SUMMARY OF HALIBUT BYCATCH MORTALITY BETWEEN GEAR TYPES FISHING PACIFIC COD

	Initials	Date
Prepared By		
Approved By		

	1 1991 BSAI POT	2 1991 BSAI H+L	3 1991 BSAI TRAWL
PACIFIC COD CATCH - MT	4361	69,792	94,287
HALIBUT MORTALITY - MT	4.6	409.4	1,838
MORTALITY PERCENTAGE	.00105	.0058	.0195
MT OF PACIFIC COD PER MT OF HALIBUT BYCATCH	948:1	170:1	51:1
	(TO 6-14-92)	(TO 5-24-92)	(TO 5-24-92)
	1992 BSAI POT	1992 BSAI H+L	1992 BSAI TRAWL
PACIFIC COD CATCH MT	4096	56,125	67,535
HALIBUT MORTALITY MT	3.2	247.3	1,683
MORTALITY PERCENTAGE	.00078	.0044	.025
MT OF PACIFIC COD PER MT OF HALIBUT MORTALITY	1280:1	227:1	40:1

National Marine Fisheries Service
Alaska Region
June 6, 1992

Table 1. Groundfish harvest, halibut bycatch and bycatch mortality in the 1991 BSAI non-trawl groundfish fisheries through December 31, 1991 (in metric tons).

FISHERY	GROUNDFISH	HALIBUT BYCATCH	HALIBUT MORTALITY
Hook & Line Pac. cod	69,792	2,559.1	409.4
Hook & Line Sablefish	3,542	230.4	36.9
Hook & Line Rockfish	80	11.8	1.9
Hook & line other grdfh	1,102	91.5	14.6
Total Hook & Line	**74,516**	**2,892.8**	**462.8**
Pot Pac. cod	4,361	38.2	4.6
Pot other groundfish	9	0.5	Trace
Total Pot	4,370	38.7	4.6
TOTAL NON-TRAWL	**78,886**	**2,931.6**	**467.4**

171 : 1
.589 MT

948 : 1
.120 MT

* Assumed mortality rates of .16 for hook & line gear and .12 for pot gear.

Table 2. Groundfish harvest, halibut bycatch and bycatch mortality in the 1991 GOA non-trawl groundfish fisheries through December 31, 1991 (in metric tons).

FISHERY	GROUNDFISH	HALIBUT BYCATCH	HALIBUT MORTALITY
Hook & Line Pac. cod	7,280	953.0	152.5
Hook & Line Sablefish	20,911	4,144.2	663.1
Hook & Line Rockfish	580	57.3	9.2
Hook & line other grdfh	112	11.1	1.8
Total Hook & Line	**28,883**	**5,165.6**	**826.5**
Pot Pac. cod	10,523	48.7	5.8
Pot other groundfish	122	trace	trace
Total Pot	10,645	48.7	5.8
TOTAL NON-TRAWL	**39,529**	**5,214.3**	**832.3**

2.089 MT

.059 MT

* Assumed mortality rates of .16 for hook & line gear and .12 for pot gear.

Table 3. Groundfish harvest, halibut bycatch and bycatch mortality in the 1992 BSAI non-trawl groundfish fisheries through May 24, 1992 (in metric tons).

FISHERY	GROUNDFISH	HALIBUT BYCATCH	HALIBUT MORTALITY
Hook & Line Pac. cod	56,125	1,545.9	247.3
Hook & Line Sablefish	1,300	122.4	19.6
Hook & Line Rockfish	0	0	0.0
Hook & line other grdfh	19	0.6	0.1
Total Hook & Line	**57,444**	**1,668.9**	267.0
Pot Pac. cod	2,250	19.3	1.9
Pot other groundfish	0	0.0	0
Total Pot	2,250	19.3	1.9
TOTAL NON-TRAWL	**59,694**	**1,688.2**	268.9

224:1
.44%
1184:1
.08% BKS

* Assumed mortality rates of .16 for hook & line gear and .10 for pot gear.

Table 4. Groundfish harvest, halibut bycatch and bycatch mortality in the 1991 BSAI non-trawl groundfish fisheries through May 26, 1991 (in metric tons).

FISHERY	GROUNDFISH	HALIBUT BYCATCH	HALIBUT MORTALITY
Hook & Line Pac. cod	25,028	377.0	60.3
Hook & Line Sablefish	1,279	55.3	8.8
Hook & Line Rockfish	78	11.6	1.8
Hook & line other grdfh	104	10.1	1.6
Total Hook & Line	**26,489**	**454.0**	**72.6**
Pot Pac. cod	53	0.5	0.1
Pot other groundfish	0	0.0	0.0
Total Pot	53	0.5	0.1
TOTAL NON-TRAWL	**26,542**	**454.6**	**72.7**

.24%

* Assumed mortality rates of .16 for hook & line gear and .12 for pot gear.

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JUNE 20, 1992

SOUTHEAST TRAWL CLOSURE: AMENDMENT 26

POTENTIAL FOR TRAWL IFQs, RECENT PLAN AMENDMENTS, OR PROPOSED REGULATORY AMENDMENTS TO RESOLVE EXISTING CONFLICTS IN THE SEO AREA

The Amendment 26 analysis suggests that recent, or proposed regulatory or plan amendments could alleviate some of the problems associated with trawling in the Southeast Outside area. Members of the factory trawl industry have suggested trawl IFQs as a management solution. For the reasons detailed below, the Alaska Longline Fishermen's Association maintains that only complete closure to trawling of the waters east of 140 degrees W. Longitude will eliminate existing problems.

REGULATORY AMENDMENTS

1. Reducing the trawl bycatch retention of demersal shelf rockfish (DSR) from 10% to 1%: DSR stocks are managed close to biological thresholds. In 1991, one trawler's misreported bycatch of DSR threatened to trigger the overfishing definition for DSR. This would have preempted both the local longline DSR fishery and the Southeast fall halibut fishery. At ALFA's request, the National Marine Fisheries Service (NMFS) closed Southeast to trawling through an in-season management action, and later developed a regulatory amendment that reduced the allowed trawl retention of DSR from 10% to 1%. Although this amendment is scheduled to take effect later this summer, it offers little protection to the DSR resource.

NMFS has not demonstrated an ability to manage the fast-paced, high volume trawl fisheries to stay within small TACs, as is evidenced by the number of times factory trawlers have dramatically exceeded quotas in the Eastern Gulf (by as much as 737%). The high-volume, non-selective gear used by the rockfish factory trawl fleet can significantly exceed the 1% allowed bycatch rate in a matter of days. The SEO DSR fishery is fully-utilized by the local hook and line fleet and, as mentioned, managed close to the biological

threshold. Although the 1% limit may prevent factory trawlers from targeting DSR, it will not prevent incidental trawl bycatch of DSR from overfishing the resource and preempting traditional fisheries.

The 1991 reclassification of the slope rockfish complex increases the likelihood of trawlers exceeding the 1% DSR trawl bycatch rate. In 1991, the slope rockfish complex was divided into Pacific ocean perch (POP), RE/SR, and "other (slope) rockfish." Two of the dominant species in the new "other rockfish" complex are redstripe and silvergrey. These species were previously classified as part of the DSR complex and are now considered transitional between DSR and deep-water rockfish (1991 SAFE Report). The Amendment 26 analysis states that "it is unlikely that either species could be targeted to any extent without a very high bycatch of DSR" (p. 2-69). The Eastern Gulf "other rockfish" TAC is 6160 mt. The DSR TAC is only 550 mt. Significant amounts of DSR are likely to be taken by trawl vessels prosecuting the "other rockfish" fishery.

The DSR complex is prosecuted by a locally-based hook and line fleet. The fishery is managed by the Alaska Department of Fish and Game (ADF&G) with strict, highly conservative guidelines. These guidelines include trimester apportionments, mandatory log books, dock-side sampling, 7500 lb trip limits, and "hot spot" authority. Sub-areas are closed by ADF&G to prevent localized depletion or overfishing of any species within the DSR complex. Longline DSR bycatch in other fisheries is subtracted from the TAC before harvest guidelines for the directed DSR fishery are established. ADF&G's close management and the slow pace of the directed longline fishery allow for full utilization of the DSR resource while preventing overfishing. Longliners have never exceeded the annual DSR quota.

ADF&G is capable of micro-managing the longline DSR fishery to ensure timely availability of catch data. Because factory trawlers harvest large volumes of fish and process at sea, NMFS can only macro-manage the factory trawl fisheries and does not have timely access to reliable species composition data. As a result, the 1% trawl DSR bycatch rate does not prevent factory trawlers from overfishing sub-areas, individual species within the DSR complex, or the DSR complex as a whole. Finally, the 1% DSR rate does not protect the traditional longline fisheries from being preempted by excessive trawl bycatch.

2. Daily catch reporting: Daily catch reporting by rockfish trawlers operating in the Southeast Outside area has been proposed as a means of restricting trawlers to the 1% DSR bycatch rate and thereby protecting stocks and local fisheries. According to NMFS data managers, daily catch reporting generally results in a two to three day lag while data is entered and analyzed (J.Smoker, Fisheries Information Service; G.Tromble, NMFS). Verification of reported data can cause additional delays, since reports must be checked with on-board observers. (Verification and reclassification of the misreported DSR trawl bycatch in Southeast last year took several months.) On February 19, 1992, all Western Gulf groundfish fisheries were directed by NMFS to submit by FAX or telex daily production reports. Despite these requirements, the Western Gulf Pacific cod quota was exceeded several weeks later by 44% or 10,292 mt. During a recent conversation, one NMFS data manager stated: "I can't say that we have ever used daily catch reports where they have really been successful" (G.Tromble). As mentioned, the DSR TAC is only 550 mt and the fishery is fully-utilized by the local hook and line fleet. Clearly, daily catch reporting offers little protection to the DSR resource or the DSR longline fishery.

3. Delaying the rockfish trawl fishery:
NMFS recently implemented a regulatory amendment delaying the rockfish trawl fishery from January 1st until June 28th. This Amendment went into effect in March of this year. This delay should reduce the salmon and halibut bycatch rates incurred by this fishery. However, delaying the rockfish trawl fishery fails to address the conservation and socioeconomic impacts of trawling in the Southeast Outside area. As identified in the Amendment 26 analysis, these concerns include: pressure on depleted rockfish stocks, localized depletion of area-specific species, damage to sensitive habitat, and preemption of locally important fisheries.

As the SAFE Report and Amendment 26 analysis indicates, Pacific ocean perch (POP) stocks remain significantly below historic levels. The SAFE Report also states that the POP biomass is primarily composed of reproductively immature fish. Recent submersible studies on Pacific ocean perch conducted by K. Krieger, NMFS Auke Bay Lab. found that "the trawl gear herded rockfish into the opening of the trawl," and that this "possible herding effect...may result in systematic overestimates of abundance for this species in bottom trawl surveys" (K.Krieger, 1992). These recent findings suggest that POP stocks may be more depressed than the SAFE Report indicates.

Delaying the rockfish trawl fishery will not relieve the pressure on these depleted stocks.

The rockfish conservation problem is further exacerbated in the SEO district by the narrowness of the shelf/slope area and the abundance of rocky, high relief terrain. The analysis shows that in the SEO area there is very little smooth-bottom suitable for trawling. These physical characteristics serve to concentrate trawl effort. Rockfish are widely recognized as being non-migratory and area specific. The analysis states that concentrating trawl effort in the few SEO areas suitable to trawling may result in localized depletion of rockfish stocks.

Submersible observations have recorded deep trawl furrows in the smooth-bottom habitat of the Southeast Outside area (East Yakutat district). Ken Krieger, NMFS Auke Bay Lab., has provided video footage of these tracks that I would like to show to members of the Council// David Slater of Delta Oceanographics and the submersible pilot during the 1992 SEO studies, reported seeing row after row of trawl furrows in the smooth-bottom areas (pers. comm.) Again, the analysis discusses the conservation problems associated with concentrating trawl effort in the limited smooth-bottom habitat found in the Southeast Outside area. Delaying the rockfish trawl season is not expected to reduce trawl activity in the SEO area, since the factory trawl fleet is fully capable of harvesting Southeast rockfish quotas in six months, hence will not address this conservation concern. It may, in fact, serve to further concentrate effort and increase impacts.

Rougheye and shortraker rockfish are commonly associated with rocky, high-relief terrain. Factory trawlers operating in the SEO area are developing techniques that allow prosecution of these species despite the rugged nature of the terrain (K.Krieger, pers. comm.). As the analysis indicates, the rocky areas of the SEO area support a relatively high abundance and diversity of fragile deep-water corals. Although the Triennial Trawl Survey vessels attempt to avoid the rough-bottom terrain, in 1990 eight survey tows reported the occurence of significant amounts of coral; one tow reported Primnoa coral occuring at a rate of 4078 lb/hr (Derrah, 1990). Submersible studies in the Southeast Outside area have attributed to trawl impact the displacement of boulders 5 to 10 feet in diameter (K. Krieger, NMFS Auke Bay Lab., pers. comm.). David Slater of Delta Oceanographic reported seeing pieces of broken coral.

These corals are presumed to be long-lived and slow growing; Primnoa, for example, is predicted to have a growth rate of 1 cm/yr (Cimberg, 1981). Clearly hard impact could seriously damage rough-bottom, coral areas. Delaying the rockfish trawl season will not mitigate this problem.

As the analysis indicates, information on Southeast Alaska's deep-water corals is scarce. Faced with the same scarcity of information on coral/trawl interaction, in 1988 the South Atlantic Fishery Management Council voted to prohibit trawling in coral areas (South Atlantic Fishery Management Council, 1988). Given that cold water corals may be slower growing and have a lower rate of production than the warm water corals protected by the South Atlantic Council, it seems appropriate that the North Pacific Council take an equally conservation-minded approach.

Delaying the rockfish trawl season also will not eliminate socioeconomic conflicts associated with trawl effort in the SEO area. The directed longline DSR quota is allocated in trimesters. Although delaying the rockfish trawl fishery will prevent trawlers from preempting the DSR fishery during the first half of the year, trawl bycatch of DSR following the June 28th opening could still preempt the summer and fall longline fisheries. ALFA has testified in the past on the importance of the hook and line DSR fishery to the local small boat fleet. This year, NMFS' concern regarding the agencies ability to prevent factory trawlers from exceeding small TACs resulted in Eastern Gulf Pacific cod being listed as "bycatch only" with three-quarters (750 mt) of the TAC remaining (G. Tromble, pers. comm.). This listing prevented local longliners from prosecuting the traditional P. cod bait fishery prior to the spring and fall halibut openings. Delaying the opening of the rockfish trawl season would protect the spring bait fishery but would leave the fall fishery in jeopardy.

The delayed opening of the rockfish trawl fishery is predicted to significantly decrease this fisheries' salmon and halibut bycatch. The Southeast salmon troll fishery opens on July 1st. Salmon trollers frequently target cohos along the 100 fathom edge, which is the area fished by trawlers targeting deep water rockfish (i.e., Pacific ocean perch). Conflicts are likely to occur between the troll fleet and the rockfish trawl fleet. The Southeast troll fleet is limited to fishing waters east of 147 degrees W. Longitude; the factory trawl fleet regularly fishes other areas.

TRAWL ROCKFISH IFQs:

Opponents of the Southeast trawl closure have suggested that issuing rockfish IFQs to trawlers would eliminate existing conflicts. Although the implementation of IFQs would address management problems related to trawlers exceeding TACs, it would eliminate neither the bycatch nor the conservation problems discussed above. The narrowness of the Southeast shelf/slope results in extensive mixing of fish species; since factory trawl gear is by design high volume and non-specific, trawl effort in the Southeast Outside area is likely to result in significant bycatch of DSR and other commercially valuable species even under a limited entry regime. The implications of trawl bycatch in this area are exacerbated by the relatively high abundance of long-lived, low-production species and the management of many stocks close to biological thresholds (Bracken and Bibb, Amendment 26 analysis). Finally, rockfish IFQs will not address the habitat impacts described under the section above.

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From Testimony (ALFA) 4/27
Linda Behnken

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especially when applied to species that may be somewhat pelagic in distribution. Pelagic shelf rockfish are presently managed using an F=M strategy, in which the annual exploitation rate is set equal to the rate of natural mortality. Based on the recent age and growth study for dusky rockfish, natural mortality of dusky rockfish is estimated to be 0.09. Applying this exploitation rate to the current exploitable biomass yields a Gulfwide ABC of 6,886 mt for 1992.

In 1991, a small boat jig fishery for black rockfish (one of the species in the pelagic shelf group) developed in the central Gulf of Alaska in the Kodiak-Kenai Peninsula area. This fishery took a sizeable proportion of the reported catch for pelagic shelf rockfish in this region. To prevent future selective overexploitation of this species, the Gulf of Alaska Groundfish Plan Team recommended that black rockfish be split from the pelagic shelf assemblage, and that it be assigned a separate value of total allowable catch. The North Pacific Fishery Management Council decided, however, that there were insufficient data to enact this recommendation in 1992.

(Dave Clausen (907)789-6049)

3. Slope rockfish

a. Research

Submersible/Trawl Studies of Slope Rockfish

The NOAA research vessel John N. Cobb, the manned submersible Delta, and the submersible tender MV Pirateer completed a 12-day combined cruise on 16 June 1991. Study sites, located offshore of Iphigenia Bay in southeastern Alaska to Yakutat Valley in the northern Gulf of Alaska, were surveyed from the submersible to determine the numbers, spatial distribution, and habitat of offshore rockfish. Selected sites were then trawled by the RV John N. Cobb to confirm identities and quantities of fish observed visually from the submersible. Nine submersible/trawl comparisons were made in 1991, adding to the nine similar comparisons made in 1990. Observations from 30 submersible dives in 1991 confirmed the behavior and habitats occupied by rockfish on 20 previous dives in 1988 and 1990. Depths of submersible dives ranged from 188 to 365 m. Counts of Pacific ocean perch and other rockfish, as well as comments made by personnel aboard the submersible and tender vessel, were recorded on video tape along 4 transects across a rectangle 0.25 nmi wide by 0.3 nmi long. Observation along the transects was limited to 7 m distance as determined by a portable sonar gun.

Submersible observations of fish behavior and habitats provided insight a[illegible]. Most Pacific ocean perch were in groups of 2-200 individuals located over flat, pebble substrate. Individual fish within the group were 1-4 m apart, usually oriented into the current, and distributed 0-7 m above the bottom. When approached closely, these fish dove for the bottom. Sho[illegible]ng t[illegible] These fish were on or near the bottom, solitary, and showed little or no reaction to the close approach of the submersible. Other Sebastes spp. were associated with rugged habitat such as cobble, boulders, and coral.

[illegible] indicating that the trawl gear th[illegible] h[illegible] this possible herding effect [illegible] for smoother substrate may result in [illegible] of Pacific [illegible] for this species in bottom trawl s[illegible]

(Ken Krieger 907-789-6053 or Dick Haight 907-789-6052)

1992

EXCERPT

O'Connell

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Environmental impact of trawling on the seabed: a review

J. B. JONES
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Abstract Fishers have been complaining about the effects of bottom trawl gear on the marine environment since at least the 14th century. Trawl gear affects the environment in both direct and indirect ways. Direct effects include scraping and ploughing of the substrate, sediment resuspension, destruction of benthos, and dumping of processing waste. Indirect effects include post-fishing mortality and long-term trawl-induced changes to the benthos. There are few conclusive studies linking trawling to observed environmental changes since it is difficult to isolate the cause. However, permanent faunal changes brought about by trawling have been recorded. Research has established that the degree of environmental perturbation from bottom trawling activities is related to the weight of the gear on the seabed, the towing speed, the nature of the bottom sediments, and the strength of the tides and currents. The greater the frequency of gear impact on an area, the greater the likelihood of permanent change. In deeper water where the fauna is less adapted to changes in sediment regimes and disturbance from storm events, the effects of gear take longer to disappear. Studies indicate that in deep water (>1000 m), the recovery time is probably measured in decades.

Keywords New Zealand; trawling; environment; damage; impact; effects; benthos; sediment; mortality

INTRODUCTION

There is growing public and political awareness of the environmental impact of fishing activities. This is reflected in the U. N. Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) which requires (Article II) that signatory States harvest resources in such a way that the direct and indirect effects on the marine ecosystem are minimised, and that changes which are not potentially reversible over 2 or 3 decades are prevented.

The long-established technique of bottom trawling is attracting increasing criticism over the perceived environmental damage it may cause. This is of particular concern in Australasia where commercial fishers are developing new trawling grounds down to 1200 m (Judd 1989) and will certainly fish deeper as technology improves. Whether bottom trawling causes environmental damage which is not potentially reversible over a few decades is the subject of this paper. For the purposes of this review, bottom trawling includes the use of beam trawls, dredges, otter trawls, and Danish seine-nets, but not hydraulic clam dredges. A review of the effects of the latter can be found in Meyer et al. (1981).

Historical overview

As early as 1376 the British Parliament was petitioned by fishers concerned over the damage done to their fisheries by bottom trawling. Early complaints included the capture of undersize fish, the indiscriminate capture of non-target species, and a perception that fishing was deteriorating. Trawling also destroyed "the living slym and underwater plants" (March 1970; De Groot 1984). Gear used by sailing beam trawlers was relatively light and was towed at slow speed in shallow water. It was not until the advent of the steam trawler in the 1900s that the size and weight of the trawl gear began to increase, in particular through the use of "tickler" chains (chains between the wings of the trawl scraping the seabed ahead of the footrope). Following complaints from fishers, one of the earliest studies on the effects of such gear was carried out during 1938 on the plaice

M91040
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SUMMARY AND CONCLUSIONS

From the work performed under the aegis of ICES, it would appear that beam trawls, otter trawls, and dredges are all basically similar in their effect. Generally, the heavier the gear in contact with the seabed, the greater the damage. The effects vary greatly depending on the amount of gear contact with the bottom, together with the depth, nature of the seabed, and the strength of the currents or tide.

In areas of tide and current, the resuspension of the sediments is of short duration and the effects of the sediment redeposition are not permanent on biota adapted to storm events and sediment transport by currents. However, in areas of little water movement such as in the deep ocean, where the benthos is not adapted to high sediment loads, the adverse effects of sediment resuspension by gear could persist for decades.

The removal of the macrobenthos also has variable effects. In shallow-water areas where the damage is intermittent, recolonisation soon occurs. However, where the macrobenthos is substantially removed and recovery is not permitted (such as the *Sabellaria* beds of the Wadden Sea and the bryozoan beds of Tasman Bay), the change is permanent.

The predicted changes in shallow-water communities, a relative increase in *r*-strategists such as polychaetes (where population size is determined by the intrinsic rate of population growth *r*) and a decrease in *K*-strategists such as molluscs and crustaceans (population size is determined by the carrying capacity of the environment *K*), have been observed in the Wadden Sea (Riesen & Reise 1982), the Kattegat (Pearson et al. 1985), and the English Channel (Holme 1983). There is, however, great difficulty in attributing such observed long-term changes in the benthos to the effects of trawl gear alone, since natural fluctuations and other changes such as chemical dumping and eutrophication have undoubtably occurred (Pearson & Barnett 1987; Rees & Eleftheriou 1989).

Most shallow coastal Northern Hemisphere grounds have been fished for centuries and have at the same time been affected by land use changes such as deforestation, pollution, and war. The marine environment was probably changing and adapting before modern "baseline" measurements began (about 100 years ago). The North Sea is not the best place for detecting environmental changes resulting from trawling, but this is where most of the studies have been done.

It is also noticeable in reviewing the literature that authors have underestimated the sampling problems inherent in trying to attribute observed changes to a single cause. Simple pre- versus post-treatment designs, or plot comparison designs (such as that of Graham (1955), do not allow for the separation of effects resulting from the treatment from those effects resulting from other causes (Walters et al. 1988). In addition, many types of impact do not change long-run mean abundances (Underwood 1991). Experimental designs suitable for assessing transient responses to environmental disturbances are becoming available and should be used (Walters et al. 1988; Faith et al. 1991; Underwood 1991).

The evidence is that bottom trawling has an impact on the environment, but that the extent and duration of that impact varies depending on local conditions. There is an urgent need to carry out trawling impact studies in deeper water (> 500 m) since this is where studies indicate that effects could be severe and that any recovery may be measured in decades. Changes to the seabed, by whatever cause (and bottom trawling gear is certainly involved), can affect the fisheries above the beds (Bradstock & Gordon 1983; Sainsbury 1988). To what extent this is a factor in observed "fishery declines" has seldom been addressed in the literature on fisheries management.

ACKNOWLEDGMENTS

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ALASKA STATE LEGISLATURE SENATE
SENATOR RICHARD I. ELIASON

PRESIDENT OF THE SENATE
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June 23, 1992

North Pacific Fishery Management Council
P. O. Box 103136
Anchorage, Alaska 99510

Dear Members of the Council:

I would like to comment on an amendment to the Gulf of Alaska Fishery Management Plan (Amendment 26) relating to the closure of the Southeast Outside Area to trawling. I am a member of the Alaska State Legislature, and my Senate district includes the heart of the Eastern Gulf of Alaska. The people I represent include the residents of many coastal communities stretching from Yakutat in the north to Metlakatla in the south. I am also a U. S. Commissioner on the International North Pacific Halibut Commission.

Trawl fishing in the Eastern Gulf of Alaska is a real source of concern for the people in the Southeast Alaska communities I represent. Hook and line fisheries are a mainstay of the economy in many villages, and affect the socio-economic health of the entire region. The longline fleet consists primarily of small vessels that fish local waters and deliver their catch locally. High value species are fully utilized by local longliners. Trawling in this area is a management nightmare, and threatens the hook and line fishing which has been going on in the area for nearly a century. The frequency with which the TACs have been exceeded, and the extent of the overfishing by the high-volume trawl operations, inevitably have a negative impact on the resource and upon the hook and line fleet. The displacement of the hook and line fleet by the trawl fleet would have far-reaching social and economic consequences for the people of this region.

The Alaska State Legislature in 1991 adopted legislation (Legislative

Resolve 50) requesting the U. S. Secretary of Commerce to implement permanent regulations closing the Eastern Gulf of Alaska East of 140 degrees West longitude to pelagic and on-bottom trawling. The Legislature is concerned about the health of the stocks as well as the socio-economic health of communities along the Eastern Gulf.

I urge you to take action to prohibit pelagic and on-bottom trawling in the Eastern Gulf of Alaska. Thank you for the opportunity to offer my comments for your consideration.

Sincerely,

Senator Dick Eliason

ALASKA STATE LEGISLATURE SENATE

SENATOR RICHARD I. ELIASON

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June 23, 1992

North Pacific Fishery Management Council
P. O. Box 103136
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Dear Members of the Council:

I would like to comment on an amendment (Amendment 21) to the Bering Sea/Aleutian Islands Fisheries Management Plan, relating to bycatch. I am a member of the Alaska State Legislature, and represent a Senate district that includes many coastal communities from Yakutat to Metlakatla in Southeast Alaska. I have also served for a number of years as a U. S. Commissioner on the International North Pacific Halibut Commission (INPHC).

The issue of halibut bycatch has been a concern of mine and of the other U. S. Commissioners on the INPHC for a number of years. It has been a particular concern of our Canadian counterparts as well, and I may say that they have been pressing the point. They are truly affected in this matter as the fishery consists of migrating stocks.

I hope that the North Pacific Fishery Management Council will continue to make this a priority item for the benefit of the United States and British Columbia, Canada. I hope the NPFMC will take steps, in line with the specific recommendations INPHC has proposed in the past, to take swift and decisive action to reduce the halibut bycatch and mortality, and help restore the health of this valuable fishery. Thank you for the opportunity to offer my comments on this important issue.

Sincerely,

Senator Dick Eliason

FINAL VERSION
June 23, 1991

Aquatic Resources Conservation Group
4649 Sunnyside Ave. N. Suite # 328
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206-634-2793; Fax 206-634-2796

STATEMENT TO THE NORTH PACIFIC FISHERIES MANAGEMENT COUNCIL ON

CLOSURE OF THE EASTERN GULF OF ALASKA (EAST OF THE 140° WEST) TO TRAWLING (AMENDMENT 26)

Aquatic Resources Conservation Group is a non-profit, public-interest, consultative group of professionals dedicated to the use of science, economics, law, and policy to maintain healthy, diverse ecosystems in the face of increasing pressure to exploit their resources.

At this time we are submitting our comments in support of the proposal to prohibit trawling east of the 140° West Longitude (Southeast Outside & East Yakutat) in the Gulf of Alaska (GOA), as part of amendment 26 of the GOA Fisheries Management Plan.

It is our opinion that closing the proposed area to trawling would allow for a more conservative management strategy of the rockfish species in the demersal slope and shelf complexes. The quotas for some of these stocks are very low and easy to exceed. Because some of these quotas are set at the overfishing level of exploitation, overfishing of those stocks can easily occur due to delayed reporting or bycatch. In addition, estimates of exploitable biomass and allowable biological catches (ABCs) are derived from highly uncertain trawl survey information and optimistic assumptions about the differential accuracy of the 1987 and 1990 biomass survey estimates. Although also uncertain, the results of the stock reduction analysis (SRA) performed on Pacific ocean perch (POP) in 1991 suggest that current rates of exploitation are too high. In 1991 the Council separated the TAC of the shortraker

and rougheye rockfishes from the slope complex to protect them from being overharvested. An appropriate additional management measure to prevent overexploitation of these stocks would be to close the eastern Gulf to trawling.

The status of the demersal shelf rockfish (DSR) stocks also appears to be depressed and the need for conservative management strategies is apparent. Reducing the likelihood of exceeding the low ABC of this complex in the Southeast Outside (SEO) District due to bycatch by trawlers targeting other rockfish stocks would be a beneficial conservation strategy. Finally, discontinuing trawling in the narrow shelf of the Southeast area would allow the rich hard-bottom habitat to recover. This measure would contribute to rebuilding and conserving the rockfish resources of the demersal shelf complex and the juveniles of other species that, like POP, live in association with complex rocky habitats.

We wish to elaborate below on the reasons for supporting this proposal.

1. Potential for overfishing of diverse rockfish stocks:

- Demersal Slope rockfish complex (slope rockfishes): The most recent biomass estimates from trawl surveys (1990) indicated a considerable decrease (54%) in biomass since 1987. In the face of this dramatic decline, and with the background of severely depleted stocks during the 1970s and 1980s, the Plan Team decided to be optimistic and to presume that the 1990 survey had underestimated the biomass of the slope rockfish stocks. However, the doubts cast as to the validity of the 1990 trawl survey equally pertain to the higher 1987 survey biomass estimates. As a result, estimates of exploitable biomass (and ABCs) were based on the average of the 1987-1990 values, instead of on the most recent and lower 1990 biomass estimates.

In addition, it is possible that biomass surveys overestimate POP because average catches from trawlable areas are extrapolated over untrawlable areas where POP has been found to be considerably less abundant (Krieger, 1991, in review; Matthews and Richards, 1991). There is also evidence indicating that the trawl gear has a herding effect on POP schools (Krieger,1991, in review) which would further overestimate the true biomass. Ratio of trawl survey catches to submersible observed densities of rockfishes has been estimated at 2.5:1 (Ibid.). Finally, the adequacy of current trawl survey technology to assess rockfish biomass, especially the highly valued deep water species, is widely questioned (Heifetz & Clausen,1991).

The stock reduction analysis conducted in 1991 on POP yielded values of overfishing mortality ranging between 0.009 and 0.055. The Plan Team based the recommended ABC on a F=M=0.05 exploitation rate, or the upper limit of this range. The SSC halved the recommended exploitation rate (F=M/2=0.025) and the TAC finally was set close to this ABC and to the overfishing level.

It is our concern that this apparent decrease in the survey biomass estimate may be a reflection of increased exploitation and poor recruitment of the slope rockfish complex. Consideration of the longevity and slow growth rates of the most sought-after species in the group and their severe overexploitation in the 1960s suggest that extreme caution should be exercised in the management of these rockfish stocks.

The Plan Team recognizes that "stock assessment of slope rockfish is hampered by limited information and considerable uncertainty as to current stock abundance and long term productivity" (Heifetz & Clausen, 1991). The status of the demersal slope stocks in the Gulf is described by the Plan Team as "low and uncertain" and the status of exploitation as "unknown" (Clausen & Heifetz, 1991). In spite of this, catches have increased annually since 1985 when the domestic fishery for slope rockfish developed (from 1000 mt to 21,114 in 1990) (Ibid.).

In the Eastern Gulf, the TAC for shortraker and rougheye rockfishes is very low (570 mt). Large factory trawlers can easily overshoot the TAC of these rockfishes taken as bycatch in the trawl fishery for other species (POP). In addition, because the TAC for shortraker was set equal to the overfishing level, any delay in reporting catches or unexpected bycatch can cause overfishing. In the GOA during 1991 there were several instances where rockfish catches exceeded the ABCs: Gulfwide POP (6%) and central GOA POP (54%), and central GOA pelagic shelf rockfish (4%) (ABB, 1991).

- Demersal shelf rockfish complex: Demersal shelf rockfishes (DSR) are reef-oriented and inhabit the nearshore rough bottom areas of the Southeast Alaska shelf. DSR, mostly yelloweye (78%) and quillback (18%), are targeted by the shore-based longline fleet but are also taken as bycatch in the longline fishery for halibut and in trawl fisheries for slope rockfishes (O'Connell & Fujiyoka, 1991). While the directed fishery harvest has been declining since 1987 with TACs reduced for conservation reasons (from 726 mt to 310 mt in 1989), the reported bycatch has increased dramatically (Ibid.). In 1990 and 1991 the TAC was increased to 470 and 550 mt respectively to allow for an increase in bycatch. Although estimates of the

abundance of stocks of DSR are not available, it is believed that the biomass is following a declining trend and that stocks are depleted in several locations (Ibid.). A shift in fishing effort to grounds further from the ports of landing in Southeast Alaska is an indication that productivity in nearshore areas has declined (O'Connell et al., 1991).

Additionally, all DSR species have slow growth and extreme longevity. Thus, they sustain very low levels of exploitation and are slow to recover once driven below the level of sustainable yield (O'Connell and Funk, 1987).

Because the DSR TAC in the SEO District is low (448 mt in the non-expanded district) and likely to remain low in the future, and because it is set equal to the ABC and to the overfishing level (O'Connell et al., 1991), overfishing in that area is likely to occur. Due to the generally recognized susceptibility of DSR to overfishing, it seems inappropriate to set an ABC equivalent to the overfishing level. Prohibiting trawling in the area will decrease bycatch rates of DSR and will improve the ability of ADF&G to manage the fishery assuring that the ABC is not reached or exceeded.

2. Habitat Protection:

Many areas of the eastern Gulf of Alaska have rough bottom habitat, as indicated by the presence of corals and sponges (Climberg et al., 1981). Hard bottom habitats support numerous species of hydroids, bryozoans, ascidians, sponges, and soft corals. These epifaunal communities, in turn, provide excellent habitat for demersal fishes (Van Dolah et al., 1991). In the North Pacific the highest densities of small Pacific ocean perch and of other rockfish species were found at untrawlable sites (Krieger, 1991, in review). Additionally, rockfish species of the demersal shelf complex (yelloweye, quillback, and greenstriped) are associated with specific rocky bottom complex habitats (ADF&G, 1982; Matthews & Richards, 1991; Richards, 1986). Protection of the principal features in the organizational structure of the community of benthic epifauna would be an effective conservation measure for these rockfish stocks.

Little is known about the effects of trawling in the areas of the Gulf affected by this measure. This is an area where future research is needed. However, studies conducted in other areas have shown that trawling physically damages the macro-epibenthic fauna (Hutchings, 1990; Van Dolah et al., 1987). Studies in the

Australian North shelf indicate that the biomass of epifaunal organisms has dropped dramatically with trawling and changed the dominant species of fish caught (Hutchings, 1990). Commercial trawlers often drag over the same area more than once to minimize gear damage and loss. Their combined effect on hard-bottom communities in the narrow Southeast shelf is very detrimental. In addition, coral and sponge colonies have slow growth rates and once destroyed may take many decades to recover (Van Dolah et al., 1987).

Finally, the current definition of "pelagic trawls" does not restrict the use of pelagic trawl gear on the sea floor. Therefore, this gear can be as destructive of benthic habitat as are bottom trawls and have high rates of bycatch.

For the reasons presented above, discontinuing the use of trawl gear in the narrow shelf of the Southeast Outside-East Yakutat area would ensure the recovery of its hard-bottom habitat and associated fish communities.

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Prepared by:
Raquel Goñi, M.S., M.M.A.

TESTIMONY OF MARK JACOBS, JR.
ON AMENDMENT 26
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

JUNE 26, 1992

Thank you, Mr (Mrs) Chairmen, and members of the North Pacific Management Council.

My name is Mark Jacobs, Jr., life long resident of Sitka, Alaska. I am 68 years old, retired and my address is P.O. Box 625, Sitka, Alaska 99835. My home phone number is (907) 747-8168.

I come from a family of fishermen. I fished for many years on our family's seine boat F/V "Rondout." I have personally witnessed the years of devastation of our marine resources during the commercial fish trap era. The canned salmon industry perpetuated this type of fish trap gear by means of a powerful lobby in the United States Congress. We all voted for statehood for Alaska, because it immediately banned all fish traps from our coastal waters.

The present trawling is akin to the fish trap era in Alaska, devastating to all marine life, and even to fishermen's longline fishing by trawlers indiscriminately sweeping their sets away and never recovering their gear. It is easy to see why the sea lion population in the western gulf of Alaska is drastically reduced. If they don't fall victim to the trawl nets, their food supply is greatly reduced. I believe lack of fat causes hypothermia and eventually death of many sea lion. From the conservation view of marine resources this type of gear should be banned completely. Give our Coastal fishermen, using purse seine, gill nets, stake net, salmon and herring, longline and salmon trollers a break. Please do not be controlled by powerful money-lobbyists.

We support amendment 26

Submitted by,

Mark Jacobs Jr

Mark Jacobs, Jr. Vice President,
Southeast Native Subsistence
Commission

cc: Southeast Native Subsistence Commission
Central Council Tlingit & Haida Indians of Alaska
Sitka Tribe of Alaska

JP2

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APRIL 07, 1992

JESSIE GHARRETT
NMFS FISH MANAGEMENT DIVISION
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This letter is in refefence to Weekly Production Reports submitted by the Trident Seafood, Akutan Plant for the period January to March, 1991. At that time, we did not indicate Primary or "A" Ancillary in our DCPL ENTRIES. NMFS Enforcement Officers and Coast Guards Inspectors did not correct any of our reports in regards to this, so we have assumed that we were doing them correctly. Roe for the entire period was as Ancillary product.

If you have any further questions, please contact me at [illegible] phone #(907)698-2211 or Fax #(907)698-2236.

Malou Clark

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8-18-91

Week Ending Date

No. Days Received/Processed This Week 7

Federal Permit #:

ALASKA GROUNDFISH PROCESSOR WEEKLY PRODUCTION REPORT

Processor Name: TRIDENT SEAFOODS

Call Sign: KMP 267

ADFG Processor #: FD939

Gear Type of Harvester (circle one): (1) Hook & Line (2) Pot (3) Non-pelagic Trawl (4) Pelagic Trawl (5) Jig/Troll (6) Other (specify)

Representative: KRISTIN BUEHMAN

Phone #: 698-2211

FAX/Telex #: 698-2236

Federal Reporting Area: 517			Federal Reporting Area:			Federal Reporting Area:		
Retained Species Product Type Code	Retained Product Weight (mt)	Federal Processor Code	Retained Species Product Type Code	Retained Product Weight (mt)	Federal Processor Code	Retained Species Product Type Code	Retained Product Weight (mt)	Federal Processor Code
270	23							
270	30							
270	32							
270	23							
110								

Species Code	Landed Weight (mt)	No. of Pcs.	Species Code	Landed Weight (mt)	No. of Pcs.	Species Code	Landed Weight (mt)	No. of Pcs.
700	3.12		134	.63				
139	.13		141	1.7				
161	.16	267pa	875	.12	38 pa			
000			931		6 pa			
270	16726		932	.07				
120	.14		127	.01				
200		167pa	699					
235			173	.01				
139	.18							
123	.05							
121	.02							
	1.25							

NOTE: For ancillary products, begin product type codes with "5". e.g., "512"

Report product weight to at least nearest 0.1 mt

National Marine Fisheries Service P.O. Box 21668, Juneau AK 99802

Telex 0225000

FAX: 907-586-7131 Phone: 907-586-7228

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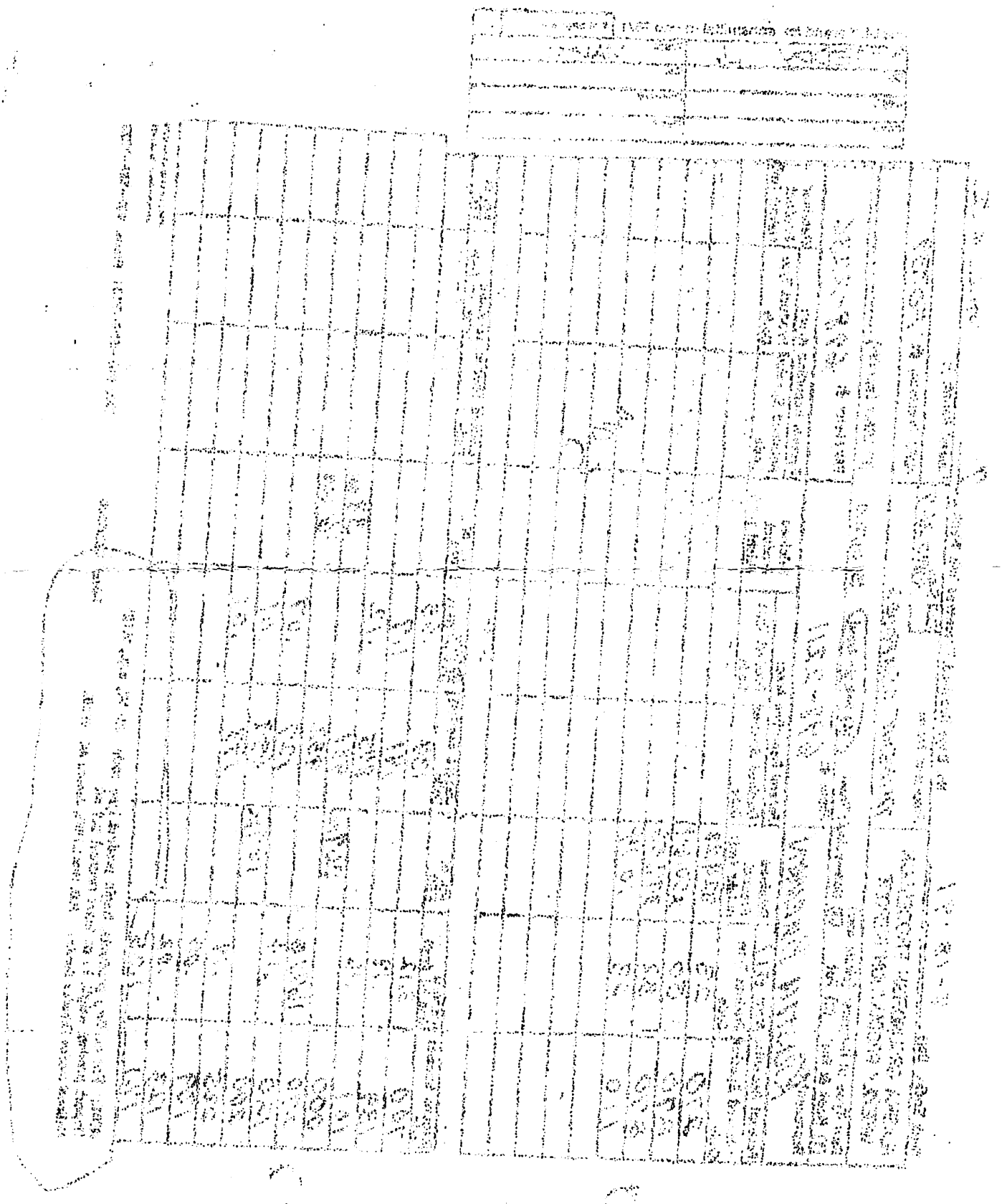

June 26, 1992

To the National Marine Fisheries Council.

My name is Claire Cochran. I am representing myself and my children. I've lived in Alaska one year and have longlined for halibut, black cod and rockfish.

I invite you now to go, in your mind, to your favorite forest. Large trees, old growth if you are fortunate, to experience the solitude, particular mosses, ferns, wild flowers, song birds, lizards, four legged animals.

Now imagine it clear cut. The earth torn open, the smell of dirt, stumps reaching mid-calf, your inability to walk in soft unstable ground, an ache in your heart and spirit for tranquility that no longer exists - a deathly quiet.

This is how I see the effects of the trawling industry.

I am here to ask this council to examine its motives and purpose for existence - why are you people on the council? I also ask everyone in this audience to examine their motives for fishing.

As in other seen environments, the oceans are endangered and because of what is unseen. I believe damages done by factory trawlers are far greater than the sketchy data implies.

My first knowledge of factory trawling came from a film on the Greenpeace ship Rainbow Warrior, last summer. If this council has not viewed this film I strongly urge you to do so.

I am a little person in the fishing industry and have been appalled by standards set by government agencies which require us to fish in stormy weather - if we are to participate in a 24 hr opening - or not fish; to leave gear in the water, wasting the fish and sometimes the gear simply because the 24 hours is up. Some fishermen rationalize that there is never a waste of fish because someone down there will eat it - I find that sort of thinking hard to swallow.

We all must live in a balanced way. There is no longer room for greed and money - based motives to rape oceans as we have forests.

In order to preserve the diversity of this ocean and peoples and cultures which have meaning, respect must be extended from governing bodies such as yourself, to communities hinged into balanced harvesting of food.

The threat of power and dominance used under the guise of government is a joke. That's not what life is all about - it is what ego and destruction are about.

My son is 13. He fishes now out of our dory and wants to fish commercially in a small way when he is older. Will that be possible then and for 7 generations after ??

I hope the members of this council are here because you truly want to be here to effect positive radical change. In my own experience of working with and against the U.S. Forest Service, a molybdenum mine and BLM, and Los Alamos Laboratories in New Mexico, I understand the stress and frustrations involved with issues. I hope each of you has a way of nurturing yourselves to keep a positive attitude. If you are burned out,

take a leave. If you can not be here with an honest, open mind, willing to make radical changes, I feel I have the right to ask you to think about resigning. The ocean and small fishing communities need protection and defense – before they die out.

Not only am I for Amendment 26, I request and demand trawl closure in all ocean waters. I believe this is a real need, and that it can be done with alternatives for people in the trawling industry to move towards. Make the trawling industry extinct.

I encourage everyone here to begin fishing by knowing their personal connection to Earth, Ocean and to ask permission to harvest in a balanced way, and to always give thanks.

I appreciate the work ALFA and local fishermen have done to keep trawlers out of S.E. Alaska, and the opportunity to present my thoughts and feelings on this issue. I will add, that it would be respectful to people willing to give testimony at such a hearing as this, that time be made and kept for that testimony, instead of ongoing deliberation. I hope to make this presentation in person – if not, I trust these words will be read by at least one person who can bn effect positive change to cease the destruction done by factory trawlers.

Peace be with you.

Claire Gorham
P.O. Box 6384
Sitka, ak. 99835

Depossition on trawling

As a commercial fisherman I appose trawling in Southeast Alaska.

Conservation: Fisheries already in a depressed State. Trawl fishing would quickly deplete existing Stalks

Economic: Economic hardship on local fleets, and on communities that service them. 100% of my income from fishing.

FV North Light
Gregg A McEntire
gregg

FV SASSY
KENNETH MEDRS
kenneth mears