* Eriki Eichholn Legislatinstate (ull'a 725 Dixon Av lustio J. Zane June 20 AK 99801 rsoy 561 Star Rose #) Kasillor, Ak 99610 9950) + Rebect Perry Anch Andrew Heim mystle Pomis, pregon 97458 Doris Box 3171 Kensi AK 9961) YJohn Cilbert Boy c-3030 Univer Sta Joris Box 3171

Larry (offer Seathle War

La Slottle Wa 98105 (om Wather Seath WA ande. Wick wahl Hank Ostrosky Boy 17 hom AK 59574 515 E 12th to John Noknek Audr. * John C. Peterson Rg Nondrya Dot 1911 99510 1100 W. Ewing At ones Samuelan ak Winter Sestle WA Frankierods Iv. AK atological. "horan

DATE: April 24, 1980

TO: NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

FROM: Harvey Samuelsen, Fisherman

Dillingham, Alaska

Our number one problem is, we've got too many fish coming this year and there is not enough U.S. processing capacity. A number of resident fishermen have been notified there is no markets available to them this year.

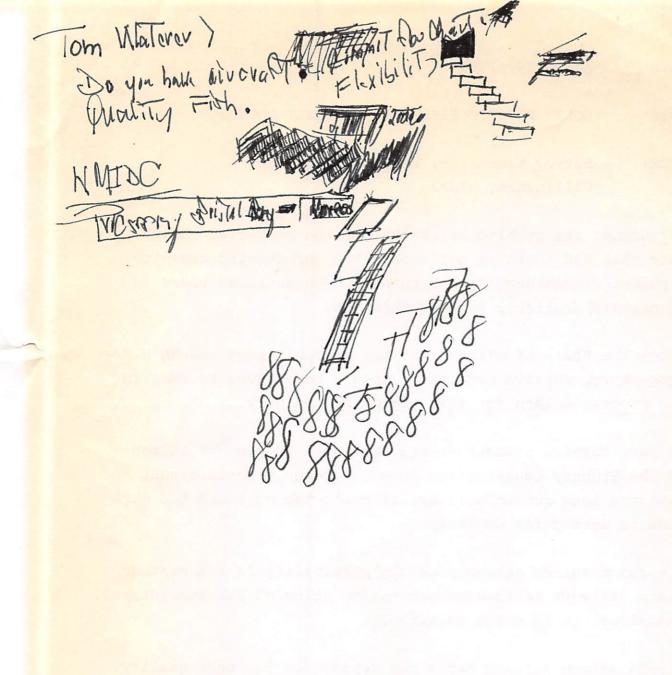
Since the State of Alaska realizes we don't have enough U.S. processors, foreign processors should be allowed to come in and process salmon for this coming season only.

By law, foreign processors are forbidden to process salmon in the Fishery Conservation Zone. Foreign tenders cannot make the long run to deliver, it costs too much and too much time is needed for delivery.

The short salmon season plus the possibility of bad weather makes delivery to foreign processing ships at sea impractical. Therefore, it is not a solution.

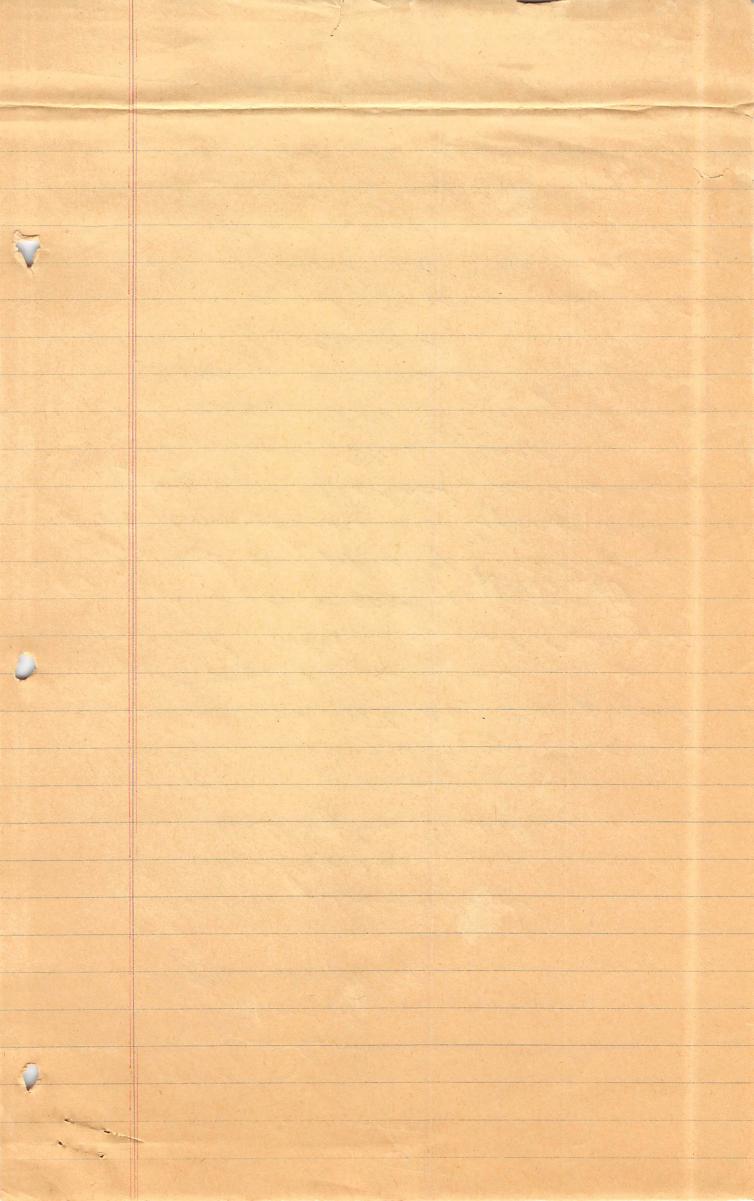
Alaska salmon already has a bad reputation for poor quality, we don't want to see this compounded, therefore foreign processors should be allowed in our waters. Foreign processors will develop new markets for salmon. Markets for Bristol Bay fishermen would be created for those that have no market.

We have a situation where there will be more salmon than U.S. processors can handle, more salmon fishermen then U.S. processors can use, the only lack is processing capacity. To be available in time it must be mobile, the U.S. have provided for joint ventures in the FCZ in low price species. Primarily, now those ships can solve the lack of processing capacity and they should be given the opportunity when these more lucrative species are available.

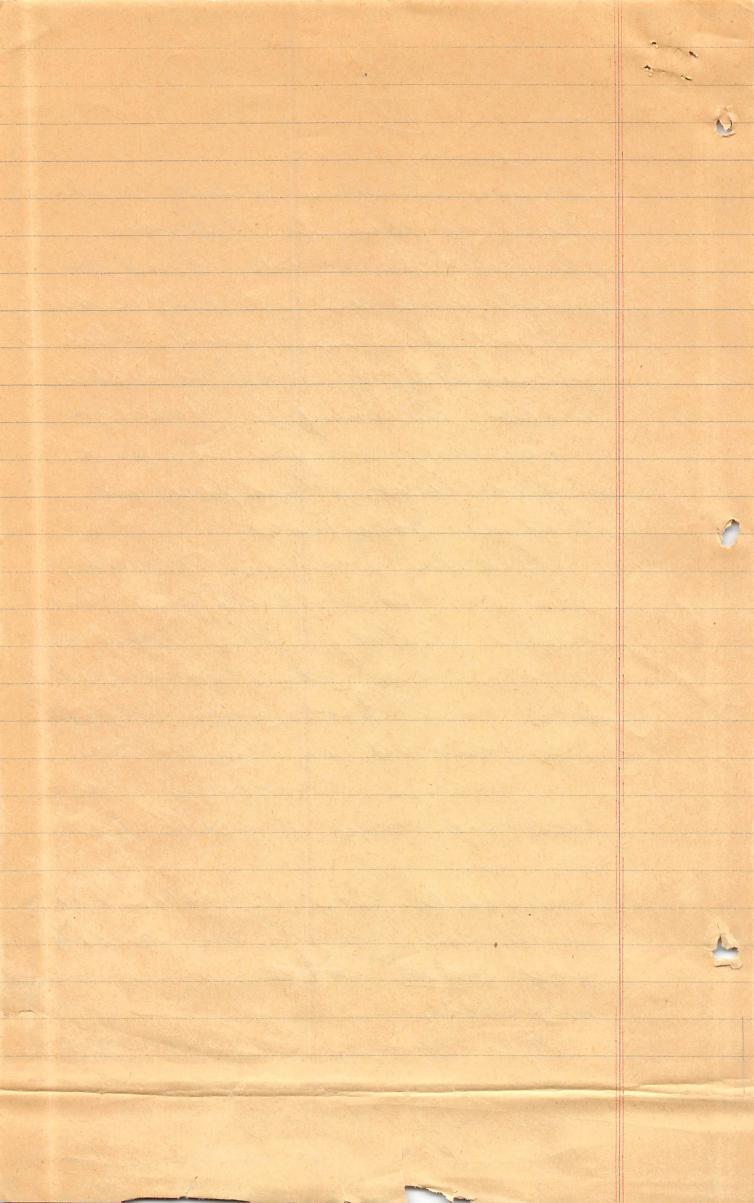


To north American Prisheres Councer April 24-1980 From Harvey Somuelsen Fiskermen Dillingham Blacka our number one Prablem Coming This year.

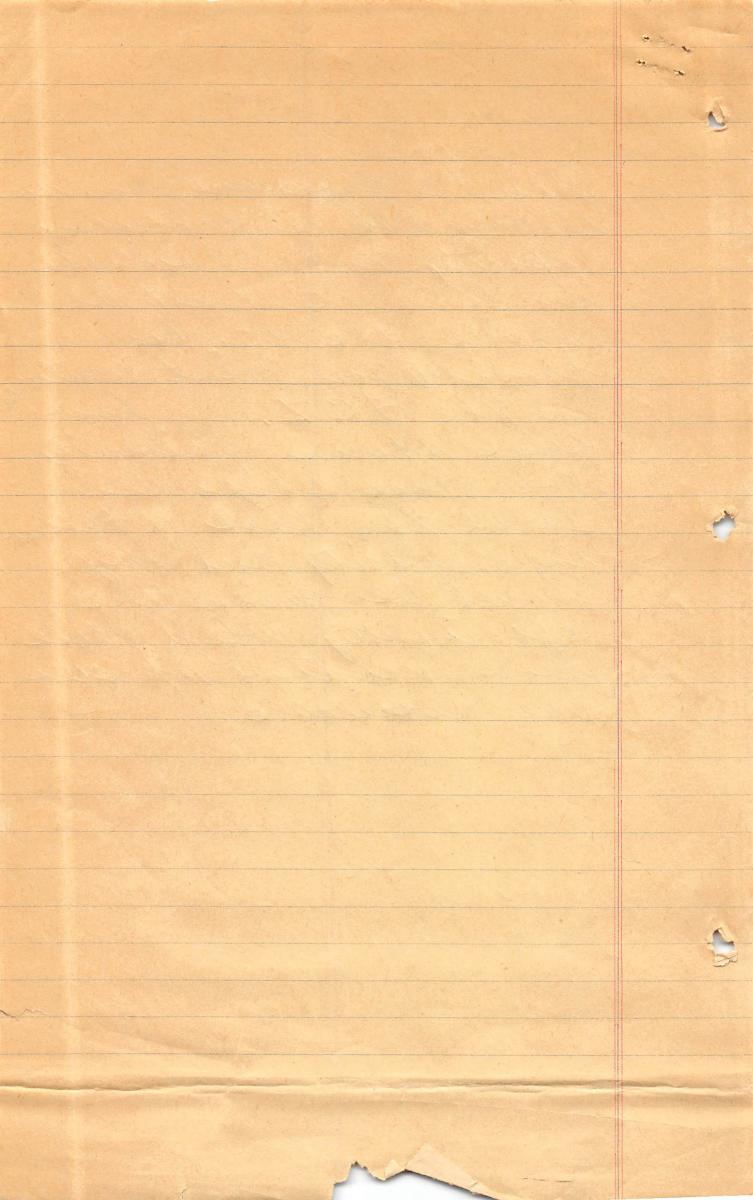
and There is not enough M. S. processing Capacity, a mumber of Hiskermen have been notified where is no markets avaiable to Them This year Since The State of alasha breeding we don't have known U.S. processors, Foreign processors Should be allowed to Come in and process Salmon for The Coming Season only, By law Foreign processon are forbidden to process Salmon in the Fishery Conservation zone



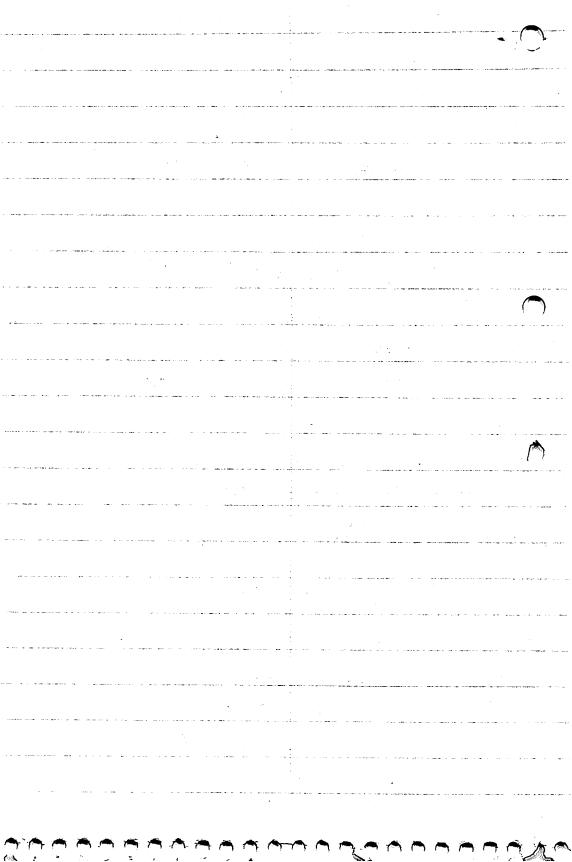
11 Forlega tenders Cannot make The long run to deliver et Cost to much and too much lime is needed for delice Short Salmon Alason plus & possebility of bad weather makes delivery to foreign processing Ships at sea impractical, Therefore is mat a Solution Blasha Dalmon already has a had Reputation far poor Quality, The dorit want to see this Compounded There fore foregrocessors Should be oblowed in our wales Juiegn sprocessor wall Menelop new market for Salmon Markets for Bristal Bry Fishermen ground he created for the thought have no market, The have a Situation where There will be more Salmon Than. U.S. processor lan' Candle, more Salmon Jishen



111 Then U.S. processore Con use The only lack is processing Capacity, to be available in lime it must be mobile, The US, has provided for Joint Venture in the FCZ, in low price species, Primarily, now Those Sheps Con Solve the lack of process-Should be given the apportunity when These more becrative species are available

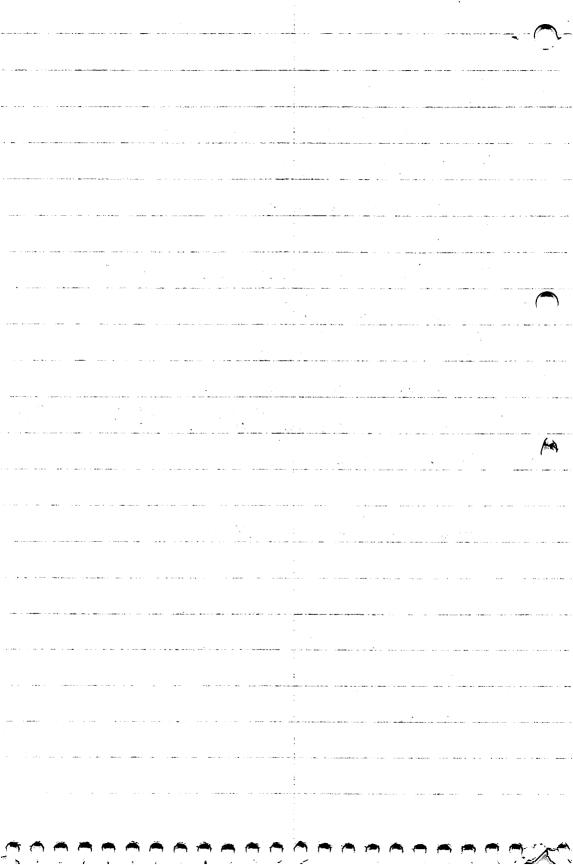


Public hearing Salmon AP- had nimority reports 1. Andrew Heim 509 Railroad Dregon 97458. a. arik Echholm Claska Segislature Stoff 725 Dixon St. Juneau At 99801 3. Donton Sherry Commodra avenue, Seattle, WA. 4. Ed Naughtion Box 19011 Andwrage, At 89510 5. Larry Cotter Waska Counsel for aluska Shoreline workers U 222 Willough by Are Juneau, At 9980/

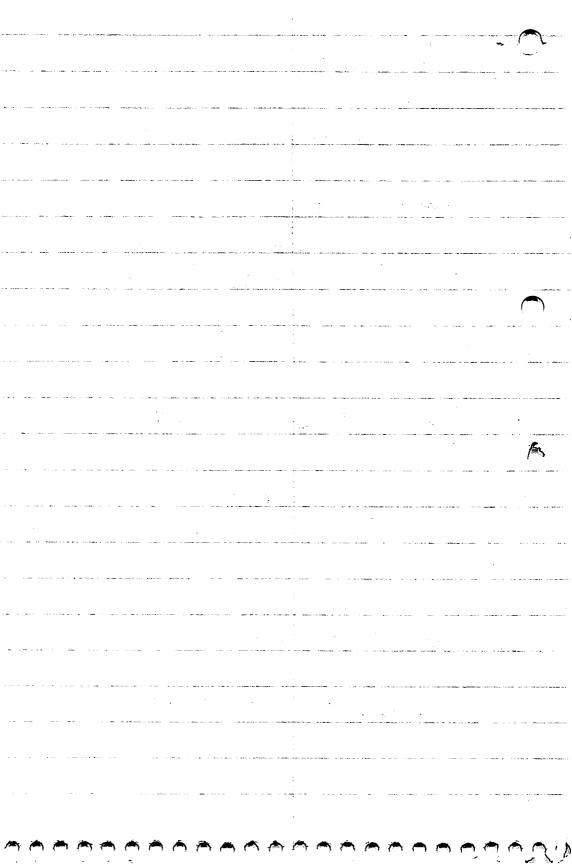


Gres. Ocean Beauty Seafoods

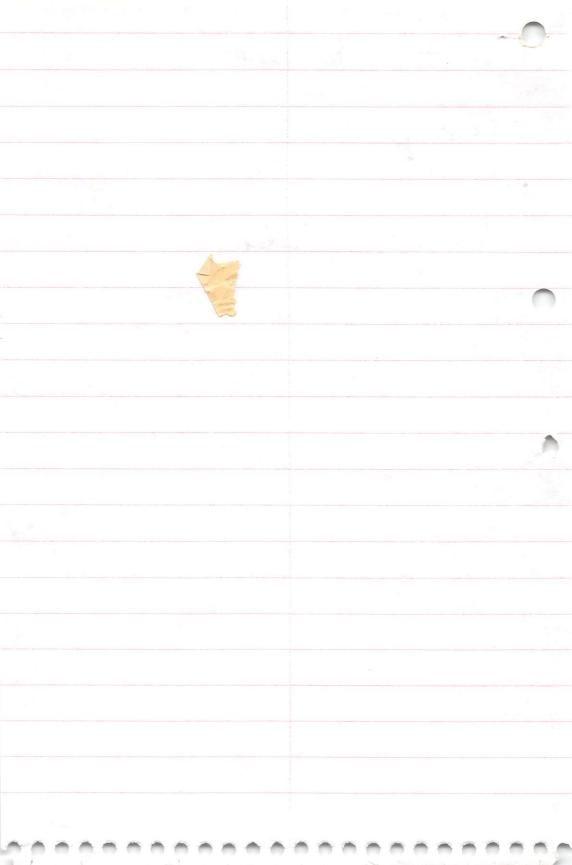
100 W. Ewing Street
Seattle / Washington 7. Oris Lashley Sea Catch. Inc Box3171, Kenai, alaska 99611 8. John Gilbert V. Pres. Seafoods Columbia Wards Fisheries Box C-5030, University States, Scattle WA 98105 9. Tom Waterer Kensi, alaska 99611 10. Greg Ocykus - Counsel for KMIDC 2500 Denali, Swite 1300 Anchoroge, Ak 99501 11. John lak nek



12. Nick Wahl B ox 17 Dillingham, AK 99576 13. Rebecca Perry Box 561, Star Route#2 Kasilof, Alaska 99610 Frenk G. Woods Jr Engle River Ak 99 Randy Griggs 16. Hank Ostrosky 515 Et 12th Ave Anchoroge, Ak 99501



17. Letters/Statement Fred J. Harvey Samuelson



Tillion: Does somebody want to make a motion?

Lokken: Well I have a statement. I spent considerable time wrestling with the problem and it's a no-win problem as you all know. And do you want a motion either to accept the proposed amendment or to disapprove?

Tillion: I would rather have an affirmative action to accept it and the vote would be then, you know the results are the same. That puts the motion correctly worded I believe as Mr. Travers worded it before the Council minutes and either up or down.

Lokken: Well, someone else will have to make a motion to approve it because I would do just the opposite. I want to make a statement with reference to the reasons therefore.

Tillion: I'd say ah would somebody please make a motion so we can get the wording.

SKOOG: I move that the Council accept the amendment but I recognize that there's going to have to be some amended language in this but ah that can be done I presume after we decide whether to go with this concept or not.

Tillion: Well it'd be nice to just have an amendment before us and put it up or down and regardless of which way it does we can move on to herring.

Does somebody have a motion with the correct language to place

TRAVERS: Prepare a motion?

Patrick did you prepare one?

Tillion: Yes, did you? Not that you can make one but did you have one prepared? So somebody could make it.

Travers: I suppose the correct form of the motion would be that the proposed amendment set forth in Attachment 2, of Item G-1, be adopted by the Council.

G-1

G. FISHERY MANAGEME The following agends items will be discussed by the Council: A.

Tillion: If someone would move that motion, we'd at least have something to properly debate before us.

Skoog: This amendment as written though needs modifications like Pat (Travers) has indicated you now have the pink salmon tied into this OY system which still needs to be certain conditions

(overlapping talk)

Tillion: We have an at ease while somebody...

Skoog: I wonder why we can't work on this and come back later. We've done all the discussion all we need is a vote. We can vote later in the morning We're not

Lokken: Mr. Chairman, it's immaterial whether we vote in an affirmative way or negative way and I think it will be proper to vote in a negative way and then if somebody wants to suggest a new motion covering the points that you raised, Ron (Skoog), they can do that. But, I agree with the chairman, we got to get down to voting. I think our views are well known and on that basis

I WOULD MOVE THAT THE PROPOSED AMENDMENT BE DISAPPROVED.

Mace: Second:

Lokken: And I would like to make a statement as to the reason for my making that motion.

Tillion: Well, the thing I would like to have is a motion on record so when the record is clear, we know what it is we disapproved. This is the problem I have, there'll be no written record if we do the motion this way. If you'll figure out the correct thing so that the record will remain clear, I'm certainly ready to vote.

Lokken: Why wouldn't it be clear that we're turning down if we do a specific proposed amendment? It would be into the record as such. Now whether we vote for or against it will be determined by the vote.

Tillion: What is the ...Yes.

Skoog: What information? If we vote this way, does it leave it open for another consideration of amendment, along similar lines, same concept, but different language.

Lokken: I would be

Skoog: Or additional language, is that open?

Tillion: It would be under this way. and that's why I would prefer to have an amendment drafted correctly proposed, you vote it up, you vote it down, and then the issue is dead! So that we can get it. Otherwise, you know, you turn down this one, then you come in with another one, turn down that one, and you come in with another one, Maybe one of them will pass and we'll be sitting here throwing motions back and forth all day. And what I'd like to do is get this done and get on to the herring and get done today.

Skoog: I'm wondering...

Tillion: Patrick

Travers: Mr. Chairman, one of the changes that would be necessary would be a figure of the harvest of pink salmon. There was somebody in the room here could provide that to be added. That would probably be the major change that would require any time to prepare.

Tillion: Ronald, do suppose if we broke for ten minutes, we could have that done? Or did you. If you specifically want a proposal for fixed amount of time that's fine, too. You know, I'm not fighting that. But I'd like to have a correctly worded amendment before us so that in the record anybody'll know what we accepted or what we turned down. Does that satisfy you, Sir.

Skoog: That's all right. I'm wondering if it wouldn't be possible to vote for the concept first. Isn't that what we're basically looking at? Whether we want limited ent, I mean ah

Lokken: salmon operations in the FCZ

Skoog: or not. If we agreed to that concept then we can move into a amended version with the proper language.

Tillion: If somebody will give us a motion , shall some form of purchase of salmon by Alaska fishermen be allowed in the FCMA that would be what I'd consider a positive motion and if that one fails, there's no need to go any further. I agree with you.

Skoog: All right. But we already have a motion on the table, isn't that right?

Branson: There is a motion on the floor, Mr. Chairman.

Skoog: on the floor or the table

Tillion: That's ah Mr. Lokken's.

Branson: Yes.

Tillion: And what does his say?

Branson: He moved that the proposed amendment be disapproved and Mr. Mace seconded it. I presume that the proposed amendment is Agenda Item G-1, attachment 2, which is Appendix 4 for temporary emergency provisions to the high seas FMP.

Lokken: That's correct.

Tillion: Are you satisfied to go on that one now, Mr. Skoog?

Skoog: I'm wondering if you could modify it simply to the point that it would be considering the concept of whether to allow processing in the FCZ or not.

Lokken: Processing in the FCZ by foreign processors?

Skoog: Yes.

Skoog: for salmon.

Lokken: To me we we just got to express ourselves . I don't think there's going to be any difficulty in coming to a decision. I think all our minds are made up. it's a question of putting a motion in proper form and ah the chairman wanted a positive motion but nobody offered it. And the negative motion to me accomplishes the same thing.

Tillion: Yes, it's a little violation of Roberts' Rules but then

Bevan: Mr. Chairman

Tillion: Yes Sir.

Bevan: I MOVE TO AMEND MR. LOKKEN'S MOTION BY STRIKING OUT THE REFERENCE TO THE AMENDMENTS IN OUR DOCUMENTS AND SUBSTITUTING OPPOSED TO THE CONCEPT OF ALLOWING SALMON FISHING BY FOREIGN OR FOREIGN OR JOINT VENTURE PROCESSORS IN THE FCZ.

Tillion: That's a very simple motion...

Skoog: I second that

Tillion: to allow that well the amendment to the amendment.

Beyan: Amendment to the motion.

Meacham: Did Dr. Bevan say fishing or processing?

Tillion: Processing

Bevan: Well fishing and processing are the same language in the FCMA.

Tillion: Yes, but you There's a big difference, the processing, please, I hope.

Bevan: Processing.

Skoog: Are we open for discussion?

Tillion: You're open for discussion.

Branson: Could we

Tillion: No, the amendment is an amendment to the amendment, is it not?

Bevan: Branson: ... (garbled) amendment to the motion.

Tillion: I mean an amendment to the motion.

(laughter)

Bevan: Question.

Skoog: I'm still wanting discussion.

Tillion: You have the right to discuss. You have the floor, sir.

Skoog: I have a question here. Is ... of course in the first half

that there is going to be a bonafied surplus of salmon here or whether or not Bevan: Mr. Chairman. Seems to me that's out of order . On my amendment which

strictly addresses the generality of the arguments on the main motion

can be taken after the amendment is voted upon.

Tillion: If his argument is confined to the amendment to the amendment, he has the right to discussion. If it's not germain to that and you maintain that it's not

Bevan: I maintain it's on the main motion. We ought to decide whether we are going to adopt this amendment, first.

Tillion: Do you have any objections to the amendment to the amendment, Mr. Lokken?

Lokken: No. All I want to do is to get an expression or viewpoint. in any way that you want (Overtalk here.)

Tillion: All right It has been amended by Dr. Bevan is the amendment before us is the main motion before us at this time.

Bevan: This has been accepted as a friendly amendment./

Tillion: It's been accepted as a friendly amendment. Ah, discussion is open.

Skoog: I think the point here is that the key to the entire consideration is whether or not foreign processing in the FCZ is something to sanction or not and therefore before you vote pro or con you have to I think a discussion is appropriate to discuss further just what the implications are and what the reasons for this are.

Tillion: The floor is open, sir, you have it.

Skoog: All right. I think the main point of course is we all know the surplus of salmon that is predicted toappear in Bristol Bay and whether or not the domestic processors can handle it. I think there has been certain criticism about those predictions but their no different than any other predictions we've gone thru over the years and in other areas of Alaska. They're not any more reliable or less reliable than those we have used commonly in the past to make decisions on regulations and other kinds of decisions. And as with all these regulations, we simply have to go with the best predictions we have at the moment. That point prediction of 54 million salmon, is the one we basically have to work with. That's our best information. The other aspect of that is most of our predictions of salmon returns in the State are easily underestimated by as much as 10 , 15 or 20%. So the chances are more that the surplus is going to be more than what is predicted. There's going to be a greater surplus than has been indicated that the processors very likely can not handle. The question then is whether or not we want to take to maximize the economic gains to the fishery industry overall by attempting to harvest and process these salmon. I think it's been pretty well determined here that the State certainly can request foreign processors to come into the internal waters but they will not have any means or will be severely limited as to who they can request to come in and it's pretty well open to all. And ah I think the big problem with a lot of the processors and certain amount of the fishermen, too, is the Japanese , in particular, will take advantage of this situation. or could take advantage of it, then further complicate the marketing system. In the FCZ it's also in doubt whether or not that they can discriminate against what nations would apply for the permit. And yet I do think they have the means

Skoog: CONTINUED. to do this based upon the kinds of permitting that they were looking at, based upon Meacham's and Frank's and Leitzell's trip to Europe. But this is going to be tied to the reallocation of the Soviet groundfish and the purchase of their of American processed groundfish as well as the salmon. I think it behooves us to try to do whatever we can to try to insure that these salmon are utilized in the best way possible. The this amendment to the salmon plan to allow this kind of processing in the FCZ is not going to solve the situation. There's still probably going to be the surplus, that is not going to be handled. But at least it does move toward the direction of providing some new markets and it does account for some of these surplus salmon as well as very likely take care of some of the fishermen who do not have markets. In addition to this, the option still remains open for the State , given certain conditions or further assessment of the salmon run to invite foreign processors into the internal waters. I think the Council should act to approve this amendment, The legalities will have to be worked out later. I don't think that we need concern ourselves too much with the legalities of it.of how it will be worked out later on in Washington via the Dept. of Commerce. It may turn out that it is not possible to carry thru on this in time for the Bristol Bay salmon run to occur but I think the concept is a good one. I think the Council should act affirmatively on it.

Tillion: Mr. Meacham:

Meacham: Mr. Chairman. We're speaking now on the main motion, correct?

Tillion: Correct, sir.

Branson: Mr. Chairman, can I get it completely clear as to just what motion is on the floor now? As I understand it, the original motion has been amended so that the Council is now considering a motion to disapprove the concept of processing salmon by foreign ships within the FCZ.

Meacham: And what you're saying Mr. Executive DIrector a vote in favor of this motion would be against the waiver?

Branson: That's what the man who made the motion said., yes.

Meacham: And as long as I'm talking at the moment on this, I'd like to ask for roll call vote when it finally comes.

Tillion: We will have a roll call vote and a vote against the amendment would allow processing in FCMA. A vote for the amendment will disallow.

Meacham: Mr. Chairman, I had some items to discuss here, but Commissioner Skoog has covered most of them. I 'd like to second his testimony and add two or three other points. And that is bring again to the Council's attention the report that's in your book that has been widely distributed for a number of ah for some time. A report that took basically 6 months to put together. Information was obtained from the ah salmon industry, the fishermen, those figures in thereport have been questioned. And ah that's understandable. Any figures can be questioned but they are the absolutely best that we've seen. The absolute best we've been able to obtain. I don't see anybody else's figures. And ah at least that they'll put down on paper. The report is put together in what I've determined a textbook style. You notice the histogram that is in which is Item No.7 and it indicates that there'll be nine days of which the production in Bristol Bay

MEACHAM: CONTINUED: would be above the processing capacity and of course that's if it comes in in textbook style and anybody that's been associated with Bristol Bay knows that the fish don't obey published documents. So, this is the best arrangement that could happen. If there's a skewed one way or the other, of course, ah that just compounds the issue. Another item regarding the report, there has been some indication that there was some disagreement amongst the State administration board of fisheries

and other item people on . On April the 22nd we decided to put that to rest. And in your book, also, is called a Memorandum of Support, signed by myself, signed by Commissioner Skoog, and signed by the Chairman of the Board of Fisheries indicating our support for a waiver of this type.

It's also been asked why this is brought to the Council now. It was our understanding that legally, the action which we were trying to obtain the processing FCZ zone could take place without any waivers or amendments and ah we found out that the legal information we had was not accurate and I'm not faulting anybody because legal opinions seem to flow with the tide. So now in any event it required and we're petitioning for that. That's why some people said why now It was brought to the attention of the Board of Fisheries at the last meeting by the Council's legal advisor that in our salmon plan which is really a troll plan, is a sentence in there that there be no salmon fishing in certain areas which BristolBay fell within, which the plan was not designed for that. But that's beside the point, that's where we are and we're in a technicality and we're trying to correct it. Escapement goals have been mentioned a number of times and as Dr. Skoog indicated, these are numbered, they are based on the best scientific data we have, they can be faulted. Certainly they can, but it's the best data that's available. Therefore, you take the best data you can take and you do the best you can with it. There is one thing regarding escapement goals , In 1979 they were exceed by almost 200% in some areas more than that. And then ah if escapements are dried (?) it may very well be dry this year, escapement goals again would be more than 200% and two of these back to back ah could cause biological problems. Whether you can statistically prove that or show it, um scientists say it's very difficult to do. The scientists can show us where escapement in numbers starts to drop off in the Bristol Bay system so you're return per spawner is less than you get at lower escapement. Of course, if you make two large ones back to back, this could be exaggerated. Other systems that are more scientifically managed than Bristol Bay with many more years of data on the Fraser River system has been occasions where they have blocked off the streams, electric weirs and this sort of thing, has blocked the escapement from going off into the system. Their data is more precise than it is in Bristol Bay.

REgarding the prediction of Bristol Bay point estimate of 54 million, again it is the best information we have. There's another ordinarily there's two predictions made by United States this year, there's only one made by ADF&G. However, the Japanese fisheries agency has made a prediction and began something over 80 and has now been revised downward to something in the high 70's. I don't know whether what the final figure is, but someplace in the high 70's. Um which gives credence to the fact that if you don't receive the point estimate

 ${\tt MEACHAM}$: CONTINUED which obviously is an average . The indications are from other people's work that it would be on the high side.

Tape 3/ Friday, April 25, 1980.

LOKKEN: other areas for processing

(skipped a lot)

Harville: Eaton: Campbell:

Tillion: Are you ready for the question?

Mace: Would you have the Executive DIrector read the amended motion, please Mr. Chairman?

Tillion: Branson, would you read the motion?

Branson: The motion before the Council is to disapprove the concept of processing by foreign ships of salmon in the fishery conservation zone.

Tillion: Would you call the roll, sir?

You ready for the question?

В

Lokken: Question.

Branson: Mr. Meacham

Meacham: NO

Branson: Mr. Mace

Mace: Aye.

Branson: Mr. DiDonato

DiDonato: NO

Branson: Mr. Rietze

Rietze: Yes

Branson: Mr. Campbell

Campbell: Yes.

Branson: Mr. Lokken

Lokken: Yes

Branson: Mr. Jensen

Jensen: NO.

Branson: Mr. Bevan.

Bevan: Yes

Branson: Mr. Eaton

Eaton: Yes

Branson: Mr. Skoog

Skoog: NO

Branson: Mr. Tillion

Tillion: NO

Branson: The motion passed 6 to 5, Mr. Chairman.

Tillion: And so that ends the issue on the salmon issue. Ah could

we cover the next one we have left.

FINAL SUMMARY REPORT

OF THE

FISHERY HARVEST PLANNING GROUP

ON THE

1980 BRISTOL BAY SALMON HARVEST

Submitted by

The 1980 Fishery Harvest Planning Group



STATE OF ALASKA OFFICE OF THE GOVERNOR JUNEAU

March 14, 1980

The Honorable Ronald O. Skoog Commissioner of Fish and Game Subport Building Juneau, AK 99801

Dear Commissioner Skoog:

As Chairman of the Governor's Planning Group preparing for the orderly harvest of the 1980 Bristol Bay salmon fishery, I am forwarding the Report of the Planning Group to you for your own use and for transmittal to the Board of Fisheries.

The report outlines the findings of the Planning Group and includes tables of information on which these findings are based. Members of the Planning Group present at its March 3 meeting unanimously agreed, if a salmon run in excess of U.S. processing capacity is expected, to recommend to you implementation of Option 2, that of increasing processing capacity by allowing foreign vessel tendering. This procedure would allow you, if necessary, to move directly into Option 3, that of increasing processing capacity by allowing foreign processing vessels within State waters.

Sincerely,

Charles H. Meacham, Director International Fisheries and External Affairs



STATE OF ALASKA OFFICE OF THE GOVERNOR JUNEAU

1980 Fishery Harvest Planning Group

Office of the Governor

Charles H. Meacham, Director, International Fisheries and External Affairs (Chairman)

Keith Specking, Legislative Assistant to the Governor

Jim Edenso, Bottomfish Coordinator

Robert Waldrop, Special Assistant to the Governor

John Halterman, Acting Director, Division of Policy Development and Planning

David Allison, Policy and Program Specialist

Office of the Lieutenant Governor

Kim Elton, Special Assistant

Legislature

Eric Eckholm, Legislative Aide to Senator George Hohman and Representative Nels Anderson

Department of Commerce and Economic Development

Charles R. Webber, Commissioner

Department of Fish and Game

Ronald O. Skoog, Commissioner (Vice Chairman)

Carl Rosier, Deputy Commissioner

Department of Labor

Glenn Lundell, Deputy Commissioner

Department of Law

John Gissberg, Assistant Attorney General

Introduction

In the fall of 1979 the Commissioner of Fish and Game discussed with Governor Hammond the projected heavy salmon runs in Bristol Bay in 1980 and the possibility that existing processing capacity would be insufficient to meet the needs. At about the same time that the Alaska Department of Fish and Game (ADF&G) preliminary forecasts were being developed in September of 1979, the Governor's Office, as well as the Department of Fish and Game, began to receive inquiries from fishermen and processors expressing some anxiety about the unusually large runs and potential harvest and processing problems.

The Director of International Fisheries and External Affairs, on November 19, 1979, in accordance with the Governor's instructions established an Interagency study group composed of representatives from the Governor's Office, Department of Fish and Game, Commerce and Economic Development, Law, and the Division of Policy Development and Planning to conduct a preliminary review and investigation. That group met on December 11 to present the Governor with preliminary information in preparation for a meeting between the Governor and representatives of the fishing and processing sectors of the industry on December 17 in Anchorage. The group met again on December 18 and reviewed updated Department of Fish and Game projections and statistics together with the comments of fishermen and representatives of the processing industry.

The planning group was expanded to include a staff representative from the Legislature, a representative from the Office of the Lieutenant Governor, the Department of Labor and several staff members from ADF&G, Commerce and Economic Development and the Division of Policy Development and Planning.

Preliminary economic studies were conducted (Appendices I through VII). Representatives from the planning group met in Seattle with processors representing a substantial portion of Bristol Bay processing capacity. During those meetings with policy-level personnel, alternatives for meeting possible shortfalls in capacity were discussed. Alternative market opportunities were explored by a delegation from the planning group to the National Marine Fisheries Service, Department of Agriculture, and Alaska Congressional Delegation in Washington, D.C., specifically discussed was the use of Alaska salmon in school lunch and needy family supplemental food programs, international relief projects and the military. Some immediate sales opportunities for a substantial volume of canned products were identified and that specific information was provided to industry representatives. It was determined that frozen products would be difficult to distribute in international relief programs, but that a long-term potential exists for the sale of portion-controlled items to school lunch programs and the military.

Our investigations left little doubt that there are markets not yet tapped and those which could be expanded for salmon products. This is true for domestic as well as European areas. An underlying concern for successful entry into these markets is the need to improve quality standards and handling of the product and to establish confidence in the market of an assured supply. Strong sales promotion efforts will be required over several years to provide significant impact on the distribution of Bristol Bay salmon products, especially in frozen form. Expanding the distribution of air fresh fish is seen as having good potential. Systems developed this season for transportation, handling,

and sales of fresh salmon will be helpful in the future. Further comments and suggestions were solicited from both fishermen and processors who had experience with the Bristol Bay salmon harvest.

During late December, January, and February additional meetings of the planning group were held and accumulated statistics and information were reviewed and analyzed. A summary of the study results and options available to the State has been compiled in this report for the Governor's review and presentation to the Commissioner of the Alaska Department of Fish and Game and the Board of Fisheries.

Supplementing Domestic Processing Capacity

As the result of expected large returns of salmon to various areas of Alaska in 1980 and expressed concerns regarding the adequacy of salmon processing capability within the State, the Alaska Board of Fisheries adopted regulatory procedures for supplementing domestic processing with foreign capacity. These procedures, provided under 5 AAC 39.198, are implemented by the Commissioner of Fish and Game following consultation with the Board of Fisheries.

Under 5 AAC 39.198, foreign vessels or aliens are prohibited from engaging in a number of activities including:

- (1) the catching, taking, or harvesting of fish resources;
- (2) the tendering, offloading, or other movement or handling of fish resources until processing by U.S. citizens has been completed;
 - (3) the processing of fish resources; or
- (4) any attempt at, preparation for, or assistance of the foregoing, with the intent of disposing of the fish resources for profit, or by sale, barter, trade, or in commercial channels.
- When U. S. capacity is not sufficient to handle the fish available for harvest, the Commissioner of Fish and Game may grant a limited exception to allow foreign assistance in processing or in transporting fish. The Commissioner's decision to grant a limited exception must be based upon consideration of five factors:
- (1) When the volume of fish resources expected to be taken in the fishery under current regulations exceeds the anticipated processing capability of facilities operated by United States processors;
- (2) When there is no practical opportunity for United States processors to make emergency arrangements to handle excess volume, or at any time it is determined that anticipated marketing conditions may limit United States processors' capability to process the projected harvestable surplus;
- (3) When there is a likelihood of substantial wastage of fish resources taken in the fishery if foreign processing or transportation capacity were not utilized;
- (4) And, there is no significant likelihood of clandestine foreign fishing operations if the exception is granted.

(5) The limited exception may be terminated when, after consultation with the Board, the Commissioner determines United States processors can adequately process the harvest.

In previous years, the Commissioner delayed consideration of a possible waiver until in-season circumstances showed there was "no practical opportunity for United States processors to make emergency arrangements for the excess volume." However, the Board of Fisheries has supplemented this provision to provide for a pre-season waiver if the Commissioner finds that "anticipated marketing conditions may limit United States processors' capacity to process the projected harvestable surplus."

This additional provision has been filed with the Lieutenant Governor and will become effective on March 31, 1980. Complete regulations as adopted by the Board of Fisheries are presented in Appendix XVI.

Review of 1979 Bristol Bay Processing Capacity

Bristol Bay processing capacity in 1979 was adversely affected by a unique set of variables. The return of 40.4 million sockeye was nearly double the 22.7 forecast level, making approximately 17.7 million additional sockeye available for harvest and processing; average sockeye weights were significantly above normal, extending processing time for both canning and freezing, price disputes delayed significant canning until June 28, well into the run, and agreed-to sockeye prices of \$.80 per pound for canning and \$1.25 per pound for freezing required heavy processing dependence on freezing and utilization of smaller can size canning lines.

Pre-season evaluation of the 1979 Bristol Bay processing capacity by the Department of Fish and Game, based on industry supplied data, indicated a seasonal capacity of 22.6 million sockeye. Preliminary data indicate that over 21.9 million sockeye were processed in 1979. A post-season evaluation by the Department of Fish and Game on the pre-season daily estimated processing capacity compared to the actual daily rates indicates a deficiency of about 18% for all operations. The pre-season estimated daily rate was 1,652,000 fish per day and the actual post-season evaluation, 1,360,000 fish processed per day. Preliminary production data indicate that canning and freezing capacity, largely within Bristol Bay, accounted for 8.3 and 8.6 million sockeye respectively. Transportation via tenders and aircraft to processing facilities outside of Bristol Bay accounted for the remaining 4.6 million sockeye.

Bristol Bay 1980 Salmon Run Projections

Salmon catch projections for Bristol Bay in 1980 total 53.7 million of all species. Record catches of 37.1 million sockeye and 14.7 million pink salmon are forecast while the chum catch is projected to be 1.5 million, kings 200,000, and coho 200,000. Except in the case of chum salmon, significant overlap in run timing of the various species does not occur.

The Alaska Department of Fish and Game point forecast for the sockeye return is 54.5 million with a range of 39.4 - 69.5 million. Peak year escapement requirements total 17.5 million, leaving a harvest surplus of 37.1 million from all systems at the point return level. Within the

forecast range the harvest surplus range is 21.9 - 52.0 million. The 1980 point forecast harvest level of 37.1 million sockeye is one and a half times greater than the previous record high catch of 24.7 million taken in 1938. Large returns and significant harvests are anticipated in all fishing districts.

Japanese scientists also forecast the 1980 Bristol Bay sockeye return and their point forecast was initially 82.6 million. They have recently revised this forecast downward to 73.6 million. The earlier Japanese forecast was reviewed by Alaskan scientists and while the magnitude of the Japanese 2-ocean forecast was viewed as realistic the 3-ocean forecast appeared to be significantly above probable returns. The new revised Japanese forecast in the magnitude of 73.6 million tends to support the view of the Alaska Department of Fish and Game that the 1980 return will be in the middle to upper range.

Comparative data on accuracy of forecasts by the Japanese and Alaska Department of Fish and Game are provided in Appendix X. The Alaska Department of Fish and Game 1980 sockeye forecast by river system is shown in Appendix IX and projected potential daily harvests of sockeye are shown in Appendix XII and XIII.

Pink salmon returning to the Nushagak system is forecast to be 15.7 million. A return at this level will provide a harvest of 14.7 million. The 1980 pink return is the result of the phenomenal 1978 Nushagak River pink run of 14 million. The forecast should be viewed with some caution as outlined in the forecast discussion of Appendix XI.

Chum salmon runs to all Bristol Bay river systems are expected to contribute 1.0-1.5 million fish to the 1980 catch. The Nushagak River system is the single largest producer and over 1.0 million of the total catch is expected from the Nushagak district. Timing of the chum salmon runs in the Nushagak district overlap sockeye timing to a large degree and chum salmon catches must be considered a factor in the evaluation of processing capacity for sockeye. A formal forecast of chum salmon runs is not made for Bristol Bay, however, the 1976 parent year which produced the 1980 return was subjected to the same excellent survival conditions that produced the record pink return to Nushagak in 1978.

Bristol Bay 1980 Processing Estimates

Processing capacity estimates for 1980 are based on the planned preseason production goal of 24 processors individually interviewed by members of the study team. The interviewed industry group is expected to process the majority of the 1980 catch. It is anticipated that additional processors, whose identity and number will not be known until immediately prior to the season, will participate.

The processing capacity figures should be considered "best estimates" due to economic and resource unknowns which could affect the industry's ability to handle the 1980 salmon run.

The assumption has been made that disruption of fishing and processing from economic and resource unknowns will not occur. It is important to realize, however, that each unknown has the ability to either disrupt or enhance prospects for an orderly harvest of Bristol Bay salmon. For

example:

--fishermen and processors have not yet agreed upon fish prices and price negotiations are a vital part of the harvest and processing potential—a work stoppage could significantly compress the amount of time allowed for catching and processing the fish;

--in the years 1975-79, there has been a significant market dislocation as a result of increased prices paid by Japanese buyers due to their domestic consumption concerns. To some degree this destabilized the industry's market projections;

--bad weather could significantly decrease fishing effort, allowing increased escapements and reduced demand for processing capacity.

In addition to these imponderables, the timing of the run, energy costs, run magnitude, and availability of operational financing in the volatile money markets could also affect the Bristol Bay salmon harvest and processing capability. The committee recognizes that these, and other, unknowns will possibly impact Bristol Bay this summer and has considered each to the fullest extent possible in arriving at its final recommendation.

Processing capacity estimates for sockeye are calculated on an average weight of 5.5 pounds per fish. This estimated greater-than-normal weight for a peak year results from consideration of the greater-than-normal 1979 average weight (5.82 lbs), good environmental conditions, and the percentage of 3 ocean-fish in the 1980 return. At the point forecast level of return, 0.1 of a pound deviation represents approximately + 687,000 fish.

Increases over 1979 in processing capacity are expected to occur in all methods of processing within Bristol Bay in 1980; however, the majority of the increase will result from transport of fish through flying and tendering. Documented industry plans provide for the movement of a substantial 11.3 million sockeyes out of Bristol Bay for processing. Facilities at Dutch Harbor, King Cove, False Pass, Kodiak, Kenai, Soldotna, Homer, Anchorage, and Cordova will be utilized in processing the Bristol Bay catch and other area facilities may be added as the season progresses.

Freezing capacity operating in Bristol Bay is projected to exceed the 1979 level. Processors with large freezers are planning for increased production through efficiencies in operations after experience gained in 1979. New shore-based freezing facilities will come on-line at both Ekuk and South Naknek and one new floating freezer barge will operate in 1980.

canning capacity is expected to be more efficiently utilized in 1980 with an early fish price settlement, plans for having multiple line crews in place early, and expansion of the total days of canning. At least one half-pound line not operated in 1979 will be operational in Bristol Bay and one additional pound tall line in Dutch Harbor will process Bristol Bay sockeye. Utilization of canning capacity outside the Bay is not part of projected canning capacity, but was considered part of the transport-out estimate. Projections of canning capacity within Bristol Bay are those developed by the Department of Fish and Game prior to the 1979 season and upgraded for 1980. These estimates

Japan Salmon Roe Production And Consumption 1973-1979 (Metric Tons)

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u> (est.)
Non-Hokkaido roe	4,868	4,335	3,486	5,773	6,682	7,794	6,669
Hokkaido roe	900	1,200	1,750	1,200	1,380	1,557	3,420
Total available	5,768	5,535	5,236	6,973	8,062	9,351	10,089
Total Consumption	5,168	4,935	4,636	6,373	7,262	8,,701	7,269
Carry-Over	60:0	600	600	600	800	650	2,820
Hokkaido chum catch	26,260	32,782	47,362	29,307	34,338	41,462	90,000

Source: Alaska Department of Fish and Game estimates based on interviews of individual U.S. processors conducting business in Japan.

A------

Exports of Domestic Cannel Salmon by Country of Destination

P.S. Fronts

	taunit (V	toport Tartif	tirn	1977	1976 Merrie to (\$ per Mi	1111	1978 and 1979	nt Country share In 1979 Centage	in d Han-Boy 1 Gr Motrie Tens
	United Kingdom	7 % ad Val.	-	3,708 (1,388)	4,340 (3,796)	6,853 (4,533)	+57.9	37.5	6ò5
	Australia	0		1,568 (3,708)	2,254 (3,456)	2,258 (3,712)	+0.2	12.4	226
	Netherland	7 % ad Val.	-	1,151 (3,642)	2,157 (3,207)	2,130 (3,726)	-1.2	11.7	213
	Canada	7⅓% ad Val.	Billingual labelling	1,548 (3,085)	2,618 (2,681)	3,949 (3,770)	+50.8	21.6	395
	Belgium	7 % ad Val.	-	540 (3,065)	654 (2,946)	772 (3,178)	+18.0	4.2	77
•	France	7 % ad Val.	-	252 (4,507)	400 (2,732)	256 (4,650)	-36.0	1.4	26
	Japan	12% ad Val.	Food Sanit.	325 (4,471)	614 (3,520)	1,195 (3,910)	+94.6	6.5	119
	Venezuela	40% ad Val.	Sanitary Permit	82 (3,536)	60 (3,091)	50 (3,160)	-16.7	0.3	5
	Other	0	-	476 (3,311 <u>)</u>	696 (3,228)	801 (3,494)	+15.1	4.4	80
	Total	0	-	9,650 (3,526)	13,793 (3,570)	18,264 (4,027)	+32.4	100.0	1,826

Fisheries Development Division F/UD1 1/15/80 MW

Source: National Marine Fisheries Service

have been assessed to be generally quite accurate and call for a total seasonal canning capacity of 14.5 million sockeye salmon. Canning operations on the west side of Bristol Bay (Dillingham) are estimated to be capable of processing 5.3 million sockeye salmon, and east-side operations 9.2 million sockeye seasonally.

(=

In summary, based on pre-season production goals and planning of individual companies, processing capacity directed at the 1980 sockeye return is estimated to be 35.4 million of the 37.1 million sockeye projected to be available.

The estimated sockeye processing deficit of 1.7 million sockeye must be increased by an additional 1.5 million chum salmon which are expected to be harvested simultaneously with sockeye largely in the Nushagak district. A total processing deficit of 3.2 million fish or 18.3 million pounds is estimated to exist at the point forecast level of return. Deviation normally occurs around the point forecast level and it is expected that the deviation in 1980 will be on the plus side, thus further increasing the processing deficit.

Operational carning lines in Bristol Bay are shown in Appendix XIV and estimates of daily and seasonal processing capacity are presented in Appendix XV.

Bristol Bay Planning Group Recommendations (Appendix XVII)

Three options for processing Bristol Bay salmon were identified and analyzed by the planning group. The options were as follows:

- 1. Utilize only domestic processing capacity with no foreign participation:
 - a. Fishermen sell to domestic tenders or processors only.
- Increase processing capacity through a limited exception that provides for:
 - a. Sale of fish by fishermen to domestic processors, and domestic tenders.
 - b. Transfer of unprocessed fish by domestic tenders, to domestic processors, or foreign tenders, processing vessels (outside State waters) or foreign processing plants.
 - c. Transfer of unprocessed fish by foreign tenders to foreign processing vessels or plants (and, pending approval of requested waiver of Federal Laws, to domestic processors).
- 3. Increase processing capacity through a limited exception that provides for:
 - a. All procedures allowed under Option 2, plus,
 - Sale of fish by fishermen directly to foreign tenders within State waters, and

c. Sale of fish by fishermen directly to foreign processing vessels within the State waters.

The first option, in view of the projected deficit in processing sockeye, is not recommended as a viable option by the planning group. Option 1 does not support the statutory mandate of the Commissioner of Fish and Game to manage the fishery resources of Alaska in the interest of the economy or the constitutional provisions for a sustained-yield fishery developed for maximum benefit to the people. In addition, any U.S. failure to utilize the Bristol Bay salmon run could result in pressure for increased foreign fishing under the International Convention for the High Seas Fishery of the North Pacific Ocean.

Rejection of Option 1 by this planning group accepts an undetermined level of foreign involvement in the processing of Bristol Bay salmon in 1980.

The consensus of the planning group is that the most appropriate action would be for the Board of Fisheries and the Commissioner of the Alaska Department of Fish and Game to issue a limited exception which would permit foreign tenders to assist U.S. processors in handling the catch. Option 2 would guarantee maximum domestic control over and utilization of the resource, with maximum utilization of domestic processing capacity. This option also promotes compliance with all applicable State laws and regulations. Cooperative business arrangements could be readily made by U.S. processors with foreign tender vessels to handle salmon excess to their plant needs. These business arrangements for tendering could also provide an incentive for some foreign countries to commit processing capacity to the immediate off-shore area of Bristol Bay. Although this option provides the opportunity for expanded markets for fishermen, neither it nor any of the available options guarantee that every fisherman will have a market for all his fish.

Following evaluation of the data available to the planning group, it does not appear at this time necessary to recommend that regulations be implemented to allow foreign vessels into State waters for the purpose of processing the catch as provided for in Option 3. Processing aboard foreign vessels is not required at this time because domestic processing capacity appears to be substantially capable of handling the majority of the runs under consideration. Under these considerations it is not probable that foreign processors would commit substantial processing vessels on a standby basis.

The Commissioner and Board of Fisheries would retain authority to implement additional measures upon full consideration of the circumstances immediately prior to, and during, the 1980 Bristol Bay salmon season.

Economics and Statistics

January 1, 1980 Report NOT FOR RELEASE UNTIL February 6, 1980

U. S. SUPPLY, STOCKS, AND SHIPMENTS

						% Change From
			77 - 78	1978-79	1979-80	One Year Ago
		(Basis 48/1	1b.)		
Carryover, June	1	. 5	17,076	785,894	643,612	-18
Pack to January	/ 1	3,0	90,234	3,261,046	3,313,613	+ 2
Imports to Janu	ary 1	•	-	-	-	• '
Supply to Janua	ary 1	, 3,6	07,310	4,046,940	3,957,225	- 2
Stocks, January	1	2,2	30,821	2,315,787	1,932,439	- 17
Shipments Dec.	1 to Jan. 1	, 2	97,404	187,350	352,993	+88
Shipments June	1 to Jan. 1		76,489	1,731,153	2,024,786	+17
			(Actual Cas	ses)		
Carryover, June	1	, 6	86,984	1,120,211	964,487	-14
	1		63,572	4,322,940	4,688,932	+ 8
	uary 1		-	· · ·	•	•
	ry 1		50,556	5,443,151	5,653,419	+ 4
	/ 1		60,231	3,153,113	2,691,353	-1 5
	1 to Jan. 1		24,602	222,927	503,441	+126
	1 to Jan 1		90,325	2,290,038	2,962,066	+29
	KING	RED	СОНО	PINK	CHUM	TOTAL
CARR	RYOVER JUNE 1 & PAG	OSMI & Y	RTS (TOTAL	SUPPLY FOR	SHIPMENTS)	
Criti	CIOVER SOME I & INC		LD & UNSOLI			
48/1 1b.	251	245,646			574 1,00	7 481,068
48/½ 1b.		1,118,678				
48/15 1/2	4,184	710,817			•	
12/4 1b.	•	794			· · · · · · · · · · · · · · · · · · ·	
U.S. Total		2,075,935	,		•	
		-	CANNERS' HA	•	•	•
48/½ 1b.	80	108,019				8 216,201
48/½ 1b.	9,278	441,812				
45/ 15 1/2	3,057	375,003				
12/4 15.	•	316				
U.S. Total	12,415	925,150	,			
0.0, 10001				NUARY 1,198		
48/½ 1b.	171	137,627				264,867
48/½ 1b.	14,579	676,866				
48/ 15 1/2	1,127	335,814		•	•	
12/4 1b.	-	478				
U.S. Total		150,785	•	•	•	
<u>e.s. rotar</u>	U. S. STOCE			ACCUMU		S TO JANUARY 1
		6, JANGA 1979	1980	1978		1980
4S/2 1b.		188,315	216,201	136,1		
48/½ 1b.		190,515	1 103 525	823,5		
48/ 15 1/2		392,180	1,193,525	889,5		
12/4 1b.		515,446	1,255,041		•	
	27,180	57,172	26,586	41,1		
U.S. Total	3,160,231 3,1	153,113	2,691,353	1,890,3	25 2,290,038	2,962,066

Comparative Estimates of Frozen Salmon Market in Japan December 1, 1979

Source 1/	197 Metric		197 Metric	_	198 Metric	Tons
	Salmon	Sockeye	Salmon	Sockeye	Salmon	Sockeye
(.arryover	40,000	10,000	40,000	20,000	85,000	30,000
Eigh Sea Catch	70,000	10,000	75,000	15,000	70,000	10,000
E:kkaido Chum	45,000	-	90,000	-	90,000	-
Imports	50,000	30,000	50,000	40,000	40,000	20,000
Tital Frozen Supply	200,000	50,000	255,000	75,000	285,000	60,000
Consumption	160,000	30,000	170,000	45,000	180,000	55,000

Source: Alaska Department of Fish and Game estimates based on interviews of individual U.S. processors conducting business in Japan.

 $[\]stackrel{\cdot}{\underline{}}$ 1980 figures are market projections based on previous two years.

Appendix III

1

Northwest Cold Storage Holdings of Frozen Salmon (Millions of Pounds)

12/31/78	1,699,000	6,262,000 7,803,000 4,514,000
12/31/79	1,253,000	6, 564,000 13, 112,000 5, 582,000 11, 209,000
11/30/79	1,173,000	7, 497, 000 14, 286, 000 6, 019, 000 12, 972, 000
Salmon 1/	Fillets & Steaks	Round & Drenned Eluga Color Clam- Unclass-

 $\underline{1}/$ Holdings represent reports from 30 cold storage warehouses;

Alaska 6; Washington 16; Oregon 4; Colorado 1; Idaho 2; Utah .. Some significant holdings are most reported in these figures.

Source: National Marine Fisheries Service, Fishery Market News.

Export of Domestic Salmon, Fresh and Frozen, Whole or Eviscerated, by Country of Destination

U.S. Exports

Country	Import Tariff	NTB	1977	1978	Jan155v. 1979	Change between 1978 and 1979	Country share In 1979	i of - 3ov 1979
				(\$ per M		Perce	ntage	1 stric Tons
Japan	5% ad Va1.	Food Sanit. Laws	14,449 (3,974)	39,771 (4,953)	39,820 (-,531)	+0.1	67.0	3,982
France	4% ad Val.	-	5,843 (4,729)	5,457 (5,649)	7,413 (5,232)	+35.8	12.5	741
United Kingdom	4% nd Val.	-	1,643 (3,131)	2,699 (3,735)	2,702 (4,812)	+0.1	4.5	270
Canada	0	-	2,479 (2,160)	1,657 (2,848)	2,646 (4,812)	+59.7	4.4	265
Sweden	0	-	1,784 (3,233)	1,861 (3,402)	2,457 (3,440)	+32.0	4.1	246
Belgium	4% ad Val.	-	809 (4,894)	743 (5,520)	1,170 (6,563)	+57.5	2.0	117
Federal Republic of Germany	4% nd Val.	-	821 (5,214)	959 (5,481)	. 1,080 (5,287)	+12.6	1.8	108
Netherlands	4Z nd Val.	-	532 (4,451)	766 (4,735)	700 (6,144)	-8.6	1.2	70
Denmark	4% ad Val.	-	804 (3,516)	426 (3,958)	597 (4,390)	+40.1	1.0	60
Italy	4% ad Val.	-	197 (7,010)	297 (7,121)	357 (7,498)	+20.2	0.6	36
Republic of Korea	25% ac Val.	Licensing & Import deposit	1.8 (5,000)	476 (2,590)	150 (4,440)	-68.5	0.2	15
Others	-	-	374	308	342	+11.0	0.5	34
Total	-	<u>-</u>	29,737 (3,951)	55,420 (4,846)	59,434 (4,765)	+7.2	100.0	5,943
EEC Countries Fisheries Development Division	4% ad Val.			11,347	14,028	+23.6	23,6	1.403

Fisheries Development Division F/UDI 1/15780 MW

Source: National Marine Fisheries Service

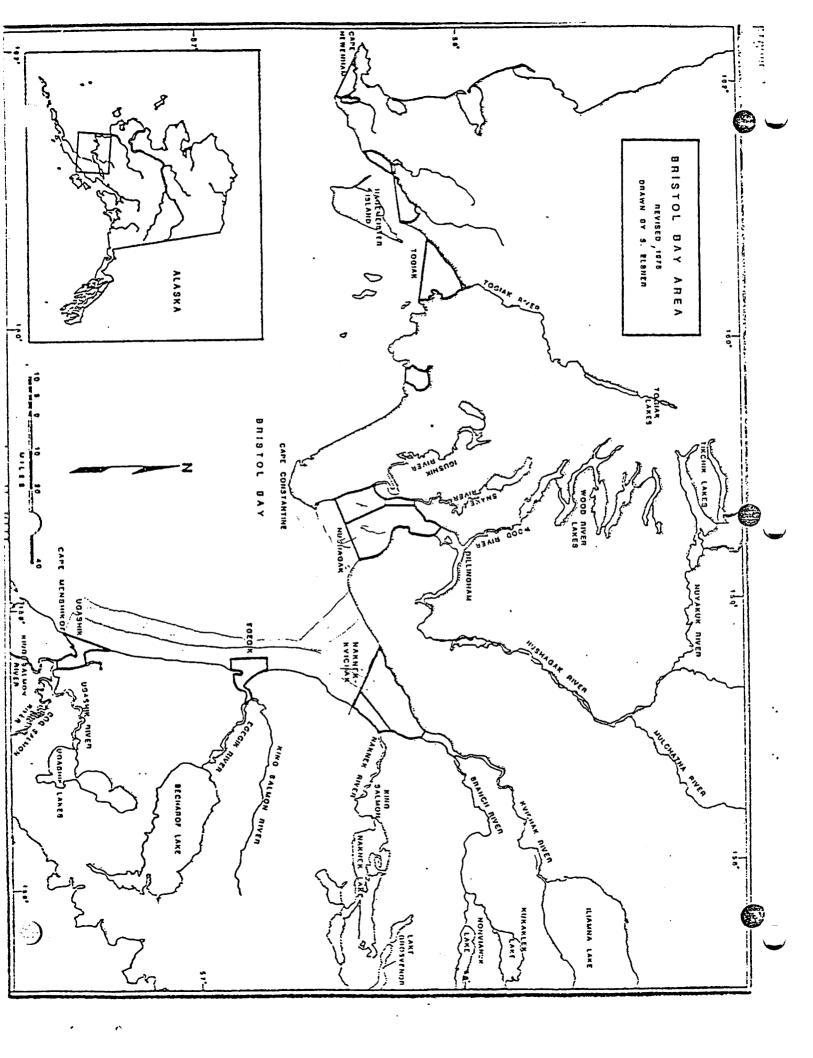
Esports of Fresh or Presen Salmon Fillots, by Country of Bestination

U.S. Exports

	Country	import Tarlff	iri n	1977	1976 Inserts to (\$ per 1)		Change between 1979 and 1979	48 4977	Luc of Luc of the Market of th
	Japan	5% ad Val.	Land Smilt,	820 (3,867)	964 (5,167)	######################################	e 16.8	41.5	NU
	Canada	0	Bilingual labelling	172 (2,907)	134 (2,582)	347 (3,559)	+159.0	18.8	35
	France	4% ad Val.	-	529 (5,180)	229 (4,432)	319 (7,233)	+39.3	17.3	32
	Federal Republic of Germany	4% ad Val.	-	27 (4,852)	59 (6,000)	129 (6,568)	+113.6	7.0	13
	Sweden	o	-	85 (3,541)	30 (5,233)	81 (3,070)	+170.0	4.4	- 8
•	United Kingdom	4% ad Val.	-	73 (3,110)	71 (2,028)	48 (2,266)	-32.4	2.6	. 5
	Belgium	4% ad Val.	- .	75 (4,320)	60 (3,983)	43 (4,228)	-28.3	2.3	. 4
	Other	- .		161 (3,093 <u>)</u>	82 (5,353)	75 (3,961)	-8.5	4.1	7
	Total	-	-	1,944 (4,060)	1,629 (4,711)	1,844 (4,722)	+13.2	100.0	194
		_							

Fisheries Development Division F/UD1 1/15/80 MW

Source: National Marine Fisheries Service



Forecast of sockeye salmon returns, escapement goals, and projected potential harvestable surplus by river system and fishing district, Bristol Bay, 1980.

01 - 1 - 10 -	None	bers of Fish in 1000's	
District/System .	Forecast of total run	Escapement Goal	Projected Harvest
Kvichak River Branch River Naknek River	40,064 155 2,703	14,000 185 800	26,064 0 1,903
Naknek-Kvichak District	42,922	14,985	27,967
Egegik District	3,445	600	2,845
Jgashik District	1,488	500	988
Wood River Igushik River Nuyakuk River Nush Mulch. Snake River	2,338 1,425 2,167 205 21	800 150 250 40 30	1,538 1,275 1,917 165 0
ushagak District	6,156	1,270	4,895
Cogiak District	531	100	431
otal Bristol Bay $\frac{1}{}$	54,542	17,455	37,126

^{1/} Sockeye salmon of several minor age classes are expected to contribute an additional 1-2 percent to the total run.

Source: Alaska Department of Fish and Game

Annau Itu. TV

Comparison of ADF&G and Japanese Forecasts of Sockeye Salmon Returns to Bristol Bay, 1969 - 1980.

Year	Actual Returns	Forecast Retur	ns (Millions) Japanese		t Return of recast
		1W1 00		ADF&G	Japanese
					•
1969	19.043	21.274	20.60	90%	92%
1970	39. 399	55.312	27.76	71%	142%
1971	15.825	15.170	17.51	104%	90%
1972	5.377	9.744	24.87	55%	22%
1973	2.439	6.200	4.99	39%	49%
1974	11.004	5.004	5.06	220%	217%
1975	24.161	11.960	24.60	202%	98%
1976	11.499	11.145	24.29	103%	47%
1977	9.474	8.380	22.23	113%	43%
1978	19.687	11.534	15.64	169%	126%
1979	40.322	22.650	27.32	178%	148%
1980	?	54.5-2	82.63	-	-
lean Error	:			49%	45%

Forecast Area: Bristol Bay

SPECIES: Pink Salmon

PRELIMINARY FORECAST OF 1980 RETURN:

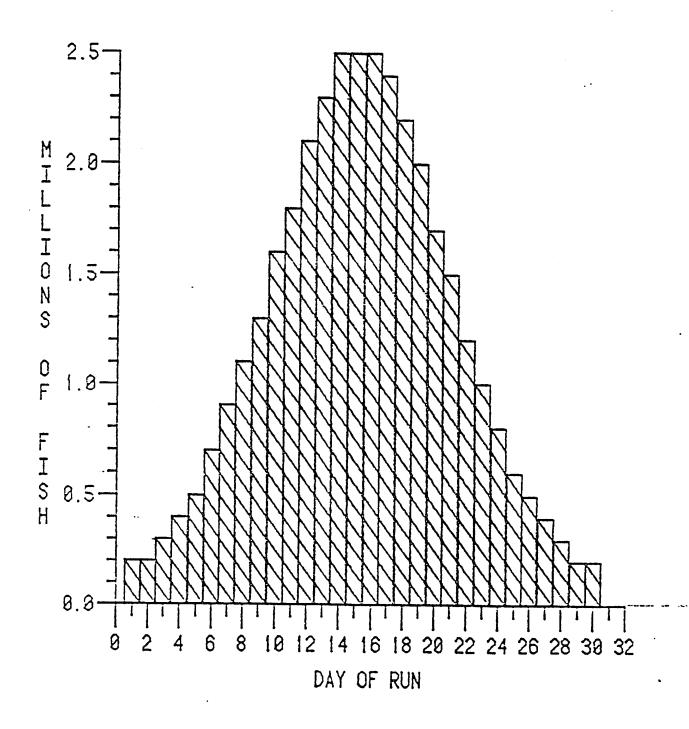
Point Estimate: 15.7 million

Range Estimate: See discussion

DISCUSSION OF THE 1980 FORECAST

After the phenomenal 1978 Nushagak River pink salmon return of nearly 14 million fish, which provided an unprecedented escapement of 9.4 million, and the exceptionally mild spring weather in 1979, any forecast of 1980 pink salmon return will be highly speculative. Since 1958, returns-persparmer have ranged from a low of 0.1 to nearly 17. Some of this variability can be eliminated by taking account of water temperature in the spring during fry emigration. Spring water temperatures from the nearby Kvichak River are available beginning in 1962. A multiplicative mathematical model incorporating escapement magnitudes and spring water temperatures does fit observed return-per-spawner data reasonably well, but natural variation is so large that the average relative error of prediction (without regard to sign) is 64%. The 1980 forecast of a 15.7 million fish total return is particularly untrustworthy because the parent year escapement of 9.4 million was more than twice as large as any observed before, and the spring water temperature was the warmest measured since 1962 in the years considered. The escapement goal is 1 million pink salmon, and a very large allowable harvest exceeding 14 million fish is expected.

1980 BRISTOL BAY SOCKEYE SALMON ANTICIPATED DAILY CATCH



Anticipated potential harvest of sockeye salmon, by day, for Bristol Bay with a run size of 54 million sockeye.

Anticipated potential daily harvest of sockeye salmon (in thousands) by day for Bristol Bay fishing districts, 1980.

Day of run	Nushagak	Naknek-Kvichak	Egegik	Ugashik	Togiak
1	34.2	139.7	22.8	4.0	2.6
1 2 3 4 5 6 7 8	44.0	167.6	28.4	4.9	3.0
3	48.9	223.5	34.1	5.9	3.9
4	68.4	307.3	42.7	8.9	4.3
5	78.2	391.1	54.1	9.9	4.7
6	102.6	502.9	62.6	12.8	5.6
7	122.1	642.6	76.8	16.8	6.5
8	146.6	810.2	91.0	20.7	· 7.8
9	175.9	977.8	108.1	24.7	8.6
10	205.2	1201.3	122.3	30.6 .	9.5
11	234.5	1424.8	136.6	36.6	10.8
12	263.8	1620.3	150.8	42.5	12.1
13	283.4	1815.9	162.2	49.4	13.4
14	298.0	1927.7	167.9	54.3	14.7
15	307.8	1983.5	170.7	. 60.3	15.5
16	302.9	1983.5	167.9	62.2	16.4
17 18	288.3 273.6	1843.8	147.9	63.2	17.7
19	2/3.6 244.3	1704.2	147.9	63.2	18.1
20	219.9	1508.6 1285.1	147.9 122.3	- 59.3	18.1
21	190.6	1089.5	105.3	55.3	18.5
22	156.4	866.0	91.0	50.4 43.5	18.5
23	136.8	698.4	74.0	43.5 37.5	18.1 17.2
24	107.5	558.7	62.6	30.6	
25	87.9	447.0	51.2	25 .7	16.4 15.5
26	73.3	335.2	42.7	21.7	14.2
27	58.6	251.4	34.1	16.8	12.9
28	48.9	195.6	28.4	12.8	11.6
29	34.2	139.7	22.8	10.9	10.8
30	29.3	111.7	17.1	8.9	9.5
Total	4895.0 1/	27 967.0 <u>1</u> /	2845.0	/ 988.0 1/	431.0 2/

Totals include an approximate 5% which would be caught prior to and after the 30 day period.

^{2/} Totals include an approximate 20% which would be caught prior to and after the 30 day period.

Bristol Bay Operational Canning Line Comparison 1980 Season and Prior High Production Years

Year	Operative		Number of Lines			
1,442	Companies	Tall	1/2 s	1/418	Total	
1970	12	30	12	2	44	
1975	10	24	14	2	40	
1979	11	20	17	1.	38	
1980						
Eastside	7	13	13	0	26	
Westside	_4			_1_	<u>13</u>	
Total	11	20	18	1	39	

Estimates of Processing Capacity Directed At The 1980 Bristol Bay Sockeye Return

Estimated Season Capacity

Canning Lapacity in Bristol Bay: Freezing Capacity in Bristol Bay Transport To Other Areas:	•	
Flying: Tendering:	39.5 million pounds 22.5 million pounds	•
Total:	195.0 million pounds	
<pre>1/ Point Forecast Level: Estimated Capacity:</pre>	204.0 million pounds -195.0 million pounds	37.1 million fish -35.4 million fish -

1.7 million fish / Sociate Processing Deficit: 9.0 million pounds 2/ Profested Chum Catch + 1.5 million fish + 9.3 million pounds

Total Processing Deficit: - 18.3 million pounds $-\overline{3.2}$ million fish \sim

Estimated Daily Capacity

	<u>Operators</u>	Capacity
Canning operations in Bristol Bay Freezing Operations in Bristol Bay	11 22	890,000 fish/day 459,400 fish/day
Transporting out of Bristol Bay: Flying: Tendering:	10 7	396,000 fish/day 4.1 Million fish/season

Daily capacity minus tendering out-1,745,000/day

- 1/ Conversion from pounds to fish based on 5.5 pound average weight for sockers and 6.2 pounds for chum salmon.
- 2. Season capacity has been estimated on the basis of sockeye only. It is projected that 1.5 million chums will be harvested simultaneously with the sockeye largely in Nushagak District.

Source of Estimates: Alaska Department of Fish and Game

1980 Board Amendments

- 5 AAC 39.198(b)(6) and (d) are amended to read:
- 5 AAC 39.198. COMMERCIAL FISHING AND RELATED OPERATIONS BY ALIENS NOT LAWFULLY ADMITTED TO THE UNITED STATES.
 - (b) As used in this section, "processing" means completion of:
- (6) freezing, which means to congeal and solidify the flesh of fish by abstraction of heat.
- (d) The commissioner, after consultation with the Board of Fisheries, may under conditions and limitations determined by him, grant a limited exception to this section with respect to a particular fishery and permit foreign vessels or aliens or both to process fish resources at an existing or constructive port, or to transport processed or unprocessed fish resources outside the state from an existing or constructive port, if he determines after investigation that:
- (1) the volume of fish resources expected to be taken in the fishery under current regulations exceeds the anticipated processing capability of facilities operated by United States processors;
- (2) there is no practical opportunity for United States processors to make emergency arrangements to handle excess volume or at any time it is determined that anticipated marketing conditions may limit United States processors capability to process the projected harvestable surplus;
- (3) there is a likelihood of substantial wastage of fish resources taken in the fishery if foreign processing or transportation capacity is not utilized;
- (4) there is no significant likelihood of clandestine foreign fishing operations if the exception is granted;
- (5) the limited exception may be terminated when, after consultation with the board, the commissioner determines United States processors can adequately process the harvest.

- (3) press releases and announcements in local newspapers and commercial radio stations:
 - (4) telegrams and commercial radio facilities.
 Authority: AS 16.05.060
- 5 AAC 39.197. UNLAWFUL POSSESSION OF FISH. No person may possess, purchase, sell, barter or transport fish within the state or within waters subject to the jurisdiction of the state if that person knows or has reason to know that the fish were taken or possessed in contravention of chs. 01-39 of this title.

Authority: AS 16.05.251(a)(10) and (b)

- 5 AAC 39.198. COMMERCIAL FISHING AND RELATED OPERATIONS BY ALIENS NOT LAWFULLY ADMITTED TO THE UNITED STATES. (a) Foreign vessels or aliens or both are prohibited from
- (1) the catching, taking, or harvesting of fish resources:
- (2) the tendering, offloading, or other movement or handling of fish resources until processing has been completed;
 - (3) the processing of fish resources; or
- (4) any attempt at, preparation for, or assistance of the foregoing; with the intent of disposing of the fish resources for profit, or by sale, barter, trade, or in commercial channels.
- (b) As used in this section, "processing" means completion of
 - (1) cooking:
 - (2) canning;
 - (3) smoking;
- (4) salting, which means uniformly mixing at a minimum salting level of at least 20 percent of the weight of the fish resources;
 - (5) drying; or
 - (6) freezing.
- (c) Aliens and foreign vessels are not prohibited from transporting fish resources

- outside the state, or engaging in other business activities respecting fish resources, after processing has been completed. Any vessel used pursuant to this authorization, whether domestic or foreign
- (1) must not be equipped for the harvesting of fish resources; and
- (2) must be in compliance with applicable state and federal laws.
- (d) The commissioner, after consultation with the Board of Fisheries, may, under conditions and limitations determined by him. grant a limited exception to this section with respect to a particular fishery and permit foreign vessels to process fish resources at an existing or constructive port, or to transport fish resources outside the state from an existing or constructive port that processing takes place, if he determines after investigation that
- (1) the volume of fish resources expected to be taken in the fishery under current regulations exceeds the anticipated processing capability of facilities operated by United States processors;
- (2) there is no practical opportunity for United States processors to make emergency arrangements to handle the excess volume;
- (3) there is a likelihood of substantial wastage of fish resources taken in the fishery if foreign processing or transportation capacity is not utilized; and
- (4) there is no significant likelihood of clandestine foreign fishing operations if the exception is granted.
- (e) With respect to paragraph (d) of this section the commissioner may recognize and designate constructive ports, provided
- (1) the ports are within the internal waters of the state;
- (2) there is no existing port within reasonable running time from fishing grounds which are the subject of a substantial fishery; and
- (3) there is no significant opportunity for clandestine violations of (a) of this section or

evasion of other applicable state and federal laws and regulations.

- (f) The provisions of this section apply to foreign vessels and aliens in the internal waters and the territorial sea of the state.
- (g) As used in this section
- (1) "aliens" means aliens not admitted to the United States with immigrant or other resident alien status under the immigration and naturalization laws of the United States;
- (2) "existing ports" means those Alaskan marine ports designated in 19 C.F.R. sec. 1.2.;
- (3) the phrase "foreign vessels and aliens" includes foreign vessels staffed with aliens, foreign vessels staffed with U.S. citizens, and U.S. vessels staffed with aliens; and
- (4) "foreign vessels" means vessels not documented under the laws of the United States or documented under the laws of a state.

Authority: AS 16.05.251 AS 16.05.910 AS 16.05.475 AS 16.05.920

AS 16.05.475 AS 16.05.920 AS 16.05.905 AS 16.05.940

ARTICLE 2. SALMON FISHERY

Section

- 230. Gear
- 240. General gear specifications and operation
- 250. Gill net specifications and operation
- 260. Seine specifications and operation
- 270. Troll specifications and operation
- 280. Identification of stationary fishing gear
- 290. Closed waters
- 5 AAC 39.230. GEAR. Only those gill nets, seines, troll lines, fishwheels, spears or other appliances as provided for in chs. 03-39 of this title may be used to take salmon.

Authority: AS 16.05.250(3)

5 AAC 39.240. GENERAL GEAR SPECIFICATIONS AND OPERATION. (a) A salmon fishing vessel shall operate, assist in operating, or have aboard it or any boat towed by it, only one legal limit of salmon fishing gear in the aggregate except as otherwise provided in this title.

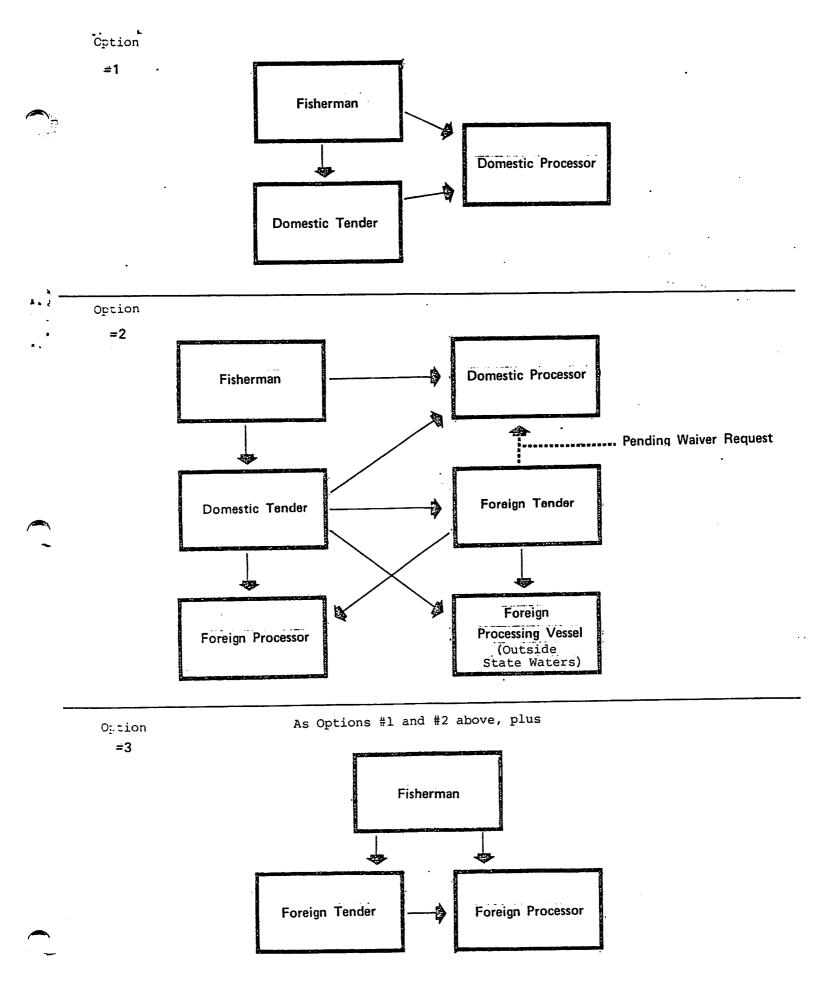
- (b) Unhung gear sufficient for mending purposes may be carried aboard fishing vessels.
- (c) A purse seine, hand purse seine or beach seine may not be fished simultaneously with gill net gear by any individual or vessel.
- (d) Salmon fishing nets shall be measured, either wet or dry, by determining the maximum or minimum length of the cork line when the net is fully extended with traction applied at one end only.
- (e) The interim-use or entry permit card holder is responsible for the operation of the net.

Authority: AS 16.05.251(4)

- 5 AAC 39.250. GILL NET SPECIFICATIONS AND OPERATION. (a) The trailing of gill net web is prohibited at any time or place where fishing is not permitted.
- (b) Set gill nets shall be removed from the water during any closed period.
- (c) Gill net web must contain no less than 25 filaments until December 31, 1978. After December 31, 1978, gill net web must contain no less than 30 filaments.

Authority: AS 16.05.251(4)

- 5 AAC 39.260. SEINE SPECIFICATIONS AND OPERATION. (a) In the use of purse seines and hand purse seines, not more than one anchor may be used to hold the seine, lead and seine boat during a set.
- (b) Repealed 3/26/76.
- (c) A purse seine is considered to have ceased fishing when all the rings are out of the water.
- (d) A hand purse seine is considered to have ceased fishing when both ends of the seine are fast to the vessel.
- (e) A beach seine is considered to have ceased fishing when all of the lead line is above the water on the beach.
- (f) Where the use of leads is permitted, a purse seine vessle may not have or use more than one lead of legal length and depth, without purse



Appendix XVII

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairmen

Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman

Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman

Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chaired Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

7

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman

Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman

Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic davelopment of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Romald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

Journal of Transcries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic cevelopment of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman

Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

.....

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d), has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman Alaska Board of Fisheries

DATED: April 22, 1980

MEMORANDUM

DATE:

April 22, 1980

TO:

Council Members, Scientific & Statistical Committee

and Advisory Panel

FROM:

Jim H. Branson, Executive Director

SUBJECT:

High Seas Salmon off the coast of Alaska east of 175° east longitude,

FMP.

ACTION REQUIRED

Act on a State of Alaska request to amend the salmon plan to authorize joint venture processing in Bristol Bay.

BACKGROUND

Governor Jay Hammond has asked the Council to amend the High Seas Salmon Plan to allow joint venture processing of Bristol Bay salmon this year. The Department of Commerce has indicated it is possible to amend the plan -- utilizing emergency regulatory authority provisions for the 1980 season.

Attached is the FINAL SUMMARY REPORT OF THE FISHERY HARVEST PLANNING GROUP ON THE 1980 BRISTOL BAY SALMON HARVEST which explains the expected salmon return, domestic processing Capacity and intent and the potential surpluses. Also attached is a draft of proposed amendment (TEMPORARY EMERGENCY PROVISIONS) for the High Seas Salmon Plan.

We expect alot of public comment and also an important review of the proposal by the Scientific and Statistical Committee and the Advisory Panel.

11.4 APPENDIX IV - TEMPORARY EMERGENCY PROVISIONS

Authorizing Receipts by Foreign Fishing Vessels of United States Harvested Salmon in the FCZ of the Bristol Bay Area During 1980

Notwithstanding any other provision of this Plan, the following provisions shall apply to the harvest and processing of salmon in the Bristol Bay area during 1980:

- (1) "Bristol Bay Area" means all areas of Bristol Bay enclosed by a line extending from Cape Newenham in the north to Point Moeller in the south, together with the area of the FCZ lying seaward of that line.
- (2) The combined optimum yield (OY) of sockeye salmon and chum salmon for the Bristol Bay area in 1980 lies within the range of 126.65-295.30 million pounds, or 22.9 53.5 million fish. Within this range, the point forecast by the Alaska Department of Fish and Game of the actual harvest of sockeye salmon and chum salmon in the Bristol Bay area is 213.3 million pounds, or 38.6 million fish. This point forecast is specified as the OY of sockeye salmon and chum salmon for the Bristol Bay area in 1980. This entire OY will be harvested by vessels of the United States within the waters of the State of Alaska.
- (3) The maximum amount of sockeye salmon and chum salmon harvested in the Bristol Bay area during 1980 that will be utilized by United States fish processors (DAP) is 195 million pounds or 35.4 million fish. Thus, 18.3 million pounds, or 3.2 million fish, of the OY of sockeye salmon and chum salmon for the Bristol Bay area in 1980 will not be utilized by United States fish processors. As used here, the term "United States fish processors" means facilities located within the United States for, and vessels of the United States used or equipped for, the processing of fish for commercial use or consumption.
- (4) Because United States fish processors will not utilize all of the OY of sockeye salmon and chum salmon that will be harvested by

vessels of the United States during 1980 in the Bristol Bay area, the amount that will not be so utilized (JVP), which has been determined, as noted above, to equal 18.3 million pounds, or 3.2 million fish, may be made available for delivery in the FCZ to foreign fishing vessels, pursuant to section 204(b)(6)(B) of the FCMA. The arrangements under which such deliveries of United States harvested fish to foreign fishing vessels in the FCZ are made are commonly referred to as "joint ventures." Each foreign fishing vessel receiving United States harvested fish under a joint venture arrangement must possess a foreign fishing permit issued pursuant to section 204 of the FCMA authorizing the receipt of the United States harvested fish in question in an amount not to exceed the total JVP.

- (5) The inability of United States fish processors to utilize the entire OY of sockeye salmon and chum salmon that will be harvested in Bristol Bay by vessels of the United States in 1980 presents an exceptionally severe resource conservation emergency. If not utilized before they spawn and die this year, these fish will be permanently lost to the human food supply, a development that will result in tremendous economic waste and financial loss to United States fishermen, and will thus reduce the overall benefit derived from this fishery by the Nation. It is, therefore, essential that foreign fishing vessels be authorized and encouraged to enter the FCZ this year to receive sockeye salmon and chum salmon harvested by vessels of the United States in the Bristol Bay area in an amount not to exceed the JVP. In determining the allocation of the JVP among the fishing vessels of various nations, the NOAA Assistant Administrator for Fisheries may take into account such matters as he may deem appropriate, including the willingness of each nation to provide a long-term market for United States harvested and processed fish products.
- (6) The NMFS Alaska Regional Director, after consultation with the Alaska Department of Fish and Game, may find during the course of the fishery that the JVP of sockeye salmon and chum salmon for the Bristol Bay area in 1980 that was specified above is too low, and

that the actual excess of the OY harvested by vessels of the United States in the Bristol Bay area during 1980 over the maximum amount of this fish that will be utilized by United States fish processors will be more than 18.3 million pounds or 3.2 million fish. In order to prevent the economic waste and financial loss to United States fishermen that adherence to the currently specified JVP would cause under such circumstances, the Regional Director may, in this situation, revise the OY and DAP figures specified above so as to raise the JVP figure to equal the actual shortfall in utilization of the United States harvest by United States fish processors, provided that the OY figure may under no circumstances, be increased to exceed 295.3 million pounds or 53.5 million fish. The Regional Director's revision will be effective upon filing with the Federal Register, and may be given retroactive effect. The resulting increase in the JVP shall be allocated among the foreign fishing vessels participating in joint ventures involving sockeye salmon and chum salmon harvested in the Bristol Bay area in the manner specified by the Assistant Administrator in the foreign fishing permits authorizing such participation.

(7) Because the resource conservation emergency to which these provisions are intended to respond requires their implementation within a time that is shorter than the normal FMP implementation process would allow, it is intended that these provisions be implemented by emergency regulation pursuant to section 305(e) of the FCMA. The provisions of this Appendix IV shall expire and cease to be part of this plan upon the expiration of the emergency regulations through which they are implemented. Only such other provisions of the plan as are inconsistent with the implementation of the provisions of this Appendix shall be considered to be superseded or modified by this Appendix while it is in effect.

FINAL SUMMARY REPORT

OF THE

FISHERY HARVEST PLANNING GROUP

ON THE

1980 BRISTOL BAY SALMON HARVEST

Submitted by

The 1980 Fishery Harvest Planning Group



STATE OF ALASKA OFFICE OF THE GOVERNOR JUNEAU

March 14, 1980

The Honorable Ronald O. Skoog Commissioner of Fish and Game Subport Building Juneau, AK 99801

Dear Commissioner Skoog:

As Chairman of the Governor's Planning Group preparing for the orderly harvest of the 1980 Bristol Bay salmon fishery, I am forwarding the Report of the Planning Group to you for your own use and for transmittal to the Board of Fisheries.

The report outlines the findings of the Planning Group and includes tables of information on which these findings are based. Members of the Planning Group present at its March 3 meeting unanimously agreed, if a salmon run in excess of U.S. processing capacity is expected, to recommend to you implementation of Option 2, that of increasing processing capacity by allowing foreign vessel tendering. This procedure would allow you, if necessary, to move directly into Option 3, that of increasing processing capacity by allowing foreign processing vessels within State waters.

Sincerely,

Charles H. Meacham, Director International Fisheries and

External Affairs

(



STATE OF ALASKA OFFICE OF THE GOVERNOR JUNEAU

1980 Fishery Harvest Planning Group

Office of the Governor

Charles H. Meacham, Director, International Fisheries and External Affairs (Chairman)

Keith Specking, Legislative Assistant to the Governor

Jim Edenso, Bottomfish Coordinator

Robert Waldrop, Special Assistant to the Governor

John Halterman, Acting Director, Division of Policy Development and Planning

David Allison, Policy and Program Specialist

Office of the Lieutenant Governor

Kim Elton, Special Assistant

Legislature

Eric Eckholm, Legislative Aide to Senator George Hohman and Representative Nels Anderson

Department of Commerce and Economic Development

Charles R. Webber, Commissioner

Department of Fish and Game

Ronald O. Skoog, Commissioner (Vice Chairman)

Carl Rosier, Deputy Commissioner

Department of Labor

Glenn Lundell, Deputy Commissioner

Department of Law

John Gissberg, Assistant Attorney General

Introduction

In the fall of 1979 the Commissioner of Fish and Game discussed with Governor Hammond the projected heavy salmon runs in Bristol Bay in 1980 and the possibility that existing processing capacity would be insufficient to meet the needs. At about the same time that the Alaska Department of Fish and Game (ADF&G) preliminary forecasts were being developed in September of 1979, the Governor's Office, as well as the Department of Fish and Game, began to receive inquiries from fishermen and processors expressing some anxiety about the unusually large runs and potential harvest and processing problems.

The Director of International Fisheries and External Affairs, on November 19, 1979, in accordance with the Governor's instructions established an interagency study group composed of representatives from the Governor's Office, Department of Fish and Game, Commerce and Economic Development, Law, and the Division of Policy Development and Planning to conduct a preliminary review and investigation. That group met on December 11 to present the Governor with preliminary information in preparation for a meeting between the Governor and representatives of the fishing and processing sectors of the industry on December 17 in Anchorage. The group Tet again on December 18 and reviewed updated Department of Fish and Game projections and statistics together with the comments of fishermen and representatives of the processing industry.

The planning group was expanded to include a staff representative from the Legislature, a representative from the Office of the Lieutenant Governor, the Department of Labor and several staff members from ADF&G, Commerce and Economic Development and the Division of Policy Development and Planning.

Preliminary economic studies were conducted (Appendices I through VII). Representatives from the planning group met in Seattle with processors representing a substantial portion of Bristol Bay processing capacity. During those meetings with policy-level personnel, alternatives for meeting possible shortfalls in capacity were discussed. Alternative market apportunities were explored by a delegation from the planning group to the National Marine Fisheries Service, Department of Agriculture, and Alaska Congressional Delegation in Washington, D.C., specifically discussed was the use of Alaska salmon in school lunch and needy family supplemental food programs, international relief projects and the military. Some immediate sales opportunities for a substantial volume of canned products were identified and that specific information was provided to industry representatives. It was determined that frozen products would be difficult to distribute in international relief programs, but that a long-term potential exists for the sale of portion-controlled items to school lunch programs and the military.

Our investigations left little doubt that there are markets not yet tapped and those which could be expanded for salmon products. This is true for iomestic as well as European areas. An underlying concern for successful entry into these markets is the need to improve quality standards and handling of the product and to establish confidence in the market of an assured supply. Strong sales promotion efforts will be required over several years to provide significant impact on the distribution of Bristol Bay salmon products, especially in frozen form. Expanding the distribution of air fresh fish is seen as having good potential. Systems developed this season for transportation, handling,

and sales of fresh salmon will be helpful in the future. Further comments and suggestions were solicited from both fishermen and processors who had experience with the Bristol Bay salmon harvest.

During late December, January, and February additional meetings of the planning group were held and accumulated statistics and information were reviewed and analyzed. A summary of the study results and options available to the State has been compiled in this report for the Governor's review and presentation to the Commissioner of the Alaska Department of Fish and Game and the Board of Fisheries.

Supplementing Domestic Processing Capacity

As the result of expected large returns of salmon to various areas of Alaska in 1980 and expressed concerns regarding the adequacy of salmon processing capability within the State, the Alaska Board of Fisheries adopted regulatory procedures for supplementing domestic processing with foreign capacity. These procedures, provided under 5 AAC 39.198, are implemented by the Commissioner of Fish and Game following consultation with the Board of Fisheries.

Under 5 AAC 39.198, foreign vessels or aliens are prohibited from engaging in a number of activities including:

- (1) the catching, taking, or harvesting of fish resources;
- (2) the tendering, cffloading, or other movement or handling of fish resources until processing by U.S. citizens has been completed;
 - (3) the processing of fish resources; or
- (4) any attempt at, preparation for, or assistance of the foregoing, with the intent of disposing of the fish resources for profit, or by sale, barter, trade, or in commercial channels.
- When U. S. capacity is not sufficient to handle the fish available for harvest, the Commissioner of Fish and Game may grant a limited exception to allow foreign assistance in processing or in transporting fish. The Commissioner's decision to grant a limited exception must be based upon consideration of five factors:
- (1) When the volume of fish resources expected to be taken in the fishery under current regulations exceeds the anticipated processing capability of facilities operated by United States processors;
- (2) When there is no practical opportunity for United States processors to make emergency arrangements to handle excess volume, or at any time it is determined that anticipated marketing conditions may limit United States processors' capability to process the projected harvestable surplus;
- (3) When there is a likelihood of substantial wastage of fish resources taken in the fishery if foreign processing or transportation capacity were not utilized;
- (4) And, there is no significant likelihood of clandestine foreign fishing operations if the exception is granted.

(5) The limited exception may be terminated when, after consultation with the Board, the Commissioner determines United States processors can adequately process the harvest.

In previous years, the Commissioner delayed consideration of a possible waiver until in-season circumstances showed there was "no practical opportunity for United States processors to make emergency arrangements for the excess volume." However, the Board of Fisheries has supplemented this provision to provide for a pre-season waiver if the Commissioner finds that "anticipated marketing conditions may limit United States processors' capacity to process the projected harvestable surplus."

This additional provision has been filed with the Lieutenant Governor and will become effective on March 31, 1980. Complete regulations as adopted by the Board of Fisheries are presented in Appendix XVI.

Review of 1979 Bristol Bay Processing Capacity

Bristol Bay processing capacity in 1979 was adversely affected by a unique set of variables. The return of 40.4 million sockeye was nearly double the 22.7 forecast level, making approximately 17.7 million additional sockeye available for harvest and processing; average sockeye weights were significantly above normal, extending processing time for both canning and freezing, price disputes delayed significant canning until June 28, well into the run, and agreed-to sockeye prices of \$.80 per pound for canning and \$1.25 per pound for freezing required heavy processing dependence on freezing and utilization of smaller can size canning lines.

Pre-season evaluation of the 1979 Bristol Bay processing capacity by the Department of Fish and Game, based on industry supplied data, indicated a seasonal capacity of 22.6 million sockeye. Preliminary data indicate that over 21.9 million sockeye were processed in 1979. A post-season evaluation by the Department of Fish and Game on the pre-season daily estimated processing capacity compared to the actual daily rates indicates a deficiency of about 18% for all operations. The pre-season estimated daily rate was 1,652,000 fish per day and the actual post-season evaluation, 1,360,000 fish processed per day. Preliminary production data indicate that canning and freezing capacity, largely within Bristol Bay, accounted for 8.3 and 8.6 million sockeye respectively. Transportation via tenders and aircraft to processing facilities outside of Bristol Bay accounted for the remaining 4.6 million sockeye.

Bristol Bay 1980 Salmon Run Projections

Salmon catch projections for Bristol Bay in 1980 total 53.7 million of all species. Record catches of 37.1 million sockeye and 14.7 million pink salmon are forecast while the chum catch is projected to be 1.5 million, kings 200,000, and coho 200,000. Except in the case of chum salmon, significant overlap in run timing of the various species does not occur.

The Alaska Department of Fish and Game point forecast for the sockeye return is 54.5 million with a range of 39.4 - 69.5 million. Peak year escapement requirements total 17.5 million, leaving a harvest surplus of 37.1 million from all systems at the point return level. Within the

forecast range the harvest surplus range is 21.9 - 52.0 million. The 1980 point forecast harvest level of 37.1 million sockeye is one and a half times greater than the previous record high catch of 24.7 million taken in 1938. Large returns and significant harvests are anticipated in all fishing districts.

Japanese scientists also forecast the 1980 Bristol Bay sockeye return and their point forecast was initially 82.6 million. They have recently revised this forecast downward to 73.6 million. The earlier Japanese forecast was reviewed by Alaskan scientists and while the magnitude of the Japanese 2-ocean forecast was viewed as realistic the 3-ocean forecast appeared to be significantly above probable returns. The new revised Japanese forecast in the magnitude of 73.6 million tends to support the view of the Alaska Department of Fish and Game that the 1980 return will be in the middle to upper range.

Comparative data on accuracy of forecasts by the Japanese and Alaska Department of Fish and Game are provided in Appendix X. The Alaska Department of Fish and Game 1980 sockeye forecast by river system is shown in Appendix IX and projected potential daily harvests of sockeye are shown in Appendix XII and XIII.

Pink salmon returning to the Nushagak system is forecast to be 15./ million. A return at this level will provide a harvest of 14.7 million. The 1980 pink return is the result of the phenomenal 1978 Nushagak River pink run of 14 million. The forecast should be viewed with some caution as outlined in the forecast discussion of Appendix XI.

Chum salmon runs to all Bristol Bay river systems are expected to contribute 1.0 - 1.5 million fish to the 1980 catch. The Nushagak River system is the single largest producer and over 1.0 million of the total catch is expected from the Nushagak district. Timing of the chum salmon runs in the Nushagak district overlap sockeye timing to a large degree and chum salmon catches must be considered a factor in the evaluation of processing capacity for sockeye. A formal forecast of chum salmon runs is not made for Bristol Bay, however, the 1976 parent year which produced the 1980 return was subjected to the same excellent survival conditions that produced the record pink return to Nushagak in 1978.

Bristol Bay 1980 Processing Estimates

Processing capacity estimates for 1980 are based on the planned preseason production goal of 24 processors individually interviewed by members of the study team. The interviewed industry group is expected to process the majority of the 1980 catch. It is anticipated that additional processors, whose identity and number will not be known until immediately prior to the season, will participate.

The processing capacity figures should be considered "best estimates" due to economic and resource unknowns which could affect the industry's ability to handle the 1980 salmon run.

The assumption has been made that disruption of fishing and processing from economic and resource unknowns will not occur. It is important to realize, however, that each unknown has the ability to either disrupt or enhance prospects for an orderly harvest of Bristol Bay salmon. For

example:

--fishermen and processors have not yet agreed upon fish prices and price negotiations are a vital part of the harvest and processing potential--a work stoppage could significantly compress the amount of time allowed for catching and processing the fish;

--in the years 1975-79, there has been a significant market dislocation as a result of increased prices paid by Japanese buyers due to their domestic consumption concerns. To some degree this destabilized the industry's market projections;

--bad weather could significantly decrease fishing effort, allowing increased escapements and reduced demand for processing capacity.

In addition to these imponderables, the timing of the run, energy costs, run magnitude, and availability of operational financing in the volatile money markets could also affect the Bristol Bay salmon harvest and processing capability. The committee recognizes that these, and other, unknowns will possibly impact Bristol Bay this summer and has considered each to the fullest extent possible in arriving at its final recommendation.

Processing capacity estimates for sockeye are calculated on an average weight of 5.5 pounds per fish. This estimated greater-than-normal weight for a peak year results from consideration of the greater-than-normal 1979 average weight (5.82 lbs), good environmental conditions, and the percentage of 3 ocean-fish in the 1980 return. At the point forecast level of return, 0.1 of a pound deviation represents approximately + 687,000 fish.

Increases over 1979 in processing capacity are expected to occur in all methods of processing within Bristol Bay in 1980; however, the majority of the increase will result from transport of fish through flying and tendering. Documented industry plans provide for the movement of a substantial 11.3 million sockeyes out of Bristol Bay for processing. Facilities at Dutch Harbor, King Cove, False Pass, Kodiak, Kenai, Soldotna, Homer, Anchorage, and Cordova will be utilized in processing the Bristol Bay catch and other area facilities may be added as the season progresses.

Freezing capacity operating in Bristol Bay is projected to exceed the 1979 level. Processors with large freezers are planning for increased production through efficiencies in operations after experience gained in 1979. New shore-based freezing facilities will come on-line at both Ekuk and South Naknek and one new floating freezer barge will operate in 1980.

canning capacity is expected to be more efficiently utilized in 1980 with an early fish price settlement, plans for having multiple line crews in place early, and expansion of the total days of canning. At least one half-pound line not operated in 1979 will be operational in Bristol Bay and one additional pound tall line in Dutch Harbor will process Bristol Bay sockeye. Utilization of canning capacity outside the Bay is not part of projected canning capacity, but was considered part of the transport-out estimate. Projections of canning capacity within Bristol Bay are those developed by the Department of Fish and Game prior to the 1979 season and upgraded for 1980. These estimates

have been assessed to be generally quite accurate and call for a total seasonal canning capacity of 14.5 million sockeye salmon. Canning operations on the west side of Bristol Bay (Dillingham) are estimated to be capable of processing 5.3 million sockeye salmon, and east-side operations 9.2 million sockeye seasonally.

In summary, based on pre-season production goals and planning of individual companies, processing capacity directed at the 1980 sockeye return is estimated to be 35.4 million of the 37.1 million sockeye projected to be available.

The estimated sockeye processing deficit of 1.7 million sockeye must be increased by an additional 1.5 million chum salmon which are expected to be harvested simultaneously with sockeye largely in the Nushagak district. A total processing deficit of 3.2 million fish or 18.3 million pounds is estimated to exist at the point forecast level of return. Deviation normally occurs around the point forecast level and it is expected that the deviation in 1980 will be on the plus side, thus further increasing the processing deficit.

Operational canning lines in Bristol Bay are shown in Appendix XIV and estimates of daily and seasonal processing capacity are presented in Appendix XV.

Bristol Bay Planning Group Recommendations (Appendix XVII)

Three options for processing Bristol Bay salmon were identified and analyzed by the planning group. The options were as follows:

- 1. Utilize only domestic processing capacity with no foreign participation:
 - a. Fishermen sell to domestic tenders or processors only.
- 2. Increase processing capacity through a limited exception that provides for:
 - Sale of fish by fishermen to domestic processors, and domestic tenders.
 - b. Transfer of unprocessed fish by domestic tenders, to domestic processors, or foreign tenders, processing vessels (outside State waters) or foreign processing plants.
 - c. Transfer of unprocessed fish by foreign tenders to foreign processing vessels or plants (and, pending approval of requested waiver of Federal Laws, to domestic processors).
- 3. Increase processing capacity through a limited exception that provides for:
 - a. All procedures allowed under Option 2, plus,
 - b. Sale of fish by fishermen directly to foreign tenders within State waters, and

c. Sale of fish by fishermen directly to foreign processing vessels within the State waters.

The first option, in view of the projected deficit in processing sockeye, is not recommended as a viable option by the planning group. Option 1 does not support the statutory mandate of the Commissioner of Fish and Game to manage the fishery resources of Alaska in the interest of the economy or the constitutional provisions for a sustained-yield fishery developed for maximum benefit to the people. In addition, any U.S. failure to utilize the Bristol Bay salmon run could result in pressure for increased foreign fishing under the International Convention for the High Seas Fishery of the North Pacific Ocean.

Rejection of Option 1 by this planning group accepts an undetermined level of foreign involvement in the processing of Bristol Bay salmon in 1980.

The consensus of the planning group is that the most appropriate action would be for the Board of Fisheries and the Commissioner of the Alaska Department of Fish and Game to issue a limited exception which would permit foreign tenders to assist U.S. processors in handling the catch. Option 2 would guarantee maximum domestic control over and utilization of the resource, with maximum utilization of domestic processing capacity. This option also promotes compliance with all applicable State laws and regulations. Cooperative business arrangements could be readily made by U.S. processors with foreign tender vessels to handle salmon excess to their plant needs. These business arrangements for tendering could also provide an incentive for some foreign countries to commit processing capacity to the immediate off-shore area of Bristol Bay. Although this option provides the opportunity for expanded markets for fishermen, neither it nor any of the available options guarantee that every fisherman will have a market for all his fish.

Fellowing evaluation of the data available to the planning group, it does not appear at this time necessary to recommend that regulations be implemented to allow foreign vessels into State waters for the purpose of processing the catch as provided for in Option 3. Processing aboard foreign vessels is not required at this time because domestic processing capacity appears to be substantially capable of handling the majority of the runs under consideration. Under these considerations it is not probable that foreign processors would commit substantial processing vessels on a standby basis.

The Commissioner and Board of Fisheries would retain authority to implement additional measures upon full consideration of the circumstances immediately prior to, and during, the 1980 Bristol Bay salmon season.

Economics and Statistics

January 1, 1980 Report NOT FOR RELEASE UNTIL February 6, 1980

CANNED SALMON U. S. SUPPLY, STOCKS, AND SHIPMENTS

		.1	977 -7 8	1978-79	1979-80	% Change From One Year Ago
•			(Basis 48/			
Carryover, June	1	• • • •	517,076	785,894	643,612	-18
Pack to January	1	3,	090,234	3,261,046	3,313,613	+ 2
Imports to Janu	ary 1		<u> </u>	, <u>.</u>	, <u>,</u>	•
Supply to Janua			607,310	4,046,940	3,957,225	- 2
Stocks, January			230,821	2,315,787	1,932,439	-17
Shipments Dec.			297,404	187,350	352,993	+88
Shipments June			376,489	1,731,153	2,024,786	+17
			(Actual C			
Carryover, June	. 1		686,984	1,120,211	964,487	-14
Pack to January	1	4	363,572	4,322,940	4,688,932	+ 8
Imports to Janu	arv 1	••••	-	4,522,540	4,000,552	. •
Supply to Janua	rv 1	5	050,556	5,443,151	5,653,419	+ 4
Stocks, January	, 1	···· 2,	160,231			-15
Shipments Dec.	l to lan l		424,602	3,153,113 222,927	2,691,353 503,441	+126
Shipments June			890,325	2,290,038	2,962,066	+29
on paicted suite	KING	RED	COH	· · · · · · · · · · · · · · · · · · ·	CHUM	TOTAL
01.00						101111
CARR	YOVER JUNE 1 &		ORIS (TOTA OLD & UNSO		SHIPMENTS)	
48/1 1b.	251	245,64	6 14,5	90 219,9	574 1,007	481,068
$48/\frac{1}{2}$ 1b.	23,857	1,118,67	•			
48/15 1/2	4,184	710,81				
12/4 lb.	-	79				
U.S. Total	28,292	2,075,93				
•	•			HANDS JANUARY		-,,
48/½ 1b.	80	108,01				216 201
$48/\frac{1}{2}$ 1b.	9,278					•
48/ 15 1/2		441,81				
12/4 1b.	3,057	375,00 31				
	12 /15		,			•
U.S. Total	12,415	925,15				2,691,353
40/1 1h	171			JANUARY 1,1980		264 067
48/½ 1b.		137,62				•
48/½ 1b.	14,579	676,86				
48/ 15 1/2	1,127	335,81				
12/4 1b.	-	478		•		
U.S. Total	15,877	1,150,78				
		TOCKS, JANUA			ATED SHIPMENTS	
	<u>1978</u>	<u> 1979</u>	<u> 1980</u>	<u> 1978</u>	<u> 1979</u>	<u> 1980</u>
48/½ 1b.	366,953	188,315	216,20	136,10	172,882	264,867
48/½ 1b.	1,308,392	1,392,180	1,193,52	823,50	858,445	1,477,261
48/ 15 1/2	1,457,706	1,515,446	1,255,04			1,175,379
12/4 lb.	27,180	57,172	26,58		• •	44,559
U.S. Total	3,160,231	3,153,113	2,691,35		_	2,962,066

Comparative Estimates of Frozen Salmon Market in Japan December 1, 1979

Sturce 1/	197	8	197	9	198	0 2/
	Metric	_	Metric	_	Metric	Tons
	Salmon	Sockeye	Salmon	Sockeye	<u>Salmon</u>	Sockeye
Carryover	40,000	10,000	40,000	20,000	85,000	30,000
Eigh Sea Catch	70,000	10,000	75,000	15,000	70,000	10,000
E:kkaido Chum	45,000	-	90,000	-	90,000	-
Imports	50,000	30,000	50,000	40,000	40,000	20,000
Total Frozen Supply	200,000	50,000	255,000	75,000	285,000	60,000
Consumption	160,000	30,000	170,000	45,000	180,000	55,000

Source: Alaska Department of Fish and Game estimates based on interviews of individual U.S. processors conducting business in Japan.

^{1&#}x27; 1980 figures are market projections based on previous two years.

Northwest Cold Storage Holdings of Frozen Salmon (Millions of Pounds)

Salmon 1/	11/30/79	12/31/79	12/31/78
Fillets & Steaks	1,173,000	1,253,000	1,699,000
Round & Dressed Kings Coho- Chum- Unclass-	7,497,000 14,286,000 6,019,000 12,972,000	6,563,000 13,312,000 5,582,000 11,209,000	6,567,000 6,262,000 7,803,000 4,514,000

1/ Holdings represent reports from 30 cold storage warehouses;

Alaska 6; Washington 16; Oregon 4; Colorado 1; Idaho 2; Utah 1. Some significant holdings are not reported in these figures.

Source: National Marine Fisheries Service, Fishery Market News.

Japan Salmon Roe Production And Consumption 1973-1979 (Metric Tons)

	<u>1973</u>	1974	<u>1975</u>	<u>1976</u>	1977	1978	<u>1979</u> (est.)
Non-Hokkaido roe	4,868	4,335	3,486	5,773	6,682	7,794	6,669
Hokkaido roe	900	1,200	1,750	1,200	1,380	1,557	3,420
Total available	5,768	5,535	5,236	6,973	8,062	9,351	10,089
Total Consumption	5,168	4,935	4,636	6,373	7,262	8,701	7,269
Carry-Over	600	600	600	600	800	650	2,820
Hokkaido chum catch	26,260	32,782	47,362	29,307	34,338	41,462	90,000

Source: Alaska Department of Fish and Game estimates based on interviews of individual U.S. processors conducting business in Japan.

17T .. LL A

Exports of Domestic Canned Salman by Country of Destination

U.S. Exports

Country	. Import Tariff	NTB	1977	1978	JanNov. 1979	Change between		iû. of
				Metric to (\$ per M		1978 and 1979 Perce	in 1979 ntage	Jan-Nev 197 Metric Ton
United Kingdom	7 % ad Val.	-	3,708 (1,388)	4,340 (3,796)	6,853 (4,533)	+57.9	, 37.5	6ò5
Australia	0	-	1,568 (3,708)	2,254 (3,456)	2,258 (3,712)	+0.2	12.4	226
Netherland	7 % ad Val.	-	1,151 (3,642)	2,157 (3,207)	2,130 (3,726)	-1.2	11.7	213
Canada	7½% ad Val.	Billingual labelling	1,548 (3,085)	2,618 (2,681)	3,949 (3,770)	+50.8	21.6	395
Belgium	7 % ad Val.	-	540 (3,065)	654 (2,946)	772 (3,178)	+18.0	4.2	77
France	7 % ad Val.	-	252 (4,507)	400 (2,732)	256 (4,650)	-36.0	1.4	26
Japan	12% ad Val.	Food Sanit. Law	325 (4,471)	614 (3,520)	1,195 (3,910)	+94.6	6.5	119
Venezuels	40% ad Val.	Sanitary Permit	82 (3,536)	60 (3,091)	50 (3,160)	-16.7	0.3	5
Other	0	-	476 (3,311)	696 (3,228)	801 (3,494)	+15.1	4.4	80
Total	0	-	9,650 (3,526)	13,793 (3,570)	· 18,264 (4,027)	+32.4	100.0	1,826

Fisheries Development Division F/UD1 1/15/80 MW

Source: National Marine Fisheries Service

Export of Domestic Salmon, Fresh and Frozen, Whole or Eviscerated, by Country of Destination

U.S. Exports

Country	Import Tariff	NTB	1977	1978	JanNov. 1979	Change between		11% of
				(\$ per M		1978 and 1979	in 1979	.::-::ov 197
				(v per ii	• /		ncage	hetric Ton
Japan	5% ac Val.	Food Sanit.	14,449	39,771	39,820	+0.1	67.0	3,982
		Laws	(3,974)	(4,953)	(-,531)			3,702
France	4% ad Val.	-	5,843	5,457	7,413	+35.8	12.5	741
			(4,729)	(5,649)	(á,232)			
United Kingdom	4% ad Val.	_	1,643	2,699	2,702	+0.1	4.5	270
•			(3,131)	(3,735)	(4,812)			2.0
Canada	0	-	2,479	1,657	2,646	+59.7	4.4	265
			(2,160)	(2,848)	(4,812)			
Sweden	0	_	1,784	1,861	2,457	+32.0	4.1	246
			(3,233)	(3,402)	(3,440)			
Belgium	4% ad Val.	-	809	743	1,170	+57.5	2.0	117
			(4,894)	(5,520)	(6,563)			
Federal Republic of Germany	4% ad Wal.	-	821	959	. 1,080	+12.6	1.8	108
			(5,214)	(5,481)	(6,287)			
Netherlands	4% ad Val.	-	532	766	700	-8.6	1.2	70
			(4,451)	(4,735)	(ć,144)			
Denmark	4% ad Val.	-	804	426	597	+40.1	1.0	60
			(3,516)	(3,958)	(4,390)			
Italy	4% ad Val.	-	197	297	357	+20.2	0.6	36
			(7,010)	(7,121)	(7,498)			
Republic of Korea	25% ad Val.	Licensing &	1.8	476	150	-68.5	0.2	15
	:	Import deposit	(5,000)	(2,590)	(4,440)			
Others	-	-	374	308	342	+11.0	0.5	34
Total	_	-	29,737	55,420	59,434	+7.2	100.0	5,943
			(3,951)	(4,846)	(4,765)			- •
EEC Countries	4% ad Val.	_		11,347	14,028	+23.6	23.6	1.403

Source: National Marine Fisheries Service

nnandia ur

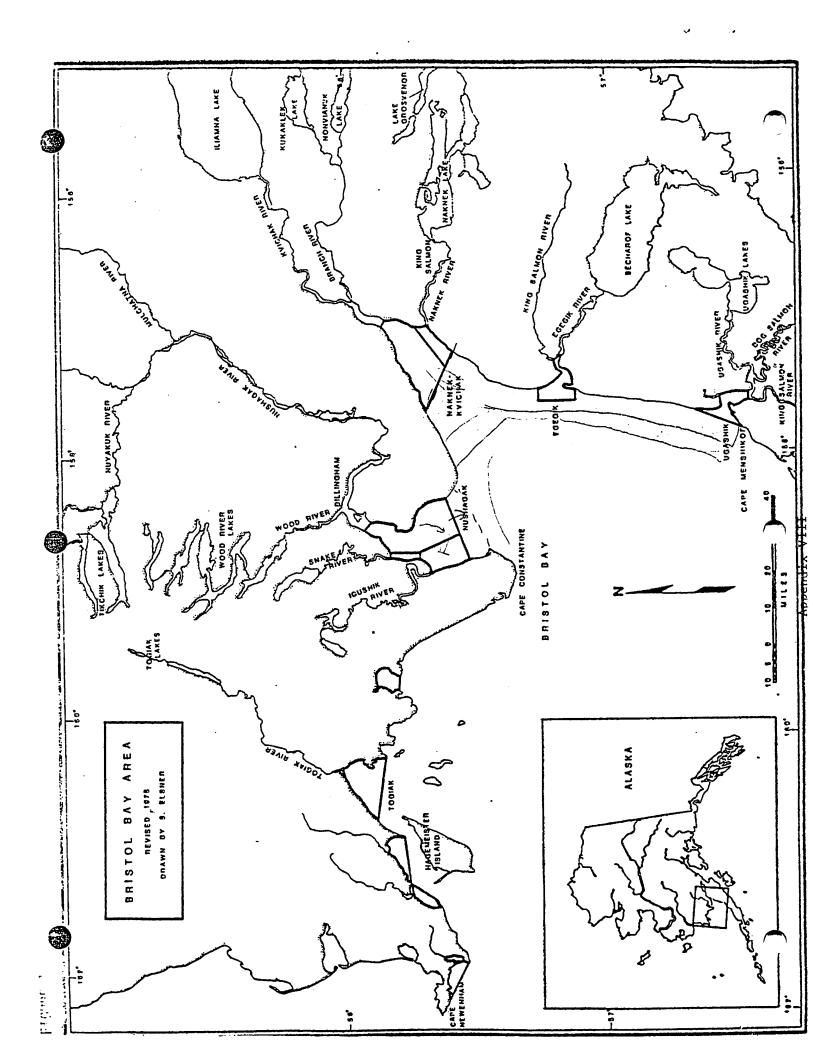
Exports of Fresh or Frezen Salmon Fillets, by Country of Destination

U.S. Exports

Country	Import Tariff	NTB	1977	1978 Metric	JanNov. 1979	Change between 1978 and 1979	in 1979	104 of Jun-Nov 1573
				(\$ per	MT)	Perce	ntage	Metric Tera
Japan	5% ad Val.	Food Sanit.	820 (3,867)	964 (5,167)	802 (4,343)	-16.8	43.5	80
Canada	0	Bilingual labelling	172 (2,907)	134 (2,582)	347 (3,559)	+159.0	18.8	35
France	4% ad Val.	-	529 (5,180)	229 (4,432)	319 (7,233)	+39.3	17.3	32
Federal Republic of Germany	4% ad Val.	-	27 (4,852)	59 (6,000)	129 (6,568)	+118.6	7.0	13
Sweden	0	-	85 (3,541)	30 (5,233)	81 (3,070)	+170.0	4.4	8
United Kingdom	4% ad Val.	-	73 (3,110)	71 (2,028)	48 (2,266)	-32.4	2.6	. 5
Belgium	4% ad Val.	. .	75 (4,320)	60 (3,983)	43 (4,228)	-28.3	2.3	, 4
Other	· .		161 (3,093 <u>)</u>	82 (5,353)	75 (3,961)	-8.5	4.1	7 :
Total	-	-	1,944 (4,060)	.1,629 (4,711)	1,844 (4,722)	+13.2	100.0	184

Fisheries Development Division F/UD1 1/15/80 MW

Source: National Marine Fisheries Service



Forecast of sockeye salmon returns, escapement goals, and projected potential harvestable surplus by river system and fishing district, Bristol Bay, 1980.

Diahmich /Cook	Num	bers of Fish in 1000's	
District/System *	Forecast of total run	Escapement Goal	Projected Harvest
Kvichak River Branch River	40,064	14,000	26,064
Naknek River	155 2,703	185 800	0 1,903
Naknek-Kvichak District	42,922	14,985	27,967
Egegik District	3,445	600	2,845
Jgashik District	1,488	500	988
Wood River	2,338	800	1,538
Igushik River	1,425	150	1,275
Nuyakuk River	2,167	250	1,917
Nush Mulch. Snake River	205	40	165
ought Kivel	21	30	0
Rushagak District	6,156	1,270	4,895
Togiak District	531	100	431
Cotal Bristol Bay $\frac{1}{2}$	54,542	17,455	37,126

^{1/} Sockeye salmon of several minor age classes are expected to contribute an additional 1-2 percent to the total run. Source: Alaska Department of Fish and Game

5

Comparison of ADF&G and Japanese Forecasts of Sockeye Salmon Returns to Bristol Bay, 1969 - 1980.

Year	Actual Returns	Forecast Return ADF&G	rns (Millions) Japanese		t Return of recast
	· · · · · · · · · · · · · · · · · · ·			ADF&G	Japanes e
1969	19.043	21.274	20.60	90%	92%
1970	39.399	55.812	27.76	71%	142%
1971	15.825	15.170	17.51	104%	90%
1972	5.377	9.744	24.87	55%	22%
1973	2.439	6.200	4.99	39%	49%
1974	11.004	5.004	5.06	220%	217%
1975	24.161	11.960	24.60	202%	98%
1976	11.499	11.145	24.29	103%	47%
1977	9.474	8.380	22.23	113%	43%
1978	19.687	11.534	15.64	169%	126%
1979	40.322	22.650	27.32	178%	148%
1980	?	54.542	82.63	-	-
lean Erro	or			49%	45%

Forecast Area: Bristol Bay

SPECIES: Pink Salmon

PRELIMINARY FORECAST OF 1980 RETURN:

Point Estimate: 15.7 million

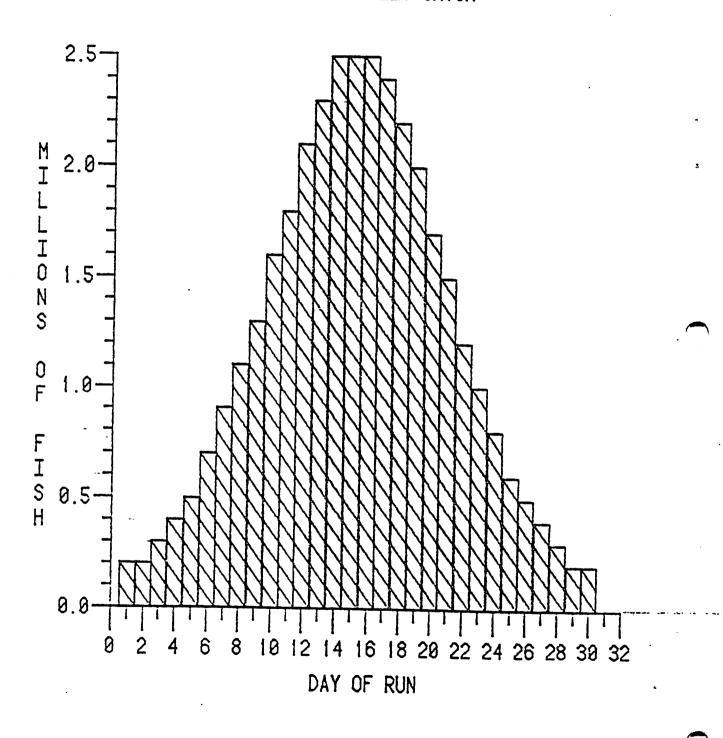
Range Estimate: See discussion

DISCUSSION OF THE 1980 FORECAST

After the phenomenal 1978 Nushagak River pink salmon return of nearly 14 million fish, which provided an unprecedented escapement of 9.4 million, and the exceptionally mild spring weather in 1979, any forecast of 1980 pink salmon return will be highly speculative. Since 1958, returns-perspawner have ranged from a low of 0.1 to nearly 17. Some of this variability can be eliminated by taking account of water temperature in the spring during fry emigration. Spring water temperatures from the nearby Kvichak River are available beginning in 1962. A multiplicative mathematical model incorporating escapement magnitudes and spring water temperatures does fit observed return-per-spawner data reasonably well, but natural variation is so large that the average relative error of prediction (without regard to sign) is 64%. The 1980 forecast of a 15.7 million fish total return is particularly untrustworthy because the parent year escapement of 9.4 million was more than twice as large as any observed before, and the spring water temperature was the warmest measured since 1962 in the years considered. The escapement goal is 1 million pink salmon, and a very large allowable harvest exceeding 14 million fish is expected.

Source: Alaska Department of Fish and Game

1980 BRISTOL BAY SOCKEYE SALMON ANTICIPATED DAILY CATCH



Anticipated potential harvest of sockeye salmon, by day, for Bristol Bay with a run size of 54 million sockeye.

Source: Alaska Department of Fish and Game

Anticipated potential daily harvest of sockeye salmon (in thousands) by day for Bristol Bay fishing districts, 1980.

Day of run	Nushagak	Naknek-Kvichak	Egegik	Ugashik	Togiak
]	34.2	139.7	22.8	4.0	2.6
2 3 4 5 6 7	44.0	167.6	28.4	4.9	3.0
3	48.9	223.5	34.1	5.9	3.9
4	68.4	307.3	42.7	8.9	4.3
5	78.2	391.1	54.1	9.9	4.7
5	102.6	502.9	62.6	12.8	5.6
/	122.1	642.6	76.8	16.8	6.5
8	146.6	810.2	91.0	20.7	· 7.8
9	175.9	977.8	108.1	24.7	8.6
10	205.2	1201.3	122.3	30. 6 .	9.5
	234.5	1424.8	136.6	36.6	70.8
12	263.8	1620.3	150.8	42.5	12.1
13	283.4	1815.9	162.2	49.4	13.4
14	298.0	1927.7	167.9	54.3	14.7
15	307.8	1983.5	170.7	60.3	15.5
16	302.9	1983.5	167.9	62.2	16.4
17	288.3	1843.8	147.9	63.2	17.7
18	273.6	1704.2	147.9	63.2	18.1
19	244.3	1508.6	147.9	59.3	18.1
20 21	219.9	1285.1	122.3	55.3	18.5
22	190.6	1089.5	105.3	50.4	18.5
23	156.4	866.0	91.0	43.5	18.1
	136.8	698.4	74.0	37.5	17.2
24	107.5	558.7	62.6	30.6	16.4
25	87.9	447.0	51.2	25.7	15.5
26	73.3	335.2	42.7	21.7	14.2
27 28	58.6	251.4	34.1	16.8	12.9
28	48.9	195.6	28.4	12.8	11.6
30	34.2	139.7	22.8	70.9	10.8
30	29.3	111.7	17.1	8.9	9.5
Total	4895.0 1/	27967.0 1/	2845.0 1	/ 988.0 1/	431.0 2/

Totals include an approximate 5% which would be caught prior to and after the 30 day period.

Source: Alaska Department of Fish and Game

^{2/} Totals include an approximate 20% which would be caught prior to and after the 30 day period.

Bristol Bay Operational Canning Line Comparison 1980 Season and Prior High Production Years

Year	Operative Companics	rall Tall	Number of Lines 1/2's 1/4	nes 1,/4°s	Total.
1970	12	30	12	2	77
1975	10	24	14	2	94
1979		20	17	T	38
1980					
Eastside	7	13	13	0	26
Westside	4	7	2	디	13
Total	11	20	18	н	39

Source: Alaska Department of Fish and Game

Estimates of Processing Capacity Directed At The 1980 Bristol Bay Sockeye Return

Estimated Season Capacity

Canning Capacity in Bristol Bay:	80.0 million pounds
Freezing Capacity in Bristol Bay:	53.0 million pounds
Transport To Other Areas:	-

Flying:	39.5 million pounds
Tendering:	22.5 million pounds

Total: 195.0 million pounds

1/	Point Forecast Level:	204.0 million pounds	37.1 million fish
	Estimated Capacity:	-195.0 million pounds	-35.4 million fish
	Sockeye Processing Deficit:	9.0 million pounds	1.7 million fish

	•		
2/	Projected Chum Catch	+ _9.3 million pounds	+ 1.5 million fish
	Total Processing Deficit:	- 18.3 million pounds	$-\overline{3.2}$ million fish $<$

Estimated Daily Capacity

	<u>Operators</u>	Capacity
Canning Operations in Bristol Bay Freezing Operations in Bristol Bay	11 22	890,000 fish/day 459,400 fish/day
Transporting out of Bristol Bay:		,
Flying:	10	396,000 fish/day
Tendering:	7	4.1 Million fish/season

Daily capacity minus tendering out-1,745,000/day

- 1/ Conversion from pounds to fish based on 5.5 pound average weight for sockeye and 6.2 pounds for chum salmon.
- 2/ Season capacity has been estimated on the basis of sockeye only. It is projected that 1.5 million chums will be harvested simultaneously with the sockeye largely in Nushagak District.

Source of Estimates: Alaska Department of Fish and Game

1980 Board Amendments

- 5 AAC 39.198(b)(6) and (d) are amended to read:
- 5 AAC 39.198. COMMERCIAL FISHING AND RELATED OPERATIONS BY ALIENS NOT LAWFULLY ADMITTED TO THE UNITED STATES.
 - (b) As used in this section, "processing" means completion of:
- (6) freezing, which means to congeal and solidify the flesh of fish by abstraction of heat.
- (d) The commissioner, after consultation with the Board of Fisheries, may under conditions and limitations determined by him, grant a limited exception to this section with respect to a particular fishery and permit foreign vessels or aliens or both to process fish resources at an existing or constructive port, or to transport processed or unprocessed fish resources outside the state from an existing or constructive port, if he determines after investigation that:
- (1) the volume of fish resources expected to be taken in the fishery under current regulations exceeds the anticipated processing capability of facilities operated by United States processors;
- (2) there is no practical opportunity for United States processors to make emergency arrangements to handle excess volume or at any time it is determined that anticipated marketing conditions may limit United States processors capability to process the projected harvestable surplus;
- (3) there is a likelihood of substantial wastage of fish resources taken in the fishery if foreign processing or transportation capacity is not utilized;
- (4) there is no significant likelihood of clandestine foreign fishing operations if the exception is granted;
- (5) the limited exception may be terminated when, after consultation with the board, the commissioner determines United States processors can adequately process the harvest.

- (3) press releases and announcements in local newspapers and commercial radio stations;
 - (4) telegrams and commercial radio facilities.
 Authority: AS 16.05.060
- 5 AAC 39.197. UNLAWFUL POSSESSION OF FISH. No person may possess, purchase, sell, barter or transport fish within the state or within waters subject to the jurisdiction of the state if that person knows or has reason to know that the fish were taken or possessed in contravention of chs. 01-39 of this title.

Authority: AS 16.05.251(a)(10) and (b)

- 5 AAC 39.198. COMMERCIAL FISHING AND RELATED OPERATIONS BY ALIENS NOT LAWFULLY ADMITTED TO THE UNITED STATES. (a) Foreign vessels or aliens or both are prohibited from
- (1) the catching, taking, or harvesting of fish resources;
- (2) the tendering, offloading, or other movement or handling of fish resources until processing has been completed:
 - (3) the processing of fish resources; or
- (4) any attempt at, preparation for, or assistance of the foregoing; with the intent of disposing of the fish resources for profit, or by sale, barter, trade or in commercial channels.
- (b) As used in this section, "processing" means completion of
 - (1) cooking;
 - (2) canning;
 - (3) smoking;
- (4) salting, which means uniformly mixing at a minimum salting level of at least 20 percent of the weight of the fish resources;
 - (5) drying; or
 - (6) freezing.
- (c) Aliens and foreign vessels are not prohibited from transporting fish resources

- outside the state, or engaging in other business activities respecting fish resources, after processing has been completed. Any vessel used pursuant to this authorization, whether domestic or foreign
- (1) must not be equipped for the harvesting of fish resources; and
- (2) must be in compliance with applicable state and federal laws.
- (d) The commissioner, after consultation with the Board of Fisheries, may, under conditions and limitations determined by him, grant a limited exception to this section with respect to a particular fishery and permit foreign vessels to process fish resources at an existing or constructive port, or to transport fish resources outside the state from an existing or constructive port that processing takes place, if he determines after investigation that
- (1) the volume of fish resources expected to be taken in the fishery under current regulations exceeds the anticipated processing capability of facilities operated by United States processors;
- (2) there is no practical opportunity for United States processors to make emergency arrangements to handle the excess volume;
- (3) there is a likelihood of substantial wastage of fish resources taken in the fishery if foreign processing or transportation capacity is not utilized; and
- (4) there is no significant likelihood of clandestine foreign fishing operations if the exception is granted.
- (e) With respect to paragraph (d) of this section the commissioner may recognize and designate constructive ports, provided
- (1) the ports are within the internal waters of the state;
- (2) there is no existing port within reasonable running time from fishing grounds which are the subject of a substantial fishery; and
- (3) there is no significant opportunity for clandestine violations of (a) of this section or

evasion of other applicable state and federal laws and regulations.

- (f) The provisions of this section apply to foreign vessels and aliens in the internal waters and the territorial sea of the state.
- (g) As used in this section
- (1) "aliens" means aliens not admitted to the United States with immigrant or other resident alien status under the immigration and naturalization laws of the United States;
- (2) "existing ports" means those Alaskan marine ports designated in 19 C.F.R. sec. 1.2.;
- (3) the phrase "foreign vessels and aliens" includes foreign vessels staffed with aliens, foreign vessels staffed with U.S. citizens, and U.S. vessels staffed with aliens; and
- (4) "foreign vessels" means vessels not documented under the laws of the United States or documented under the laws of a state.

Authority: AS 16.05.251

AS 16.05.910 AS 16.05.920

AS 16.05.475 AS 16.05.905

AS 16.05.940

ARTICLE 2. SALMON FISHERY

Section

- 230. Gear
- 240. General gear specifications and operation
- 250. Gill net specifications and operation
- 260. Seine specifications and operation
- 270. Troll specifications and operation
- 280. Identification of stationary fishing gear
- 290. Closed waters
- 5 AAC 39.230. GEAR. Only those gill nets, seines, troll lines, fishwheels, spears or other appliances as provided for in chs. 03-39 of this title may be used to take salmon.

Authority: AS 16.05.250(3)

5 AAC 39.240. GENERAL GEAR SPECIFICATIONS AND OPERATION. (a) A salmon fishing vessel shall operate, assist in operating, or have aboard it or any boat towed by it, only one legal limit of salmon fishing gear in the aggregate except as otherwise provided in this title.

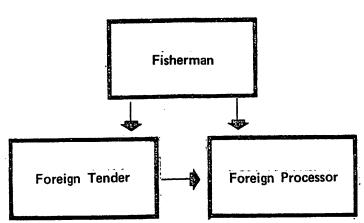
- (b) Unhung gear sufficient for mending purposes may be carried aboard fishing vessels.
- (c) A purse seine, hand purse seine or beach seine may not be fished simultaneously with gill net gear by any individual or vessel.
- (d) Salmon fishing nets shall be measured, either wet or dry, by determining the maximum or minimum length of the cork line when the net is fully extended with traction applied at one end only.
- (e) The interim-use or entry permit card holder is responsible for the operation of the ,

Authority: AS 16.05.251(4)

- 5 AAC 39.250. GILL NET SPECIFICATIONS AND OPERATION. (a) The trailing of gill net web is prohibited at any time or place where fishing is not permitted.
- (b) Set gill nets shall be removed from the water during any closed period.
- (c) Gill net web must contain no less than 25 filaments until December 31, 1978. After December 31, 1978, gill net web must contain no less than 30 filaments.

Authority: AS 16.05.251(4)

- 5 AAC 39.260. SEINE SPECIFICATIONS AND OPERATION. (a) In the use of purse seines and hand purse seines, not more than one anchor may be used to hold the seine, lead and seine boat during a set.
 - (b) Repealed 3/26/76.
- (c) A purse seine is considered to have ceased fishing when all the rings are out of the water.
- (d) A hand purse seine is considered to have ceased fishing when both ends of the seine are fast to the vessel.
- (e) A beach seine is considered to have ceased fishing when all of the lead line is above the water on the beach.
- (f) Where the use of leads is permitted, a purse seine vessle may not have or use more than one lead of legal length and depth, without purse



MEMORANDUM OF SUPPORT

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

It is our consensus that such involvement should be for a specific purpose: the development of <u>new markets</u> for Alaskan sockeye salmon.

This limited foreign processing effort could be accomplished through Joint Venture Permits issued to nations that have operations which both (a) provide new or not fully utilized markets for Alaska salmon, and (b) to the extent possible, do not displace existing markets. The permits should provide for the sale of fish to buyers licensed under the laws of the state of Alaska to assure compliance with reporting requirements established for management purposes in the salmon fishery. By this Memorandum, the state of Alaska formally communicates its approval of such limited foreign involvement in Bristol Bay salmon processing.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman

Alaska Board of Fisheries

DATED: April 22, 1980

Juneau, Alaska

DISCUSSION PAPER FOR OFFICE OF TECHNICAL ASSESSMENT WORKSHOP SEATTLE APRIL 21-23, 1980

DONALD E. BEVAN
COLLEGE OF FISHERIES
UNIVERSITY OF WASHINGTON

The Function of Optimum Yield under The Fishery Conservation and Management Act of 1976.

Few argue that the determination of optimum yield (OY) is one of the more important tasks for the Regional Fishery Councils in their development of a fisheries management plan (FMP). The arguments come thick and fast however, in any fishery when we attempt to specify what is optimum yield, or even how we propose to make its determination. Optimum yield is a paradox: so simple and yet so complicated an idea. Webster's dictionary gives us a hint about the reasons for the complications that arise when we discuss the term "optimum". "Optimum": the amount or degree that is most favorable to some end or (2) the greatest degree obtained under implied or specified conditions. If we have answers to the questions, what end or is it who's end or what conditions, we might simplify the problem. I am sure that some would hope for a universal algorithm--obviously the more complicated the better--which would provide the required solution. This paper offers no such simple solution. The definition of Optimum Yield given to the Pacific and North Pacific Councils some two years ago was that optimum yield is what the Council says it is, but the Council has to be very careful how it says it. Crutchfield and Bevan (1977). In definition of optimum yield, the Council must take direction from the Fisheries Conservation and Management Act (Public Law 94-265). The Act defines optimum yield in Sec. 3 (18) as:

the yield from a fishery, means the amount of fish (A) which will provide the greatest overall benefit to the Nation with particular reference to food production and recreational opportunities; and (B) which is prescribed as such on the basis of the maximum sustained yield for such fishery as modified by any relevant economic, social, or ecological factor.

The FCMA also refers to 0Y in Sections 2, 201, 301, and 303. One of the listed findings of the Congress 2 (a) (5) says:

Fishery resources are finite but renewable. If placed under solid management before overfishing has caused irreversible effects the fishery can be conserved and maintained so as to provide optimum yields on a continuing basis.

A major purpose of the Act 2 (3) (4) is listed as:

to provide for the preparation and implementation, in accordance with national standards, of fishery management plans which will achieve and maintain on a continuing basis the optimum yield from each fishery.

Section 201 (d) in setting forth the method for calculating the total allowable level of foreign fishing (TALFF) says:

The total allowable level of foreign fishing, if any, with respect to any fishery subject to the exclusive fishery management authority of the United States, shall be that portion of the optimum yield of such fishery which will not be harvested by vessels of the United States, as determined in accordance with the provisions of this Act.

Section 201 (g) requires that OY be specified in preliminary management plans (PMP's).

The Act provides national standards for fishery conservation and management in Section 301. The first national standard, Section 301 (a) (1) specifies:

Conservation and management measures shall prevent overfishing while achieving, on a continuing basis the optimum yield from each fishery.

Section 303 (a) requires that any plan shall:

(3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification

and

(4) assess and specify (A) the capacity and the extent to which fishing vessels on an annual basis will harvest the optimum yield specified under paragraph.(3).

and

(B) the portion of such optimum yield which, on an annual basis will not be harvested by fishing vessels of the United States and can be made available for foreign fishing.

Any interpretation of the number of issues involved in the Act's language of OY must rest in part on the intent of Congress as displayed in the legislative history.

It is this author's view that some significant changes occurred in the development of the legislation that more clearly define the intent of the Act than the impression that might be perceived from the language of the final draft.

One such important change was the replacement of the term optimum sustainable yield with optimum yield. Apparently the Congress sided with the views expressed earlier by Radovich (1975) that in many cases the optimum yield would not be sustainable, and Roedel (1975) that the optimum yield may, for limited periods, exceed MSY if economic or social demands so dictate.

Congressman Ruppe (Legislative History p. 898) speaking as a proponent of the bill stated that the concept of optimum yield permits the catch to be set below maximum yield or to increase the catch beyond on a temporary basis as circumstances warrant. He further stated that the key to optimum yield was flexibility.

The Act does not provide a definition of overfishing but Sec. 2 (a) (5) implies that overfishing has to do with irreversible effects, and the idea that exceeding OY is not overfishing seems further reinforced since the Conference Committee deleted a specific provision against exceeding OY.

Another significant change in the Act revealed by the legislative history was the linking of OY to maximum sustained yield (MSY). The drafters concurred with the views of Bevan who, commenting on an early draft (letter Sept.19,1975 to the Honorable Warren G. Magnuson) wrote:

I should like to suggest another definition of optimum yield, which I think is extremely important in applying management in practice. I would completely reject Option B (Option B suggested utilizing maximum economic yield) but point out that Option A can be defined by different interests in different ways and it may make it difficult to apply a practical application of a quantitative figure in an actual fishery. Optimum yield can be taken to mean what anyone wants it to mean. I would suggest that an analogy from

navigation is useful in providing a definition of optimum yield. If we know a starting point and know our distance and direction from it, we can locate a position with exactness. I suggest that optimum yield be definied in the same way, that the base line be the maximum sustained yield, and that optimum yield be defined as a measured deviation from maximum sustained yield, together with the reasons for moving from the maximum sustained yield. This definition provides several advantages. First, in order to define maximum sustained yield, sufficient biological observations need to be taken and a sufficient knowledge of stock has to be on hand to understand how the stock will respond to various levels of fishing. And second, those interests who choose to move away from maximum sustained yield, and I can think of many valid reasons to do so, will be required to quantitatively state the movement necessary and what gain is to be expected from over or underfishing. If this is done, we can have some numbers which different interests can evaluate and perhaps a consensus can be obtained more easily.

Estimating appropriate yields has been an important part of fishery science.

Baranov (1918), Thomspon and Bell (1934), Graham (1935), Schaefer (1954), Fry (1947),

Ricker (1948, 1954, and 1958), Beverton and Holt (1957), Nikolsky (1965), Pella

and Tomlinson (1969) and Gulland (1969) provide a cross section of the simplified

models used for predictive purposes in fisheries management.

The Scientific and Statistical Committee of the Pacific Council, Anonymous (1979) has defined MSY as:

an average over a reasonable length of time of the largest catch which can be taken continuously from a stock under current environmental conditions. It should normally be presented with a range of values around its point estimate. Where sufficient scientific data as to the biological characteristics of the stock do not exist or the period of exploitation or investigation has not been long enough for adequate understanding of stock dynamics, the MSY will be estimated from the best information available.

Before considering the methods available for estimating the baseline MSY required in fishery management plans, it is well to consider the criticism of the use of MSY. May, et al (1979) in the "Management of Multispecies Fisheries", Larkin (1977) in his paper "An Epitaph for the Concept of Maximum Sustained Yield", Sissenwine (1978) and a host of economists are often quoted to substantiate

claims that MSY should not be used as specified in the FCMA. Unfortunately, many have either not read behind the titles, or have confused the difference between managing to obtain MSY and using MSY as a tool in determining other yield objectives. Even Larkin provides some praise of MSY:

In summary, from a biological point of view, the concept of MSY is simply not sufficient. Nevertheless, it should be stressed that it provides a valuable rough index of production potential.

Larkin, in the careful words of a mathematician, feels that MSY is not sufficient but he does not claim that its calculation is not necessary as a guide to fishery management that might seek to attain some other yield.

MSY, as it is used in the FCMA is not a goal or objective of the management plan but a starting point that provides a common baseline. The precision or accuracy of its estimate may not be as important as the measured departure from MSY and the reasons for that departure. A baseline may help avoid the problem forseen by Croker (1975) when he suggested:

Then the viewpoint of whoever has the most political clout is declared to be optimum . . . It's just like it has always been except that we now have a loftier sounding goal, and perhaps a more rational decision can be made.

The Council has a number of choices in methods for estimating.

- l. It simply can average past catches for periods when stocks seemed stable,
- It can estimate MSY from stock production models such as the Schaefer model or the output from the Pella-Tomlinson (1969) GENPROD computer model if catch and effort data are available.
- It can utilize yield per recruit or dynamic pool models if appropriate growth and mortality parameters are available.
- 4. If total biomass estimates and estimates of natural mortality are available, the Alverson-Pereyra (1969) equation MSY = 0.5 MB can be used.
- 5. It can utilize the biomass estimates from ecosystem models such as DYNUMES III, Laevastu and Favorite (1979), if they are available.

In addition to variations in the input parameters, the methods listed above operate on assumptions that vary in their difficulty of fulfillment.

This paper is not the place to review the choice of method. Scientific and statistical committees can perform that function since each plan may be unique. Reviews of the differences of some of the methods have been produced by Royce (1975), Sissenwine (1978), and Hennemuth (1977).

In regard to MSY we can conclude that many authors provide convincing arguments of the difficulty of attaining MSY in a fishery, that the problems of MSY assessment are well known to fishery scientists and its estimates provide a useful tool in evaluating appropriate yields from a fishery. The Act does not require the achievement of MSY.

Calculation of departures from MSY.

While it seems almost self-evident that the direction and the magnitude of departures from MSY will depend upon the goals and objectives of the Council, the experience to date shows that many Councils have great difficulty in defining their goals and objectives. It also seems very easy to confuse what needs to be done from how it must be done. The technical experts on the Plan Development Teams then must confound the process by providing options which intermingle different goals with different means of obtaining these goals. It has not been uncommon for Councils to choose among a set of complicated regulations and then turn to their scientists to ask them what they've done. We might speculate that using these techniques, a Council planning a banquet would first go to a grocery store and buy several baskets of produce, then turn the task to the Banquet Development

Team to provide a menu and evaluate the economic (cost of dinner), social (whether there was appropriate distribution of soup, salad, main course and dessert), or ecological (was it nutritious) factors.

The first step in OY determination should be the definition of goals and objectives.

The goals should be described in ways that make them attainable. They must be goals which can be agreed to by reasonable people, and they must be attainable by the methods or instruments of fishery management available. Royce (1975).

It seems useful in departing from MSY to consider the deviations in two steps. First, to consider the ecological or biological requirements of the stock, and define an acceptable biological catch (ABC) which will provide a spawning stock within the range which would produce the most desirable level of recruitment. Admittedly, the acceptable biological catch, if it provides for rebuilding, can include some economic and social considerations which may relate to the speed in rebuilding. This view of considering the biological considerations first was proposed in the report of the ad hoc meeting on the Provision of Advice on the Biological Basis for Fisheries Management of the International Council for the Exploration of the Sea, Anon. (1976.) It has also been adopted by the Pacific and North Pacific Fishery Management Councils in their instructions to Plan Development Teams.

While the Act clearly does not require any minimum set of scientific information before a plan is developed, it does have some minimum standards on the kind of data to be gathered once a plan is in place.

Sec. 303 (a) (5) states that any fishery management plan shall:

Specify the pertinent data which shall be submitted to the Secretary with respect to the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing was engaged in, time of fishing, and number of hauls.

In addition to the Act's requirements for catch and effort data by time and location, it would seem essential to gether information on age, size, and sex ratios in the catch as well.

Many have called attention to the fact that while the Act requires the use of the best scientific information available, there is no requirement that the information used meet any minimum standards for quality.

In practice, this apparent dilemna does not present a problem, since most of the fisheries under consideration for FMP's are economically important enough to the region so that some scientific work has been done. Even very sparse data may be better applied than the alternative of doing nothing, i.e. no regulation or no exploitation.

Miles, Rogers, and Collingsworth (1977) have outlined the methodological requirements of determining OY, an outline of needed research and an identification of data needs. They conclude that there is no way in which the concept of optimum yield can be given any meaning without clear specifications of the relevant economic and social objectives to be served.

They also point out that the listing of national objectives and standards are of such a high level of generalization that each council must interpret them in order to fit the conditions of the region. They suggest that economic objectives of management be stated in terms of the criterion of efficiency in order that the costs of alternative choices can be measured. They suggest that relevant social objectives be established on the basis of the demands that are made on the Council by its various constitutents.

Crutchfield (1979) lists some specific elements to be considered in attaining economic efficiency:

- The right level of catch--at which the marginal social value of the harvest is equated to the incremental social cost required to take it (including management costs).
- 2. The right size (age) composition of catch. No net economic gains can be obtained by allowing smaller fish to grow (i.e. where marginal increments to revenue from growth are just offset by marginal losses to natural mortality and costs of program implementation.

- 3. The right number and configuration of vessel-gear-fishermen units to minimize the aggregate real cost of taking any given catch (i.e. optimal factor combinations).
- Optimal fleet deployment; no increase in yield and/or reduction in cost can be achieved by altering the area or time fished.

He also warns that economic efficiency alone is not a sufficient criterion for OY and that "economic rationalization of fisheries will usually be constrained by conflicts with other social objectives."

It seems possible to conclude that OY was meant to be valid over a period of time. The Act uses the modifier "on an annual basis" only when referring to the capacity of domestic harvesters to take optimum yield, and that portion of OY which may be made available to foreign fishermen, the total allowable level of foreign fishing (TALFF). If OY were intended to be calculated on an annual basis, it could be expected that the Act would say so. At any rate, it is impossible, as a practical matter, to manage a fishery by plan amendment. The details of the plan amendment process promulgated by the Secretary of Commerce in the required guidelines make it impossible to obtain data from a fishery, analyze it, proceed through the amendment process, and communicate new regulations to the fishermen before the beginning of the next year's fishery.

If anything is clear about the intent of Congress, it is that they desire foreign fishing to be replaced by domestic harvesting and processing. They clearly spell out a process in which only fish surplus to domestic needs are made available for foreign fishing. The Act also requires that management programs promote efficiency and take into account variations in fishery resources and catches. It follows that Congress would not require an inefficient overcapitalization of domestic fisheries that would have the capacity to take any expected annual catch before a zero TALFF is permitted. It seems much more reasonable to conclude that TALFF's are calculated for some reasonable period of time and foreign fishing is allowed when there is a reasonable expectation that it will be carried out for

more than one fishing season. It cannot be imagined that foreign fishing, as defined in the Act, was expected to be called in on an irregular basis to respond to an unusual temporary surplus. While the Act defines OY as the amount of fish which will provide the greatest benefit to the nation, it does not specify that the amount be described as a specific number or tonnage of fish. This sense of OY permits the description of a specification or procedure which could lead to the achievement of OY. This may be particularly useful in some fisheries where OY in weight or numbers can be accurately determined only after the season is over. Examples are the Tanner Crab and King Crab of Bering Sea and the Stone Crab of the Gulf of Mexico. In these fisheries, using a size and sex limitation, only males surplus to the reproductive process are taken. In the Stone Crab fishery, only the claws are removed and the crab returned to the water. It is possible to specify OY in other fisheries by an appropriate choice of time, place and size of gear utilized, which will result in an appropriate amount of catch that will lead to the attainment of optimum yield.

Any discussion of optimum yield should turn for the moment to the topic of uncertain numbers. Fishery scientists are used to dealing with numbers and most have adequate training in mathematics and statistics so that they know how to deal with uncertain numbers and how to measure the degree of uncertainty. The numbers that are used in fishery plans, however, are the concern of many whose mathematical training may be insufficient, or limited to the mathematics of accounting. To bring greater understanding to those whose calculating experience has most often involved dollars, Plan Development Teams, when they have a measure of the variance around their estimates, should provide its value. Also, the use of appropriate numbers of significant figures will prevent the unwary from assuming accuracy that is not warranted. In dealing with uncertain numbers, it is most important that the regulatory process avoid concern with deviations which have no scientific meaning from allowable catch estimates.

A primer for OY calculations to meet requirements of the FCMA:

- 1. Establish MSY by the most appropriate method or a "best blend" from a number of methods. MSY would be expected to stand for a number of fishing seasons and would remain in the plan until new information required a plan amendment.
- 2. Determine the sociological, economic, and ecological goals for the fishery considered in the management plan.
- 3. Calculate optimum yield in a two-step process, biological and ecological factors first, then sociological, economic and perhaps ecological factors again, if they cannot be separated from social factors. While optimum yield could be considered above or below MSY, it is obvious that if it is placed above, it must be a temporary condition. It would seem advisable that OY set above MSY should be accompanied by some explanation of how the plan amendment process will be used to change OY in the future, so that it can be sustained.
- 4. Estimate the domestic harvesting and processing capacities (and joint venture requirements if applicable) and the extent to which they will be exercised.
- 5. Calculate TALFF by subtracting domestic requirements from OY. If on the average TALFF's were zero, no distribution to foreign fishermen would be made, even though in some years the domestic capacity was not adequate to harvest the catch. In order to calculate TALFF in this manner, some agreement must be reached as to how to handle TALFF in situations where total allowable catches may vary greatly from an average OY in individual year. For example: should there be a TALFF if we expect that domestic opportunities will not be utilized one year in ten, one year in five, or one year in three?
- 6. Establish specific criteria in the plans that allow an annual calculation of an acceptable biological catch and any departures for economic, social or ecological reasons from it, to an estimated annual catch (EAC). The

EAC may be a procedure, or a number, or weight. It may or may not be a quota. The EAC taken over time should result in the attainment of OY, but it may be more or less than OY in an individual fishing season. It seems possible that in certain circumstances that bounds on EAC, which limit its departure from OY, could be specified in the plan, so that the fishery managers working under the criteria within a plan could only move so far, without the requirement of a plan amendment.

Acknowledgements. While the author assumes responsibility for the views expressed in this paper, the ideas result from many discussions with Western Pacific, Pacific and North Pacific Council members, Scientific and Statistical Committee members and staff. I am particularly indebted to D. L. Alverson, Don Collingsworth, James Crutchfield, Edward Miles and the late Don McKernan.

Donald E. Bevan College of Fisheries University of Washington Seattle, WA 98195 April 18, 1980

REFERENCES

- Alverson, D., and W. Pereyra. 1969. Demersal fish explorations in the northeastern Pacific Ocean-an evaluation of exploratory fishing methods and analytical approaches to stock size and yield forecasts. J. Fish. Res. Board Can. 26:1985-2001.
- Anonymous. 1976. Report of the <u>ad hoc</u> meeting on the provision of advice on the biological basis for fisheries management. Charlottenlund, Denmark, 5 January 1976.
- Anonymous. 1979. Comments on optimum yield. (Unpubl.) Scient. and Stat. Comm. Doc. No. SSC-79-05-08-01. Pac. Fish. Mgmt. Counc.
- Baranov, T. 1918. On the question of the biological basis of fisheries. Nauch-Issled. Iktiol. Inst. Izv. 1:81-128. (In Russian.)
- Beverton, R., and S. Holt. 1957. On the dynamics of exploited fish populations. Fish. Invest. Min. Agr. Fish. Food (Gr. Brit.), Ser. 11, 19:644 pp.
- Crutchfield, J., and D. Bevan. 1976. Optimum yield: A workable definition for Council use. Pac. Fish. Mgmt. Counc. (Unpubl.)
- Crutchfield, J. 1979. Economic and social implications of the main policy alternatives for controlling fishing effort. J. Fish. Res. Board Can. 36:742-752.
- Fisheries Conservation and Management Act. 1977. Public Law 94-265.
- Fry, F. 1947. Statistics of a lake trout fishery. Biometrics 5:27-67.
- Graham, M. 1935. Modern theory of exploiting a fishery and application to North Sea trawling. J. Cons. Perma Int. Explor. Mer 1:264-276.
- Gulland, J. 1969. Fisheries management and the limitation of fishing. FAO Fish. Tech. Pap. 92:13 pp.
- Hennemuth, R. 1977. Some biological aspects of optimum yield. Pages 17-27 in H. Clepper, ed. Marine recreational fisheries. Vol. 2. Sport Fish. Inst., Washington, D.C.
- Larkin, P. 1977. An epitaph for the concept of maximum sustained yield. Trans. Amer. Fish. Soc. 106(1):1-11.
- Laevastu, T. and F. Favorite. 1979. Ecosystem dynamics in the eastern Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle, Wa. (Unpubl. manuscr.)
- May, R., J. Beddington, C. Clark, S. Holt, and R. Lows. 1979. Science 205(A403).
- Miles, E., G. Rogers, and D. Collingsworth. 1977. Procedures and socioeconomic data needs for determination of optimum yields in fishery management plans. Scient. and Stat. Comm. Nor. Pac. Fish. Mgmt. Counc. (Unpubl.)
- Nikolsky, G. 1956. Concerning the biological basis of the rate of exploitation and means of managing the abundance of fish stocks. Pages 306-318 in Essays on general problems of ichthyology. Acad. Sci. USSR (Leningrad). (Transl. from Russian by Fish. Res. Board Can. Transl. Ser. No. 1857, 1953.)

- Pella, J., and P. Tomlinson. 1969. A generalized stock production model. Bull. Int.-Amer. Trop. Tuna Comm. 13:421-496.
- Radovich, J. 1975. Application of optimum sustainable yield theory to marine fisheries. Spec. Publ. No. 9, Amer. Fish. Soc. Washington, D.C.
- Ricker, W. 1954. Stock and recruitment. J. Fish. Res. Board Can. 11:559-623.
- Ricker, W. 1958. Handbook of computations for biological statistics of fish populations. Fish. Res. Board Can. Bull. 119:300 pp.
- Roedel, P., ed. 1975. Optimum sustainable yield as a concept in fisheries management. Spec. Publ. No. 9, Amer. Fish. Soc. Washington, D.C.
- Royce, W. 1975. Use of yield models in fishery management. Spec. Publ. No. 9, Amer. Fish. Soc., Washington, D.C. Pages 9-12.
- Schaefer, M. 1954a. Some aspects of the dynamics of populations important to the management of the commercial fisheries. Int.-Amer. Trop. Tuna Comm. Bull. 1.
- Schaefer, M. 1954b. Fisheries dynamics and the concept of maximum equilibrium catch. Proc. Gulf Caribbean Fish. Inst., 6th Annu. Sess. 1953:53-64.
- Sissenwine, M. 1978. Is maximum sustainable yield an adequate foundation for optimum yield? Fisheries 3(6):22-42.
- Thompson, W., and F. Bell. 1934. Biological statistics of the Pacific halibut fishery. 2. Effect of changes in intensity upon total yield and yield per unit of gear. Rep. Int. Fish. Comm. 8:45 pp.

٠,١٠٠

DATE:

April 24, 1980

C-1 Written Statement Received 4-24-80

TO:

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

FROM:

Harvey Samuelsen, Fisherman

Dillingham, Alaska

Our number one problem is, we've got too many fish coming this year and there is not enough U.S. processing capacity. A number of resident fishermen have been notified there is no markets available to them this year.

Since the State of Alaska realizes we don't have enough U.S. processors, foreign processors should be allowed to come in and process salmon for this coming season only.

By law, foreign processors are forbidden to process salmon in the Fishery Conservation Zone. Foreign tenders cannot make the long run to deliver, it costs too much and too much time is needed for delivery.

The short salmon season plus the possibility of bad weather makes delivery to foreign processing ships at sea impractical. Therefore, it is not a solution.

Alaska salmon already has a bad reputation for poor quality, we don't want to see this compounded, therefore foreign processors should be allowed in our waters. Foreign processors will develop new markets for salmon. Markets for Bristol Bay fishermen would be created for those that have no market.

We have a situation where there will be more salmon than U.S. processors can handle, more salmon fishermen then U.S. processors can use, the only lack is processing capacity. To be available in time it must be mobile, the U.S. have provided for joint ventures in the FCZ in low price species. Primarily, now those ships can solve the lack of processing capacity and they should be given the opportunity when these more lucrative species are available.

Pecemed 4-23-80

MEMORANDUM OF SUPPORT

An unprecedented number of salmon are expected to return to Bristol Bay in 1980. The orderly harvest of salmon in Bristol Bay will require processing capacity greater than is presently available through U. S. facilities. Consequently, the State of Alaska, under 5 AAC 39.198(d) has authorized foreign tendering operations within State waters during the 1980 salmon season.

This regulatory action was considered by the Board of Fisheries and the Commissioner, Alaska Department of Fish and Game, in March 1980, after sixteen hours of public discussion. The action taken reflects the recommendations of the "Bristol Bay Fishery Harvest Planning Group," a special task force appointed by Alaska Governor Jay S. Hammond.

Under present maritime law, foreign tenders would be available to deliver fresh salmon to nearby foreign ports. Additionally, if necessary waivers of federal maritime law are obtained, foreign tenders could also deliver to American ports. These tendering operations are anticipated to be practical only for those nations in close physical proximity to Alaska.

Existing State laws, regulations, and the United States Constitution do not permit the state to limit the number of foreign countries allowed to operate in State waters. Alaska has thus far declined to permit processing activity by foreign vessels in Bristol Bay because the state may not limit the number and country or origin of the foreign participants.

In contrast to State law, federal law, viz., the Fishery Conservation and Management Act, does provide a mechanism for making distinctions among foreign nations operating in the fishery conservation zone. State of Alaska officials have discussed the possibility of federal authorization for a limited foreign processing effort in the fishery conservation zone.

It is our consensus that such involvement should be for a specific purpose: the development of new markets for Alaskan sockeye salmon.

This limited foreign processing effort could be accomplished through Joint Venture Permits issued to nations that have operations which both (a) provide new or not fully utilized markets for Alaska salmon, and (b) to the extent possible, do not displace existing markets. The permits should provide for the sale of fish to buyers licensed under the laws of the state of Alaska to assure compliance with reporting requirements established for management purposes in the salmon fishery. By this Memorandum, the state of Alaska formally communicates its approval of such limited foreign involvement in Bristol Bay salmon processing.

In accordance with the thoughts outlined above, we respectfully request that the North Pacific Fishery Management Council support a limited foreign processing effort in the fishery conservation zone through appropriate amendments to the Salmon Fishery Management Plan. We further respectfully request the Departments of State and Commerce to expedite applications for such Joint Venture Permits in order to best provide for an orderly harvest in 1980 and a more balanced economic development of Alaska's fishery resources.

Charles H. Meacham, Director

International Fisheries & External Affairs

Office of the Governor

Ronald O. Skoog, Commissioner

Alaska Department of Fish and Game

Nicholas G. Szabo, Chairman

Alaska Board of Fisheries

DATED: April 22, 1980

Juneau, Alaska