

D R A F T

MINUTES

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL  
Scientific and Statistical Committee  
May 26-27, 1981  
Anchorage, Alaska

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met in Anchorage on May 26-27, 1981. Members present were:

Donald Rosenberg, Chairman

Richard Marasco

William Aron

Bud Burgner

John Clark

Larry Hreha

Steve Langdon

Jack Lechner

Al Millikan

Don Calkins (alternate for John Burns)

B-6 Non-Agenda Items

Subcommittees - The SSC review and updated its internal membership on subcommittees. An updated list of this membership has been provided to the Council staff. Additionally, in order to effectively monitor and review Council contracts, the SSC has established subcommittees for each outstanding contract. A list of this membership has been provided to the Council staff. It is expected that members of these committees will receive and review for the SSC all quarterly and final reports from contractors.

SCIENTIFIC AND STATISTICAL COMMITTEE  
Subcommittees  
May 1981

GOA Groundfish FMP

Rich Marasco (chairman)  
Ed Miles  
Larry Hreha  
Bill Aron  
John Burns

BS Groundfish FMP

John Burns (chairman)  
Rich Marasco  
Ed Miles  
Larry Hreha  
Bill Aron

Tanner Crab FMP

Jack Lechner (chairman)  
Don Rosenberg  
Bud Burgner

King Crab FMP

Rich Marasco (chairman)  
Bud Burgner  
Jack Lechner

High Seas Salmon FMP

Bud Burgner (chairman)  
Al Millikan  
Don Rosenberg  
Steve Langdon  
John Clark

Herring FMP

Al Millikan (chairman)  
Bud Burgner  
Steve Langdon  
John Clark

Clam FMP

Don Rosenberg (chairman)  
Larry Hreha  
Bill Aron

Halibut FMP

Ed Miles (chairman)  
Don Rosenberg  
Steve Langdon

Subcommittees on Contracts

79-4 Analysis of Southeastern Alaska Troll Fisheries Data

Bud Burgner  
Don Rosenberg  
Al Millikan

80-3 Seasonal Use and Feeding Habits of Walruses in the Proposed Bristol Bay Clam Fishery Area

Larry Hreha  
William Aron  
Don Rosenberg

80-4 To Expand and Enhance the Domestic Commercial Fisheries Catch Data Reporting System Off Alaska

Larry Hreha  
Rich Marasco

81-2 Processing of Fisheries Data

Rich Marasco  
Ed Miles

Study of Data on Feeding Habits and Food Requirements of Marine Mammals in the Bering Sea

William Aron  
Don Rosenberg

C-2 Recommendations for Plan Maintenance Teams

In accordance with the Council's direction at the last meeting, the SSC received and reviewed recommendations from the Alaska Department of Fish and Game and the National Marine Fisheries Service for membership on the Plan Maintenance Teams. The SSC, in addition, discussed other agency participation in PMT's. Additionally, the SSC believes that each PMT should have identified a scientific support group who will be kept informed of PMT needs and actions. The SSC recommendations for agency, and where available, individual membership on PMT's are provided in Attachment 1. The Council should note that the SSC is recommending that the Washington Department of Fisheries have membership on the High Seas Salmon PMT and that the International Pacific Halibut Commission have membership on both of the groundfish PMT's. The SSC will request that these agencies submit names of individuals for our review at our next meeting.

The Council should note that the PMT's for Tanner Crab, High Seas Salmon and Gulf of Alaska Groundfish need to be established immediately. Teams for Bering Sea/Aleutian Islands Groundfish and Bering Sea Herring need not be confirmed until these plans are approved.

Attachment 1  
Plan Maintenance Teams

Tanner Crab FMP

<u>Agency</u>	<u>Individual</u>
ADF&G	Fred Gaffney
NMFS	Ray Baglin
NPFMC Staff	Steve Davis
Scientific Support Leader	Jerry Reeves

High Seas Salmon FMP

<u>Agency</u>	<u>Individual</u>
ADF&G	George Utermohle
NMFS	Bill Robinson
Wash. Dept. of Fisheries	
NPFMC Staff	Jim Glock
Scientific Support Leader	Mel Seibel

Gulf of Alaska Groundfish FMP

<u>Agency</u>	<u>Individual</u>
ADF&G	Mark Miller
NMFS	Phil Chitwood
IPHC	
NPFMC Staff	Jeff Povolny
Scientific Support Leader	Jim Balsiger

Bering Sea/Aleutian Islands Groundfish FMP

<u>Agency</u>	<u>Individual</u>
ADF&G	
NMFS	Phil Chitwood
IPHC	
NPFMC Staff	Jeff Povolny
Scientific Support Leader	Loh-Lee Low

Bering Sea Herring FMP

<u>Agency</u>	<u>Individual</u>
ADF&G	
NMFS	Dick Marshall
NPFMC Staff	Jim Glock
Scientific Support Leader	Steve Fried

Washington Department of Fisheries Report dated March 12, 1981

At the March 24 meeting the SSC considered a report by the Washington Department of Fisheries staff dated March 12, 1981 entitled "Review of 1981 NPFMC Preferred Options and Refinements to the Analysis of Upper Columbia River "Bright" Fall Chinook Management Needs and Opportunities for 1981". A number of questions regarding the analysis were raised that were not resolved satisfactorily in the available time. In order to allow adequate consideration of the information in developing 1982 chinook regulatory amendments, the SSC recommended in part that the Salmon Subcommittee review the document by the May meeting and provide a list of specific questions to WDF regarding the analyses presented, the model used, and assumptions contained in the model. This list of questions was reviewed by the SSC and will be forwarded to the Washington Department of Fisheries for their consideration.

To evaluate the Washington Department of Fisheries' analysis, there is a need to understand the model which has been developed jointly by the Department and the National Bureau of Standards.

It is recommended that the Council sponsor a one-day workshop to be conducted in early fall by Fred Johnson (author of the model) and personnel of Washington Department of Fisheries. The purpose of the workshop would be to explain in detail the use of the model in the coastwide chinook fishery. Attendees would be those members of the North

Pacific and Pacific SSC's, PMT's, Councils, and management agencies who desire a better understanding of the use of the model.

Salmon Limited Entry

The SSC reviewed the report by the Council staff containing data on the number of trollers who would qualify for an FCZ limited entry program under various eligibility criteria. The SSC has no recommendation on these data at this time.

Economic Impact Analysis of Different OY Reductions

This analysis has been reviewed and comments have been made to the NMFS, Regional Office.



The SSC reviewed the document entitled, "Alaska Board of Fisheries Decision Regarding Management of Domestic King Crab Fisheries in the Bering Sea/Aleutian Islands Area," dated March 1981. This statement summarizes decisions made by the Board of Fisheries that represent deviations from the status quo. A critical weakness of the report is its lack of adequate documentation of the factors that led to a particular decision. Future statements of this type should contain data which was used in the decision process.

The following management issues are addressed in the document:

1. OY determination for the Bristol Bay, Bering Sea, Adak, and Dutch Harbor areas;
2. closure of an area extending approximately 15 miles offshore in the northern and eastern portion of Norton Sound to commercial fishing from July 15 through September 3 to enhance subsistence fishing;
3. modification of the opening season to coincide with the opening of the Bristol Bay fishery;
4. retention of red king crab 7-1/2" and larger in the Pribilof fishery after closure of the Bristol Bay fishery;
5. proposed modification of the pot storage area for the Bristol Bay fishery; and
6. proposed redesignation of the Bristol Bay fishery as a non-exclusive area.

The SSC specific comments on these items is as follows:

1. OY Determination

OY's contained in document were found to correspond with guidelines specified in the framework plan for all areas except Adak. Estimates of the exploitable number of males larger than 6-1/2" is unknown at present in the Adak area. Further, the stock in the area is considered to be in a depressed state. The OY was set at 0.5 to 3.0 million pounds to allow the fishery to operate so that data on the status of stocks in the area can be obtained.

2. Closure of an area 15 miles offshore in the northern and eastern portions of Norton Sound.

This action was taken to enhance subsistence fishing in the Norton Sound area. During 1980 the subsistence catch in this areas was small due mainly to the lack of inshore availability of crab. The commercial catch was 1.2 million lbs, with 17% of that catch coming from the area proposed for closure. This action represents the giving of preferential treatment to a group of domestic fishermen. Therefore, economic and social issues are involved. Data are unavailable to determine, for example, how the economic viability of the commercial fishery will be affected by this action. It is recommended that the Council support a study to determine the economic and social characteristics of the subsistence and commercial fisheries in this area.

3. Modification of the opening date of the Pribilof fishing season.

During the 1979-80 season, regulations opened the red crab fishery in the Pribilofs five days before the opening of the Pribilof blue king crab fishery and the Bristol Bay red crab fishery. The different opening dates caused confusion during vessel registration and taken inspection. The opening date of the Pribilof fishery was modified to coincide with that for the Bristol Bay fishery to alleviate the confusion.

4. Retention of red king crab 7-1/2" and larger in the Pribilof fishery after closure of the Bristol Bay fishery.

Under current regulations, the Pribilof fishery remains open after Bristol Bay fishery is closed. The Pribilof fishery is mainly a blue crab fishery; however, red crab are taken as an incidental catch. In the past, retention of red crab was prohibited after closure of the Bristol Bay fishery. Catch data indicates an availability of large red crab in the area. Making it possible to retain these large red crab will result in an increase harvest of post recruits which suffer high levels of natural mortality.

5. Modification of the pot storage area for the Bristol Bay fishery.

The proposed area is located due north of Unimak pass and Southwest of the existing pot storage area. During 1980, approximately 50% of the Bristol Bay red crab harvest came from this area. Since the

area is located on the fishing grounds, adoption of the proposed storage area would reduce storage costs. If the pots are illegally fished, there could be an increase in dead loss. This would result in waste and a reduction in aggregate gross revenues accruing to the fleet. Further, storage of a large number of pots in a productive area could have an adverse impact upon the status of the stock. There is an indication also that the shift of the pot storage area could have a favorable impact upon the groundfish trawl fishery.

6. Redesignation of the Bristol Bay fishery as a non-exclusive area.

Classification of an area as an exclusive or non-exclusive area can have a significant impact on the economic and social features of a fishery. A thorough examination of this issue is required. An understanding of the economic and social features of the various elements of the crab fleet is needed before the impact of these actions can be evaluated.

E-4 Tanner Crab FMP

The SSC reviewed the status of the Tanner Crab FMP and the inconsistencies between the Council's current plan and the State of Alaska regulations which are being used to manage the fishery. The Tanner Crab FMP was adopted as a one year type plan which requires annual amendments to satisfy changes required by conservation and socioeconomic factors.

Our review indicates that the amendment procedures has failed to function in a timely manner. Changes necessary in all areas of the regulatory scheme, (OY, fishing seasons, pot limits, and pot storage) have not kept pace with the state regulations. These inconsistencies are far greater than would appear by the table provided by the Council staff. Many of the regulatory areas in the FMP are still in the process of being amended for the 1979-80 fishing year and have been re-amended for the 1980-81 fishing season. In both cases, the fishery has been regulated by emergency order, adopting the state regulations. In these cases the fishery has become history without actual federal regulations having been fully processed.

If the current procedure continues, it may allow through legal procedures a possible risk to proper management of the resource. The processes have resulted in certain state regulations not being enforced due to conflict with non-amended federal law. Although to date this has not created a conservation problem, it has been unjust to the fishery participants.

Under this current situation the SSC feels it is not able to effectively judge the scientific merits of the data being used to manage the fishery. Likewise,

the future of the amendment procedures is hindering the effective management of the fishery.

The SSC recommends the following:

1. that the PMP be fully updated to reflect the current regulatory changes;
2. that the Council consider the development of a new plan or amending the existing plan to create a multi-year plan that does not require an annual full amendment process, and/or
3. that the Council consider developing a management scheme similar to that being considered for king crab resources.

E-6 Bering Sea/Aleutian Islands Groundfish FMP

The SSC reviewed the written testimony, the summaries of the public testimony, and the various reports which have been submitted regarding proposed Amendment #3 to the Bering Sea/Aleutian Islands Groundfish FMP. Additionally, the SSC received testimony from individuals or representatives of the various concerned groups.

The SSC considered the pros and cons of each of the proposed procedures to control the catch of prohibited species. These are:

Procedures

1. Set allowable incidental catches (AIC) coupled with imposition of incidental catch fees.

Pros

- o Incidental catch limits of prohibited species, can be set at biologically safe levels.
- o There is an incentive to develop and use most efficient harvesting methods to avoid prohibited species.
- o Permits the operation of foreign and domestic groundfish fisheries.

- o Allows incremental adjustment of fees to optimal levels. Incremental fee increases should reduce incidental catches.

#### Cons

- o Taking of prohibited species will continue.
  - o If the goal is to protect prohibited species, the initial AIC's are indefensible. This is not the case if protection of prohibited species and allowance of a groundfish fishery are desired.
  - o Fees collected will not be distributed to fishermen affected by the incidental catches.
  - o If the AIC's are the binding constraints, fishermen that can avoid catching prohibited species are penalized along with those that cannot avoid them.
  - o Expanded level of observer coverage would be required.
2. AIC's for prohibited species.

#### Pros

- o Incidental catch limits of prohibited species can be set a biologically safe levels.



- o There is an incentive to develop and use most efficient harvesting methods to avoid prohibited species.
- o Permits operation of foreign and domestic groundfish fisheries.

Cons

- o Taking of prohibited species will continue.
  - o If the goal is to protect prohibited species, the initial AIC's are indefensible. This is not the case if protection of prohibited species and allowance of a groundfish fishery are desired.
  - o Once AIC's are reached any closure will affect fishermen who are successful in avoiding prohibited species as well as those who are not.
  - o If there is a desire to incrementally reduce the initial AIC's, specification of the magnitude of the annual reductions request careful review.
3. Impose incidental catch fees alone.

Pros

- o Annual determination of incidental catch levels is not necessary.

- o May create incentives to develop and use most efficient harvesting methods to avoid prohibited species.
- o Fishermen or fleets that are successful in avoiding prohibited species have the opportunity to continue fishing, while the less successful are penalized financially for their inability to reduce catches of prohibited species.

Cons

- o Fees collected will not be distributed to affected fishermen.
- o Expanded level of observer coverage would be required.

4. Impose gear restrictions.

Pros

- o Eliminates gear with high incidental catch rates.

Cons

- o May create inefficiencies in harvesting of target species.
- o No way of knowing that the gear restriction reduced the incidental catch until the season ends.

- o Enforcement requires adequate knowledge of fishing gear and techniques.

5. Enact time/area closures.

Pros

- o Ease of implementation and enforcement.

Cons

- o Large areas would have to be closed for long periods of time to protect all prohibited species, therefore there could create problems in achieving OY.
- o Uncertain about possible adverse impacts resulting from closure on species in other areas, as well as fisheries.
- o Removes incentives for gear experimentation and change.
- o Fishing units are not free to select most efficient harvesting methods.
- o Fishermen that can successfully avoid prohibited species are penalized along with those that cannot avoid them.

6. Reduction in the OY of groundfish species.

This option was not considered viable because it could severely affect the groundfish fishery without reducing the size of the prohibited species catch. It was felt that there are less restrictive and more effective means of achieving a reducing in incidental catch.

7. Impose gear restrictions coupled with a reduction in OY.

Same as 6.

8. Set fishery specific incidence rates as cut-off rates for short-term closures of the groundfish fishery.

This option could be extremely difficult to implement. There is no guarantee that prohibited species catches would be reduced.


Based upon extensive decisions of the various options and weighing the pros and cons of each option, the SSC recommends the following regarding the proposed procedure for reducing incidental catches of prohibited species:

That the Council adopt the Option 2 (AIC alone) with some modification in its application. The SSC recommends that the Council consider two possible modifications.

1. That the AIC option be implemented in the strictest sense, that when a nation reaches its AIC the Bering Sea/Aleutian Islands area closes to all of that nation's groundfish fisheries for the remainder of the fishing year.

The SSC does not believe that any gear type should be exempt from this closure as no gear type is 100% successful in avoiding all prohibited species and therefore that nation's AIC could be exceeded. No specific areas of the Bering Sea/Aleutian Islands fisheries should be exempted from the closure because of the dynamic nature of these fishing resources.

2. That the AIC option be implemented in a manner that the Bering Sea/Aleutian Islands area closes to a nation before its final AIC is reached. Once an initial AIC (a percentage reduction of the final AIC) is reached, the area would close to that nation's groundfish fleets. The Regional Director would then be given the authority to re-open areas to specific gear types from that nation that have demonstrated an ability to avoid prohibited species. Once the final AIC is reached the total area closes to all of that nation's groundfish fishing fleets.

 The Council should note that any unused TALFF resulting from an AIC closure should be reallocated to nations which have remaining AIC to facilitate the achievement of OY.

The SSC reviewed the proposed initial AIC's and the proposed reduction schedule. The SSC concurs with the initial AIC's and with the goal of a 75% reduction in all prohibited species in a five-year time period. The SSC does note that there must be an annual review of that goal and schedule to insure that they are reasonable in light of stock conditions and harvesting technologies.

With regard to the application of AIC procedure to the domestic groundfish fishery and to the retention of prohibited species, the SSC recommends that the domestic groundfish fishery be included under the AIC concept from the start and that all prohibited species be returned to the sea with a minimum of injury. Failure to include the domestic groundfish fishery in the AIC concept or failure to return prohibited species to the sea, the SSC believes is inconsistent with the recently adopted management objective (amendment package 81-1) of "minimize the impact of groundfish fisheries on prohibited species and continue the rebuilding of the Pacific halibut resources."

With regard to the allocation procedure of AIC to the domestic groundfish fishery the SSC believes that only Items A and B in the proposed amendment are relevant; Item C seems to be inconsistent with the FMP management objectives and the D is a duplication of A.

Contract 79-4, Analysis of Southeastern Alaska Troll Fishery Data.

The SSC completed its review of the final report by Alaska Department of Fish and Game on Contract 79-4 entitled "Analysis of Southeastern Alaska Troll Fishery Data". The SSC recommendation approval of the final report.

The object of the research project was to investigate the feasibility of using the data on troll landings, micro-wire tag recoveries and troll logbook observations as the basis for time and area management of the Southeast Alaska troll fishery. The contractor effectively assembled, summarized and evaluated a voluminous data base to (a) examine the distribution and relative abundance of chinook and coho salmon stocks harvested by the fishery; (b) describe recent trends in power and hand troll catches, landings and fleet characteristics; and (c) develop methods of standardizing troll effort.

The tasks specified in the contract work statement have been accomplished. Catch-per unit effort (CPUE) indices are calculated, adjusting CPUE for the effects of targeting and relative gear efficiency. Trends in catch, landings and vessel characteristics over the period 1969-1979 are examined. Seasonal time-area differences are demonstrated for (a) troll CPUE; (b) distribution of micro-wire tagged stocks of different origin; and (3) distribution of undersized chinook salmon. The report concludes that if these differences remain consistent in succeeding years' data, time-

area management could be utilized to control harvest ratios of stocks from different areas of origin and to increase yield per recruit from the fishery.

The SSC recommends that the Council note in particular the CONCLUSIONS and RECOMMENDATIONS sections of the report. Briefly those recommendations are:

1 and 2. Modify ADF&G fish tickets to improve information on troll effort and area of catch.

3. Seek means of obtaining maturity data on tagged chinook recovered in the troll fishery.

4. Improve allocation of port sampling effort to assure useable catch rate information.

5, 6 and 7. Conduct analyses of at least one more year of data (1980) to examine consistency of catch rates, and of time-area distribution of tagged chinook and coho stocks before utilizing the results in time-area closure decisions to control stock interception rates by area of origin.

8, 9 and 10. Examine further the potential of using time and area closures and size limit changes to increase yield per recruit of chinook salmon.



11. Conduct scale pattern analyses and/or expand tagging of chinooks in the troll fishery to obtain better stock identification than feasible from coded-wire tag analyses.

The SSC endorses in general the recommendations of the report, and recommends in particular that means be sought to conduct the additional analyses and the proposed stock identification study of chinook in the troll fishery.

Marine Mammal RFP

The SSC reviewed the four proposals that the Council has received in response to the Council's RFP. The SSC also reviewed the recommendation of the Council's scientific/agency subcommittee which reviewed these proposals. The SSC concurs with the subcommittee's recommendation that the contract be awarded to the Alaska Department of Fish and Game. The SSC requests that our subcommittee review the final proposed contract before execution.

F-3 Programmatic Research Funding

Certified by: \_\_\_\_\_

Date: \_\_\_\_\_

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

ADVISORY PANEL MINUTES

Captain Cook Hotel

Anchorage, Alaska

May 27, 1981

The Advisory Panel met on Wednesday, May 27, 1981, at the Captain Cook Hotel from 9:00 a.m. to 6:00 p.m. The following panel members were present: Bud Boddy, Alvin Burch, Truman Emberg, Jesse Foster, Richard Goldsmith, Joseph Kurtz, Richard Lauber, Raymond Lewis, Daniel O'Hara, Kenneth Olsen, Don Rawlinson, Lewis Schnaper, Jeffrey Stephan, Konrad Uri, and Chairman Robert Alverson.

A. CALL TO ORDER and APPROVAL OF AGENDA

The meeting was called to order by Chairman Robert Alverson. The agenda was approved by all Advisory Panel members.

B. SPECIAL REPORTS

B-1 Executive Director's Report. This was presented by Clarence Pautzke. In brief, he reported on the Marine Mammal Protection Act; EEC's attempt to

reduce U.S. salmon imports; State/Federal Fisheries Funds and the lengthened review process of fishery regulations.

- (a) The Advisory Panel passed the following motion with respect to the EEC attempt to reduce the importation of Pacific salmon products into Europe.

The AP requests the Council to send a letter to Ted Kronmiller of the Department of State, similar to that sent by the Pacific Fishery Management Council protesting the EEC actions.

- (b) With respect to the Council's paper on potential changes to the FCMA, the Advisory Panel wishes to be on record as opposing any change in Section 304(d) of the MFCMA that would allow the federal government to collect increased fees on domestic fishing activity.

B-2 ADF&G Report on Domestic Fisheries. This report was given by Mark Miller. He indicated that domestic groundfish catches were far above harvest levels of last year. Of the domestic harvest, 92% came from U.S. joint venture activity.

He also reported difficulties putting U.S. observers on the domestic cod fish vessels. Mr. Miller indicated that the information they had received was very limited and could not be used for management decisions.

Though the AP did not take any specific action on this, several members suggested that the owners of the remaining vessels participating in the salt cod fishery be notified of the urgency for obtaining information in this area and seek their cooperation. The AP would like a follow-up report on this issue.

B-3& NMFS Report on Foreign Fisheries and U.S. Coast Guard Report on Enforce-

B-4 ment and Surveillance. These reports were presented by Ron Naab. Mr. Naab reported that two Japanese vessels had been seized for under-logging by as much as 30% in certain species categories. It was of concern to the AP that the vessels associated with this practice were again from the Hokutan Trawlers Association.

B-5 Update on Joint-Venture Operations. The representative who was to give this report was not available. The Advisory Panel requests the Council staff to find out if any residents from St. George Tanaq are still at sea as trainees in this joint-venture program.

B-6 AP and SSC Reports on Non-Agenda Items. No action was taken under this agenda item.

C. OLD BUSINESS

C-1 Report on the Economics of Halibut Limited Entry. Clarence Pautzke indicated that the report on this meeting would be available at the July meeting in Homer. The AP had no further comments on this subject at this time.

C-2 Confirmation of SSC Recommendations for Plan Maintenance Teams. The AP took no action on this subject at this time.

C-3 Other Old Business as Appropriate. No action was taken by the Advisory Panel.

D. NEW BUSINESS

D-1 Polish Joint Venture Permits. The Advisory Panel did not make a decision on approval of the joint venture permits by Poland. The AP discussed with the representative from Mrs. Paul's Kitchen the following concerns.

Given that the Polish have obtained over 90% of their allocation in the Gulf of Alaska and over 60% in the Bering Sea and Aleutian Islands, it may benefit U.S. processors of frozen fillets if the additional product produced by joint venture activity were denied to the Polish assuming the processed pollock from joint venture activity was going to Mrs. Paul's Kitchen in the U.S. The assumption being, Mrs. Paul's Kitchen would buy from U.S. processors.

Various AP members did not want to unduly deprive the two U.S. catcher vessels from the Polish market but were concerned about products in general, produced in joint venture activity having their primary marketing destination as the U.S.

D-2 Other Business as Appropriate. The issue of considering federal control inside state internal waters was discussed. The concern has developed due to the recent court decision which allowed foreign processors into state internal waters. Truman Emberg's letter to the Council was requested to be made part of the Advisory Panel report and should be considered as such. The AP did not take any specific action on this issue.

E. FISHERY MANAGEMENT PLANS

E-1 Salmon FMP. The AP adopted the following motion: The Advisory Panel does not endorse limited entry for the troll salmon fishery, as the harvest is regulated by means of a quota and the elimination of fishing units will not result in a reduction in the total harvest.

E-2 Herring FMP. No action was required.

E-3 King Crab FMP.

1. Final action on Joint Statement of Principles between North Pacific Fishery Management Council and Alaska Board of Fisheries and King Crab Management Framework.

*may expect joint vote - 11-3 to lead  
may*

The Advisory Panel voted 11 to 3 to adopt the Joint Statement of Principles between the North Pacific Fishery Management Council and the Alaska Board of Fisheries and the King Crab Management Framework that accompanies it.

It was considered that (1) the State of Alaska has done an adequate job of managing the resource; (2) both vessel owners and processors were sharing in a \$186,000,000 (ex-vessel price approximately) industry reasonably well; and (3) the cumbersome federal bureaucracy would encumber future management of the resource.

To highlight the major concerns against the Joint Statement of Principles, those against the motion argued the following:

- (a) The Joint Statement of Principles is illegal.
- (b) Whether there would be a conflict of interest by the Board of Fisheries in that state statutes indicate management in behalf of the State and its residences where as the FMP process would provide the safeguards of the MFCMA national standards.
- (c) The Joint Statement of Principles does not define who will determine consistency between regulations and the Act.
- (d) The Board does not have outside representation.
- (e) The Board of Fisheries closure in Norton Sound extended into the FCZ.

Those opposed to the Framework argued the following:

- (a) The Framework does not provide for subsistence fishing, nor is there any justification given for its consideration.
- (b) Exclusive fishery management zones do not conform to the FCMA.
- (c) Other objections can be found in the statements made by the North Pacific Fishing Vessel Owner's Association in Agenda Item E-3 and should be considered part of the minority report.



2. Review Board decisions regarding king crab management.

The Advisory Panel suggests that the Council request the Board of Fisheries to reconsider the opening date for king crab in the Bering Sea areas.

This request is supported by a vote of 12 to 2. It was recognized that in most instances after regulatory agencies make a decision that those decisions are final. The AP considers this opening date to be no minor issue. The question of the market quality of king crab is a serious issue.

This request is supported by the Dutch Harbor Advisory Panel, a petition signed by over 100 Bering Sea fishermen, a significant portion of Bering Sea processors, and a fishermen marketing association.

Those opposed felt <sup>(not pass)</sup> that a change in the date may have adverse impacts on fishermen in other districts outside of Bering Sea, and that there had been ample time to explain positions during the hearing process of the Board of Fisheries.

Norton Sound. The AP was at an impasse with respect to action taken by the Board of Fisheries on the Norton Sound closure. The AP voted 6/6 on acceptance of the closure.

Those in favor felt that the subsistence issue and the lack of crab within the proposed closure were sufficient to warrant the closure.

Those opposed felt:

- (a) There was inadequate justification for the closure.
- (b) The action of the Board did not comply with the Joint Statement of Principles.
- (c) The extension of a closure out to 15 miles was improper for a state agency to make.
- (d) There were inadequate data to indicate that a lack of crab inshore resulted from efforts of the rest of the fishing fleet.

3. Determine whether management and conservation are sufficient under MFCMA.

The Advisory Panel voted 8 to 4 that the Joint Statement of Principles and Management Framework complied with the MFCMA, and that the regulations for 1981 <sup>are</sup> were sufficient for the management and conservation required under the MFCMA for the king crab fishery.

E-4 Tanner Crab FMP. The AP finds it imperative that the pot storage areas between state and federal regulations be brought into conformity. The current area recently adopted by the Board of Fisheries is in the middle of the foreign yellowfin sole fishery. This is also confirmed by NMFS 1980 trawl surveys indicating where the highest abundances of yellowfin sole are located.

The AP requests the Council to transmit the coordinates of the new Board of Fisheries area to all foreign nations immediately, as there are numerous reports of crab pots being lost to foreign trawl activity.

The AP further requests the Ad Hoc Crab Pot Storage Committee be convened and invite appropriate State of Alaska and NMFS enforcement personnel to discuss a new pot storage area.

The AP requests the Council to allow the opilio Tanner crab fishery to remain open until the quota is taken or until (5) days before the king crab season, but then to re-open upon the opening of the king crab opening date until the opilio quota is taken or until it is determined, due to conservation reasons, the opilio season should be closed.

E-5 Gulf of Alaska Groundfish FMP. No action was taken by the AP.

E-6 Bering Sea/Aleutian Islands Groundfish FMP. The Advisory Panel voted 10 to 4 to adopt the following with respect to Amendment #3.

Be it moved that the Advisory Panel adopt the two guidelines proposed in Amendment #3 and with respect to the proposed procedures the AP prefers the following.

### FOREIGN FISHERIES

- \*1. Immediate AIC's based on levels submitted by PDT in Amendment #3 for all prohibited species; with respect to halibut, it may be appropriate to use an average including 1980 data which are now available.
2. Time and area closures.
3. Gear restrictions as new technology becomes available through gear experimentation.
- \*\*4. Specific incidence rates as a cut-off rate.

### DOMESTIC FISHERIES

The AP believes that at this time only the following procedures should be potentially applied to the domestic fisheries:

1. Time area closures.
2. Gear restrictions as gear experimentation progresses.
- \*\*3. Specific incidence rates used as a cut-off rate.

The above regulations should only be applied to domestic fishermen when an appropriate data base for the domestic fisheries becomes established.

Be it further moved that the prohibition on retaining prohibited species be continued.

\*AIC's to foreign nations will be pro-rated based on a percentage of the total OY allocated to those nations.

\*\*Currently the NPFMC has a regulation on domestic fishermen in Area A in the Bering Sea with a specific incidence rate as a cut-off rate.

Those favoring the motion did not want AIC's to affect the domestic fleet at this time. It was also pointed out that the AP is not favoring any specific time/area closure on domestic fishermen or gear regulations at this time, but that these management tools should be available to the resource managers when thier use is determined appropriate by the Council.

Those opposing the motion felt it was too early to subject the domestic fleet to being potentially regulated by any method at this time, and that the potential of being regulated would encumber the development of the domestic fleet.

The action taken by the Advisory Panel should not be construed to mean that current regulations on foreign fishermen should be removed or that the agreement in Area A, with respect to the cut-off rate on domestic fishermen, should be changed.

Workgroup	Council	SSC	AP	Others
Foreign Permit Review	*McVey Eaton Busick Skoog Campbell		Kurtz	Naab Travers
Halibut Planning	McVey Tillion Lokken Meacham Skoog		Alverson	
Incidental Species Policy	Bevan Skoog McVey Collinsworth			Smith
AP Nominating	*Meacham Tillion Lokken Eaton			
Finance	*Campbell Meacham McVey Lokken Knapp Skoog Harville Bevan	Rosenberg	Stephan Lauber	
Inter-Council Salmon Coordination	Bevan *Skoog Demmert			Donaldson Martinis McDevitt

\*Chairman

WORK2/J

Workgroup	Council	SSC	AP	Others
Board/Council Coordination	Bevan Didonato Meacham Skoog Tillion			
Policy and Planning	Bevan Campbell Eaton Harville Lokken McVey Skoog Tillion	Miles Rosenberg		
FCMA Amendments	Mace Lokken Bevan Tillion Campbell Harville Eaton Skoog	Rosenberg	Lauber Stephan	
Limited Entry	Tillion Collinsworth Brooks		Stephan Lauber Alverson Otness Boddy	Thornburgh Smith Stanley Miller Myre Mathisen Koenecke Haines Lee

\*Chairman

Workgroup	Council	SSC	AP	Others
Marine Mammal		Burns Aron		Weeden Chapman Tillman Hoffman Twiss
Socioeconomic Data Needs		Miles Marasco		Rogers Stokes Rettig Bray
U.S./Canada Consultation	Lokken Meacham Bevan Skoog (alternate)			
Joint-Venture Data			Burch Uri	Fisher Thornburgh Francis
Joint-Venture Closure Criteria	Bevan Campbell Eaton Harville Lokken Tillion		Alverson Lauber Stephan	
SSC Subcommittee for Programmatic Budgeting		Rosenberg		
Ad Hoc Crab Pot Storage			Uri *Goldsmith Burch Alverson	Petersen Hjelle Fisher

\*Chairman



Workgroup	Council	SSC	AP	Others
Logbook Program Workgroup		Millikan Lechner Marasco		
Ad Hoc BSA Incidental Species		Burgner Marasco		Povolny Loh-lee Low Balsiger Major Bakkala French Meacham, Jr. Reeves Terry Wespestad Laevastu Rigby Hoag
Contract 79-4 Review (SE Salmon Troll Data)	Bevan Harville	Burgner Rosenberg		Thornburgh
Contract 80-4 Review (ADF&G Catch Data)	Bevan Harville	Hreha Marasco		Thornburgh
Contract 80-6 Review (Halibut LE)	Lokken Collinsworth Brooks Tillion	Miles Marasco	Alverson Lauber Stephan	Smith Koenecke Lee McCaughran Miller Mathison Haines

\*Chairman

Current status of teams and subgroups for various NPFMC fisheries.

Plan	PDT	PMT	Council	SSC	AP	Staff
GOA Groundfish	Jim Balsiger (NWAFC) Bob Stokes (IMS/UW) Phil Rigby (ADF&G) Steve Hoag (IPHC) Loh-Lee Low (NWAFC) Barry Bracken (ADF&G)		Harville Skoog Meacham	*Marasco Miles Hreha Aron Burns	Alverson Burch Otness Phillips Stephan Uri	Povolny
BS/A Groundfish	Dick Bakkala (NWAFC) Loh-Lee Low (NWAFC) Bob Stokes (IMS/UW) Steve Hoag (IPHC) Phil Rigby (ADF&G) Jim Blackburn (ADF&G) Bill Arvey (ADF&G)		Harville Skoog Meacham	*Burns Marasco Miles Hreha Aron	Alverson Burch Cotter Goldsmith Stephan Uri	Povolny
Herring	Ron Regnart (ADF&G) Rich Randall (ADF&G) Vidar Westpestad (NWAFC) Jeff Skrade (ADF&G)		Campbell Harville Skoog	*Millikan Burgner		Glock
King Crab	Fred Gaffney (ADF&G) Jerry McCrary (ADF&G) Guy Powell (ADF&G) Jerry Reeves (NWAFC) Dave Somerton (NWAFC) Bob Otto (NMFS) Ray Baglin (NMFS) Marty Eaton (ADF&G)		Campbell Mace Skoog	*Marasco Lechner Burgner	Cotter Goldsmith Lewis	Davis

\*Chairman

Current status of teams and subgroups for various NPFMC fisheries.

Plan	PDT	PMT	Council	SSC	AP	Staff
Tanner Crab	Jerry Reeves (NWAFC) Bob Otto (NMFS) Marty Eaton (ADF&G) Dave Somerton (NMFS) Ray Baglin (NMFS) Fred Gaffney (ADF&G)		Eaton <i>Schmitter</i> Sandison Skoog Tillion	Rosenberg Lechner Burgner	Stephan Kurtz Goldsmith	Davis
Troll Salmon	Bill Robinson (NMFS) Paul Larson (ADF&G) Al Davis (ADF&G) Jack Helle (NMFS) G. Utermohle (ADF&G) Mike Fraidenburg (WDF) Bob Garrison (ODF&W) Dave Cantillon (ADF&G) Mel Seibel (ADF&G)		Lokken Meacham Skoog <i>Schmitter</i> Sandison Harville	*Burgner Rosenberg Millikan	Otness Boddy Schnaper Jordan O'Hara	Glock
Comprehensive Salmon	Bill Robinson (NMFS) Dave Cantillon (ADF&G)		Bevan Skoog Demmert	?	Schnaper Jordan	Glock

\*Chairman

DOMESTIC GROUND FISH STATISTICS  
ALL ALASKAN WATERS  
March, 1981

A. DOMESTIC CATCH

<u>Species</u>	<u>Metric Tons</u>			<u>Pounds</u>		
	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>Total</u>	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>Total</u>
Pollock	6,905.1	6,198.4	13,103.5	15,222,983	13,664,992	28,887,975
Pacific Cod	213.2	509.6	722.8	470,021	1,123,464	1,593,485
Sablefish	9.0	-	9.0	19,841	-	19,841
Flounder	19.8	-	19.8	43,651	-	43,651
Rockfish--	53.9	-	53.9	118,828	-	118,828
Atka Mackerel	-	-	-	-	-	-
Other/Unspecified	60.5	-	60.5	133,378	-	133,378
<b>Total</b>	<b>7,261.5</b>	<b>6,708.0</b>	<b>13,103.5</b>	<b>16,008,702</b>	<b>14,788,456</b>	<b>30,797,158</b>

B. OPERATIONS

	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>Total</u>
No. of Vessels Landing	19	9	28
Joint Venture Operations	1	1	2

\* Preliminary Results  
Alaska Department of Fish & Game  
Extended Jurisdiction Section  
4/29/81

ALL ALASKAN WATERS  
 DOMESTIC CATCH <sup>1/</sup>  
 1980 \*

<u>Species</u>	<u>Metric Tons</u>			<u>Pounds</u>		
	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>All Areas</u>	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>All Areas</u>
Pollock	2,089.9	12,995.8	15,085.4	4,607,307	28,650,540	33,257,847
Pacific Cod	1,018.3	14,116.9	15,135.2	2,244,984	31,122,009	33,366,993
Sablefish	1,543.1	57.1	1,600.2	3,401,873	125,914	3,537,787
Flounder	428.5	12,462.7	12,891.2	944,671	27,475,268	28,419,939
Rockfish	512.5	100.6	613.1	1,129,858	221,782	1,351,640
Atka Mackerel	4.9	264.7	269.6	10,803	583,558	594,361
Other/Unspecified	<u>524.6</u>	<u>691.8</u>	<u>1,216.4</u>	<u>1,156,533</u>	<u>1,525,160</u>	<u>2,681,693</u>
Total	6,121.8	40,689.6	46,811.4	13,496,029	89,704,231	103,200,260

<sup>1/</sup> Includes joint venture harvest

\* Preliminary Results

Alaska Department of Fish and Game  
 Extended Jurisdiction Section  
 3/23/81

ALL ALASKAN WATERS  
DOMESTIC CATCH 1/  
Jan, 1981

<u>Species</u>	<u>Metric Tons</u>			<u>Pounds</u>		
	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>All Areas</u>	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>All Areas</u>
Pollock	27	0	27	58,454	0	58,454
Pacific Cod	89	49	138	195,629	108,788	304,417
Sablefish	5	0	5	10,827	0	10,827
Flounder	3	0	3	6,602	0	6,602
Rockfish	10	0	10	23,060	0	23,060
Atka Mackerel	0	0	0	0	0	0
Other/Unspecified	39	0	39	86,494	0	86,494
<b>Total</b>	<b>173</b>	<b>49</b>	<b>222</b>	<b>381,066</b>	<b>108,788</b>	<b>489,854</b>

1/ Includes venture harvest

\* Preliminary Results

Alaska Department of Fish and Game  
Extended Jurisdiction Section  
3/20/81

ALL ALASKAN WATERS  
 DOMESTIC CATCH <sup>1/</sup>  
 Feb, 1981

Species	<u>Metric Tons</u>			<u>Pounds</u>		
	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>All Areas</u>	<u>Gulf of Alaska</u>	<u>Bering Sea</u>	<u>All Areas</u>
Pollock	2,272	883	3,155	5,008,634	1,946,661	6,955,295
Pacific Cod	95	715	810	208,761	1,577,324	1,786,085
Sablefish	28	0	28	61,704	0	61,704
Flounder	20	0	20	45,023	0	45,023
Rockfish	11	0	11	23,978	0	23,978
Atka Mackerel	0	0	0	0	0	0
Other/Unspecified	57	3	60	125,038	6,614	131,652
Total	<u>2,483</u>	<u>1,601</u>	<u>4,084</u>	<u>5,473,138</u>	<u>3,530,599</u>	<u>9,003,737</u>

<sup>1/</sup> Includes venture harvest

\* Preliminary Results

Alaska Department of Fish and Game  
 Extended Jurisdiction Section  
 3/20/81

GULF OF ALASKA & BERING SEA DOMESTIC CATCH

Jan 1 to Feb 28, 1981

CUMULATIVE  
Metric Tons <sup>1/</sup>

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pollock	27	3,155	-	-	-	-	-	-	-	-	-	-	3,182
Pacific Cod	138	810	-	-	-	-	-	-	-	-	-	-	948
Sablefish	5	28	-	-	-	-	-	-	-	-	-	-	33
Flounder	3	20	-	-	-	-	-	-	-	-	-	-	23
Rockfish	10	11	-	-	-	-	-	-	-	-	-	-	21
Atka Mackerel	0	0	-	-	-	-	-	-	-	-	-	-	0
Other/Unspecified	39	60	-	-	-	-	-	-	-	-	-	-	99
Total	222	4,084	-	-	-	-	-	-	-	-	-	-	4,306

<sup>1/</sup> Dressed Weight

Alaska Department of Fish and Game



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PUBLICATION OF THE NATIONAL MARINE FISHERIES SERVICE.  
FIGURES ARE DISPLAYED IN METRIC TONS. THIS REPORT IS NOT AN OFFICIAL  
REPORTED BY NMFS SHIPBOARD OBSERVERS AND DESIGNATED FOREIGN OFFICIALS.  
THIS REPORT PRESENTS BEST-BLEND CATCH STATISTICS DERIVED FROM AMOUNTS  
\*\*\*\*\*

YEAR-TO-DATE STATISTICS: 1 / 1/81 TO 4/18/81  
WEEKLY STATISTICS: 4/12/81 TO 4/18/81  
-----  
REPORTING PERIODS COVERED:

BERING SEA  
-----  
ALEUTIAN ISLANDS  
-----  
REPORTING AREAS COVERED:

\*\*\*\*\*  
\*  
\* BEST-BLEND FOREIGN CATCH REPORT \*  
\*  
\*\*\*\*\*

UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL MARINE FISHERIES SERVICE  
NORTHWEST AND ALASKA FISHERIES CENTER  
RESOURCE ECOLOGY AND FISHERIES MANAGEMENT DIVISION

BLENDDED FOREIGN CATCH FOR WEEKS 15 - 16 ( 4/12/81 - 4/18/81 )

NATION	AREA	SPECIES	WEEK ENDING	YEAR-	1981 PERCENTAGE	
			4/18/81	TO-DATE		ALLOCATION
JAPAN	BERING SEA	SQUID	60.9	421.0	6247.0	6.7
JAPAN	BERING SEA	FLOUN WD YFS	334.4	9355.6	40510.0	23.1
JAPAN	BERING SEA	YELLOWFIN SO	708.0	9915.3	85948.0	15.0
JAPAN	BERING SEA	TURBOTS	884.0	3979.4	54360.0	14.0
JAPAN	BERING SEA	POLLCK	3920.5	96459.1	721090.0	13.4
JAPAN	BERING SEA	PACIFIC COD	94.1	4015.0	22222.0	18.1
JAPAN	BERING SEA	SABLEFISH	61.3	318.9	1554.0	20.5
JAPAN	BERING SEA	ATKACKEREL	39.3	653.9	12283.0	5.3
JAPAN	BERING SEA	RKFISH WOPOP	26.7	210.6	3883.0	5.4
JAPAN	BERING SEA	POP	1.3	22.1	1232.0	1.8
JAPAN	BERING SEA	OTHER FISH	409.0	7963.0	50855.0	15.7
JAPAN	BERING SEA	POLLCK	264.5	8720.4	72976.0	11.9
JAPAN	BERING SEA	SABLEFISH	6.6	115.3	465.0	24.8
JAPAN	BERING SEA	POP	33.6	206.7	4259.0	4.9
TOTAL:			6844.3	147354.4	1067885.0	13.8
POLAND	BERING SEA	SQUID	0.1	6.8	600.0	1.1
POLAND	BERING SEA	FLOUN WD YFS	0.3	22.9	1919.0	1.2
POLAND	BERING SEA	YELLOWFIN SO	1.7	5.7	3683.0	0.7
POLAND	BERING SEA	TURBOTS	6.2	49.5	3774.0	1.1
POLAND	BERING SEA	POLLCK	405.4	20257.9	32310.0	62.7
POLAND	BERING SEA	PACIFIC COD	9.6	437.3	1131.0	38.8
POLAND	BERING SEA	SABLEFISH	0.0	7.8	150.0	4.9
POLAND	BERING SEA	ATKACKEREL	0.0	0.0	500.0	0.0
POLAND	BERING SEA	RKFISH WOPOP	0.0	5.6	300.0	1.9
POLAND	BERING SEA	POP	1.3	123.1	140.0	87.9
POLAND	BERING SEA	OTHER FISH	0.5	91.8	2000.0	4.6
POLAND	BERING SEA	POLLCK	1730.8	3041.1	4699.0	64.7
POLAND	BERING SEA	SABLEFISH	0.0	0.0	40.0	0.0
POLAND	BERING SEA	POP	0.0	0.0	150.0	0.0
TOTAL:			2155.9	26211.4	51421.0	51.0
KOREA	BERING SEA	SAUID	5.2	226.6	1270.0	17.8
KOREA	BERING SEA	FLOUN WD YFS	54.2	1084.6	4029.0	26.9
KOREA	BERING SEA	YELLOWFIN SO	218.2	1890.6	6388.0	29.6
KOREA	BERING SEA	TURBOTS	14.3	1313.7	5567.0	23.6
KOREA	BERING SEA	POLLCK	2165.0	40662.7	72540.0	56.1
KOREA	BERING SEA	PACIFIC COD	221.7	1949.3	3028.0	64.4
KOREA	BERING SEA	SABLEFISH	0.9	20.8	326.0	6.4
KOREA	BERING SEA	ATKACKEREL	2658.5	4359.1	7300.0	59.7
KOREA	BERING SEA	RKFISH WOPOP	0.0	2.7	700.0	0.4
KOREA	BERING SEA	POP	0.0	24.3	250.0	7.4
KOREA	BERING SEA	OTHER FISH	43.0	1759.7	6000.0	27.1
KOREA	BERING SEA	POLLCK	154.0	4978.7	7190.0	59.2
KOREA	BERING SEA	SABLEFISH	0.0	0.8	111.0	0.7
KOREA	BERING SEA	POP	3.8	4.7	340.0	1.4
TOTAL:			5538.8	58278.2	115049.0	50.7

BLENDING FOREIGN CATCH FOR WEEKS 16 - 16 ( 4/12/81 - 4/18/81 )

NATION	AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	1981 ALLOCATION	PERCENT TAKEN
TAIWAN	BERING SEA	SQUID	1.4	2.6	159.0	1.6
TAIWAN	BERING SEA	FLOUR WD YFS	5.8	22.3	1032.0	2.2
TAIWAN	BERING SEA	YELLOWFIN SO	0.0	0.0	1125.0	0.0
TAIWAN	BERING SEA	TURBOTS	10.7	24.0	1314.0	1.6
TAIWAN	BERING SEA	POLLOCK	0.0	793.1	11060.0	6.4
TAIWAN	BERING SEA	PACIFIC COD	0.5	335.3	1372.0	24.4
TAIWAN	BERING SEA	SABLEFISH	0.9	18.0	52.0	34.6
TAIWAN	BERING SEA	ATKAMACKEREL	0.0	0.0	237.0	0.0
TAIWAN	BERING SEA	RKFISH WOPOP	0.0	0.0	81.0	0.0
TAIWAN	BERING SEA	POP	0.1	0.2	53.0	0.4
TAIWAN	BERING SEA	OTHER FISH	0.5	6.8	890.0	1.0
TAIWAN	ALEUTIANS	POLLOCK	0.0	0.0	1145.0	0.0
TAIWAN	ALEUTIANS	SABLEFISH	0.0	0.0	26.0	0.0
TAIWAN	ALEUTIANS	POP	0.0	0.0	70.0	0.0
TOTAL:			17.7	1114.3	16627.0	6.0
WEST G	BERING SEA	SQUID	0.0	0.0	174.0	0.0
WEST G	BERING SEA	FLOUR WD YFS	0.0	1.4	1000.0	0.1
WEST G	BERING SEA	YELLOWFIN SO	0.0	0.0	1000.0	0.0
WEST G	BERING SEA	TURBOTS	0.0	4.4	1000.0	0.4
WEST G	BERING SEA	POLLOCK	5.0	2618.2	6670.0	42.1
WEST G	BERING SEA	PACIFIC COD	0.0	264.6	527.0	50.2
WEST G	BERING SEA	SABLEFISH	0.3	7.9	23.0	26.2
WEST G	BERING SEA	ATKAMACKEREL	0.0	0.0	840.0	0.0
WEST G	BERING SEA	RKFISH WOPOP	0.0	0.0	113.0	0.0
WEST G	BERING SEA	POP	0.0	5.7	21.0	27.1
WEST G	BERING SEA	OTHER FISH	0.5	179.3	1091.0	16.4
WEST G	ALEUTIANS	POLLOCK	0.0	0.0	750.0	0.0
WEST G	ALEUTIANS	SABLEFISH	0.0	0.0	8.0	0.0
WEST G	ALEUTIANS	POP	0.0	0.0	116.0	0.0
TOTAL:			5.8	3281.5	13356.0	24.6

BLENDP FOREIGN AREA CATCH FOR WEEKS 16 - 16 ( 4/12/81 - 4/18/81)

AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	ALLOCATION	PERCE TAKEN
BERING SEA	SQUID	57.8	657.0	8450.0	7.8
BERING SEA	FLDUN WO YFS	394.7	10484.8	48490.0	21.8
BERING SEA	YELLOWFIN SO	927.9	11811.8	78150.0	15.1
BERING SEA	TURBOTS	915.2	10371.0	76025.0	13.6
BERING SEA	POLLOCK	6495.9	1633061.1	843690.0	19.3
BERING SEA	PACIFIC COD	326.0	7003.4	26260.0	24.6
BERING SEA	SABLEFISH	63.4	375.5	2120.0	17.6
BERING SEA	ATKANACKEREL	2697.8	5013.0	21160.0	23.7
BERING SEA	RKFISH WOPOP	26.7	218.9	5077.0	4.3
BERING SEA	POP	2.7	175.4	1708.0	10.3
BERING SEA	OTHER FISH	453.5	10002.7	60837.0	16.4
ALEUTIANS	POLLOCK	2147.3	16740.2	86760.0	19.3
ALEUTIANS	SABLEFISH	6.6	116.1	650.0	17.9
ALEUTIANS	POP	37.4	211.3	4945.0	4.3
TOTAL:		14564.7	236239.7	1266342.0	18.7

END OF REPORT.

BLENDED FOREIGN CATCH FOR WEEKS 15 - 16 ( 4/12/81 - 4/18/81 )

NATION	AREA	SPECIES	WEEK ENDING	YEAR-	1981		PERCENT TAKEN
			4/18/81	TS-DATE	ALLOCATION		
JAPAN	WESTERN GU	ALL FLOUNDER	3.3	419.1	5555.0	2.1	
JAPAN	WESTERN GU	POLLOCK	0.4	908.0	12488.0	7.3	
JAPAN	WESTERN GU	PACIFIC COD	28.1	4746.8	7488.0	53.4	
JAPAN	WESTERN GU	SABLEFISH	16.1	236.7	1214.0	19.5	
JAPAN	WESTERN GU	ATKAMACKEREL	0.0	0.9	975.0	0.1	
JAPAN	WESTERN GU	POP	0.7	101.2	1206.0	8.4	
TOTAL:			48.5	6112.7	28957.0	21.1	
POLAND	WESTERN GU	ALL FLOUNDER	0.0	0.2	568.0	0.0	
POLAND	WESTERN GU	POLLOCK	0.0	8275.5	8209.0	100.8	
POLAND	WESTERN GU	PACIFIC COD	0.0	10.1	450.0	2.3	
POLAND	WESTERN GU	SABLEFISH	0.0	0.0	34.0	0.0	
POLAND	WESTERN GU	ATKAMACKEREL	0.0	179.4	651.0	27.1	
POLAND	WESTERN GU	POP	0.0	25.2	111.0	22.7	
TOTAL:			0.0	8490.5	10033.0	84.6	
KOREA	WESTERN GU	ALL FLOUNDER	0.0	0.0	1353.0	0.0	
KOREA	WESTERN GU	POLLOCK	0.0	0.0	8611.0	0.0	
KOREA	WESTERN GU	PACIFIC COD	0.0	0.0	1166.0	0.0	
KOREA	WESTERN GU	SABLEFISH	0.0	0.0	225.0	0.0	
KOREA	WESTERN GU	ATKAMACKEREL	0.0	0.0	331.0	0.0	
KOREA	WESTERN GU	POP	0.0	0.0	270.0	0.0	
TOTAL:			0.0	0.0	11977.0	0.0	
WEST G	WESTERN GU	ALL FLOUNDER	0.0	0.0	10.0	0.0	
WEST G	WESTERN GU	POLLOCK	0.0	0.0	280.0	0.0	
WEST G	WESTERN GU	PACIFIC COD	0.0	0.0	30.0	0.0	
WEST G	WESTERN GU	SABLEFISH	0.0	0.0	5.0	0.0	
WEST G	WESTERN GU	ATKAMACKEREL	0.0	0.0	15.0	0.0	
WEST G	WESTERN GU	POP	0.0	0.0	10.0	0.0	
TOTAL:			0.0	0.0	350.0	0.0	

BLENDED FOREIGN AREA CATCH FOR WEEKS 15 - 15 ( 4/12/81 - 4/16/81 )

AREA	SPECIES	WEEK ENDING	YEAR-	1981	PERCENT
		4/16/81	TO-DATE	ALLOCATION	
WESTERN GU	ALL FLOUNDER	3.3	119.3	7497.0	1.6
WESTERN GU	POLLACK	0.4	9183.5	29618.0	31.0
WESTERN GU	PACIFIC COD	28.1	4755.7	7123.0	52.1
WESTERN GU	SABLEFISH	16.1	139.7	1479.0	16.0
WESTERN GU	ATKAHACKEREL	0.0	160.3	1782.0	9.1
WESTERN GU	PDP	0.7	126.4	1597.0	7.9
TOTAL:		48.6	14603.1	51297.0	28.5

BLENDED FOREIGN CATCH FOR WEEKS 15 - 16 ( 4/12/81 - 4/18/81 )

NATION	AREA	SPECIES	WEEK ENDING	YEAR-	1981 PERCENT	
			4/18/81	TO-DATE	ALLOCATION	TAKEN
JAPAN	CENTRAL GU	ALL FLOUNDER	1.4	234.9	9269.0	2.6
JAPAN	CENTRAL GU	POLLOCK	2.3	4609.2	32595.0	14.1
JAPAN	CENTRAL GU	PACIFIC COD	174.0	5703.1	13590.0	41.7
JAPAN	CENTRAL GU	SABLEFISH	32.9	397.2	1567.0	25.3
JAPAN	CENTRAL GU	ATKAMACKEREL	0.0	11.2	4401.0	0.3
JAPAN	CENTRAL GU	POP	0.8	107.3	3334.0	3.2
TOTAL:			211.3	11062.8	64586.0	17.1
POLAND	CENTRAL GU	ALL FLOUNDER	0.0	0.9	793.0	0.1
POLAND	CENTRAL GU	POLLOCK	0.0	13174.3	12952.0	101.7
POLAND	CENTRAL GU	PACIFIC COD	0.0	55.3	822.0	6.7
POLAND	CENTRAL GU	SABLEFISH	0.0	0.1	44.0	0.3
POLAND	CENTRAL GU	ATKAMACKEREL	0.0	53.0	2985.0	1.5
POLAND	CENTRAL GU	POP	0.0	13.0	310.0	4.2
TOTAL:			0.0	13296.7	17906.0	74.3
KOREA	CENTRAL GU	ALL FLOUNDER	0.0	0.0	1889.0	0.0
KOREA	CENTRAL GU	POLLOCK	0.0	0.0	13634.0	0.0
KOREA	CENTRAL GU	PACIFIC COD	0.0	0.0	2113.0	0.0
KOREA	CENTRAL GU	SABLEFISH	0.0	38.1	291.0	13.1
KOREA	CENTRAL GU	ATKAMACKEREL	0.0	0.0	1492.0	0.0
KOREA	CENTRAL GU	POP	0.0	0.0	752.0	0.0
TOTAL:			0.0	38.1	20171.0	0.2
WEST G	CENTRAL GU	ALL FLOUNDER	0.0	0.0	20.0	0.0
WEST G	CENTRAL GU	POLLOCK	0.0	0.0	530.0	0.0
WEST G	CENTRAL GU	PACIFIC COD	0.0	0.0	63.0	0.0
WEST G	CENTRAL GU	SABLEFISH	0.0	0.0	10.0	0.0
WEST G	CENTRAL GU	ATKAMACKEREL	0.0	0.0	30.0	0.0
WEST G	CENTRAL GU	POP	0.0	0.0	20.0	0.0
TOTAL:			0.0	0.0	700.0	0.0

BLENDING FOREIGN AREA CATCH FOR WEEKS 16 - 18 ( 4/12/81 - 4/18/81)

AREA	SPECIES	WEEK ENGING 4/15/81	YEAR- TO-DATE ALLOCATION	1981 PERCENT TAKEN
CENTRAL GU	ALL FLOUNDER	1.4	235.6	11571.0
CENTRAL GU	POLLOCK	2.3	17783.5	59741.0
CENTRAL GU	PACIFIC COD	174.0	5758.4	15683.0
CENTRAL GU	SABLEFISH	32.9	435.4	1712.0
CENTRAL GU	ATKAMACKEREL	0.0	84.1	8908.0
CENTRAL GU	POP	0.8	120.3	4443.0
TOTAL:		211.3	24397.6	103363.0

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BLENDDED FOREIGN CATCH FOR WEEKS 16 - 16 ( 4/12/81 - 4/18/81)

NATION	AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	1981 ALLOCATION	PERCENT TAKEN
JAPAN	EASTERN GU	ALL FLOUNDER	0.0	297.3	4257.0	7.0
JAPAN	EASTERN GU	POLLOCK	0.0	46.3	4858.0	1.0
JAPAN	EASTERN GU	PACIFIC COD	0.0	240.6	3853.0	6.2
JAPAN	EASTERN GU	ATKAMACKEREL	0.0	0.0	522.0	0.0
JAPAN	EASTERN GU	POP	0.0	231.2	6779.0	3.4
TOTAL:			0.0	815.4	20279.0	4.0
POLAND	EASTERN GU	ALL FLOUNDER	0.0	0.0	399.0	0.0
POLAND	EASTERN GU	POLLOCK	0.0	18.7	2281.0	0.8
POLAND	EASTERN GU	PACIFIC COD	0.0	0.0	232.0	0.0
POLAND	EASTERN GU	ATKAMACKEREL	0.0	0.0	354.0	0.0
POLAND	EASTERN GU	POP	0.0	6.8	626.0	1.1
TOTAL:			0.0	25.5	3892.0	0.7
KOREA	EASTERN GU	ALL FLOUNDER	0.0	0.0	952.0	0.0
KOREA	EASTERN GU	POLLOCK	0.0	0.0	2401.0	0.0
KOREA	EASTERN GU	PACIFIC COD	0.0	0.0	595.0	0.0
KOREA	EASTERN GU	ATKAMACKEREL	0.0	0.0	177.0	0.0
KOREA	EASTERN GU	POP	0.0	0.0	1515.0	0.0
TOTAL:			0.0	0.0	5640.0	0.0

BLENDDED FOREIGN AREA CATCH FOR WEEKS 15 - 15 ( 4/12/81 - 4/18/81)

AREA	SPECIES	WEEK ENDING 4/13/81	YEAR- TO-DATE	1981 PERCENT ALLOCATION	TOTAL
EASTERN GU	ALL FLOUNDER	0.0	297.3	5518.0	5.3
EASTERN GU	POLLOCK	0.0	65.0	9340.0	0.7
EASTERN GU	PACIFIC COD	0.0	240.6	4680.0	5.1
EASTERN GU	ATKAMACKEREL	0.0	0.0	1053.0	0.0
EASTERN GU	PDP	0.0	238.0	8920.0	2.7
TOTAL:		0.0	840.9	29811.0	2.8

BLENDDED FOREIGN CATCH FOR WEEKS 16 - 16 ( 4/12/81 - 4/18/81)

NATION	AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	1981 ALLOCATION	PERCENT TAKEN
JAPAN	YAKUTAT	SABLEFISH	0.0	32.0	519.0	6.2
		TOTAL:	0.0	32.0	519.0	6.2
POLAND	YAKUTAT	SABLEFISH	0.0	0.0	15.0	0.0
		TOTAL:	0.0	0.0	15.0	0.0
KOREA	YAKUTAT	SABLEFISH	32.2	42.9	97.0	44.2
		TOTAL:	32.2	42.9	97.0	44.2

BLENDING FOREIGN AREA CATCH FOR WEEKS 15 - 16 ( 4/12/81 - 4/13/81)

AREA	SPECIES	WEEK ENDING	YEAR-	TO-DATE ALLOCATION	1981 PERCENT
YAKUTIA	SABLEFISH	4/13/81	74.9	631.0	11.9
	TOTAL:	4/13/81	74.9	631.0	11.9

BLENDDED FOREIGN CATCH FOR WEEKS 13 - 16 ( 4/12/81 - 4/18/81)

NATION	AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	1981 ALLOCATION	PERCENT TAKEN
JAPAN	SOUTHEASTE	SABLEFISH	0.0	0.0	75.0	0.0
		TOTAL:	0.0	0.0	75.0	0.0
POLAND	SOUTHEASTE	SABLEFISH	0.0	0.0	2.0	0.0
		TOTAL:	0.0	0.0	2.0	0.0
KOREA	SOUTHEASTE	SABLEFISH	0.0	0.0	14.0	0.0
		TOTAL:	0.0	0.0	14.0	0.0

BLENDING FOREIGN AREA CATCH FOR WEEKS 15 - 16 ( 4/12/81 - 4/18/81 )

AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	1981 PERCENT ALLOCATION	PERCENT TAKEN
SOUTHEASTE	SABLEFISH	0.0	0.0	91.0	0.0
	TOTAL:	0.0	0.0	91.0	0.0

UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL MARINE FISHERIES SERVICE  
NORTHWEST AND ALASKA FISHERIES CENTER  
RESOURCE ECOLOGY AND FISHERIES MANAGEMENT DIVISION

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\*  
\* BEST-BLEND FOREIGN CATCH REPORT \*  
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REPORTING AREAS COVERED:

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ENTIRE GULF OF ALASKA

REPORTING PERIODS COVERED:

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WEEKLY STATISTICS: 4/12/81 TO 4/18/81  
YEAR-TO-DATE STATISTICS: 11/ 1/80 TO 4/18/81

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THIS REPORT PRESENTS BEST-BLEND CATCH STATISTICS DERIVED FROM AMOUNTS  
REPORTED BY NMFS SHIPBOARD OBSERVERS AND DESIGNATED FOREIGN OFFICIALS.  
FIGURES ARE DISPLAYED IN METRIC TONS. THIS REPORT IS NOT AN OFFICIAL  
PUBLICATION OF THE NATIONAL MARINE FISHERIES SERVICE.  
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BLENDING FOREIGN CATCH FOR WEEKS 16 - 18 ( 4/12/81 - 4/18/81 )

NATION	AREA	SPECIES	WEEK ENDING		YEAR- TO-DATE	1981 PERCENT	
			4/18/81	4/18/81		ALLLOCATION	TOTAL
JAPAN	GULF ALASK	SQUID	0.0	17.1	2891.0	0.6	0.6
JAPAN	GULF ALASK	ALL FLOUNDER	4.7	631.5	18600.0	3.5	3.5
JAPAN	GULF ALASK	POLLOCK	2.7	5563.5	49741.0	11.1	11.1
JAPAN	GULF ALASK	PACIFIC COD	202.1	10690.4	25031.0	42.7	42.7
JAPAN	GULF ALASK	SABLEFISH	47.0	665.7	3375.0	17.7	17.7
JAPAN	GULF ALASK	ATKAMACKEREL	0.0	12.0	5298.0	0.2	0.2
JAPAN	GULF ALASK	RKFISH WPOPOP	0.2	40.8	2500.0	1.6	1.6
JAPAN	GULF ALASK	POP	1.5	437.7	11349.0	3.9	3.9
JAPAN	GULF ALASK	SS THORNYHD	2.5	82.3	2273.0	3.6	3.6
JAPAN	GULF ALASK	OTHER FISH	13.2	335.7	6668.0	5.0	5.0
TOTAL:			275.9	18498.7	128748.0	14.4	14.4
POLAND	GULF ALASK	SQUID	0.0	0.9	300.0	0.3	0.3
POLAND	GULF ALASK	ALL FLOUNDER	0.0	1.1	1760.0	0.1	0.1
POLAND	GULF ALASK	POLLOCK	0.0	21468.5	23442.0	91.6	91.6
POLAND	GULF ALASK	PACIFIC COD	0.0	55.5	1504.0	4.4	4.4
POLAND	GULF ALASK	SABLEFISH	0.0	0.1	93.0	0.1	0.1
POLAND	GULF ALASK	ATKAMACKEREL	0.0	232.4	4000.0	5.8	5.8
POLAND	GULF ALASK	RKFISH WPOPOP	0.0	2.7	344.0	0.5	0.5
POLAND	GULF ALASK	POP	0.0	45.1	1047.0	4.3	4.3
POLAND	GULF ALASK	SS THORNYHD	0.0	0.0	200.0	0.0	0.0
POLAND	GULF ALASK	OTHER FISH	0.0	211.6	1111.0	17.0	17.0
TOTAL:			0.0	22027.8	34003.0	64.8	64.8
KOREA	GULF ALASK	SQUID	0.0	0.0	500.0	0.0	0.0
KOREA	GULF ALASK	ALL FLOUNDER	0.0	0.0	4194.0	0.0	0.0
KOREA	GULF ALASK	POLLOCK	0.0	0.0	24676.0	0.0	0.0
KOREA	GULF ALASK	PACIFIC COD	0.0	0.0	3564.0	0.0	0.0
KOREA	GULF ALASK	SABLEFISH	32.2	81.0	629.0	12.9	12.9
KOREA	GULF ALASK	ATKAMACKEREL	0.0	0.0	2000.0	0.0	0.0
KOREA	GULF ALASK	RKFISH WPOPOP	0.0	0.0	2000.0	0.0	0.0
KOREA	GULF ALASK	POP	0.0	0.0	2537.0	0.0	0.0
KOREA	GULF ALASK	SS THORNYHD	3.4	6.3	500.0	1.3	1.3
KOREA	GULF ALASK	OTHER FISH	1.0	1.6	3334.0	0.0	0.0
TOTAL:			36.6	88.9	44533.0	0.2	0.2



BLENDDED FOREIGN CATCH FOR WEEKS 16 - 18 ( 4/12/81 - 4/18/81)

NATION	AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	1981 ALLOCATION	PERCENT TAKEN
WEST G	GULF ALASK	SQUID	0.0	0.0	45.0	0.0
WEST G	GULF ALASK	ALL FLOUNDER	0.0	0.0	30.0	0.0
WEST G	GULF ALASK	POLLOCK	0.0	0.0	840.0	0.0
WEST G	GULF ALASK	PACIFIC COD	0.0	0.0	70.0	0.0
WEST G	GULF ALASK	SABLEFISH	0.0	0.0	15.0	0.0
WEST G	GULF ALASK	ATKAMACKEREL	0.0	0.0	45.0	0.0
WEST G	GULF ALASK	RKFISH WOPOP	0.0	0.0	30.0	0.0
WEST G	GULF ALASK	POP	0.0	0.0	30.0	0.0
WEST G	GULF ALASK	SS THORNYHD	0.0	0.0	15.0	0.0
WEST G	GULF ALASK	OTHER FISH	0.0	0.0	50.0	0.0
TOTAL:			0.0	0.0	1200.0	0.0

BLENDDED FOREIGN AREA CATCH FOR WEEKS 16 - 16 ( 4/12/81 - 4/18/81)

AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	ALLOCATION	1981 PERCENT TAK
GULF ALASK	SQUID	0.0	18.0	4056.0	0.4
GULF ALASK	ALL FLOUNDER	4.7	652.4	24785.0	2.6
GULF ALASK	POLLOCK	2.7	27032.0	98897.0	27.3
GULF ALASK	PACIFIC COD	202.1	10755.9	30489.0	35.3
GULF ALASK	SABLEFISH	81.2	747.1	4113.0	18.2
GULF ALASK	ATKAMACKEREL	0.0	244.4	11243.0	2.0
GULF ALASK	RKFISH WOPCP	0.2	43.5	5074.0	0.9
GULF ALASK	PCP	1.5	484.7	14953.0	3.2
GULF ALASK	SS THORNYHD	5.9	88.6	3008.0	2.9
GULF ALASK	OTHER FISH	14.2	548.8	11173.0	4.9
TOTAL:		312.5	40615.4	208484.0	17.5

END OF REPORT.

BLENDDED FOREIGN CATCH FOR WEEKS 16 - 16 ( 4/12/81 - 4/18/81)

NATION	AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE ALLOCATION	1981 PERCENT TAKEN	
JAPAN	GULF-WIDE	SQUID	0.0	17.1	2871.0	0.6
JAPAN	GULF-WIDE	RKFISH WOPOP	0.2	40.8	2500.0	1.6
JAPAN	GULF-WIDE	SS THORNYHD	2.5	82.3	2273.0	3.6
JAPAN	GULF-WIDE	OTHER FISH	13.2	335.7	6558.0	5.0
		TOTAL:	15.9	475.8	14352.0	3.3
POLAND	GULF-WIDE	SQUID	0.0	0.9	300.0	0.3
POLAND	GULF-WIDE	RKFISH WOPOP	0.0	2.7	544.0	0.5
POLAND	GULF-WIDE	SS THORNYHD	0.0	0.0	200.0	0.0
POLAND	GULF-WIDE	OTHER FISH	0.0	211.6	1111.0	17.0
		TOTAL:	0.0	215.2	2155.0	10.0
KOREA	GULF-WIDE	SQUID	0.0	0.0	800.0	0.0
KOREA	GULF-WIDE	RKFISH WOPOP	0.0	0.0	2000.0	0.0
KOREA	GULF-WIDE	SS THORNYHD	3.4	6.3	500.0	1.3
KOREA	GULF-WIDE	OTHER FISH	1.0	1.6	3334.0	0.0
		TOTAL:	4.4	7.9	6634.0	0.1
WEST G	GULF-WIDE	SQUID	0.0	0.0	45.0	0.0
WEST G	GULF-WIDE	RKFISH WOPOP	0.0	0.0	30.0	0.0
WEST G	GULF-WIDE	SS THORNYHD	0.0	0.0	15.0	0.0
WEST G	GULF-WIDE	OTHER FISH	0.0	0.0	60.0	0.0
		TOTAL:	0.0	0.0	150.0	0.0

BLENDING FOREIGN AREA CATCH FOR WEEKS 15 - 16 ( 4/12/81 - 4/18/81)

AREA	SPECIES	WEEK ENDING 4/18/81	YEAR- TO-DATE	1981 PERCENT ALLOCATION	PERCENT TAKEN
GULF-WIDE	SQUID	0.0	18.0	4036.0	0.4
GULF-WIDE	RKFISH WOPOR	0.2	43.5	5074.0	0.9
GULF-WIDE	SS THORNYHD	5.9	88.6	3008.0	2.9
GULF-WIDE	OTHER FISH	14.2	548.8	11173.0	4.9
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	TOTAL:	20.3	698.9	23291.0	3.0

END OF REPORT.

1981

BSAI

1981 INITIAL	Bering Sea	Aleutian Islands	BSA
<b>Pollock</b>			
OY	1,000,000	100,000	1,100,000
DAP	(10,500)	-	(10,500)
JVP	(9,050)	-	(9,050)
DAH	19,550	-	19,550
Reserve	50,000	-	50,000
TALFF	930,450	100,000	1,030,450
<b>Yellowfin Sole</b>			
OY			117,000
DAP			(1,200)
JVP			(25,000)
DAH			26,200
Reserve			5,850
TALFF			84,950
<b>Other Flounders</b>			
OY			61,000
DAP			(1,200)
JVP			(3,000)
DAH			4,200
Reserve			3,050
TALFF			53,750
<b>Pacific Ocean Perch</b>			
OY	3,250	7,500	10,750
DAP	(550)	(550)	(1,100)
JVP	(830)	(830)	(1,660)
DAH	1,380	1,380	2,760
Reserve	162	375	537
TALFF	1,708	5,745	7,453
<b>Sablefish</b>			
OY	3,500	1,500	5,000
DAP	(500)	(500)	(1,000)
JVP	(200)	(200)	(400)
DAH	700	700	1,400
Reserve	350	150	500
TALFF	2,450	650	3,100
<b>Cod</b>			
OY			78,700
DAP			(7,200)
JVP			(17,065)
DAH			24,265
Reserve			22,935
TALFF			31,500

## 1981 INITIAL

## Bering Sea

## Aleutian Islands

## BSA

## Atka Mackerel

OY	24,800
DAP	( 0)
JVP	( 100)
DAH	100
Reserve	1,240
TALFF	23,460

## Turbots

OY	90,000
DAP	( 1,000)
JVP	( 75)
DAH	1,075
Reserve	4,500
TALFF	84,425

## Other Species

OY	74,249
DAP	( 1,800)
JVP	( 200)
DAH	2,000
Reserve	3,712
TALFF	68,537

## Squid

OY	10,000
DAP	( 0)
JVP	( 50)
DAH	50
Reserve	500
TALFF	9,450

## Rockfish

OY	7,727
DAP	( 1,100)
JVP	( 450)
DAH	1,550
Reserve	500
TALFF	5,677

## Total

OY	1,579,226
DAP	(26,100)
JVP	(57,050)
DAH	83,150
Reserve	93,324
TALFF	1,402,752

GULF OF ALASKA  
1981 INITIAL

*14 month table*  
*Start in Nov/80*

GOA

SPECIES		WESTERN	CENTRAL	EASTERN	TOTAL
Pollock	OY	66,500	111,066	19,367	196,933
	..DAP	( 29)	(6,277)	( 811)	( 7,117)
	..JVP	(6,708)	(9,263)	(1,773)	(17,744)
	DAH	6,737	15,540	2,584	24,861
	RESERVE	13,300	22,213	3,874	39,387
	TALFF	46,463	73,313	12,909	132,685
Pacific Cod	OY	19,320	39,130	11,550	70,000
	..DAP	( 280)	(4,060)	( 327)	(4,667)
	..DNP	( 700)	(1,400)	(1,400)	(3,500)
	..JVP	(1,213)	(1,598)	( 688)	(3,499)
	DAH	2,193	7,058	2,415	11,666
	RESERVE	3,864	7,826	2,310	14,000
TALFF	13,263	24,246	6,825	44,334	
Flounders	OY	12,133	17,150	9,800	39,083
	..DAP	( 116)	( 350)	(1,050)	(1,516)
	..JVP	( 700)	( 957)	( 537)	(2,194)
	DAH	816	1,307	1,587	3,710
	RESERVE	2,427	3,430	1,960	7,817
	TALFF	8,890	12,413	6,253	27,556
Pacific Ocean Perch	OY	3,150	9,217	16,800	29,167
	..DAP	( 29)	( 344)	( 93)	( 466)
	..JVP	( 373)	(1,121)	(1,441)	(2,935)
	DAH	402	1,465	1,534	3,401
	RESERVE	630	1,843	3,360	5,833
	TALFF	2,118	5,909	11,906	19,933
Other Rockfish	OY				8,867
	..DAP				( 817)
	..JVP				( 233)
	DAH				1,050
	RESERVE				1,773
	TALFF				6,044
Sablefish	OY	2,450	4,433	7,466	14,349
	..DAP	( 117)	(1,167)	(4,667)	(5,951)
	..JVP	( 198)	( 256)	( 338)	( 792)
	DAH	315	1,423	5,005	6,743
	RESERVE	490	887	1,656	3,033
	TALFF	1,645	2,123	805	4,573
Atka Mackerel	OY	5,458	24,309	3,717	33,484
	..DAP	( 0)	( 0)	( 0)	( 0)
	..JVP	( 338)	(1,260)	( 817)	(2,415)
	DAH	338	1,260	817	2,415
	RESERVE	1,092	4,862	743	6,697
	TALFF	4,028	18,187	2,157	24,372

## 1981 INITIAL (Continued)

SPECIES		WESTERN	CENTRAL	EASTERN	TOTAL
Squid	OY				5,833
	..DAP				( 0)
	..JVP				( 175)
	DAH				175
	RESERVE				1,167
	TALFF				4,491
Thornyhead Rockfish	OY				4,375
	..DAP				( 7)
	..JVP				( 0)
	DAH				7
	RESERVE				875
	TALFF				3,493
Other Species	OY				18,900
	..DAP				( 351)
	..DNP				( 933)
	..JVP				( 723)
	DAH				2,007
	RESERVE				3,780
TALFF				13,113	
TOTAL	OY	109,011	205,305	68,700	420,991
	..DAP	( 571)	(12,198)	(6,948)	(20,892)
	..DNP	( 700)	( 1,400)	(1,400)	( 4,433)
	..JVP	( 9,530)	(14,455)	(5,594)	(30,710)
	DAH	10,801	28,053	13,942	56,035
	RESERVE	21,803	41,061	13,903	84,362
	TALFF	76,407	136,191	40,855	280,594



1981 Gulf of Alaska  
Initial Foreign Allocations

	Pollock	Pacific Cod	Flounder	Atka Mackerel	Sablefish	P.O.P.	Other Rockfish	Sebastes	Other Species	Squid	Total
<b>Western</b>											
Japan	12,488	7,488	5,566	975	1,214	1,206					
Korea	8,641	1,156	1,353	331	226	270					
Poland	8,209	450	568	661	34	111					
Unallocated	17,125	4,169	1,903	2,061	171	531					
<b>Total</b>	<b>46,463</b>	<b>13,263</b>	<b>8,890</b>	<b>4,028</b>	<b>1,645</b>	<b>2,118</b>					
<b>Central</b>											
Japan	32,595	13,690	8,969	4,401	1,567	3,364					
Korea	13,634	2,113	1,889	1,492	291	752					
Poland	12,952	822	793	2,985	44	310					
Unallocated	14,132	7,621	762	9,309	221	1,483					
<b>Total</b>	<b>73,313</b>	<b>24,246</b>	<b>12,413</b>	<b>18,187</b>	<b>2,123</b>	<b>5,909</b>					
<b>Eastern</b>											
Japan	4,858	3,853	4,267	522	594	6,779					
Korea	2,401	595	952	177	111	1,515					
Poland	2,281	232	399	354	17	626					
Unallocated	3,369	2,145	635	1,104	83	2,986					
<b>Total</b>	<b>12,909</b>	<b>6,825</b>	<b>6,253</b>	<b>2,157</b>	<b>805</b>	<b>11,906</b>					
<b>Total</b>											
Japan	49,941	25,031	18,802	5,898	3,375	11,349	2,500	2,293	6,668	2,891	128,748
Korea	24,676	3,864	4,194	2,000	628	2,537	2,000	500	3,334	800	44,533
Poland	23,442	1,504	1,760	4,000	95	1,047	544	200	1,111	300	34,003
Unallocated	34,626	13,935	2,800	12,474	475	5,000	1,000	500	2,000	500	73,310
<b>Total</b>	<b>132,685</b>	<b>44,334</b>	<b>27,556</b>	<b>24,372</b>	<b>4,573</b>	<b>19,933</b>	<b>6,044</b>	<b>3,493</b>	<b>13,113</b>	<b>4,491</b>	<b>280,594</b>

Sablefish:	Yakutat	SE
Japan	519	75
Korea	97	14
Poland	15	2

GDA

ALLOCATION

1981

1981 U.S. FOREIGN FISHERY ALLOCATIONS FOR THE BERING SEA

	<u>JAPAN</u>	<u>ROK</u>	<u>TAIWAN</u>	<u>POLAND</u>	<u>FRG</u>	<u>RESERVE</u>	<u>TOTAL</u>
<u>Pacific Cod</u>							
Initial	22,222	3,028	372	1,131	227	4,520	31,500
<u>Yellowfin Sole</u>							
Initial	65,948	6,388	926	3,688	1,000	7,000	84,950
<u>Turbot</u>							
Initial	64,360	5,567	924	3,774	1,000	8,800	84,425
<u>Other Flounders</u>							
Initial	40,510	4,029	632	1,919	1,000	5,660	53,750
<u>Atka Mackerel</u>							
Initial	12,283	7,300	237	500	840	2,300	23,460
<u>Pollock</u>							
Initial BS	721,090	72,540	11,060	32,310	6,690	86,760	930,450
Initial AI	72,976	7,190	1,145	4,699	750	13,240	100,000
<u>Pacific Ocean Perch</u>							
Initial BS	1232	260	55	140	21	0	1708
Initial AI	4259	340	70	160	116	800	5,745
<u>Sablefish</u>							
Initial BS	1554	326	52	160	28	330	2,450
Initial AI	465	111	26	40	8	0	650

1981 U.S. FOREIGN FISHERY ALLOCATIONS FOR THE BERING SEA (Cont'd.)

	<u>JAPAN</u>	<u>ROK</u>	<u>TAIWAN</u>	<u>POLAND</u>	<u>FRG</u>	<u>RESERVE</u>	<u>TOTAL</u>
<u>Rockfish</u>							
Initial	3,883	700	81	300	113	600	5,677
<u>Squid</u>							
Initial	6,247	1,270	159	600	174	1,000	9,450
<u>Other Species</u>							
Initial	50,856	6,000	890	2,000	1,091	7,700	68,537
<u>Snails</u>							
Initial	3,000						3,000
<u>TOTAL</u>							
Initial	1,070,885	115,049	16,629	51,421	13,058	138,710	1,405,752

Abbreviations used: BS - Bering Sea      AI - Aleutian Islands

Department of State  
December 24, 1980

BSAI  
 ALLOCATIONS  
 1981

1981 Eastern Bering Sea and Aleutian Islands  
Initial Foreign Allocations

	Pollock	Pacific Cod	Yellowfin Sole	Turbots	Other Flounders	Atka Mackerel	Sablefish	P.O.P.	Other Rockfish	Other Species	Squid	Snails	Total
<b>Bering Sea</b>													
Taiwan	11,060						52	55					
W. Germany	6,690						28	21					
Japan	721,090						1,554	1,232					
Poland	32,310						160	140					
Korea	72,540						326	260					
Unallocated	86,760						330	0					
<b>Total</b>	<b>930,450</b>						<b>2,450</b>	<b>1,708</b>					
<b>Aleutians</b>													
Taiwan	1,145						26	70					
W. Germany	750						8	116					
Japan	72,976						465	4,259					
Poland	4,699						40	160					
Korea	7,190						111	340					
Unallocated	13,240						0	800					
<b>Total</b>	<b>100,000</b>						<b>650</b>	<b>5,745</b>					
<b>Bering Sea/Aleutian Islands</b>													
Taiwan	12,205	372	926	924	632	237	78	125	81	890	159	0	16,629-
W. Germany	7,440	227	1,000	1,000	1,000	840	36	137	113	1,091	174	0	13,058-
Japan	794,066	22,222	65,948	64,360	40,510	12,283	2,019	5,491	3,883	50,856	6,247	3,000	1,070,885-
Poland	37,009	1,131	3,688	3,774	1,919	500	200	300	300	2,000	600	0	51,421-
Korea	79,730	3,028	6,388	5,567	4,029	7,300	437	600	700	6,000	1,270	0	115,049-
Unallocated	100,000	4,520	7,000	8,800	5,660	2,300	330	800	600	7,700	1,000	0	138,710
<b>Total</b>	<b>1,030,450</b>	<b>31,500</b>	<b>84,950</b>	<b>84,425</b>	<b>53,750</b>	<b>23,460</b>	<b>3,100</b>	<b>7,453</b>	<b>5,677</b>	<b>68,537</b>	<b>9,450</b>	<b>3,000</b>	<b>1,405,752</b>

1981  
 ALLOC  
 G-DA

# FOREIGN ALLOCATION AND % TAKEN

	1978		1979		1980		1981	
	Allocation	% taken	Alloc	%	Alloc	%	Alloc	%
BS								
Squid	10300	85	10000	66	9951	60	9450	
Flounders	159000	77	139000	65	58175	56	53750	
YF Sole	126000	90	106000	94	101286	76	84,950	
Turbot					88600	59	84425	
Pollock	950000	99	950000	97	972951	96	930450	
Pac Cod	70000	65	56500	67	48435	72	31,500	
Sablefish	2900	40	2400	52	3197	57	2450	
Atka Mack	24300	97	24800	93	24080	82	23460	
Herring	8670	98	8670	83	4101	19		
Rk Fish					7477	43	5677	
POP	7500	32	6500	27	2821	28	1708	
Others	63000	86	59600	73	73500	61	68537	
AI								
Pollock	—	—	—	—	99999	57	100,000	
Sablefish	1500	50	1500	53	1205	30	650	
POP	15000	35	15000	37	7070	56	5745	
Others	34000	48	34000	69			<del>1405752</del>	
Foreign	<u>1472,170</u>	<u>91</u>	<u>1,413,970</u>	<u>89</u>	<u>1,502,848</u>	<u>84</u>	<u>1,405,752</u>	
Domestic	1341							

BSAI  
 ALLOCATIONS &  
 % TAKEN  
 1978-80

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL  
FINANCE COMMITTEE MINUTES  
May 28, 1981

The call for FY82 budgets and fund request has been received. The Finance Committee met last evening, May 28, 1981 to review these and other items. Fourteen members and staff attended.

The FY82 Administrative Budget was reviewed and approved for \$935,368. The funding level for FY81 is \$925,849.

The FY82 Programmatic recommendations from the SSC were presented by Mr. Donald Rosenberg. He presented a list of projects the SSC had requested, but stated they had not had ample time to analyze in depth the research projects for the coming year. He then stated, by the July meeting the SSC will have had time to contact subcommittee, PDT and others and would be able to have a more complete and detailed list of projects. Because the Council must request funding before the July meeting, the Finance Committee approved an arbitrary funding level of \$700,000 for programmatic for FY82.

Request for Proposals for audit were mailed to 10 local firms two weeks ago. Five grants and cooperative agreements must be audited. Four proposals were received and this committee recommends the contract be awarded to Price Waterhouse, the amount not to exceed \$8,000.

Request for Proposal had also been submitted to our list of research firms for a study of the feeding habits of marine mammals in the Bering Sea, co-funded by the Marine Mammal Commission. The SSC subcommittee had evaluated the four proposals received and recommend the contract be awarded to the Alaska Department of Fish and Game. The Finance Committee concurred.

May 28, 1981

Over the past several months the NPFMC has considered two innovative options for management of the domestic king crab fishery in the Bering Sea, Bristol Bay, Adak, and Dutch Harbor areas (State of Alaska king crab statistical areas Q, T, R, and O), both options designed to avoid the complex, time-consuming, expensive, and needlessly duplicative processes of a traditional FMP for a fishery which presently is under effective conservation and management by the State of Alaska.

Both options share certain key characteristics, including:

- o approval by the NPFMC and the Alaska Board of Fisheries of a framework plan to govern management of the fishery, including objectives, standards, and measures found to be necessary for effective management of the fishery, and consistent with the National Standards of the Magnuson Fishery Conservation and Management Act of 1976 and with the laws of the State of Alaska;
- o procedures for joint NPFMC-BOF hearings to receive recommendations for management of the fishery at convenient locations in the states of Alaska and Washington;
- o provision for joint meetings of the NPFMC and BOF at least once each calendar year to receive testimony, review effects of past

management measures, consider management measures for the coming season, and consider need for changes in the framework management plan;

- o assurance that management measures will not discriminate among citizens of the several states engaged in the fishery;

The options differ as follows:

Option 1 (as presented in the review package circulated for public comment on April 9) proposes adoption of the framework management plan by the Alaska Board of Fisheries, and annual development of management regulations consistent with that framework plan by the BOF, following the joint hearing and review processes specified in the Joint Statement of Principles (revised 3/26/81). If, after review of BOF action, the Council finds that the regulations can be expected to attain the objectives of the framework management plan in accordance with the policies and management measures in that document, the Council will determine that the resource and the fishery require no further management or action by the Council for that year. If the Council cannot make that determination, it will work with the BOF to rectify problems perceived. Failing that agreement, the Council will begin implementation of a formal FMP. The net result of this option would be management of the fishery by the BOF in accordance with agreed-upon standards and principles and as outgrowth of joint hearings and review meetings with the Council.



Option 2 differs from Option 1 only in that the North Pacific Fishery Management Council would adopt the framework management plan as its own FMP -- Fishery Management Plan -- and would attach to that Plan a single regulation which would designate the regulations of the State of Alaska as effectively Federal regulations in the FCZ. The FMP and its single enabling regulation then would be submitted to NOAA/Department of Commerce for promulgation. All other processes of joint hearings, review, etc., would be as for Option 1. The only regulation subject to Federal review would be that extending BOF regulations into the FCZ.

#### Evaluation

Option 1 has the advantage of simplicity -- if all goes well with the joint consultative processes no Federal regulations or plans must be processed, and no potential Federal bureaucratic delays made possible. The Council and the Secretary, through oversight functions, always can take back the authority if necessary. The existing working system is strengthened, and needless duplication avoided.

Principle disadvantages are that State of Alaska regulations cannot assure control of non-Alaska vessels and fishermen in the FCZ -- parallel supportive regulations in the States of registry of those vessels would be required. Also, important State, regional, and national leaders see this process as an abrogation of Council responsibilities and a substantive departure from the intent of the MFCMA.

Option 2 reverses the above advantages and disadvantages. It would invoke Federal regulations to assure equal control of all domestic vessels in the FCZ, and would satisfy the intent of the MFCMA and of most of the national, regional, and State leaders critical of Option 1. However, it would require implementation of a Federal process and of some costs and time delays, and would only be workable if the single broad regulation proposed could be implemented without NOAA/DOC/OMB attempts to evaluate separate BOF regulations.



DRAFT  
PROGRAMMATIC RESEARCH PROJECTS

Not in priority order.

1. Rapid Response, Unforeseen Data Needs \$ 80,000
  
2. Analysis of Southeastern Alaska Troll Fisheries Data 40,000

A continuation of the study just completed under Contract 79-4 to conduct the analyses of at least one or more year of data (1980) to examine consistency of catch rates and of time/area distribution. This would allow the results of these two studies in time/area closure decisions to control stock interception rates by area of origin.

3. Southeastern Salmon Scale Pattern Analysis and High Seas Tagging of Salmon 85,000

To undertake a study to determine the origin of stock contributing to the Alaskan troll fishery. This study would use two methods, the first is a repetition of offshore tagging studies and the second is to use scale pattern recognition to determine areas of origin.

4. Evaluation of Incidental Catch of Halibut Mortality  
in Commercial Crab Pots 100,000

To establish a domestic observer program aboard commercial crab vessels to collect data on the incidental catch of halibut and to estimate to mortality of that by-catch. The results would form a data base on which future management decisions could be based.

5. Herring Stock Separation Method 120,000

To undertake a study on the development of herring scale analysis methods to identify Bering Sea Herring stocks. Information on the identity of herring stocks at specific locations and times will enable the design of management strategies to harvest individual stocks at appropriate optimal levels.

6. Economic and Social Characteristics of the Bering  
Sea King Crab Fishery 50,000

The purpose of this study is collection and summarization of information on the Bering Sea king crab fishery (exclusive of Norton Sound). This study will require examination of fish ticket and vessel characteristics information collected by ADF&G.

7. Marine Mammal Studies

120,000

Funds to enable the Council to respond to identified data needs resulting from the Marine Mammal RFP.

8. Herring Stock Data

60,000

A study to design an experiment to evaluate the accuracy of the aerial survey for biomass estimates of herring in the Bering Sea.

April 25, 1981

Mr. Jim Richardson  
Fisheries Economist  
North Pacific Fishery Management Council  
P.O. Box 3136DT  
Anchorage, Alaska 99510

Dear Mr. Richardson,

I am an Alaska resident, currently finishing my graduate coursework in economics at UCLA. I have just begun work on my dissertation, which will be on limited entry, particularly the pricing of permits. Enclosed is an abstract of my proposed research. The abstract does not discuss the specific statistical tests I propose to set up, but if you are interested I can further define the study for you at a later date.

I was just recently in Anchorage and Juneau pursuing data and funding possibilities, and am very disappointed I did not contact you then. However, I intend to return to Anchorage in late summer to begin my research in earnest, and would appreciate the opportunity to meet with you at that time.

I am writing not only to inform you of my research interest in Alaska fisheries, but also to ask two questions. First, do you have any comments or suggestions on potentially relevant or fruitful topics I should cover, i.e., are there any glaring omissions in my coverage of permit pricing? Second, would the North Pacific Fisheries Management Council be interested in partially funding this research? What requirements would I need to fulfill to have a funding proposal accepted for review?

I am aware that this letter is probably "coming out of the blue" to you, but I would appreciate any information you could provide.

Sincerely,



Jon Karpoff  
3222 Sawtelle #2  
Los Angeles, CA 90066

ph. 213/ 391-8992

LIMITED ENTRY PERMIT PRICING STUDY: ABSTRACTOverview:

In fishing grounds throughout the world, biologists and economists have long noted the simultaneous tendencies toward the depletion of stocks, overinvestment in fishing vessels and gear, and low and fluctuating incomes of fishermen. In an attempt to counteract these tendencies, the State of Alaska adopted a program of limited entry in 1973. By 1975, this program had been implemented in most Alaska salmon fisheries. Since then, several attempts to evaluate the impact of limited entry have been made, including the noteworthy work of Morehouse and Rogers (Limited Entry in the Alaska and British Columbia Salmon Fisheries, 1980) and Langdon (Transfer Patterns in Alaskan Limited Entry Fisheries, 1980). The Limited Entry Permit Pricing Study is an attempt to extend this evaluation process to new areas of puzzlement and increasing concern: Why have permit prices risen as dramatically as they have? Why have they seemingly leveled off in recent months? What direction will they go in the near future? Should the limited entry program be altered? Should it be adopted in other fisheries? Why have permits been transferred, on net, from rural to urban residents?

Concern over the high prices of limited entry permits and their possibly deleterious effects has fostered some conjecture on the causes of the price increases and the observed transfers of permits. The following are among the leading hypotheses: (1) non-pecuniary factors are important in fishing, and permit prices are bid up beyond what pecuniary factors alone would suggest; (2) the high permit prices in some areas reflect substantial non-reported income from fishing; (3) the rapid rise in permit prices is attributable to unexpected increases in salmon runs and prices, and represents an unintended wealth transfer to a limited number of fishermen; and (4) an observed net transfer of permits from rural to urban residents (Langdon, 1980) may be attributable to unequal access to loanable funds, differences in non-pecuniary factors as noted above, and/or differences in the rate at which future net benefits to fishing are discounted.

These hypotheses are at the heart of a number of proposals to adjust the limited entry program. It is possible that proposals which would restrict the transferability of permits or increase the number of permits will be debated in the near future. It is toward this debate that this study is focused. This study is being initiated on the premise that price data on permit transactions, when combined with other observable data on the conditions of the fisheries, can yield inferences about the validity and importance of the above conjectures.



## Research Outline:

The Limited Entry Permit Pricing Study will be conducted along three lines of inquiry:

- Part I: What factors determine the value of a limited entry permit? How important is each factor?
- Part II: What is the economic value of the limited entry program, i.e., how effective has it been in preventing the dissipation of rents that normally occurs through competitive harvesting of a common access resource?
- Part III: What are the implications for continued limited entry in the salmon fisheries, and for introducing limited entry in other fisheries?

The bulk of the research will focus on the first of these questions. As the permit price reflects individuals' expectations about future fish catches and prices, the study will first model how these expectations are formed. Subsequent steps will introduce the effects of non-pecuniary returns, non-reported income, the riskiness of fishing income, i.e., the appropriate discount rates, access to capital markets, opportunity incomes, and "exogenous" factors (such as the 1976 statewide vote on limited entry). The second question will be approached by combining the results of part I with a simple economic model of the fisheries. The amount of the permit prices that are attributable to pecuniary factors alone will be indicative of the potential amount of "over-investment" in the salmon fisheries that has been averted through limited entry. Starting from this benchmark, distributive effects of limited entry will also be considered in part II. Part III will draw on inferences from the first two sections to predict several economic effects of introducing limited entry in other fisheries.

## Product:

The Limited Entry Permit Pricing Study will result in a written report which details the hypotheses tested, the testing procedures, the data, and the results of the tests, and discusses the implications of these results.