

**Draft Agenda Schedule
North Pacific Fishery Management Council
Jan. 17-21, 1993**

	SSC	AP	COUNCIL
Sunday, Jan. 17 6:30 PM Farewell Reception for Don Rosenberg Denali Room	8:00am D-3 Plan Amend- Initial Rev.	8:00am C-3 Sbl/Hal IPQ Blk/1,000# prop.	
	1:00pm D-3 Continued	1:00pm C-2 MFCMA C-6 Marine Mmls	
Monday, Jan. 18	8:00am D-4 Other Grfsh	8:00am D-3 Plan Amend- Initial Rev.	8:00am Call to Order A Agenda/Min B Reports D-1 Crab Mgmt
	1:00pm C-1 C.R.P. C-4 Rsch Priorities C-6 Marine Mmls ABC/Overfish. Def. SAFE Rpt Guidelines	1:00pm D-3 continued D-4 Other Grfsh	1:00pm D-2 Reg Amend- Final Rev. D-3 Plan Amend.
Tuesday, Jan. 19	8:00am Continue as necessary	8:00am C-1 C.R.P	8:00am D-4 Other Grfsh
		1:00pm Continue as necessary	12:00pm Executive Session* 1:00pm C-2 MFCMA C-3 Sbl/Hal IPQ Blk/1,000# prop.
Wednesday, Jan. 20 6:45pm Industry Meeting: Oil Spill Contingency Planning Requirements			8:00am C-4 Rsch Priorities C-5 Scallop Mgmt C-6 Marine Mmls C-7 Other Bus. Mtm Update
			1:00pm C-1 C.R.P.
Thursday, Jan. 21			8:00am C-1 Continued
			1:00pm D-5 Staff Tasking

NOTE: The above agenda items may not be taken in the order in which they appear and are subject to change as necessary; other items may be added. *All meetings are open to the public with the exception of Council Executive Sessions.

North Pacific Fishery Management Council

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January 15, 1993

DRAFT AGENDA

106th Plenary Session North Pacific Fishery Management Council January 18-21, 1993 Anchorage, Alaska

The North Pacific Fishery Management Council will convene at 8:00 a.m. on Monday, January 18, 1993, at the Hilton Hotel in Anchorage, Alaska. Other meetings to be held during the week are:

<u>Committee/Panel</u>	<u>Beginning</u>
Comprehensive Planning Committee	8:00 a.m., Sunday, Jan. 17
Advisory Panel	8:00 a.m., Sunday, Jan. 17
Scientific and Statistical Committee	8:00 a.m., Sunday, Jan. 17

All meetings except Council executive sessions are open to the public. Other committee and workgroup meetings may be scheduled on short notice during the week.

INFORMATION FOR PERSONS WISHING TO TESTIFY BEFORE THE COUNCIL

Those wishing to testify before the Council on a specific agenda item must fill out a registration card at the registration table **before** public comment begins on that agenda item. Additional cards are generally not accepted **after** public comment has begun. A general comment period is scheduled toward the end of the meeting, time permitting, for comment on matters not on the current agenda.

Submission of Written Testimony During Council Meeting. Any written comments and materials provided during a meeting for distribution to Council members should be provided to the Council secretary. A minimum of 18 copies is needed to ensure that every Council member, the executive director, NOAA General Counsel and the official meeting record each receive a copy. Some agenda items may have a formal, published deadline for written comments. For those items, written comments submitted after the published deadline or at the Council meeting, other than simple transcripts of oral testimony, will be stamped "LATE COMMENT." They will not be summarized or analyzed in preparation for the Council meeting, nor will they be placed in Council member notebooks. All "LATE COMMENTS" will be placed in a special notebook, marked as such, and made available to Council members upon their request.

Information on testifying before the Advisory Panel and Scientific and Statistical Committee is found on the next page.

FOR THOSE WISHING TO TESTIFY BEFORE THE ADVISORY PANEL

The Advisory Panel has revised its operating guidelines to incorporate a strict time management approach to its meetings. Rules for testimony before the Advisory Panel have been developed which are similar to those used by the Council. Members of the public wishing to testify before the AP **must** sign up on the list for each topic listed on the agenda. Sign-up sheets are provided in a special notebook located at the back of the room. The deadline for registering to testify is when the agenda topic comes before the AP. The time available for individual and group testimony will be based on the number registered and determined by the AP Chairman.

FOR THOSE WISHING TO TESTIFY BEFORE THE SCIENTIFIC AND STATISTICAL COMMITTEE

The usual practice is for the SSC to call for public comment immediately following the staff presentation on each agenda item. In addition, the SSC will designate a time, normally at the beginning of the afternoon session on the first day of the SSC meeting, when members of the public will have the opportunity to present testimony on any agenda item. The Committee will discourage testimony that does not directly address the technical issues of concern to the SSC, and presentations lasting more than ten minutes will require prior approval from the Chair.

DRAFT AGENDA

**106th Plenary Session
North Pacific Fishery Management Council
January 18-21, 1993
Anchorage, Alaska**

- A. **CALL MEETING TO ORDER**
 - (a) Approval of Agenda
 - (b) Approve Minutes of Previous Meeting

- B. **REPORTS**
 - B-1 Executive Director's Report
 - B-2 NMFS Management Report
(includes status of amendments and regulatory actions)

- C. **NEW OR CONTINUING BUSINESS**
 - C-1 Comprehensive Rationalization Plan
Receive report from the Comprehensive Planning Committee and take action as necessary.

 - C-2 Magnuson Act Reauthorization
Review Magnuson Act reauthorization issues.

 - C-3 Sablefish and Halibut IFQ Plan
 - (a) Status report on IFQ amendment.
 - (b) Review analyses of block proposals and 1,000 lb. floor proposal.

 - C-4 Research Priorities
 - (a) Discuss research priorities and provide recommendations for NMFS.
 - (b) Plan Team report on feasibility of expanding resource surveys in the Aleutian Islands for Greenland turbot.

 - C-5 Scallop Management
 - (a) Receive report on scallop management.
 - (b) Consider developing framework plan and moratorium.

 - C-6 Marine Mammals
 - (a) NMFS conservation plan for harbor seals.
 - (b) MMPA Amendments.

 - C-7 Other Business
Status report on moratorium and clarification of intent.

D. FISHERY MANAGEMENT PLANS

D-1 Crab Management

- (a) Consider initiating plan amendment to increase the OY for *opilio* crab.
- (b) Industry recommendations concerning pot limits.

D-2 Groundfish Regulatory Amendments - Final Review

- (a) Define legal gears.
- (b) Comment on Proposed Rule for hook and line longline fair start.
- (c) Comment on Proposed Rule for delay of GOA 2nd quarter pollock season.

D-3 Groundfish Plan Amendments

- (a) BSAI salmon bycatch amendment analysis - initial review.
- (b) Subdividing Aleutian region - final review.

D-4 Other Groundfish Issues

- (a) Gulf of Alaska rockfish rebuilding plans.
- (b) Terra Marine request for experimental fishing permit.
- (c) Report on analysis of trawl mesh regulations.
- (d) Bycatch management planning.
- (e) Status report on possible analysis of cod allocations by gear and season.
- (f) Discuss possible amendment to open all gear seasons simultaneously on January 1 or January 20.

D-5 Staff Tasking

Review current tasking and give staff direction.

E. FINANCIAL REPORT

F. PUBLIC COMMENTS

G. CHAIRMAN'S REMARKS AND ADJOURNMENT

North Pacific Fishery Management Council

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Certified: _____
Date: _____

MINUTES Scientific Statistical Committee December 7-9, 1992 Anchorage, Alaska

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met December 7-9, 1992 at the Hilton Hotel. All members were present, namely:

Bill Clark, Chair	Larry Hreha
Phil Rigby (alternate-Kruse)	Richard Marasco
Al Tyler (alternate-Quinn)	Jack Tagart
Doug Eggers	Don Rosenberg
Marc Miller	Bill Aron
Dan Huppert	John Burns

B-5 HARBOR SEALS AND KILLER WHALES

The SSC received a report from Rich Ferrero, AFSC, NMML regarding recent surveys of harbor seals and killer whales. Mr. Ferrero reported that harbor seal surveys were conducted in the northern portion of the Gulf of Alaska, including Cook Inlet, the Kodiak archipelago, the south side of the Alaska Peninsula and islands to the south (e.g., Shumagins, Sandman Reef). The counts indicated that a decline in harbor seal abundance is continuing in the western and central GOA. At over 50 sites surveyed by ADF&G in 1978 and by NMFS in 1992, 90% fewer animals were counted in 1992; a total of 2,899 were counted in 1992, compared to 22,808 in 1978. On Tugidak Island in the Kodiak archipelago the 1992 count was 571 which was 40% fewer than in 1990 and 92% fewer than in 1976.

Killer whale abundance surveys were initiated in 1992 in the central and western Gulf of Alaska, westward along the Aleutians to Atka and in the Bering Sea. Vessel coverage totaled over 5,200 nautical miles; air coverage totaled 3,800 nautical miles. A total of 12 pods (184 animals) were encountered on the vessel survey. Air counts were limited due to problems associated with estimating pod size. As a by-product of the photo-identification effort, researchers noted that several killer whales showed evidence of gunshot wounds. A review of photos at NMML later confirmed that animals from 7 of the 12 pods (total 9 animals) showed the wounds. The highest frequency of scarring was noted north of Dutch Harbor where 4 pods (36 animals) contained 6 animals with the marks. NMFS is concerned about possible impacts of shooting as an additional source of mortality on what appear to be a small population of killer whales in this area.

D-1(a) HALIBUT DISCARD MORTALITY RATES

The SSC reviewed the document, "Halibut discard mortality rates in the 1991 groundfish fishery off Alaska," by Williams and Wilderbuer and received an oral report by Bob Trumble (IPHC) explaining the methodology and results. Observers categorize halibut as one of three categories -- excellent, fair, and dead. Mortality estimates for the trawl fishery are based on 1975 study by IPHC which was revised in 1992. Survival rates have been estimated to be 80% for fish in excellent/good condition, 45% for fish in fair condition, and 10% for fish that appear dead.

The longline rates were based on an earlier tagging study and a holding experiment. A specific hook and line mortality study has not been conducted, although the IPHC is planning such a study in 1993. Fish within the excellent category were estimated to have a 98% to 95% survival, the poor ("fair") group to have half the survival of the excellent group, and the "dead" group to have 100% mortality.

Public testimony questioned the hook and line halibut mortality estimates which increased substantially from 1990 to 1991. This increase was particularly noticeable in the GOA sablefish fishery for which mortality estimates increased more than two and one half times.

The very large increases for hook and line fisheries led to a discussion of possible causes, including sampling bias. For the trawl fishery, where halibut are brought on board, the process of categorizing halibut by observers appeared to be accurate and repeatable. However, in the longline fishery, many operators do not bring halibut on board. Since accurate categorization requires direct examination, only halibut brought on board the vessel are sampled. Because only vessels that consistently bring halibut on board are sampled, there is some potential for estimates of discard mortality for the longline fishery to be biased. If these vessels have higher discard mortality rates the estimate of halibut discard mortality rate will not be representative of the fleet. There is potential for both years' estimates to be biased, but the degree of bias may not be consistent between years.

The SSC was not able to identify a specific cause for the increased discard mortality rate observed in the longline fishery. The SSC suggested that NMFS and IPHC review the observer database and methods to determine if sampling problems explain the changes between 1990 and 1991 estimates. NMFS staff testified that the use of the new rates for management of the 1993 hook and line fishery could prevent approximately one third of the GOA sablefish from being harvested.

The SSC discussed variability of the longline data and approaches to handle the inter-annual variations within fisheries. If a trend is evident the best approach is to use the most recent information. If data are variable and no trend is evident, an appropriate approach is to pool information to make the best projection. Such an approach moderates fluctuations in the estimates but de-emphasizes the most recent information and may fail to fully reward fishermen that have taken steps to improve performance.

The SSC strongly supports the IPHC longline discard study proposed for 1993 as a high research priority.

D-1(b) ROCKFISH MANAGEMENT PLAN

The SSC reviewed the documents available, particularly on the determination of rockfish ABCs. These documents included the plan team report, status of stock documents, agency reports, the minutes of the council's rockfish working group, and a report by Steve Davis on the accuracy of trawl survey estimates of rockfish stock size. The SSC agreed, in general, with the plan team recommended

ABCs as did the working group, and the SSC reaffirmed its previous statement that ABCs should take into account all fishing mortality, including undocumented bycatch. Given the large number of rockfish species groups and the number of fisheries which take rockfish as bycatch, the determination of rockfish specifications is a complex problem. The need for reduced rockfish TACs was discussed by the SSC. The issue of rebuilding schedule was not specifically addressed, although the $F_{35\%}$ exploitation rate used for ABC determination does provide for some stock growth. Further analyses on the issue of rebuilding will be required in order to determine appropriate objectives and benefits and costs of various options.

D-1(d) GULF OF ALASKA - SPECIFICATIONS

Central/Western Area - Walleye Pollock

The SSC reviewed the updated Stock Assessment and Fishery Evaluation Report for the 1993 Gulf of Alaska Groundfish Fishery, and received a report from the Team, and testimony from the Aquatic Resources Conservation Group. The SSC in presenting its deliberation to the Council will divide our reports into two parts. The first part of our report deals strictly with a stock specific ABC and the second will deal with our concern for the ecosystem in recommending a final ABC.

Stock Specific ABC

The SSC reviewed the Team's approach and evaluation of the various models to project the status of the pollock biomass. The Team noted that Model E provides the best overall fit to the hydroacoustic and trawl survey data. The SSC noted that Model E did not use the 1984 bottom trawl survey. Model E does provide the best overall fit to the hydroacoustic data, a better fit for bottom trawl data from recent years, and better reflects the 1988 year class strength. The SSC concurs that Model E provides the best estimate of the exploitable biomass.

In the past the Gulf pollock resources have been exploited using an exploitation rate of 10%. At the request of the SSC, the Team has evaluated preferred fishing mortality levels. Based upon this analysis the Team recommends a fishing strategy using an annual exploitation rate of 20%. Using the exploitable biomass provided by Model E and the 20% fishing strategy, the Team recommends an ABC of 203,000 mt for the Western/Central area. The Team evaluated the "risk" of falling below 20% of pristine biomass.

The Team in making this recommendation of an ABC of 203,000 mt noted that although the ABC is biologically defensible, their recommendation may not be adequately conservative relative to a series of concerns. The Team felt that these concerns should be addressed by the Council when setting TAC. The SSC believes that these concerns, (low probability of recruitment of a strong year class, continued declines in spawning biomass, disproportionate targeting on older fish, suspected large scale ecosystem changes that might affect the carrying capacity, and the change in the age at maturity of pollock) must be addressed in recommending ABC. There was discussion within the SSC regarding whether the above concerns were addressed at least in part by the Team in their recommended ABC. The SSC notes that these concerns are unquantifiable and therefore we had a difficult time in making an adjustment to the stocks specific ABC. After long deliberation we agreed a reduction could be calculated by averaging the Team's ABC (203,000 mt) with the ABC determined using the new biomass and the current 10% fishing strategy (111,000). This stock specific ABC would be 157,000 mt.

Ecosystem ABC

The Team and the analysts notes that their recommendation may not be adequately conservative from an ecosystem perspective.

The SSC notes that there are concerns regarding the status of marine mammals and sea birds that prey on pollock and uncertainty about the causes of their recent decline. The SSC further notes that the Council has taken steps that address these concerns through protective measures to prevent local pollock depletions by spreading the fishing effort over larger areas and throughout the year and by closing the areas around rookeries. As noted in the past, it is unclear whether current fishing practices contribute to marine mammal and seabird declines.

Table 21 in the SAFE report provides information on potential yield and the resulting spawning biomass for two recruitment scenarios fishing at an exploitation rate of 20% during 1993. This would drive the spawning biomass to 502,000 mt in 1995. This spawning biomass is less than 20% of the pristine spawner biomass under recruitment scenario 1. This level of spawning biomass would be below the lowest spawning biomass observed.

In light of the concerns and uncertainties regarding the ecosystems, a majority of the SSC could not support an increase in the exploitation rate above the present 10% at this time. The SSC notes that the model projects that fishing at the present rate (10%) will cause the spawning biomass to continue to decline but is not projected to decline in the next 3 years below the 20% level or below the lowest spawning biomass observed.

Therefore the SSC recommends, taking into account ecosystem considerations, that the ABC for pollock in the central and western area be set at 111,200 mt (1,112,000 mid year biomass * 10%).

Eastern Area - Walleye Pollock

The SSC concurs with the Team's recommendation that the ABC for the Eastern area remain at the current level 3,400 mt. No new information is available at this time.

Overfishing

The overfishing level is based on the $F_{30\%}$ fishing mortality rate (0.297) and is calculated to be 286,000 mt for the Western/Central GOA and 9,020 mt for the Eastern Gulf.

Gulf of Alaska - Pacific Cod

The SSC agrees with the Teams' specification of ABC and overfishing limit for Pacific cod. ABC (56,700 mt) was calculated by applying the $F_{0.1}$ rate (0.177) to the projected 1993 exploitable biomass (324,000 mt) estimate by SRA fitted to the 1984, 1987 and 1990 bottom trawl survey results. The overfishing limit (78,100 mt) was calculated by applying the $F_{30\%}$ rate (0.245) to the 1993 exploitable biomass.

Gulf of Alaska - Flatfish

The Plan Team recommendations for ABC are unchanged from September.

Flatfish stocks in the Gulf of Alaska are at high levels and generally stable, excepting arrowtooth flounder which is increasing. The SSC concurs with the Plan Teams' determinations of ABC which

used methods consistent with last year's determinations. Some biomass estimates have been updated for this year after the 1990 trawl survey results were re-edited. Biomass is estimated directly from the 1990 trawl survey, except for the deeper dwelling Dover sole for which 1987 survey estimates were used for depths between 500m and 1000m. The $F_{0.1}$ exploitation rate was used to calculate the 1993 ABC, and the overfishing level was set at $F_{30\%}$.

The 1993 ABCs are :

deepwater flatfish	- 45,530 mt;
shallow water flatfish	- 50,480 mt;
flathead sole	- 49,450 mt;
arrowtooth flounder	- 321,290 mt.

These ABCs represent increases from 1992 for deepwater flatfish, flathead sole, and arrowtooth flounder.

Gulf of Alaska - Sablefish

The SSC concurs with the Plan Teams' recommended ABC of 20,900 mt. Sablefish biomass was estimated using an SRA model adjusted by relative population weights from longline surveys scaled to trawl survey biomass. The method used is identical to that used in 1991 with one notable exception. The 1993 biomass was estimated after assuming recruitment of 22,680 mt rather than zero recruitment as in past years. The assumed recruitment is the mean of 11 years data and excludes recruitment estimates of the 1977 and 1980 year class which the Plan Team noted were unusually high. Gulf of Alaska estimated 1993 sablefish biomass is 190,400 mt.

The Plan Team recommended and the SSC accepted a new approach to estimating sablefish ABC. The Plan Team now promotes $F_{35\%}$ (0.137) as the preferred fishing mortality rate as opposed to $F_{0.1}$ (0.133) used in past analyses. Furthermore $F_{35\%}$ is scaled by the ratio of 1993 exploitable biomass for the GOA/BS/AI (227,000 mt) and $B(F_{35\%})$ of 253,560 ($B_{93}/B(F_{35\%})=0.9$). [At $M=0.11$, $F_{35\%}=0.137$ the preferred exploitation rate is 0.122, therefore $ABC = 0.122 (190,400)(0.9)$] The Plan Team recommends an overfishing level based on $F_{30\%}$ scale to the ratio of B_{93} and $B(F_{35\%})$. The SSC notes that this recommended level is not allowed by the Council's overfishing definition, and consequently, recommends defaulting to a level derived from the product of the $F_{30\%}$ exploitation rate (0.146) and current biomass. The overfishing level is therefore 27,800 mt.

The Plan Team recommends that the ABC be apportioned among management areas in proportion to a weighted average of the last 5 years RPWs. While the SSC approves the application of this method in 1993, we want to bring to the Councils' attention, that the apportionment methodology will become increasingly contentious upon implementation of sablefish ITQ. Consequently, this method and various alternatives should be thoroughly evaluated with the goal of developing an objective rationale for the preferred methodology.

Gulf of Alaska - Slope Rockfish - POP

The SSC concurs with the Plan Teams' recommended ABC (5,560 mt) and the proposed regional allocation: western (1,240 mt), central (1,360 mt) and eastern (2,760 mt).

The SSC notes that issues identified in September: (1) an analysis to determine if new fishing power correction factors change survey biomass estimates, (2) examination of fishery data to determine if it could be integrated into the analysis, and (3) further examination of inconsistencies in various biomass estimates, were addressed by the assessment scientists. The updated stock synthesis runs produced biomass estimate of 153,600 mt. ABC (5,560 mt) was determined by applying the $F_{35\%}$

(0.114) exploitation rate to exploitable biomass and then scaling down by the ratio of the current female spawning biomass ($B_c = 68,200$ mt) and the spawning biomass corresponding to 35% of the unfished level ($B_{35\%} = 118,200$ mt). The Teams' recommended overfishing limit was obtained by applying the $F_{30\%}$ fishing rate and adjusting it downward by the ratio $B_c/B(F_{35\%})$ to maintain the magnitude of OFL relative to the ABC. The SSC does not agree with this approach since it is not consistent with the Council's overfishing definition. The SSC recommends that the unadjusted $F_{30\%}$ be used to define overfishing (12,400 mt).

Gulf of Alaska - Shortraker/Rougheye

The SSC agrees with the Teams' recommended ABC for shortraker/rougheye, 1,960 mt (100 mt - western, 1,290 mt - central and 570 mt - eastern areas). This estimate was obtained by applying an $F=M$ strategy to the average of the 1987 and 1990 trawl survey biomass estimates. The SSC also concurs with the Teams' OFL.

The AFSC is currently undertaking a reexamination of the 1984 and 1987 survey biomass estimates. Any adjustments in these estimates should be taken into account in future assessments.

Gulf of Alaska - Other Slope Rockfish

The SSC concurs with the Teams' recommendation for northern rockfish and other species in this complex. The ABC for northern rockfish is 5,770 mt (1,000 mt, 4,720 mt and 50 mt for the western, central and eastern areas, respectively). The overfishing level is based on $F_{30\%}$ and is equal to 10,360 mt. The ABC for the remaining slope rockfish is obtained by applying $F=M$ fishing rates to the biomass estimates for each species and summing to obtain a value of 8,300 mt (400 mt - western, 1,790 mt - central, and 6,110 - eastern). The overfishing level for these species (9,850 mt) was obtained by applying an $F_{30\%} = 0.080$ for sharpchin rockfish and natural mortality rates for the remaining species.

The Team expressed concern over setting quotas for a species complex as the sum of individual ABCs rather than based on the most vulnerable or desirable species in the complex. It is suggested that the Team continue to explore this issue.

Gulf of Alaska - Pelagic Shelf Rockfish

The SSC agrees with the Team's ABC recommendation that ABC for species in this complex excluding black rockfish be set at 6,760 mt. The recommended distribution of this ABC is: 1,010 mt - Western, 4,450 mt - Central, and 1,280 mt in the Eastern area. The trawl survey biomass estimates in 1984, 87 and 90 for dusky rockfish were averaged to represent current exploitable biomass for these species. The ABC was determined by applying $F=M=0.09$ for dusky rockfish. The overfishing definition for this group of species was based on the fishing rate that would reduce the dusky rockfish exploitable biomass per recruit ratio to 30% of its unexplained value. This is estimated to be 0.151 (11,300 mt).

The SSC shares the Team's concern over the rapidly expanding jig fishery for black rockfish. Because of the lack of an estimate of exploitable biomass, the Team's recommended ABC was obtained from the estimated catch in 1991, 570 mt. The SSC does not support this recommendation because of the limited data it was based on. Until sufficient data become available, it is recommended instead that TAC's be set for black rockfish so as to constrain the catch to 570 mt. The SSC concurs with the Team's overfishing recommendation, 570 mt.

Gulf of Alaska - Demersal Shelf Rockfish

The SSC agrees with the Teams' recommended ABC for this complex, 800 mt. This value was obtained by applying $F=M=0.02$, the natural mortality for yelloweye rockfish, to the lower 90% confidence limit of the biomass estimate obtained from line transect data. The overfishing level (1,600 mt) for this species was determined by applying $F_{30\%}=0.04$ to the estimate of exploitable biomass (40,050 mt).

Gulf of Alaska - Thornyheads

The SSC concurs with the Team's recommended ABC for Thornyheads, 1,180 mt. Based on results of the 1990 trawl survey the best estimate of current exploitable biomass is 26,207 mt. The exploitation rate was determined by averaging the previously estimated $M(0.07)$ with the value applied to Pacific coast shortspine thornyhead stocks ($M=0.03$). With an $M=0.05$ and an $F_{35\%}=0.045$, the ABC is 1,180 mt for 1993. The overfishing level (1,441 mt) was determined by applying $F_{30\%}(0.055)$ to the exploitable biomass.

Gulf of Alaska - Rockfish - Other Considerations

The SSC is concerned about the large undocumented bycatch and discard mortality of rockfish species in the Gulf of Alaska longline and trawl fisheries. ADF&G and NMFS staff presented rough estimates of discard and bycatch mortality for POP and shortraker/rougheye rockfish in the 1992 GOA fisheries. Based on these estimates, total mortality in 1992 (i.e., directed catch, discard and bycatch mortality) was substantially above the ABC for both species and may be above the overfishing limit for shortraker/rougheye rockfish. The SSC reiterates its earlier recommendation that the Council adopt management measures that ensure that total mortality is constrained by the ABC for rockfish species. The SSC endorses NMFS and ADF&G's efforts to document total mortality for Gulf of Alaska rockfish species. The SSC notes that additional observer coverage on small halibut and sablefish longline vessels may be necessary to document bycatch and discard rates for rockfish species.

D-1(e) BERING SEA/ALEUTIAN ISLANDS - SPECIFICATIONS

Bering Sea/Aleutian Islands - Pollock

Eastern Bering Sea

Four different age-structured methods are used to estimate exploitable biomass and all methods showed the same trends in biomass over time. The SSC agrees with the Team that the status quo method, cohort analysis tuned to survey biomass and age composition estimates, should be used to determine exploitable biomass. Exploitable biomass in 1993 from this method was estimated to be 5.9 million tons and represents a small decline from last year's assessment. The SSC recommends that the Plan Team add an additional stochastic recruitment approach similar to the approach used for the GOA pollock. This can be substituted for the stock-recruitment function presently used for the Walters and also the delay - difference Models. A comparison of the stochastic and deterministic methods could be developed. The SSC accepts the Teams' recommendations for ABC and overfishing limit, which are based on $F_{MSY}=.38$.

Aleutian Islands

The 1993 pollock biomass was based on the 1991 bottom trawl survey estimates expanded for the off-bottom component and projected to 1993 based on the relative population change observed in the EBS stock. The SSC accepts the Team's recommendation for ABC and overfishing limit, which are based on $F_{35\%}$ and $F_{30\%}$ estimates of growth and natural mortality which use data collected from the Aleutian Islands population.

Bogoslof Area

The SSC believes the Aleutian Basin pollock population should be managed separately from the EBS and AI populations. The Basin population has a different age structure, a different size at age, a different area and time of spawning, a different migration pattern, and has experienced a different level of exploitation. Available evidence indicates that the fishery that occurs in the international zone of the Bering Sea (i.e., the Donut Hole) exploits the Basin stock. A portion of the stock spawns in the vicinity of the Commander Islands and another portion spawns in the vicinity of Bogoslof Island. It is generally believed that a majority of the Basin pollock originate from the Bogoslof component.

The SSC strongly supports the international effort (P.R.C., Japan, R.O.K, Poland, U.S.S.R., and U.S. scientists) to develop a comprehensive assessment and management of Aleutian Basin pollock. A second workshop was held in late February 1992 in Seattle to assemble available data and to refine and expand population models. A major development was an agreement in August, 1992 by these nations to cease fishing in international waters for two years and to cooperate in further research.

A precipitous decline in the biomass of the Bogoslof pollock has occurred since the 1989 survey. Available evidence strongly suggests that the Bogoslof stock has been overexploited. Recent hydroacoustic surveys provide estimates of biomass of 600,000 tons in 1991 and 800,000 tons in 1992. Assuming that little or no recruitment has occurred recently, the best estimate of 1993 biomass is obtained from the 1992 survey decayed by natural mortality, which is 650,000 mt.

The SAFE indicates that the current Basin biomass as predicted by the preliminary Aleutian Basin stock cohort analysis is only about 10% of the largest observed biomass and well below B_{MSY} . A precise estimate of the ratio B/B_{MSY} is impossible, but it is probably on the order of 1/4. Given the low level of abundance, the SSC believes that under the Council's overfishing definition an exploitation rate of 1/4 of $F_{35\%}$ is appropriate. The SSC recommends using the Plan Teams' estimates of $F_{35\%}$ computed from growth parameters as $F=0.33$ which equates to an exploitation rate of 26%. The SSC then uses this F to calculate an ABC, applying the rate (0.26×0.25) (=25% of the exploitation rate) to the 1993 biomass estimate to obtain an ABC of 42,000 ($650,000 \times 0.26 \times 0.25$). The ABC is also the overfishing limit.

Because of the current status of the Bogoslof population, the importance of supporting international efforts to curtail fishing on the Basin population, and the potential impacts on marine mammals and seabirds, the SSC strongly recommends that the TAC be set at a level to provide for bycatch only.

Bering Sea and Aleutian Islands - Pacific Cod

The AFSC presented new information on biomass and exploitation rates that was not available at the November Team meeting. There is a new estimate of 1993 exploitable biomass (624,000 mt) based on an updated stock synthesis model. The new work confirms the lower biomass reported in November. In addition, there is a new data set on size at maturity that differs from that used by the

Team to calculate the $F_{35\%}$ and $F_{30\%}$ exploitation rates. The SSC notes that the two data sets were collected in the 1970's and early 1980's and may not reflect the current size at maturity for the BS/AI Pacific cod stock. There is no information available to select a preferred data set to estimate the $F_{35\%}$ exploitation rate, but the range probably brackets the true value.

In absence of additional data that reflects the current size at maturity for Pacific cod, the AFSC recommended that ABC's and overfishing limits be maintained at the 1992 level. The SSC disagrees with this recommendation, because the new information suggests that Pacific cod biomass is less abundant than estimated in 1992 and this decrease should be considered in setting ABC and overfishing limit.

The SSC agrees with the Team's strategy for calculating ABC and overfishing limit, and recommends that ABC and overfishing limit be calculated by applying $F_{35\%}$ and $F_{30\%}$ exploitation rates to the new estimate of 1993 exploitable biomass, respectively. In lieu of new data on size at maturity for Pacific cod, the SSC recommends that the alternative exploitation rates based on the alternative size at maturity data sets be averaged in calculating ABC and overfishing limit. The ABC and overfishing limit based on the averaged exploitation rates and new estimate of exploitable biomass is 164.5 thousand mt and 192 thousand mt, respectively.

The SSC supports the collecting of additional size at maturity information for BS/AI Pacific cod in 1993, and recommends that these data be used to develop a preferred estimate of $F_{35\%}$ and $F_{30\%}$ in developing future ABC's and overfishing limits for Pacific cod.

Bering Sea/Aleutian Islands - Flatfish Summary

The methods used to calculate ABC for this complex have been changed from prior years for several groups. The SSC commends the Plan Team for its use of the stock synthesis model where necessary data is available and the encourages the analysts to continue their efforts to use new methods which can make use of additional sources of information.

Bering Sea/Aleutian Islands - Yellowfin Sole

The SSC concurs with the Plan Team approach. Yellowfin sole abundance is high and stable. Survey results have been somewhat variable and three methods were used to estimate exploitable biomass; (1) trawl survey, (2) virtual population analysis, and, (3) stock synthesis. Applying $F_{35\%}$ to a projected exploitable biomass (2.50 million mt) estimated by the stock synthesis model yields an 1993 ABC of 238,000 mt, which is 134,000 mt less than 1992. Overfishing level (275,000 mt) is calculated by applying $F_{30\%}$. The large decrease in ABC this year resulted from applying the annualized exploitation rate rather than the instantaneous fishing mortality rate to the estimate of exploitation biomass.

Bering Sea/Aleutian Islands - Greenland Turbot

Continuous poor recruitment has been observed since the early 1980s and biomass of the adult population is expected to decline throughout the 1990s. Given continued recruitment failure, the Plan Team rejected a preliminary ABC of 14,100 mt based on $F_{0.1}$ and recommended a continuation of the 1992 ABC of 7,000 mt. Given the poor stock conditions, the SSC agreed with this approach. An OFL of 10,500 mt was calculated using the ratio of exploitable biomass to $B_{MSY} \times F_{MSY}$ (0.06). The SSC recommends that the Team calculate $F_{30\%}$ for the determination of OFL.

Bering Sea/Aleutian Islands - Arrowtooth Flounder

Recruitment from the 1986 and 1987 year classes was good. Biomass is high. In the absence of a stock recruitment relationship, $F_{35\%}$ was applied to a projected biomass from the 1991 survey to calculate a 1993 ABC of 72,000 mt, a reduction of 10,000 mt from the 1992 calculation. Overfishing, calculated at $F_{30\%}$ is 96,000 mt for 1993. The methodology used remains similar to the prior year. Exploitation rates have been annualized, as in the case of yellowfin sole.

Bering Sea/Aleutian Islands - Rock Sole

In a change from preliminary estimates, stock synthesis was used by the Plan Team to calculate a 1993 exploitable biomass of 1,550,000. This procedure uses catch-at-age data on this stock for the first time.

An exploitation rate of $F_{35\%}$ provided an estimated ABC for 1993 of 185,000 mt, which is 75,800 mt below 1992. ABC is below the 1993 level of overfishing (270,000) based on $F_{30\%}$. As done above, exploitation rates have been annualized.

Bering Sea/Aleutian Islands - Other Flatfish Complex

Reliable estimates of B_{MSY} and F_{MSY} are not available for this group of species. $F_{35\%}$ was applied to an increased biomass estimate which is a sum of estimates for three species groups and is based on the 1992 survey to calculate an ABC of 191,000 mt, 9,000 mt below 1992. A reduced ABC from preliminary estimates results from the application of $F_{35\%}$ rather than $F_{0.1}$. Exploitation rates were annualized. Overfishing was calculated using $F_{30\%}$ at 228,000 mt.

Bering Sea/Aleutian Islands - Sablefish

The SSC agrees with the Plan Team's recommended ABCs. Sablefish is assessed jointly in the Gulf of Alaska, Bering Sea and Aleutian Islands. Consequently, the methods are identical to those discussed in the Gulf of Alaska section above.

Estimated biomass is 23,600 mt for the Aleutians and 13,400 mt for the EBS. ABCs are estimated to be 2,600 mt and 1,500 mt, respectively, with companion overfishing levels of 3,500 mt and 2,000 mt.

Bering Sea/Aleutian Islands - POP Complex

True POP

The SSC accepts the Team's ABC for species in this complex. For the eastern Bering Sea the ABCs for 1993 are 3,300 mt for True POP and 1,400 mt for other red rockfish. Aleutian Island ABCs are 13,900 mt, 5,670 mt and 1,220 mt for True POP, Northern/Sharpchin and Rougheye/Shortraker, respectively.

The recommended 1993 ABC for True POP is based on a harvest strategy that reduces the equilibrium level of spawning biomass per recruit to 35% of the pristine level ($F_{35\%}=0.059$ for the EBS and 0.056 for the AI). These fishing mortalities are applied to the projected 1993 biomass levels of 59,700 mt in the EBS and 260,000 mt in the AI region.

The overfishing limit for True POP is based on the harvest strategy that reduces the equilibrium level of spawning biomass per recruit to 30% of the pristine level. The $F_{30\%}$ for EBS and AI are 0.067 and 0.069, respectively. The corresponding catch limits are 3,750 mt and 16,800 mt.

Bering Sea/Aleutian Islands - Other Red Rockfish

The SSC accepts the Team's ABC recommendations for species in this group. ABCs were calculated by using $F=M$ for exploitation rates and average biomass estimates from bottom trawl surveys to obtain an estimate of current biomass. Natural mortalities used were 0.06 for northern and sharpchin, 0.025 for rougheye, and 0.03 for shortraker. Biomass estimates were as follows: northern/sharpchin (EBS) 17,500 mt; (AI) 94,500 mt; rougheye (EBS) 3,000 mt; (AI) 25,300 mt; and shortraker (EBS) 9,200 mt; (AI) 19,700 mt.

The other red rockfish ABC for the eastern Bering Sea is 1,400 mt. The SSC does not recommend splitting this complex up. It still believes that the added protection afforded rougheye and shortraker by separating them into their own group is insignificant. The SSC recommend that this complex be divided into two groups for the Aleutian Islands: rougheye and shortraker, and all remaining species. The ABC for rougheye/shortraker is 1,220 mt and 5,670 mt for northern/sharpchin.

Lacking a value of $F_{30\%}$, the $F=M$ criterion is used to define overfishing ($ABC=OFL$).

Bering Sea/Aleutian Islands - Other Rockfish

The SSC accepts the Team's ABC recommendation for this complex. ABCs were calculated by applying an exploitation rate equal to natural mortality for POP (0.05) to the estimate of current exploitable biomass, 8,000 mt for the eastern Bering Sea and 18,500 mt for the Aleutian Islands. Current biomass estimates were obtained by averaging recent trawl survey results. The $F=M$ criterion was used to define overfishing (lacking $F_{30\%}$), which is therefore equal to ABC.

Bering Sea/Aleutian Islands - Atka Mackerel

The SSC accepts the Team's determination that the best estimate of ABC, given information now available, is 351,000 mt. The ABC was derived by applying the estimated rate of natural mortality (0.30) to the 1993 exploitable biomass (1,121,000 mt) based on the stock synthesis model fitted to catch at age data (age 3+) and bottom trawl survey results. The SSC notes the biomass projections are higher than the 1992 projection due to updated 1991 survey data and inclusion of fish older than age 7 that appear in the fishery catches. This biomass estimate is conservative because some fraction of Atka mackerel biomass is distributed in mid-water and nearshore, and therefore is not included in the standard bottom trawl survey estimate.

While accepting the Teams' ABC determination, the SSC is concerned that the series of trawl surveys is short and inconsistent in their extent of coverage. We are also apprehensive about the possible environmental problems that may result from an increased catch of the magnitude implied by the 1992 and 1993 ABC estimate. Atka mackerel is a prey species of northern fur seals and northern sea lions. During their migrations, northern fur seals (a depleted species) feed heavily on Atka mackerel as they move through the Aleutian passes.

In these circumstances, the SSC prefers to phase in the new higher ABC over a six-year period, adopting the current biomass estimate and raising the exploitation rate in steps from $M/6$ in 1992, $M/3$ in 1993, to M in 1997. According to this schedule, the recommended ABC for 1993 is $(0.30/3) * 1,171,000 = 117,100$ mt. While this approach provides a 6 year schedule for increasing

ABC, it should be clear that the estimate and procedures will be reviewed annually. The main purpose of the gradual approach is to postpone a large ABC increase until its correctness has been confirmed by additional data and analysis.

The SSC accepts the Teams' overfishing limit calculated by applying the $F_{30\%}$ rate ($F=0.506$) to the 1993 exploitable biomass.

The SSC is particularly concerned about the need to distribute a greatly increased harvest over the range of the stock in proportion to the distribution of biomass. This would require 70% of the catch to be taken west of 180° W. The SSC recommends that ABC for the eastern Aleutians be 32,100 mt and for the Western Aleutians be 85,000 mt.

The SSC notes that almost all of the 1992 catch of Atka mackerel was taken in the eastern Aleutian Islands area. Because of the possibility of localized depletion of Atka mackerel and the resulting impact on predator populations, the 1993 ABC is at a level that cannot be safely taken entirely from eastern Aleutians area. It is critical that the Council develop a plan amendment that will allow TAC's to be allocated geographically. In the absence of means to apportion ABC's, the SSC recommends the ABC for BS/AI Atka mackerel should be constrained to 32,100 mt, which can be safely taken in the eastern Aleutians area.

The SSC recommends that the Team consider the use of an annualized exploitation rate to calculate ABC for future years.

D-3(a) PRIBILOF ISLAND TRAWL CLOSURE

The SSC reviewed the final EA/RIR and public comment for Amendment 21a to the Bering Sea/Aleutian Island FMP. This proposed amendment is to close the area around the Pribilof Islands to trawling to protect important habitat for blue king crab, Korean hair crab, marine mammals and seabirds.

At our September meeting the SSC provided the Council staff with comments on the draft document and a reference to a scientific paper on the habitat requirements of blue king crab around the Pribilof Islands (Armstrong, D.A., et al. 1985. Early life history of juvenile blue king crab, Paralithodes platypus, around the Pribilof Islands. Proc. Int. King Crab-Symp.). It was the expectations of the SSC that this information would be included in the document prior to public review. This information was not included due to time limitations on the staff.

The SSC received public testimony from Dave Fraser noting the distribution of blue king crab sampled in NMFS bottom trawl surveys contrasted with pollock distribution. Mr. Fraser noted that the blue king crab were distributed in the vicinity of St. Paul and St. George Island and northeast of the islands; whereas, pollock, while found in the vicinity of the islands, are also found in greater abundance northwest of the islands. Mr. Fraser using his own joint venture catch data, demonstrated that bottom trawl caught pollock are taken around the southern and western edge of St. George Island, in a "horseshoe" following the 50 fm contour.

Furthermore, the mean size of pollock decreases as one moves northwest of the islands. Mr. Fraser's joint venture catch data also indicated that trawling for yellowfin sole occurs northeast of St. Paul Islands in shallow waters (33-36 fm).

Habitat Considerations

The scientific paper provides the following regarding an early life history of the blue king crab in the area of the Pribilof Islands:

- (1) Juvenile blue king crab were located in the area around St. Paul Island and east of St. George.
- (2) Juveniles were exclusively located in a particular substrate composed of cobble and shell.
- (3) Juveniles were primarily located between the 40 and 60 meter isobaths.
- (4) Crab density was exceedingly high in that substrate and virtually absent in other substrates.
- (5) The importance of this cobble/shell habitat is comparable to that of the rocky niche habitat for red king crab around Kodiak Island.
- (6) The unique cobble/shell habitat provides a refuge for the juvenile crab.
- (7) The ocean current patterns in the area and the apparent dependence of the early life stages of the blue king crab on the particular benthic material make it likely that the species may experience year class failures.
- (8) During the study mature adult female blue king crab area were most abundant to the southwest of St. Paul Island and were generally within 14 nautical miles of St. Paul Island.

Status of Blue King Crab Resource

The SSC reviewed the status of the blue king crab resource in this area. As noted in this document there has been no commercial fishery since 1987. The 1990 and 1991 surveys indicated a potentially fishable population, but the fishery has not been opened. The SSC requested and received from the staff data on the annual abundance estimates for blue king crab in the Pribilof District. This data indicates that the total number of individual decreased significantly after 1981 reaching a low in 1985. 1989, 1990 and 1991 data indicates an increase in the total number of individuals, but that the resource remains low. The annual abundance estimate for the latest year is a grand total of 6.7 million crabs. The population is classified as low and stable.

The causes of the decline in the early 1980's are unknown.

Korean Hair Crab

No information has been presented on the habitat requirements, bycatch, or status of this resource in the area.

Marine Mammal and Sea Bird Considerations

As noted in the final draft document the impact of closing the area to trawling on the population of bird and marine mammal is not clear. Limitation on the physical presents of fishing vessels will most likely be beneficial by reducing physical contact.

Bycatch

The SSC was unable to determine the magnitude of the blue king crab bycatch as data were not available.

Impact Assessment

Given the information contained in the document it is not possible to forecast the benefits to the blue king crab resource from the various closure alternatives.

The impact of the closures on fishermen were assessed with the crab bycatch model. The results obtained indicated little change in the catch and value of directed groundfish and bycatch species for the alternatives. Public testimony received by the SSC indicates that management measures proposed may be unnecessarily restrictive to groundfish fisherman without commensurate protection to blue king crab particularly along the southern and western area of St. George Island.

Recommendations

Although we have limited data on which to formulate a recommendation, the SSC believes that protection of the blue king crab could be accomplished by the use of smaller areas than those examined. These smaller areas should be structured to encompass the important habitat of the blue king crab and marine mammals.

D-3(b) EXCLUSIVE AREA REGISTRATION PROPOSAL

The Draft EA/RIR for Exclusive Area Registration contains analyses of both net economic benefits and economic impacts. We address these two analyses in order.

Net Economics Benefits (Benefit/Cost Analysis)

This analysis has been developed to estimate the increase or decrease in net earnings likely to occur throughout various segments of the groundfish fleet due to exclusive area registration proposals. It does this using an innovative empirical approach which uses detailed information on catch and revenue by area/season/vessel characteristics to predict how vessel operators choose fishing areas. The model assumes vessel owners select fishing areas based upon expected net earnings. When an area is closed due to regulation, the vessel operator will seek out another area with next-best earning opportunities. Because each operator will choose the best areas first, any reduction in areas available may cause a reduction in expected profits for that vessel type. Exclusive registration areas essentially cause a restriction in the ability of vessels to make the best adaptations to fishing conditions. Hence, the model will not predict an increase in net economic benefits, and will generally cause a reduction in net benefits. This characteristic of the economic model dictates that increasing restrictions on area of operation will impose costs on the fishing fleet. Gauging the magnitude of the costs and distribution of costs and benefits among segments of the fishery requires quantitative specification of the model.

The analysts estimated a choice model for groundfish fleets in the BS/AI and GOA using individual vessel catch and revenue (weekly reports or fish ticket) data. The resulting cost estimates are specific to circumstances encountered in 1991, as well as numerous assumptions built into the economic model. The SSC finds the model to be a promising extension of existing approaches to economic assessment, and is pleased with its ability to correctly model and measure the impacts of area

restrictions. While the technically complex choice model needs further review and, possibly, more thorough development, the direction of change in economic benefits predicted is correct under the assumptions and the magnitude seems reasonable. If the model were updated to include data of more recent years (years that encompass recently adopted fishery regimes, i.e. onshore-offshore allocation, CVOA, etc) the quantitative estimate of economic loss might be different. But the difference would be of degree, not kind.

Economic Impact Analysis

The EA/RIR contains a brief analysis of potential income impacts of exclusive area registration based upon the Alaska Fisheries Economic Assessment Model. As with all such models, the predicted impacts depend upon a large number of assumptions and estimated parameters (i.e. prices, production yields, distribution of raw fish to product categories, etc.). Unfortunately this particular impact model continues to be poorly documented. The authors of the EA/RIR note that the model is the best information available to the analysts. The SSC finds it to be less than acceptable.

Anomalous results of the analysis detract from our confidence in it. For example, the large economic impact gain associated with shifting "other groundfish" to the onshore sector in GOA (Table 3.26) is not very credible. It is unclear how a net increase of \$34 million can be generated from redistribution of fish. It is likely that this large magnitude of income increase is due to a fallacious assumption that low-valued groundfish offshore can be converted to high-valued groundfish onshore.

Given the poor documentation provided, we cannot determine what exactly accounts for the reported impacts; neither can the analysts doing the work. Hence, we conclude that the current model for economic impact assessment in Alaska's fisheries is not an acceptable scientific tool of analysis.

D-2(a) POLLOCK "B" SEASON DELAY

The SSC reviewed the Draft Environmental Assessment/Regulatory Flexibility Analysis For The Proposed Delay of the Pollock "B" Season In The Bering Sea/Aleutian Islands. The document contains analyses of environmental/biological impacts, net benefits, bycatch impacts and regional/community income impacts.

In September, the SSC noted that the discussions in the environmental and biological impacts sections on bycatch were inconsistent with the results presented in the economic analysis section. The description of the impact of season delays on herring bycatch in the two sections differs. These inconsistencies still exist.

Industry participants were contacted to determine: how pollock yield and market prices might change under various "B" season dates, the extent to which pollock harvesters would prosecute other groundfish fisheries during the summer months, and the interest of groundfish processors in processing salmon during the same period. The information on substitute groundfish fisheries generated by the canvass was used to drive the fishery simulation model used for past bycatch analyses.

After reviewing the results of the simulation runs the authors state that, "...delaying the pollock "B" season has little substantive effect on overall groundfish catch and the bycatch of prohibited species with the exception of herring." Further, it is indicated that, "...although total groundfish tonnages, net revenue, bycatch amounts, bycatch impact costs, and net bycatch costs vary among alternatives,

the magnitude of the predicted changes are small relative to overall catch and bycatch levels and are likely within the precision of the data used to estimate the model."

During the canvass of industry, information was elicited about the intent and ability of groundfish processing operations to process salmon during the summer months should the pollock fishery be closed. The canvass of processors provided only limited information about potential salmon processing by pollock processors in the event of a "B" season delay. The results of the canvass were considered insufficient to project how many pollock processors might process salmon in different areas, what products they might produce, or what prices they might pay. Because of data limitation the authors provided only a qualitative assessment of how the salmon industry would be affected by season delays. These effects are summarized on page 3-21 of the document.

The analysis indicates that net benefits associated with alternative season delays could range from about \$55 million for the September 1 opening to about \$35 million and \$15 million for the August 1 and July 1 openings, respectively. Effects quantified included changes in yields and bycatch impacts. Price response effects, product quality changes and changes in storage costs were not capable of being quantified. The impacts on net benefits due to changes in the salmon industry also were not quantified.

Herring bycatch is predicted to nearly triple under a September 1 opening. It was noted by the authors that any new effort in the Atka mackerel, yellowfin sole, other flatfish and cod summer fisheries could further increase herring bycatch.

The Alaska Fisheries Economic Assessment Model was used to assess the potential income impacts of season delays. As previously indicated, this impact model continues to be poorly documented. Therefore, until it is fully evaluated, cautions should be exercised in the use of results obtained from it.

D-5(b) TRAWL MESH PROPOSAL

The SSC reviewed the Highliners Association proposal to initiate trawl mesh regulations in the pollock fishery, and finds that the proposal has merit. Earlier research has shown, however, that some portion of the young fish that pass through enlarged mesh sizes will not survive, yet some increase in survival will be realized. Research is at present being conducted at the Fisheries Industrial Technology Center on rates of escapement of pollock in the Kodiak region. Anticipating that the results will corroborate the Japanese-Russian findings on pollock escapement, the SSC recommends that Council study ways to implement the mesh-size proposal, including the possibility of an industry organized voluntary compliance. Compliance will likely mean less time spent in deck sorting of small pollock as well as economic gain due to the increased survival of young pollock to marketable sizes.

SSC Recommendations - Bering Sea/Aleutian Islands

Stock	Region	B ₉₃	B _{MSY}	F _{msy}	ABC Strategy	ABC	Overfishing Definition	Y _{of}	Notes
Pollock	EBS	5.9M	6.0M	0.37	F _{msy} = .37	1.34M	F _{msy} = .37	1.34M	Cohort Analysis
	AI	196K	?	0.38	F ₃₅ = .30	68.7K	F ₃₀ = .45	62.6K	
	Bogoslof	655K	?	?	F _{35/4} = .10	42K	F _{35/4}	42K	B/B _{msy} = 1/4
Cod	BSAI	624K	?	?	F ₃₅ = average ^c	164.5K	F _{30%} = average	192K	
Yellowfin sole	BSAI	2.5M	?	?	F ₃₅ = .11	238K	F _{30%} = .12	275K	
Greenland turbot	BSAI	292K	?	?	Bycatch only	7K	F = .04	10.5K	1977-1987
Arrowtooth	BSAI	480K	?	?	F ₃₅ = .18	96K	F _{30%} = .25	96K	
Rock sole	BSAI	1.55M	?	?	F ₃₅ = .14	185K	F ₃₀ = .21	270K	
Other flatfish	BSAI	1.25M	?	?	F ₃₅ = .18	191K	F _{30%} = .22	228K	
Sablefish	EBS	13.4K	?	?	F ₃₅ ^b = .12	1400	F _{30%} = .166	2000	
	AI	23.6K	?	?	F ₃₅ ^b = .12	3000	F _{30%} = .166	3500	
POP complex									
True POP	EBS	59.7K	?	?	F ₃₅ = 0.06	3330	F _{30%} = 0.07	3750	SRA & trawl survey
	AI	260K	?	?	F ₃₅ = 0.06	13900	F _{30%} = 0.07	16800	
NO/SC/RE/SR	EBS	29.7K	?	?	F = M	1400	F = M	1400	
NO/SC	AI	94.5K	?	?	F = M	5670	F = M	5670	
RE/SC	AI	45K	?	?	F = M	1220	F = M	1220	
Other Rockfish	BS	8K	?	?	F = M	400	F = M	400	Surveys
	AI	18.5K	?	?	F = M	925	F = M	925	
Atka Mackerel	BS/AI	1.17M	?	?	F = M/3 = .073	32.1K ^a	F _{30%} = .5	771K	Stairstep ABC
Squid	BS/AI	?	?	?	Ave. Catch	3400	Ave. Catch	3400	
Other species	BS/AI	780K	?	?	Ave. Catch	26,600	Ave. Catch	26,600	

a/ If there is a Plan Amendment to separate eastern and western Aleutian Island - ABC = 117K

b/ Adjusted by Bc/B35

c/ Values for high and low size of maturity averaged

SSC Recommendations - Gulf of Alaska

Stock	Region	B ₉₃	B _{MSY}	F _{msy}	ABC Strategy	ABC	Overfishing Definition	OFL	Notes
Pollock	W/C	1,112,000	?	?	F _{hist} =10%	111,200	F _{30%} =0.297	286,000	SS Model E, G
	E					3,400	F _{30%} =.283	7,880	1990 Trawl survey
Cod	W					18,700			
	C					35,200			
	E					2,800			
	GOA	324,000	?	?	F _{0.1a} =.177	56,700	F _{30%} =.245	78,100	Survey B 84, 87, 90 in SRA Model
Deepwater flat	W					2,020			
	C					35,580			
	E					7,930			
	GOA	227,660	?	?	F _{0.1a} =.20	45,530	F _{30%} =.26	59,650	Survey B 90
Shallow flat	W					27,480			
	C					21,260			
	E					1,740			
	GOA	261,724	?	?	F _{0.1a} =.20	50,480	F _{30%} =.26	70,860	Survey B 90
Flathead	W					12,580			
	C					31,830			
	E					5,040			
	GOA	247,247	?	?	F _{0.1a} =.20	49,450	F _{30%} =.26	64,780	Survey B 90
Arrowtooth	W					38,880			
	C					253,330			
	E					29,080			
	GOA	1,889,922	?	?	F _{0.1a} =.17	321,290	F _{30%} =.24	451,690	Survey B 90
Sablefish	W					2,030			
	C					9,610			
	WYK					3,830			
	SEO					5,430			
	GOA	190,400	?	?	F _{35%} =0.137	20,900**	F _{30%} =0.166	27,750	Constant R Longline, trawl surveys in SRA model

(GOA - continued)

Stock	Region	B ₉₃	B _{MSY}	F _{msy}	Strategy	ABC	Overfishing Definition	OFL	Notes
Slope rockfish: POP	W					1,240			
	C					1,560			
	E					2,760			
	GOA	153,600	?	?	F _{35%} =0.114*	5,560**	F _{30%} =0.148	12,400	
SR/RE	W					100			
	C					1,290			
	E					570			
	GOA	72,960	?	?	F=M (RE=0.025) (SR=0.030)	1,960	F _{30%} (RE)=0.046 F=M(SR)=0.030	2,900	Ave. Survey B 87, 90
Northern Rockfish	W					1,000			
	C					4,720			
	E					40			
	GOA	96,070	?	?	F=M=0.06	5,760	F _{30%} =0.113	10,360	
Other slope	W					330			
	C					1,640	(Sharpchin)=		
	E					6,330	F _{30%} and F=M		
	GOA	134,400	?	?	F=M	8,300	(other species)	9,850	Ave. Survey B 87, 90
Pelagic shelf rockfish	W					1,010			
	C					4,450			
	E					1,280			
	GOA	74,900	?	?	F=M=0.09	6,740	F _{30%} = 0.151	11,300	Includes black rockfish. Ave. Survey B 84, 87, 90
Black rockfish		unknown			TAC=570 mt		1991 catch	570	
Demersal shelf rockfish	GOA	40,050	?	?	F=M=0.02	800	F _{30%} = 0.04	1,600	Lower 90% CI submersible Survey B
Thornyhead	GOA	26,210	?	?	F _{35%} = 0.045	1,180	F _{30%} =0.055	1,441	Survey B 90

*Fully recruited age groups.

**Adjusted by Bc/B_{35%}.

North Pacific Fishery Management Council

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ADVISORY PANEL MINUTES DECEMBER 7-10, 1992 ANCHORAGE, ALASKA

Approved by _____
Date _____

The Advisory Panel for the North Pacific Fishery Management Council met on December 7-10, 1992, at the Anchorage Hilton Hotel. Members in attendance were:

John Bruce	Kevin Kaldestad	John Roos
Alvin Burch	David Little	John Sevier
Gary Cadd	Pete Maloney	Michael Stevens
Phil Chitwood	Dean Paddock	Beth Stewart
Dan Falvey	Penny Pagels	John Woodruff, Chair
Dave Fraser, Vice Chair	Bryon Pfundt	Robert Wurm
Spike Jones	Perfenia Pletnikoff	

Approval of minutes for the August and September 1992 meetings were approved.

B-5 MARINE MAMMAL REPORT

The AP heard a NMFS report on killer whales and harbor seals. It asks the Council to;

1. ask NMFS to work with industry to set up meaningful observation procedures for killer whales where industry could help monitor the abundance and general health of these animals,
2. ask ADF&G to submit a report on its studies on the status of harbor seals,
3. continue to push for research on all marine mammals and sea birds.

Further, the AP would like to see the final reports on killer whale and harbor seal abundance surveys when they are available, and the AP reiterates its concerns related to declining marine mammal populations and possible relationship between these declines and ecosystem health.

C-1 OBSERVER PROGRAM

The AP heard staff reports on the Research Plan and Environmental Assessment/Regulatory Impact Review for proposed regulatory amendments to the current Observer Plan. It also received limited public comment.

In its discussions about regulatory amendment changes, the AP is aware that the Research Plan should be approved by mid-1993 and in effect by 1994. At that point, many of the problems with the current plan should be eliminated. The AP struggled to enact major changes to the current Observer Plan in light of this. In regards to the proposed regulatory amendment package, the AP has the following recommendations to the Council:

1. Under lowering the limit length for the 100% observer coverage requirement, the AP recommends the Council adopt alternative 1; status quo. This motion passed 12-7. The AP believes the number of vessels in question is small, that too much of the data being gathered now is not being used and that it doesn't make sense to add cost to an already struggling industry.
{Minority Report to follow}
2. Under lowering the length for the 30% observer coverage requirement, the AP recommend adoption of alternative 5, establishing a pilot program for all gear types. This motion passed 13-5.

The AP believes this group of boats (57-59') accounts for a very small percentage of the total quota, that boats under 60' will begin to pay into a plan as soon as the Research Plan is approved and that a pilot program for 57-59' boats supported by industry to lower applied bycatch rates will be more effective than the blanket requirement of 30% coverage.

3. Under defining fishery days, the AP unanimously recommends adoption of alternative 2 with the caveat that the final rule as written should not micro-manage in terms of the exact measure of "actual" fishery. The AP thinks this reduces significantly the room to manipulate "fishing" days and will help clean this area up as long as the measure of "actual" fishing isn't too minutely defined.
4. Under changing the quarterly requirement on 30% observed vessels, the AP recommends the Council adopt alternative 1, status quo, with the stipulation that the Regional Director should use hot spot authority for fisheries predetermined to need coverage. These should include requiring some observer coverage on some of the southeast outside longline vessels as well as some of the deepwater flatfish trawlers and Pacific cod/bottom pollock trawlers. This motion passed 15-3. The AP struggled with several of the other alternatives but failed to see how they would work effectively in terms of getting NMFS the information it needs and in terms of requiring vessels to take observers in all fisheries without adding cost and overtaxing the observer system. The AP clearly sees that the Research Plan, when enacted, will take care of that problem by simply assigning what fisheries have observers and removing the discretionary options the vessels now have.
5. Under levels of coverage for pot vessels, the AP recommends the Council adopt alternative 3. This motion passed 15-3. The AP sees no difference in vessel size in terms of coverage in this type of gear since the gear is the same regardless of the vessel length and hauled one pot at a time.
6. Under conflict of interest, the AP unanimously yields these specific decisions to the Council, NMFS, and NOAA-GC. The AP thinks these are steps in the right direction but we had no public testimony on this or opportunity to engage in discussions with industry experts.
7. Under requiring two observers, the AP recommends the Council adopt alternative 3 with the language "up to 2" observers rather than "multiple" and with the recommendation that NMFS differentiate catcher vessels delivering to motherships by PIN number for publication on the bycatch BBS. This motion passed 11-7. The AP believes there are situations where more than one observer is needed but that the Regional Director is the one to determine these based on data and bycatch needs. The AP thinks the Regional Director, if he uses his authority, could do a much better job of identifying these situations than a predefined situations through regulation.

MINORITY REPORT

C-1 (1)

We, the undersigned members of the AP, support alternative 2 in the EA/RIR/IRFA for a regulatory amendment which would reduce the lower vessel length limit for the 100% observer coverage requirement from 125' to 115' LOA. In our view this expanded coverage would fill in the gap for observer data that are needed to obtain accurate information for approximately 9.3% of groundfish that is caught by these vessels but currently not included in weekly in-season management. In order that accurate data are collected, we advise the Council to lower the vessel length to include this coverage. This will provide for more sampling to improve statistical reliability of this data which affects all vessels participating in these fisheries. By including these 33 vessels, coverage on this largely shoreside component of the fleet will be more accurately represented.

Signed: D. Falvey
 D. Fraser
 P. Pagels
 M. Stevens
 J. Woodruff

C-2 COMMUNITY DEVELOPMENT QUOTAS

The AP heard a brief staff report on the status of CDQs. It recommends the Council split 1993 CDQs identical to the open fishing for A and B seasons. It also recommends the A season apportionment of CDQ pollock be made outside of the open fishing A season (so that there is no reduction in the A season amount in the open fishery).

(This motion passed 10-5)

D-1(a) MORTALITY RATES FOR HALIBUT

The AP recommends the Council use the following rates:

Trawl fleet Use the numbers as recently recommended by IPHC/NMFS. (These are from the 1991 data points).

Longline fleet Use an average of the numbers recommended by IPHC/NMFS and those used last year.

The AP also recommends that careful release techniques be encouraged so these rates can be reduced.

(This motion passed 15-2)

In making this motion, the AP believes that while this is the best information available there are recent changes in the longline fleet to produce better results. (Such as gangion cutting, careful release, etc.). These were not used in 1991 but were in 1992. The AP believes the 1992 data and the 1993 observation of mortality will be much lower than the 1991 data. We think because of this, it's not inconsistent to apply the data points differently.

D-1(d) GOA 1993 GROUND FISH SPECS

The AP heard Staff, ADF&G, and NMFS reports on the GOA SAFE document. It recommends the attached table of TAC's for 1993.

(This motion passed 16-1)

As rational on each species:

Pollock

The exploitation rate is the same as the past few years on a stock that hasn't shown dramatic sign of improvement. It's a rate that's on the conservative side of the ABC's suggested by the SSC and Plan Team and a rate that's worked in the recent past. Also, the fishery is now predominately 1988 year class and their fish should be around for the next several years.

Pacific cod

AP accepts PT/SSC recommendation and sets TAC = ABC since OFL is well above ABC. It's very clear that the industry will harvest all the TAC

Deepwater flats

AP recommends the TAC the same as 1992; allows for expansion of fishery, is very conservative, well under ABC, halibut bycatch may constrain anyway.

Flathead sole

AP recommends the TAC the same as 1992, allows for expansion of fishery, is very conservative, well under ABC, halibut bycatch may constrain anyway.

Arrowtooth

AP recommends this TAC because it allows for expansion of fishery, is very conservative, well under ABC, halibut bycatch may constrain anyway, and it allows for the requested industry expansion in the central Gulf.

Shallow flats

AP recommends this TAC because it allows for expansion of fishery, is very conservative, well under ABC, halibut bycatch may constrain anyway, and it allows for the requested industry expansion in the central Gulf.

Sablefish

Same rationale as Pacific cod. Further, NMFS has done well in keeping the total Gulf TAC in line.

Pacific ocean perch

AP supports the SSC and Plan Team's recommendation. The AP debated this issue extensively and is fairly divided. However, this species will be bycatch only until third quarter at which time NMFS can decide about a directed fishery.

Slope rockfish

The AP thinks TAC should be 90% of ABC, because a buffer is needed since the catch in 1992 exceeded in some areas of the Gulf.

Pelagic shelf

TAC can be equal to ABC since it's well below OFL and catch in 1992 is well under TAC in all areas.

Black rockfish

This specie should be put back into Pelagic shelf complex and ADF&G use emergency order authority to close problem areas.

There is no biomass data on black rockfish, only catch information and that's by no means credible. The reason to break this species out was to address certain problem spots and this can be done with emergency rule. Until biomass data is available, it's impossible to get a TAC.

Demersal shelf rockfish

Leave at ABC; its been well managed even at very low TAC levels.

Thornyheads

TAC should be set at 90% and for bycatch only, since the entire TAC is likely to be needed.

Additional Recommendations:

1. Halibut PSC apportionments.

Trawl gear 600 mt - 1st quarter
 400 mt - 2nd quarter
 600 mt - 3rd quarter
 400 mt - 4th quarter

Longline gear 200 - January 1 - July 14
 500 - May 15 - August 31
 50 - September 1 -

2. Rockfish management

- (a) AP recommends the Council initiate a regulatory amendment to redefine/re-evaluate directed fishing standards to reflect true unavoidable bycatch of rockfish and prevent topping off.
- (b) AP recommends the Council initiate a regulatory amendment to require unobserved vessels to retain all rockfish. Adequate enforcement guidelines to maintain the directed fishing standards. should be analyzed as well.

D-1 (e,f) BSAI 1993 GROUND FISH SPECS

The AP heard NMFS report on the SAFE document. It recommends to the Council by a 17-1 vote, the attached table of TACs.

The rationale for these TACs is as follows:

Pollock

(EBS) This represents a compromise amongst AP members, since some wanted a TAC at ABC, 1,340,000 m/t while others wanted it at 1,100,000. This TAC is sufficiently under the OFL. Some AP members also note that the amount of pollock in reserve is no longer 15% but 7 1/2% so this lower TAC relative to the ABC should provide added buffer for NMFS.

(AD) The TAC is the same as 1992. It is also well under the OFL.

(518) The TAC is set for bycatch purposes only. This is the same action taken as 1992.

Pacific cod

This TAC was hotly debated by the AP and represents a compromise. There was a lot of confusion and doubt about various models and potential ABCs, which ranged from 130,000 to 190,000 m/t.

Yellowfin sole

This TAC is well under OFL and the yellowfin sole fishery could be much more popular with pollock "B" season changes.

Greenland turbot

This resource still appears to be in tough shape; this TAC allows for bycatch amounts and is well under OFL.

Arrowtooth

This TAC is about equal to 1992 catch and should be adequate for bycatch. AP members don't see any targeting on this specie in the Bering Sea.

Rock sole

TAC is about equal to 1992 catch including discards. AP members think at least this amount will be needed for bycatch needs, and some directed catch needs.

Other flats

Sablefish

TACs are equal to ABC but well under OFL. These fish should be able to be retained if caught up to the ABC. 1992 catches are well under these TACs.

Pacific ocean perch, Other rockfish

These TACs are set based on 1992 catch, expected bycatch needs and the OFL. Furthermore, in most cases, the fisheries in which these species are caught are 100% observed.

Atka Mackerel

The AP recommends a TAC of only 32,000 m/t if there is no geographical split of area. We are concerned about localized over fishing. If a geographical split is enacted, the AP thinks it should be at 177°W and the TAC can then be 117,100 m/t.

Further to our recommended TACs in the BSAI, the AP makes these additional recommendations to the Council.

1. Pollock Seasons: The AP recommends the pollock quota be split 40% of the ITAC to the "A" season and 60% to the "B" season. (This motion passed 12-4). This is a compromise among AP members but seems to be the best trade-off in terms of the issues involved; such as fishing on a spawning stock, economic values, inshore/offshore and CVOA, donut hole fishing, etc..
2. Trawl fleet halibut and crab PSC apportionments: The AP recommends the attached table of PSC apportionments for the trawl fleet for crab and halibut. (This motion passed 8-2). These apportionments represent the trawl industry position in their December 4th letter to the Council. The AP amended the Pacific cod fishery halibut PSC downward to 950 m/t and the additional 242 tons is redistributed proportionally into all the other fisheries. Those favoring this amendment cited minimizing the allocative effects of a higher PSC amount on other gear groups.
3. Longline PSC apportionments: The AP recommends those in the attached table. Further, the PSC should be apportioned only by fishery and not be seasons. Pot gear should continue to be exempt. (This motion passed 11-1).

These apportionments allow for fisheries other than Pacific cod to continue if the Pacific cod fishery is closed. The longline industry wants the entire Pacific cod PSC at the beginning of the year because they expect the fishery to be over by summer.

4. Herring PSC apportionments: The AP **unanimously** recommends those in the attached table. These are based on ADF&G's projected 1993 biomass and apportioned to different fisheries in the same percentages as in 1992.
5. The AP **unanimously** recommends the Council not apportion pollock between midwater and bottom trawling. The PSC caps end up apportioning anyway and unless the definition of midwater trawling is applicable in practice, the apportionment doesn't do much.
6. VIP rates: The AP recommends the attached table for the first half of 1993. Further, it requests that NMFS publish 1991 and 1992 performances on a vessel-by-vessel basis. (This motion passed 16-1).

TABLE 1. GULF OF ALASKA GROUND FISH
1993 Plan Team, SSC, and AP recommendations and apportionments (metric tons)

Species	Area	1992			Plan Team 1993 ABC	SSC 1993 ABC	Advisory Panel 1993 TAC
		ABC	TAC	Catch*			
Pollock	W (61) }		19,320	18,127	44,050	111,000 ***	24,087
	C (62) }	96,000	18,480	15,518	47,500	or 157,000 **	25,974
	C (63) }		46,200	49,506	111,450	and	60,939
	E	3,400	3,400	66	3,400	3,400	3,400
	Total	99,400	87,400	83,217	206,400	160,400	114,400
Pacific Cod	W	23,500	23,500	34,399	18,700	18,700	18,700
	C	39,000	39,000	38,940	35,200	35,200	35,200
	E	1,000	1,000	1,087	2,800	2,800	2,800
	Total	63,500	63,500	74,426	56,700	56,700	56,700
Flatfish, Deep	W	1,740	1,740	125	2,020	2,020	1,740
	C	33,550	15,000	7,563	35,580	35,580	15,000
	E	3,990	3,000	73	7,930	7,930	3,000
	Total	39,280	19,740	7,761	45,530	45,530	19,740
Flathead sole	W	12,580	2000	295	12,580	12,580	2000
	C	31,990	5,000	1,731	31,830	31,830	5,000
	E	3,710	3,000	8	5,040	5,040	3,000
	Total	48,280	10,000	2,034	49,450	49,450	10,000
Flatfish, Shallow	W	27,480	3,000	1,644	27,480	27,480	4,500
	C	21,260	7,000	5,518	21,260	21,260	10,000
	E	1,740	1,740	2	1,740	1,740	1,740
	Total	50,480	11,740	7,164	50,480	50,480	16,240
Arrowtooth	W	38,880	5,000	943	38,880	38,880	5,000
	C	253,320	15,000	13,057	253,330	253,330	20,000
	E	11,680	5,000	967	29,080	29,080	5,000
	Total	303,880	25,000	14,967	321,290	321,290	30,000
Sablefish	W	2,500	2,500	2,110	2,030	2,030	2,030
	C	9,570	9,570	9,580	9,610	9,610	9,610
	W. Yakutat	3,740	3,740	4,122	3,830	3,830	3,830
	E. Yak./SEO	4,990	4,990	4,707	5,430	5,430	5,430
	Total	20,800	20,800	20,519	20,900	20,900	20,900
Pacific Ocean	W	1,620	1,470	1,249	1,240	1,240	1,240
Perch	C	1,720	1,561	2,470	1,560	1,560	1,560
	E	2,390	2,169	2,261	2,760	2,760	2,760
	Total	5,730	5,200	5,980	5,560	5,560	5,560
	Shortraker / Rougheye	W	100	100	98	100	100
	C	1,290	1,290	1,374	1,290	1,290	1,161
	E	570	570	676	570	570	513
	Total	1,960	1,960	2,148	1,960	1,960	1,764 bycatch only
	Rockfish (Other Slope)	W	1,390	1,390	1,167	330	330
C		6,510	6,510	7,185	1,640	1,640	1,476
E		6,160	6,160	783	6,330	6,330	5,697
Total		14,060	14,060	9,135	8,300	8,300	7,470
Northern Rockfish	W		included in		1,000	1,000	1,000
	C		slope rockfish		4,720	4,720	4,720
	E				40	40	40
	Total				5,760	5,760	5,760
Rockfish (Pelagic Shelf)	W	1,212	1,212	73	1,010	1,010	1,010
	C	4,393	4,393	2,368	4,450	4,450	4,450
	E	1,281	1,281	976	1,280	1,280	1,280
	Total	6,886	6,886	3,417	6,740	6,740	6,740
Black Rockfish	W		included in		50	TAC 50	voted to
	C		pelagic rockfish		320	TAC 320	include with
	E				200	TAC 200	Pelagic Shelf
	Total				570	570	Rockfish
Rockfish (Demersal Shelf)	S.E. Out.	550	550	525	800	800	800
Thornyhead	Gulfwide	1,798	1,798	1,659	1,180	1,180	1,062 bycatch only
Other Species	Gulfwide	0	20,432	16,354	0	0	0
GULF OF ALASKA TOTAL		656,604	289,066	249,306	781,620	735,620	297,136

* Catch through November 8, 1992

** Pollock ABC

***Ecosystem ABC

BERING SEA/ALEUTIAN ISLANDS GROUND FISH WORKSHEET

1993 Plan Team, SSC and AP Recommendations and Apportionments (mt)

Species	Area	Seasons	Council	Plan Team	SSC	Seasonal	Advisory Panel	
			ABC 1992	ABC 1993	ABC 1993	Allowance	TAC	ITAC
Pollock	EBS		1,490,000	1,340,000	1,340,000		1,200,000	1,020,000
		Roe						0
		Non-Roe						0
	AI		51,600	58,700	58,700		51,600	43,860
	518		25,000	169,000	42,000		1,000	850
								0
Pacific cod	BS/AI		182,000	127,000	164,500		154,000	130,900
								0
Yellowfin sole	BS/AI		372,000	238,000	238,000		235,000	199,750
								0
Greenland turbot	BS/AI		7,000	7,000	7,000		7,000	5,950
								0
Arrowtooth flounder	BS/AI		82,300	72,000	72,000		10,000	8,500
								0
Rock sole	BS/AI		260,800	185,000	185,000		75,000	63,750
								0
Other flatfish	BS/AI		199,600	191,000	191,000		79,000	67,150
								0
Sablefish	EBS		1,400	1,500	1,500		1,500	1,275
	AI		3,000	2,600	2,600		2,600	2,210
								0
POP complex								0
True POP	EBS		3,540	3,330	3,330		3,330	2,831
Other POP complex	EBS		1,400	1,400	1,400		1,200	1,020
True POP	AI		11,700	13,900	13,900		13,900	11,815
Sharp/Northern	AI		5,670	5,670	5,670		5,100	4,335
Short/Rougheye	AI		1,220	1,220	1,220		1,100	935
								0
Other rockfish	EBS		400	400	400		360	306
	AI		925	925	925		830	706
								0
Atka mackerel	BS/AI		43,000	351,000	117,100		117,100	99,535
								0
Squid	BS/AI		3,600	3,400	3,400		2,000	1,700
								0
Other species	BS/AI		27,200	26,600	26,600		26,600	22,610
								0
BS/AI TOTAL			2,773,355	2,799,645	2,476,245		1,988,220	1,689,987

* If AL District is Split per Plan Team's Request. If no split, then Atka Mackerel TAC = 32,000 mt.

D-2(a) POLLOCK "B" SEASON DELAY

The AP heard staff and industry reports on managing the pollock "B" season and the EA/RIR. It also heard brief public testimony.

The AP recommends the Council set the start of the pollock "B" season to August 15th. This motion passed 13-4). Most AP members felt this date best accounted for and balanced all the factors and needs involved.

1. Product quality
2. Weather/safety
3. Bycatch
4. Marine mammals
5. Salmon processing opportunities

D-2(b) GANGION-CUTTING/CAREFUL RELEASE

The AP unanimously recommends the Council adopt alternative 3 for all non-retainable halibut on all hook and line vessels in the GOA/BSAI.

D-3(a) PRIBILOF ISLAND TRAWL CLOSURE

The AP heard a staff report on the Pribilof Island trawl closure EA/RIR. However, the AP had several questions especially relating to crab stocks in general and blue king crab in particular that could not be answered. The AP hopes one of the crab biologists can be available when this issue comes back.

The AP unanimously recommends the Council send the EA/RIR back to the preparers for more development in several areas;

1. the proposed closure area should relate more to the expressed problem blue king crab,
2. the document should have the cost-benefit analysis related to just the affected closed areas and not the entire Bering Sea,
3. more information on seabirds and marine mammals; this document hardly recognized them,
4. CPVE data (as well as survey data) should be used in establishing closure areas,
5. the effect of fisheries other than trawling on blue king crab,
6. data on pollock size if available from the proposed closure area versus outside it.

D-3(b) EXCLUSIVE REGISTRATION

The AP recommends the Council establish an exclusive registration program for pollock trawl vessels for GOA areas 62 and 63 (147°W - 159°W). (This motion passed 10-7).

Those voting in favor of this motion think this will prevent the possibility of severe overfishing of pollock in these areas as well as help coastal communities. There was also a question about factory vessels being able to participate in the Gulf pollock fishery by turning in their federal permits; this action would close that loophole.

D-3(c) INSHORE/OFFSHORE, CDQ BYCATCH

The AP unanimously recommends the Council apportion caps to CDQ fisheries based on their proportion of the pollock quota.

The AP wants the CDQ fisheries with separate quotas but thinks all other fishing should work out of the same pool.

As an additional unanimous recommendation, the AP recommends the Council adopt option 3 under alternative 3 to eliminate the primary halibut PSC caps that closes zones 1 and 2H. AP members think that as long as the overall cap is in place, it makes sense for the trawl fleet to fish where CPVEs are highest and bycatch rates are lowest, and that the closure zones may have lead to higher bycatch and lower CPVEs.

D-5(b) EXPERIMENTAL FISHING PERMITS

The AP recommends the Council support AFDF's experimental fishery proposal for arrowtooth flounder. (This motion passed 14-2). AP members think this project could help provide breakthroughs in produce development that may allow the industry to utilize this resource.

The AP recommends the Council hear the Terra Marine proposal at this meeting. (This motion passed 11-4)

D-5(c) TRAWL MESH REGULATIONS

The AP unanimously supports the study of trawl mesh regulations and development of a regulatory amendment for better, cleaner gear. There is an urgent need for improvements in gear technology.