AGENDA D-2(b)
DECEMBER 1987

MEMORANDUM

TO: Council, SSC, and AP Members

FROM: Jim H. Branson
Executive Director

DATE: December 1, 1987

SUBJECT: Gulf of Alaska Groundfish Fishery Management Plan

ACTION REQUIRED

A. Review 1987 status of stocks and adjust 1988 ABCs where necessary.
B. Set Initial 1988 TACs for discussion purposes.
C. Review 1988 DAP and JVP estimates.
D. Identify groundfish species categories where DAP and/or JVP estimates exceed ABC.

BACKGROUND

A. Review 1987 status of stocks and adjust 1988 ABCs.

You received a report on the status of the Gulf of Alaska groundfish resource at the September Council meeting. Subsequently the plan team met on November 16-20, 1987 to review the earlier assessment following receipt of INPFC documents and results from the 1987 Triennial Survey. A final Resource Assessment Document (RAD) for the Gulf of Alaska was prepared and mailed to you on November 25. The ABC for pollock has been reduced from the September 200,000 mt estimate to 90,000-120,000 mt in the Western and Central areas as a result of further recruitment analysis. Pacific cod appears to be in good condition with ABC ranging from 99,000-185,000 mt. Flounder ABC was increased to 767,000 mt as a result of new biomass information. Sablefish ABC was increased to 35,000 mt since the team considers the current biomass to be at a level above the biomass which will produce MSY. Using the rockfish assemblage management approach, the team recommends a Gulfwide ABC of 16,800 mt for the slope and demersal shelf rockfish other than in the Southeast Outside District. In the Southeast Outside District a 660 mt ABC is recommended for the demersal shelf assemblage. The team also recommends a Gulfwide ABC of 3,400 mt for the pelagic shelf assemblage. A summary of the final RAD is provided as item D-2(b)(1).

B. Set initial 1988 TACs.

After reviewing 1988 ABCs the Council must set an initial total allowable catch (TAC) for each managed groundfish species or species category in the Gulf of Alaska. A computer spreadsheet and the enclosed worksheet [item D-2(b)(2)] are provided for your use. Initial TACs are necessary as a first step in determining resource apportionments.

On October 5, 1987 the Council released preliminary ABC and TAC estimates for a 30-day public review. The review period ended on November 6. Copies of the public comments received were sent to you prior to this meeting. A summary of those public comments is included in your notebooks as item D-2(b)(3).

C. Review 1988 DAP and JVP estimates.

At the September 1987 meeting you adopted the 1987 figures (adopted in 1986) as preliminary estimates for 1988 DAP and JVP apportionments. These estimates are included here as item D-2(b)(4). Since then NMFS has completed its annual industry survey and the new estimates are provided under item C-9. Estimates of DAP were obtained from a questionnaire supplied to U.S. processors. JVP estimates were calculated following a review of actual joint venture permit requests and are provided under item C-10.

D. Identify groundfish species where DAP and/or JVP estimates equal or exceed ABCs.

The Council needs to determine initial DAP and JVP estimates before you can proceed through the rest of the checklist. The DAP and JVP estimates will be finalized at the end of the meeting. A computer spreadsheet is available as an aid in determining TAC apportionments. From the review of industry survey results it should be clear as to what groundfish resources are insufficient to fulfill domestic, joint venture, and foreign requests. Gulf of Alaska groundfish species in this category will certainly include pollock, rockfish and sablefish. Other species may fall into this category as a result of your decisions on TAC, DAP, and JVP values.

A SUMMARY OF STATUS OF STOCKS AND DETERMINATION OF 1988 ABCs

The following is a summary of the condition of each target groundfish species or species group in the Gulf of Alaska. Detailed discussion is provided in individual species sections:

Pollock - The 1986 biomass of 496,300 mt was projected to reach 687,100 mt in 1987 and 866,600-1,033,000 mt depending on the various recruitment and catch levels. The predicted increases in biomass are primarily due to the strong 1984 year class. The team has identified a 1988 catch range of 90,000-120,000 mt as the best estimate of 1988 ABC for the combined Western and Central Areas. Catches in this range would allow the biomass to increase into 1989 for three of the four recruitment scenarios, and would keep the biomass stable for the most pessimistic recruitment scenario. A preliminary ABC of 3,375 mt is estimated for the Eastern Area.

Pacific cod - The Pacific cod stock appears to be in good condition based on biomass estimates from the NMFS 1987 trawl survey. The current estimate of biomass in the Gulf of Alaska is 481,700 mt. Estimates of permissable yield from the stock range from 99,000-185,000 mt. Recent catches of Pacific cod have been well below this range. The PT set the 1988 Gulfwide ABC at 99,000-185,000 mt, and recommends that this be apportioned in proportion to the distribution of biomass determined from the 1987 trawl survey.

Flounders - The flounder group is in good condition. Probable yield from this group was estimated by applying the exploitation rate at the $F_{0.1}$ level to the 1987 biomass estimate, resulting in a yield of 767,700 mt. Gulfwide flounder catches have been well below this estimate of yield. The PT recommends an ABC of 767,700 mt apportioned to the individual management areas as follows: 142,650 mt to the Western Area; 538,280 mt to the Central Area; and 86,770 mt to the Eastern Area.

Sablefish - Sablefish are in good condition because of good recruitment from the 1977 and the 1980 or 1981 year classes. The sablefish biomass is considered to be above that which will produce MSY. The team has identified 35,000 mt as the 1988 ABC. This catch, if applied for three years under pessimistic recruitment and biomass assumptions would allow the population to remain above the 1977 estimated level, which was capable of producing a strong year class. The team recommends that the apportionment of the TAC not vary drastically from the distribution of biomass found during the 1987 longline survey.

Rockfish - Utilizing the rockfish assemblage management approach presented in Amendments 14-16, the PT recommends a Gulfwide ABC of 16,800 mt for the slope assemblage and for demersal shelf rockfish other than in the Southeast Outside District. The team recommends a Gulfwide ABC of 3,400 mt for pelagic shelf assemblage. There is currently no directed fishery for pelagic shelf rockfish. However, because this rockfish category comprise a significant proportion of the total rockfish biomass, the team considers it appropriate to separate this category for management purposes. A recommendation to apportion these ABC levels by Regulatory Area is also included.

Demersal shelf rockfish - There are no biomass or yield estimates for the demersal assemblage of the shelf rockfish and therefore an ABC cannot be determined. The demersal shelf rockfish are the target of a longline fishery in the Southeastern Area. The ADF&G information on the shelf demersal assemblage suggests that the population is declining. The PT set the ABC for the Southeast Outside District at 660 mt.

Thornyhead rockfish - Longline survey indices and mean lengths in trawl surveys have shown recent declines. Estimates of potential yield range from 3,280-4,650 mt. The PT recommends that the ABC remain at 3,750 mt.

Other species - No recommendations were made by the PT for this group. FMP procedures define the reasonable quota for this category to be set at 5% of the sum of the TACs established for the other species categories.

Table 1.--Gulf of Alaska groundfish target quota (TQ) and 1987 catch statistics for domestic annual processing (DAP) and joint venture processing (JVP), reported and compiled through November 12, 1987. All figures are in metric tons.

Species	Area	1987 TQ	DAP Catches	JVP Catches	Total Catches
Pollock	W/C	84,000	19,541	22,822	42,363
	Out. Shel.	20,000	0[a/]	0	0[a/]
	E	4,000	110	0	110
	(Total)	108,000	19,651	22,822	42,473
Pacific cod	W	15,000	1,217	520	1,737
	C	33,000	21,210	1,363	22,573
	E	2,000	226	0	226
	(Total)	50,000	22,653	1,883	24,536
Flounders	W	3,000	169	2,077	2,246
	C	10,000	1,347	4,835	6,182
	E	500	238	0	238
	(Total)	13,500	1,754	6,912	8,666
Pacific ocean perch	W	1,500	1,342	103[b/]	1,445
	C	1,500	1,423	4[b/]	1,427
	E	2,000	1,587	0[b/]	1,587
	(Total)	5,000	4,352	107[b/]	4,459
Sablefish	W	3,000	3,360	166[b/]	3,520
	C	8,800	10,800	14[b/]	10,814
	W.Yak	4,000	3,608	0[b/]	3,608
	E.Yak/S.E.	4,200	4,827	0[b/]	4,827
	(Total)	20,000	22,595	180[b/]	22,775
Atka Mackerel[c/]	W	100	0	1	1
	C	100	0	0	0
	E	40	0	0	0
	(Total)	240	0	1	1
Other Rockfish	Gulfwide	4,000	5,032	28[b/]	5,060
Domersal Shelf Rockfish	S.E.O.	1,250	625	0[b/]	625
Thornyheads	Gulfwide	3,750	1,867	16	1,883
Squid[c/]	Gulfwide	5,000	0	4	4
Other Species	Gulfwide	10,537	37	182	219
GULF OF ALASKA TOTAL		221,277	78,566	32,135	110,701

a/ Not available.
b/ Prohibited species in JV fisheries.
c/ Will be combined with "other species" in 1988.

Table 2.--Gulf of Alaska Stock Assessment Summary. All figures are in metric tons.

Species	Maximum Sustainable Yield	Biomass & Stock* Condition, Trend	ABC	TAC
Pollock	116,000-334,000	687,000 (3+ age) fair, biomass increasing	W/C 90,000-120,000 E 3,375	
Pacific cod	125,000	481,700 (total biomass) good, stable	W 19k-35k C 73k-137k E 7k-13k Total 99k-185k	
Flounders	477,900	2,110,800 (total biomass) good, stable	W 142,650 C 538,280 E 86,770 Total 767,700	
Sablefish	15,300-41,000	520,000 (biomass in 200-1000 m) good, stable	35,000	
"Other rockfish"	NA	818,400 (total biomass) depressed, unknown	W 4,850 C 7,100 E 4,850 Total 16,800	
Pelagic shelf rockfish	NA	169,700 depressed, declining	W 550 C 2,350 E 500 Total 3,400	
Demersal shelf rockfish (S.E.O.)	Unknown	unknown depressed,	NA	660 State of Alaska recommendation
Thornyheads	3,280-4,650	99,000 (total biomass) fair, declining	3,750	
Other species**	NA	NA	NA	

*Biomasses are estimated from the NMFS 1987 trawl survey data, except for sablefish where NMFS 1984 trawl survey data were used.

**Includes Atka mackerel and squid, which were separate target species in 1987.

GULF OF ALASKA PUBLIC COMMENT SUMMARY

Comments Received on Initial 1988 ABCs and Proposed TACs

1. American High Seas Fisheries Assn., Seattle - recommends that 1988 pollock TAC in the Western and Central areas be set equal to ABC. Citing the RAD, AHSFA notes that even at this harvest level, the pollock stocks will continue to grow in the coming years. They also suggest that the Council closely scrutinize the results of the NMFS DAP survey and attempt to minimize the overestimation that has occurred in the past.

2. Japan Fisheries Agency - recommends that the 1988 TACs be set equal to ABC. The JFA notes that the 1987 TACs were intentionally set low despite biological data indicating resources to be abundant. They believe that this action is unreasonable from the aspect of efficient utilization of fishery resources. They recommend that 1988 DAP and JVP apportionments be set at realistic levels with available surplus allocated to TALFF.

3. Kodiak Longliners' Assn., Kodiak - recommends abandoning the 20,000 mt exploratory "Outside Shelikof" pollock TAC. KLA notes that the east side of Kodiak Island is being extensively fished year-round by domestic fishermen and there is no evidence that this level of harvest is attainable. The association recommends that the 1988 pollock TAC in the Western and Central areas be set at 116,000 mt given the uncertainty in year class strength. They also recommend setting the Pacific cod and flounder TACs at 1987 levels since these quotas are not constraining and there is concern over increased bycatch should the TACs be increased. The KLA also recommends leaving the rockfish TAC at past levels until reliable stock assessments are available, and that the sablefish TAC be set below the ABC to provide a cushion for quota overages and unreported fishing mortalities.

TABLE 1

GULF OF ALASKA GROUNDFISH - PRELIMINARY 1988 RECOMMENDATIONS FOR ABC, TAC, DAP, JVP, TALFF, and HALIBUT PSC, and 1987 CATCH-TO-DATE (all in mt).

		1987		COUNCIL RECOMMENDATIONS FOR 1988 1/						CATCH-TO-DATE, 1987	
Species	Area	ABC	TAC	ABC	TAC	RESERVE 2/	DAP	JVP	TALFF	DAP 3/	JVP 4/
Pollock	W/C	95,000	84,000	200,000	84,000	0	67,200	16,800	0	10,750	23
(1/15-4/10)	Out.Shel.		4,000	N/A	20,000	0	0	20,000	0		
	E	17,000	20,000	N/A	4,000	0	4,000	0	0	110	0
	Total	112,000	108,000	200,000	108,000	0	71,200	36,800	0	10,860	23
Pacific Cod	W	38,000	15,000	29,700-55,860	15,000	0	14,700	300	0	1,041	0
	C	77,000	33,000	61,600-115,865	33,000	0	31,900	1,100	0	14,713	61
	E	10,000	2,000	18,700-35,175	2,000	0	2,000	0	0	18	0
	Total	125,000	50,000	110,000-206,900	50,000	0	48,600	1,400	0	15,772	61
Flounders	W	101,000	3,000	101,000	3,000	0	2,550	450	0	113	0
	C	346,000	5,500	346,000	10,000	0	4,000	6,000	0	996	702
	E	90,000	500	90,000	500	0	500	0	0	40	0
	Total	537,000	9,000	537,000	13,500	0	7,050	6,450	0	1,149	702
Sablefish	W	3,750	3,000	3,750	3,000	0	3,000	0	0	3,420	0
	C	11,000	8,800	11,000	8,800	0	8,800	0	0	10,595	7
	W. Yakutat	5,000	4,000	5,000	4,000	0	4,000	0	0	3,198	0
	E. Yak./ S.E.Out.	5,250	4,200	5,250	4,200	0	4,200	0	0	3,264	0
	Total	25,000	20,000	25,000	20,000		20,000	0	0	20,477	7
Rockfish(P.O.P.) 5/	W	2,800	1,500	2,520	2,160	0	2,160	0	0	1,322	0
	C	3,300	1,500	3,465	2,970	0	2,970	0	0	1,314	1
	E	4,400	2,000	4,515	3,870	0	3,870	0	0	377	0
Rockfish(other) 5/	GW	N/A	4,000							4,264	2
	Total	10,500	9,000	10,500	9,000	0	9,000	0	0	7,277	3
Shelf Demersal Rockfish	SE Out.	1,250	1,250	625	625	0	625	0	0	700	0
Thornyhead	GW	3,750	3,750	3,750	3,750	0	3,700	50	0	1,811	0
Other Species	GW	N/A	10,050	N/A	10,244	0	9,054	1,190	0	12	14
GULF OF ALASKA TOTAL		814,500	211,050	887,875-983,775	215,119	0	169,229	45,890	0	58,058	811

	DAP	JVP
HALIBUT PSC	3,000	200

NOTES:

1. As established by the Council on September 23, 1987. All numbers are preliminary and were chosen to represent current 1987 TQs, and DAP and JVP apportionments.
2. Reserves for pollock, Pacific cod, and flounders are calculated as 20% of TAC. For 1987 all reserves have been apportioned to DAP or JVP.
3. Catch-to-date as of September 12, 1987. NMFS-AKR.
4. Catch-to-date as of September 9, 1987. PacFIN.
5. For 1988 these two rockfish groups--the P.O.P. complex and the "other rockfish" group--are combined into a single rockfish category.

Table 2.--Gulf of Alaska Stock Assessment Summary. All figures are in metric tons.

Species	Maximum Sustainable Yield	Biomass & Stock* Condition, Trend		ABC	TAC
Pollock	116,000-334,000	687,000 (3+ age) fair, biomass increasing	W/C	90,000-120,000	
			E	3,375	
Pacific cod	125,000	481,700 (total biomass) good, stable	W	19k-35k	
			C	73k-137k	
			E	7k-13k	
			Total	99k-185k	
Flounders	477,900	2,110,800 (total biomass) good, stable	W	142,650	
			C	538,280	
			E	86,770	
			Total	767,700	
Sablefish	15,300-41,000	520,000 (biomass in 200-1000 m) good, stable		35,000	
"Other rockfish"	NA	798,400 (total biomass) fair increasing	W	4,850	
			C	7,100	
			E	4,850	
			Total	16,800	
Pelagic shelf rockfish	NA	165,000 fair increasing	W	550	
			C	2,350	
			E	400	
			Total	3,300	
Demersal shelf rockfish (S.E.O.)	Unknown	unknown declining		660 State of Alaska recommendation	660
Thornyheads	3,280-4,650	99,000 (total biomass) fair, declining		3,750	
Other species**	NA	NA		NA	

*Biomasses are estimated from the NMFS 1987 trawl survey data, except for sablefish where NMFS 1984 trawl survey data were used.

**Includes Atka mackerel and squid, which were separate target species in 1987.

Table 17.--Preliminary biomass estimates of slope and pelagic shelf rockfish (Sebastes sp.) in the Gulf of Alaska and their estimated individual ABCs.

	BIOMASS mt				Individual ABCs			
	Eastern	Central	Western	Total	Eastern	Central	Western	Total
Large slope[a/]								
P. O. P.	87,980	119,281	145,709	352,970	1,869	2,535	3,096	7,500
Northern	1,461	110,606	60,548	172,615	31	2,350	1,287	3,668
Shortraker	13,841	30,654	3,249	47,744	294	651	69	1,014
Rougheye	19,302	30,030	3,987	53,319	410	638	85	1,133
Redbanded	937	610	19	1,566	20	13	0	33
Yellowmouth	166	1	74	241	4	0	2	5
Darkblotched	27	3	3	33	1	0	0	1
SubTotal	123,714	291,185	213,589	628,488	2,629	6,187	4,538	13,354
Small slope[b/]								
Harlequin	36,643	43,709	10,726	91,078	779	929	228	1,935
Sharpchin	67,060	50	3,273	70,383	1,425	1	70	1,496
Splitnose	2	0	0	2	0	0	0	0
Greenstriped	62	0	0	62	1	0	0	1
Pygmy	176	190	0	366	4	4	0	8
SubTotal	103,943	43,949	13,999	161,891	2,209	934	297	3,440
TOTAL SLOPE								16,794
Pelagic shelf	19,739	116,856	28,445	165,040	395	2,337	569	3,301
TOTAL	247,396	451,990	256,033	955,419	5,233	9,458	5,404	20,095

a/ > 30 cm mean length.
b/ < 30 cm mean length.