

# North Pacific Fishery Management Council

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## ADVISORY PANEL MINUTES DECEMBER 1-4, 1990 ANCHORAGE, AK

The Advisory Panel for the North Pacific Fishery Management Council met on December 1-4, 1990, at the Westward Hilton Hotel, Anchorage, Alaska. Members in attendance were:

George Anderson  
Al Burch  
Phil Chitwood  
Paul Clampitt  
Lamar Cotten  
Dave Fraser

Pete Isleib  
David Little  
Pete Maloney  
Harold Sparck  
John Woodruff, Vice Chair  
Ed Fuglvo

Dan O'Hara  
Nancy Munro, Chair  
Vic Horgan, Jr.  
Dave Woodruff  
Robert Wurm  
Lyle Yeck

Minutes of the September 23-26, 1990 meeting were approved.

### C-3 OBSERVER PROGRAM

The AP heard a brief staff report on the reauthorization of the Magnuson Act and its implications for the domestic observer program and a user-fee system. The AP also heard a report that the already Council-approved changes to the 1991 Observer Plan and recordkeeping/reporting requirements will not be in place by January 1, 1991 unless implemented by a emergency rule. The changes are part of several regulatory amendments which won't be in effect until early-1991. Therefore, the AP recommends that the Council request the Secretary to take emergency action necessary to implement the changes by the beginning of 1991. The motion passed unanimously.

### C-5 HALIBUT MANAGEMENT

The AP heard testimony that final action may be necessary at this meeting to ensure that the regulatory amendment be in place by June 1. The AP would then recommend that the Council select Alternative 2 to establish Northern and Southern subareas within IPHC Area 4E and allocate the 4E quota 70/30% respectively, as their preferred alternative. This motion passed 7-2. If time allows for a January 1991 final Council action and implementation of the regulatory amendment by June 1, 1991, the AP

recommends this schedule. If the Council determines that final action is necessary at this meeting to assure implementation by June 1991, the AP supports final Council action at this meeting and submission of the regulatory amendment to the Secretary.

## **D-1 GENERAL GROUND FISH**

### **D-1(a) Revised Bycatch Plan for 1991**

The AP formed an industry work group to review and recommend bycatch rates for the Gulf of Alaska in 1991. The AP recommends rates for the first and second quarters as listed in Table 1. The AP recommends that rates for the 3rd and 4th quarters be set at the April 1991 meeting. The AP's recommended rates reflect the 1990 fleet average bycatch rates as listed on p. 28 of the EA/RIR with exceptions as noted on Table 1.

The AP believes that if the 1990 averages are utilized as standards in 1991, the new resulting averages will be significantly lower, and that such a standard would serve to eliminate the targeted "dirty dozen". By contrast the AP notes that the NMFS proposed rates are based on the average of the cleanest 80% of fishermen and would eliminate a large portion of these relatively "clean" fishermen unless they were able to improve their performance by a large increment. The AP believes this would be unnecessarily demanding for the 1st year of the program.

### **D-1(b) Delay the BS/AI Flatfish Season**

The AP Recommends that Arrowtooth flounder be included in the delayed flatfish season. This motion passed unanimously.

The AP is concerned about the aggregation of these fisheries and requests the Council to reexamine the scheduling of these fisheries for 1992.

### **D-1(c) Review Pelagic trawl definition and take action as necessary**

The AP strongly believes that an incentive program is the key to solving bycatch issues. We believe that an expanded bycatch incentive program should be a number 1 priority for Council, staff, and NMFS in 1991.

In the interim, the AP believes that the current definition for pelagic trawls is appropriate, and will effectively limit fishing to pelagic pollock nets once the bycatch cap is reached.

The AP is split regarding ways to encourage gear development which will further reduce bycatch. Some members believe that once the bycatch is reached, fishing should stop. Others believe that the bycatch program for 1991 allows only for a stick and no carrot approach. They believe that fishermen who prove during the season that they can fish with "de minimus" bycatch should be allowed to continue with 100% observer coverage after the bycatch cap has been reached.

The AP is also split on the usefulness of forming a gear group to advise the Council. Some feel it would be a good idea. Others feel that gear experiments will flourish naturally under an incentive system which rewards clean fishing.

**D-1(d) Emergency action/regulatory amendment to require groundfish pots be fished on a single line**

The AP recommends that the Council approve submission of a regulatory amendment to prohibit the longlining of groundfish pots in the Gulf of Alaska and the Bering Sea management areas (Alternative 2-b). The AP recommends that the prohibition not apply in the Aleutian Islands area. The motion passed 7-5.

The majority of the AP believes recommendation will:

- (1) prevent gear conflicts between the heavy pot gear and longline or trawl gear,
- (2) avoid an allocation issue before the pot constituency grows,
- (3) have only a minimal impact on the pot fleet. The few existing longline pot operations in the Bering Sea can switch to single lines or move to the Aleutian Islands area.

The minority of the AP believes:

- (1) fears of a mushrooming fleet of longline pot vessels are not warranted,
- (2) gear conflicts have not occurred to date,
- (3) that by prohibiting longlining of pots, the Council will foreclose opportunities for a type of harvest operation which will have very low bycatch.

The AP notes that longlining with pots is popular when targeting octopus. However, octopus pots are distinctively different from those pots commonly used in the other groundfish fisheries. Should the octopus fishery develop in the EEZ, the Council could consider a specific definition for octopus pots to exempt this gear from the longline prohibition.

The AP did discuss whether to implement this regulation on January 1, 1991 emergency rule. A motion to implement the pot longline prohibition by emergency rule in the GOA only, failed 4-7. The majority of the AP did not perceive this issue as an emergency and favors full use of the public review process prior to implementation.

**D-1(e) Regulatory amendment to change sablefish season**

The AP recommends that the Council change the opening of the longline fishery in the Gulf of Alaska from April 1 to May 15. This motion passed 12-2.

The AP believes that halibut bycatch will be reduced by delaying the sablefish opening to May 15:

- (1) Halibut and sablefish are expected to be segregated at different depths by May 15.
- (2) The first halibut opening and its consequences removals should be completed by May 15.

The AP recommends that the Council send a letter to the International Pacific Halibut Commission explaining this change to the sablefish season and its rationale. The May 15 date assumes that the first halibut opening would likely be scheduled for May 7. The AP heard testimony that the industry would need at least one week following the halibut opening to allow processors to complete their operations on halibut and allow fishermen to modify gear.

## D-2 GULF OF ALASKA GROUND FISH

### D-2(b) Develop 1991 TAC, DAP, JVP, TALFF, and PSC recommendations

The AP recommends that the Council establish TACs as outlined in Table 2. The AP notes that these TAC recommendations take into account DAP needs and bycatch impacts.

#### Pollock

The AP recommends setting the TAC equal to ABC or 133,400 mt. The AP notes that Amendment 19 changes for this FMP will require quarterly apportionment of the TAC during the year. This motion passed unanimously.

#### Pacific cod

The AP recommends that the TAC be set equal to ABC, or 77,900 mt. The recommended apportionment of TAC among the Western, Central, and Eastern areas of the Gulf is based on biomass distribution as observed in the 1990 trawl survey.

#### Deep Flatfish

The AP concurred with the Plan Team and SSC that flathead sole should be removed from this category and managed by its own TAC. The AP recommends that TAC for the revised category be set at 15,000 mt.

There was considerable discussion by the AP on whether to increase all flatfish TACs above DAP requests to encourage continued development of these fisheries. However, given the halibut PSC limit and that the 1991 bycatch incentive program will only be applied to the trawl Pacific cod and rockfish fisheries, there was concern that increased flatfish fishing and its uncontrolled halibut bycatch, could preempt the more traditional trawl fisheries. The AP recommends that in future years these TACs be increased once a bycatch incentive program for flatfish fisheries is established.

#### Flathead sole

The AP recommends that TAC be set at 10,000 mt. Since the NMFS DAP survey did not include the separation of flathead sole from the deep flatfish category, it was unclear as to what DAP needs are for this species. The AP believes that a 10,000 mt TAC should accommodate domestic industry needs for 1991.

#### Shallow Flatfish

The AP recommends setting the TAC to 12,000 mt. The AP notes that this level is below the industry request, but that it is approximately a 100% increase over the 1990 catch.

#### Arrowtooth Flounder

The AP recommends setting the 1991 TAC of 10,000 mt to provide for bycatch needs.

### Sablefish

The AP recommends that the TAC and apportionment between areas be set equal to the 1991 ABC or 22,500 mt. This motion passed 11-4. The minority understood that the reduction in the ABC from 1990 levels was due to adjustments in the analysis and believe that there is no biological justification to support the reduction in ABCs. A minority report is attached.

### Slope rockfish

The AP concurred with the Plan Team and SSC recommendation for subdividing the slope rockfish category into these subgroups, and recommends setting the 1991 TACs equal to the SSC ABCs.

Many members of the AP believe that we are underestimating rockfish biomass. Discussions with NMFS scientists indicate that current trawl surveys are not designed for rockfish and that there is a high degree of uncertainty with the rockfish biomass estimates. The AP believes that better stock assessment is needed with this important species complex and that a survey should be designed to provide managers with better information as soon as possible.

### Pelagic Shelf Rockfish

The AP recommends setting 1991 TAC equal to ABC or 4,800 mt.

### Demersal Shelf Rockfish

The AP recommends setting the 1991 TAC at 445 mt, a harvest which will maintain the fishery at current levels.

### Thornyhead

The AP recommends setting the TAC at 1,390 mt and that this TAC be managed for bycatch purposes only. The AP notes that the SSC ABC was set equal to that level where exceeding ABC would constitute overfishing. The AP advises that a lower TAC would allow for retention of bycatch and provide a buffer between TAC and the overfishing level. The AP did not want to risk closure of Gulf fisheries should catch levels of thornyhead rockfish approach ABC.

### DAP

The AP recommends that for 1991, DAP be set equal to 1991 TAC levels for all groundfish species. Since the AP action would provide for no groundfish apportionments to JVP and TALFF, it was understood that there was no need to discuss JVP and TALFF PSC limits.

### D-2(c) Gulf of Alaska - Halibut Management for 1991

The AP recommends that the 1991 halibut bycatch mortality limit be set at 2,750 (+) mt, with 2,000 mt allocated to trawl fisheries and 750 mt to hook and line fisheries. The AP recommends that for 1991, pot fisheries be exempt from the bycatch plan. If an exemption is not possible, the AP recommends adding the amount necessary for pot fisheries to the 2,750 mt cap. This motion passed 15-1.

The AP also recommends that the 2,750 mt PSC cap be distributed as follows:

2,000 mt trawl

1st qtr. 600 mt (30%)  
2nd qtr. 600 mt (30%)  
3rd qtr. 400 mt (20%)  
4th qtr. 400 mt (20%)

750 Hook and Line

1/1-5/14 187.5 mt (25%)  
5/15- 8/31 375 mt (50%)  
9/1-12/31 187.5 mt (25%)

This motion passed 9-5. The minority were concerned that insufficient levels of halibut were being set aside for the May opening of the sablefish season.

**D-2 (d) Emergency Rule request to Delay the 2nd Quarter Pollock Opening**

The AP recommends that the Council approve an emergency rule to delay the second quarter pollock fishery until June 1. This motion passed unanimously. This recommendation is intended to prevent excessive fishing effort from moving into the Gulf when the Bering Sea pollock roe-season closes. A delayed opening to coincide with the start of the Bering Sea non-roe season will help distribute effort throughout all areas and prevent excessive fishing on pollock when they are still aggregated for spawning.

**D-3 BERING SEA ALEUTIAN ISLANDS GROUND FISH**

**D-3(b) Bering Sea/Aleutian Islands TACs**

Pollock

The AP recommends a TAC of 1.3 million mt which reflects a compromise between DAP requests and conservation concerns over the Donut Hole, marine mammals, discards, and product recovery rates. This TAC would result in an annual exploitation rate of 19% which is higher than the 12-18% exploitation rates which have occurred since 1982.

Pacific Cod

Recognizing the high DAP requests, the AP recommends setting the TAC equal to ABC.

Yellowfin sole

The AP recommendation (135,000 mt) is a compromise between DAP requests (339,000 mt) and the necessity of balancing the 2 million mt cap for all Bering Sea species. The AP notes that the 1990 catch of 84,158 mt was constrained by closures.

Greenland turbot

The AP recommends setting the TAC equal to ABC.

Arrowtooth

The AP recommendation of 20,000 mt reflects expected bycatch needs for the increased flatfish fisheries in 1991. Although the 1990 TAC was only 10,000 mt, the fleet is currently having to discard arrowtooth.

### Rocksole

The AP recommendation of 90,00 mt reflects DAP requests of 78,800 mt and expected bycatch needs in the yellowfin sole and other flatfish fisheries.

### Other Flatfish

The AP recommendation of 64,675 mt reflects DAP requests of 40,000 mt and expected bycatch needs.

### Sablefish

The AP recommends setting TAC equal to ABC.

### POP and Rockfish

The AP recommends accepting the SSC recommendations for splitting out the species groups and setting the TAC equal to the SSC ABCs.

### Atka Mackerel

The AP recommends setting TAC equal to ABC.

### Other Species

The AP recommends a TAC of 15,000 mt. The AP recognizes that the reported catch this year of Other Species was 23,000 mt, but believes this includes some reporting errors. If the 15,000 mt recommendation turns out low, the AP believes the unspecified reserves policy in the Bering Sea would solve the problem.

### Pollock Roe Season

The AP recommends that the maximum amount of the pollock TAC allocated to the roe season be 442,000 mt.

This number was calculated as 34% of the 1.3 million mt recommended TAC for pollock.

The AP recommendation is a compromise between those who wanted a higher amount and those who wanted a lower amount allocated to the roe season.

AP members considered:

- (1) NMFS estimates that the industry will be able to take 65,00 mt of pollock per week during the 1991 roe season. If the roe is most valuable during the last two weeks of February and the fishery opens January 1, a minimum of 520,000 mt would have to be allocated to the roe season to maximize economic value.
- (2) The biological impacts of concentrating fishing effects on a spawning stock.
- (3) The impacts on the Pacific cod and other fisheries if the pollock fishery closes early in the year due to a short roe season.

Allocate pollock between bottom and midwater gear

The AP made no recommendation due to the lack of information on the consequences on bycatch concerns or shifting effort.

Seasonal apportionments of Cod

The AP discussed apportioning the Pacific cod TAC by quarter, but a motion to do so was tabled.

Some AP members felt seasonal apportionments would lessen the risks of pulse fishing, would prevent the pollock fleet from moving en masses to cod, other felt that a quarterly allocation would allocate from the trawl fleet to the longline fleet. Considering the allocational impacts, the AP felt this action should be considered through a regulatory amendment rather than an Emergency Rule.

**D-3(c) BS/AI - PSC Allowances within Bycatch limits of Amendment 16/16a**

The AP formed an industry work group to develop recommended PSC apportionments.

These recommendations reflect fishing strategies provided by the industry. The group addressed PSC apportionments by first considering the anticipated needs of those fisheries which are constrained in their time or area of operations. For example, the rock sole fishery is expected to operate largely in Zone 1. Consequently, this fishery was assigned priority for red king crab and C. bairdi Tanner crab in this zone. The rock sole fishery is expected to conclude before herring migrate into its area of operation, so it was assigned zero herring bycatch. Conversely, the deepwater turbot/sablefish fishery is expected to operate well outside of Zone 1. Consequently, it was assigned zero bycatch in Zone 1, but amounts of crab in Zone 2 expected to meet its needs. It, too, is expected to take only a minimal amount of herring bycatch.

The DAP flatfish fishery will operate largely outside of Zone 1. It was assigned relatively small amounts of crab PSC in Zone 1, and only a small amount of herring. It is expected to take proportionate amounts of halibut bycatch and crab bycatch in Zone 2. The "DAP Other" fishery was assigned the bulk of halibut and Zone 2 crab bycatch. The midwater pollock trawl fishery is expected to take the majority of herring bycatch and was assigned 70% of the overall herring cap.

The AP strongly recommends that 15% of all the bycatch numbers be put in reserve, and that the Council provide the Regional Director authority to reallocate the reserves as the season progresses. Motion passed unanimously.

The AP recommends that the halibut PSC for the DAP Deepwater fisheries be apportioned:

- 1st quarter - 25 tons
- 2nd quarter - 50 tons
- 3rd quarter - 125 tons
- 4th quarter - rollover

Motion passed unanimously.

This motion is essentially a back-up in case arrowtooth is not included in the seasonal delay to May 1 for the opening of the flatfish fisheries.



The relatively small amount of halibut PSC allocated to the DAP Deepwater category reflects the industry's recommendation that sablefish be a bycatch only species for the trawl fishery in the first quarter.

The AP discussed apportioning the halibut PSC allocated to the DAP Other Category. A motion to apportion the halibut PSC failed. Some members felt an apportionment would allow prosecution of the cod fisheries. Other felt an apportionment would allocate from the trawl fleet to the longline fleet and was not appropriate at this time.

GULF OF ALASKA BYCATCH RATES

Table 1

The AP recommends using the 1990 fleet average bycatch rates (column 1, Table 1, page 28 of the EA/RIR for Amendment 21/16 (Tab D-1(a)(2)) as the fleet standards with the exceptions as starred.

<u>Halibut</u>	<u>Quarter</u>	
BS/AI Cod	1	1.35% (.9)
	2	1.85% (1.05)
	3	
	4	
BS/AI Flat	1	1.31% (.9)
	2	.3% *
	3	.3% *
	4	.4% *
GOA Rockfish	1	4.00% *
	2	4.00% *
	3	4.00% *
	4	4.00% *
GOA Cod	1	3.31%
	2	3.06% *
	3	3.29%
	4	5.15%
<u>Red King Crab</u>		
BS/AI Flatfish	1	2.88 mt
	2	1.5 mt *
	3	1.5 mt *
	4	1.5 mt *

Explanation of \* rates:

BS/AI - Flat - Halibut - Quarter 2-4

The proposed standard of 0.4% is based on the Bering Sea wide average over the last 5 years. Four percent was also the standard in the 1990 yellowfin sole halibut control program, and resulted in a effective performance of 0.25%

GOA - Rockfish - Halibut

The limited data available on this fishery showed extreme variability both in time and area. The proposed standard appeared sufficiently low to eliminate the dirty dozen.

GOA - Cod - Halibut - Quarter 2

The recommended fishery standard is a composite of Western and Central Gulf bycatch rates. The Gulf Pacific cod fishery occurs primarily in the Central Gulf where the cod resource is in high abundance. The Central Gulf is also the area where halibut bycatch rates are relatively high. The revised bycatch rate standard recognizes these two conditions, and as a result will not unduly restrict the opportunity to prosecute Pacific cod fisheries in the Western and Central Gulf.

BS/AI - Flat Red King Crab - Quarter 2-4

Due to the lack of any recent data on the yellowfin sole fishery, the AP proposes a performance standard based on the last JV bycatch control program for this fishery.

AP Minority Report  
Agenda D-2 - Sablefish

ADVISORY PANEL MINORITY REPORT

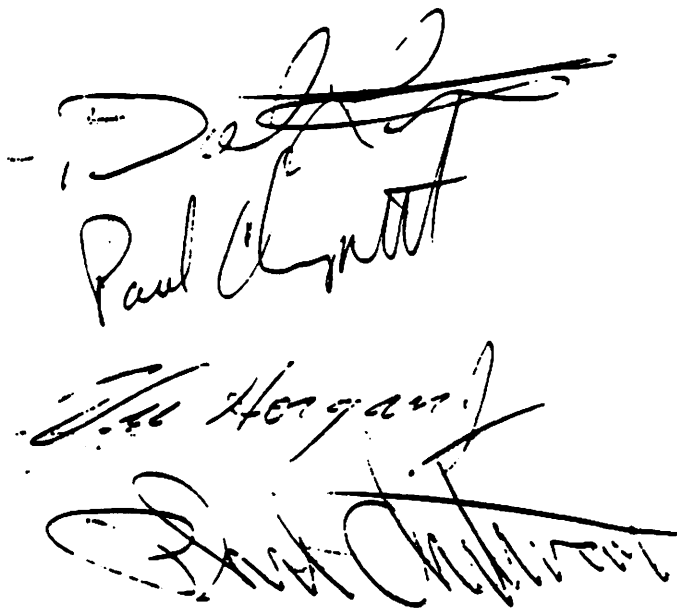
The minority feels that there is no solid biological justification or any new data or information for lowering the 1991 sablefish ABC from the 1990 level.

The Plan Team states in the SAFE document that the two longline survey indexes provided conflicting results and therefore they assumed no change in stock from '89 to '90. They did however change the "scaling factor" which is used to expand index survey data into exploitable biomass. This new scaling factor is lower than the '89-90 factor which results in a lower biomass estimates for 1991.

This change in scaling factor is an attempt to relate survey indexes from both longline and trawl to exploitable biomass. Even though we believe the Plan Team was provided the evidence that proves one scaling factor is any more accurate than another. The fact that we have been using the old factor for many years and that the surveys show no decline in stocks, would seem to us enough reason to set ABC in '91 equal to ABC in '90.

The minority feels that if there really is a decline in stock than ABC should be lower. We are asking the Council that in view of the cost to industry (\$3 million) that they look closely at this issue before setting TAC.

Signed by: David Little  
Paul Clampitt  
Vic Horgan Jr.  
Phil Chitwood



Handwritten signatures of the signatories: David Little, Paul Clampitt, Vic Horgan Jr., and Phil Chitwood.

BERING SEA/ALEUTIAN ISLANDS GROUND FISH

1991 Plan Team and SSC recommended ABC, AP recommended TAC and apportionments (metric tons)

Species	Area	1990			ABC		Advisory Panel					
		ABC	TAC *	Catch **	Plan Team	SSC	TAC	Seasons	Area	ITAC***	DAP	JVP
Pollock	EBS	1,450,000	1,310,751	1,338,694	1,676,000	1,676,000	1,300,000	Roe (Jan 1 - Apr 15)	EBS	442,000	442,000	0
	AI	153,600	85,000	67,455	101,460	101,460	85,000		AI	72,250	72,250	0
								Non-Roe (Jun 1 - Dec 31)	EBS	663,000	663,000	0
Pacific cod		417,000	199,975	164,023	229,000	229,000	229,000		AI	194,650	194,650	0
Yellowfin sole		278,900	176,502	84,158	250,600	250,600	135,000			114,750	114,750	0
Greenland turbot		7,000	7,000	8,891	7,000	7,000	7,000			5,950	5,950	0
Arrowtooth flounder		106,500	10,533	9,502	116,400	116,400	20,000			17,000	17,000	0
Rock sole		216,300	67,359	33,589	246,500	246,500	90,000			76,500	76,500	0
Other flatfish		188,000	51,128	34,172	219,700	219,700	64,675			54,974	54,974	0
Sablefish	EBS	2,700	2,294	2,319	3,100	3,100	3,100			2,635	2,635	0
	AI	4,500	3,926	2,039	3,200	3,200	3,200			2,720	2,720	0
Pacific ocean perch	EBS	6,300	6,300	7,231	3,800 POP (Complex) SR,RE,SC,Nm	4,570	4,570			3,885	3,885	0
						1,670	1,670			1,420	1,420	0
	AI	16,600	16,600	13,790	10,000 POP (Complex) SR,RE SC,Nm	10,775	10,775			9,159	9,159	0
						1,245	1,245			1,058	1,058	0
						3,440	3,440			2,924	2,924	0
Other rockfish	EBS	500	500	417	500	400	400			340	340	0
	AI	1,100	935	583	1,000	925	925			786	786	0
Atka mackerel		24,000	23,500	23,117	24,000	24,000	24,000			20,400	20,400	0
Squid		10,000	925	617	3,800	3,800	1,000			850	850	0
Other species		55,500	28,584	23,237	28,700	28,700	15,000			12,750	12,750	0
BERING SEA/ALEUTIAN ISLANDS TOTAL		2,938,500	1,991,712	1,811,834	2,924,760	2,932,485	2,000,000			1,700,000	1,700,000	0

\*\*\*Recommended TAC less 15% reserve

\* TAC reflects inseason adjustments.

POP Complex: POP (Sebastes atutus), Rougheye (RE), Shorttraker (SR), Northern, and Sharpchin (SC) rockfishes

\*\* DAH catch data through November 10, 1990.

**TABLE 2**  
**GULF OF ALASKA GROUND FISH**  
**1991 Plan Team, SSC, and AP recommendations and apportionments (metric tons)**

4-Dec-90

Species	Area	1990			Plan Team	SSC	Advisory Panel	
		ABC	TAC	Catch	ABC	ABC	TAC	DAP
Pollock	W/C	63,750	63,750	80,017	123,750	123,750	123,750	123,750
	Shelikof	6,250	6,250	n/a	6,250	6,250	6,250	6,250
	E	3,400	3,400	277	3,400	3,400	3,400	3,400
	Total	73,400	73,400	80,294	133,400	133,400	133,400	133,400
Pacific Cod	W	29,500	29,500	30,117	25,700	25,700	25,700	25,700
	C	59,500	59,500	38,048	48,300	48,300	48,300	48,300
	E	1,000	1,000	330	3,900	3,900	3,900	3,900
	Total	90,000	90,000	68,493	77,900	77,900	77,900	77,900
Flatfish, Deep	W	16,300	3,850	337	2,000	2,000	2,000	2,000
	C	77,700	15,300	6,822	38,900	38,900	10,000	10,000
	E	14,400	3,050	506	9,600	9,600	3,000	3,000
	Total	108,400	22,000	7,665	50,500	50,500	15,000	15,000
Flathead sole	W	Included			12,600	12,600	2,000	2,000
	C	in			32,700	32,700	5,000	5,000
	E	Deep			5,000	5,000	3,000	3,000
	Total	Flatfish			50,300	50,300	10,000	10,000
Flatfish, Shallow	W	30,200	3,570	921	48,800	48,800	3,000	3,000
	C	52,200	6,180	5,231	22,200	22,200	7,000	7,000
	E	2,100	250	225	3,000	3,000	2,000	2,000
	Total	84,500	10,000	6,377	74,000	74,000	12,000	12,000
Arrowtooth	W	27,000	4,450	1,179	40,800	40,800	2,500	2,500
	C	141,000	23,170	15,201	272,100	272,100	5,000	5,000
	E	26,600	4,380	1,557	27,200	27,200	2,500	2,500
	Total	194,600	32,000	17,937	340,100	340,100	10,000	10,000
Sablefish	W	3,800	3,770	1,947	2,925	2,925	2,925	2,925
	C	11,800	11,700	12,052	10,575	10,575	10,575	10,575
	W. Yakutat	4,600	4,550	5,181	4,050	4,050	4,050	4,050
	E. Yak/S.E. Out.	6,000	5,980	6,403	4,950	4,950	4,950	4,950
	Total	26,200	26,000	25,583	22,500	22,500	22,500	22,500
Pacific Ocean Perch	W					1624	1624	1624
	C					1798	1798	1798
	E					2378	2378	2378
	Total				12,030	5800	5800	5800
Shortraker/Rougheye	W					100	100	100
	C					1320	1320	1320
	E					580	580	580
	Total				4,040	2000	2000	2000
Other Slope	W					1212	1212	1212
	C					5454	5454	5454
	E					3434	3434	3434
	Total				11,410	10100	10100	10100
Rockfish (Pelagic Shelf)	W	1,400	1,400	185	800	800	800	800
	C	5,800	5,800	947	3,100	3,100	3,100	3,100
	E	1,000	1,000	526	900	900	900	900
	Total	8,200	8,200	1,638	4,800	4,800	4,800	4,800
Rockfish (Demersal Shelf)	S.E. Out	0	470	315	0	445	445	445
Thornyhead	G W	3,800	3,800	1,548	980	1,798	1,398	1,398
Other Species	G W	30,340	14,179	7,678	0	0	15267	15267
<b>GULF OF ALASKA TOTAL</b>		<b>637,140</b>	<b>297,749</b>	<b>238,899</b>	<b>781,960</b>	<b>773,643</b>	<b>320,610</b>	<b>320,610</b>

\* Catch through November 3, 1990. W/C Pollock catch includes Shelikof