

MEMORANDUM

TO: Council, SSC and AP Members  
FROM: Clarence G. Pautzke  
Executive Director  
DATE: September 14, 1993  
SUBJECT: Gulf of Alaska Groundfish

ESTIMATED TIME

4 HOURS  
(For all D-3 Items)

**ACTION REQUIRED**

- (a) Review 1994 Preliminary Stock Assessment and Fishery Evaluation (SAFE) document.
- (b) Set initial 1994 Acceptable Biological Catch (ABC) limits and Total Allowable Catches (TAC) limits for all groundfish.
- (c) Set initial 1994 Prohibited Species Catch (PSC) limits for halibut.

**BACKGROUND**

SAFE Document

The groundfish Plan Teams met in Seattle during the week of September 7-10, 1993 to prepare the preliminary SAFE document provided at this meeting. This SAFE forms the basis for preliminary groundfish specifications for the 1994 fishing year. Many individual species or species complex stock assessments contained in the preliminary SAFE remain unchanged from the 1993 final SAFE. Any changes were based on incorporation of updated stock survey information (such as the annual longline survey), updated catch information, inclusion of discard estimates, or refinement of stock modeling parameters. New or revised assessments were made for pollock, Pacific cod, demersal shelf rockfish, slope rockfish, and Atka mackerel.

This preliminary SAFE for the Gulf of Alaska contains the Plan Team's estimates of biomass and ABCs for all groundfish species covered under the Gulf FMP and information concerning bycatch of halibut to provide guidance to the Council in establishing PSC apportionments. The attached tables from the SAFE lists 1993 ABCs, TACs, and catches to date, and the Plan Team's recommended ABCs and corresponding overfishing levels for each of the species or species complexes. None of the Plan Team's recommended ABCs exceeds the overfishing level.

Set Initial ABCs, TACs, and Apportionments for the 1994 Fisheries

During the week of this Council meeting, the SSC and AP recommendations will be provided to the Council. In 1993, all TACs were apportioned to Domestic Annual Processing (DAP). Under Amendment 21, 25% of the initial specifications for groundfish (from September) will go forward as

interim specifications for the 1994 fisheries until superseded by publication of the Council's recommended final specifications in the *Federal Register*, sometime in early 1994.

**Set Initial PSC Limits for Halibut**

Amendment 21 clarifies the halibut PSC framework to permit the Council to specify PSC limits by season and by gear type. The Council recommended the following apportionments for 1993.

<u>Trawl Gear</u>		<u>Hook and Line Gear</u>	
1st quarter	600 mt (30%)	1st trimester	200 mt (26.7%)
2nd quarter	400 mt (20%)	2nd trimester	500 mt (66.7%)
3rd quarter	600 mt (30%)	3rd trimester	50 mt (6.7%)
4th quarter	400 mt (20%)		
<b>TOTALS</b>			<b>750 mt</b>

Of the 750 mt PSC limit for fixed gear, 10 mt was apportioned specifically to the demersal shelf rockfish fisheries in Southeast Alaska. Pot gear was exempted from PSC closures.

Appendix I of the 1994 preliminary SAFE report contains information on halibut bycatch in the 1993 groundfish fisheries in the Gulf of Alaska. The information in this section details the occurrence of halibut bycatch by time, area, and fishery.

A review of the 1993 fisheries provides some insight on bycatch needs for 1994. In 1993, bottom trawling was prohibited on March 24, when the first quarter halibut PSC allowance of 600 mt was reached. The second quarter allowance lasted only three weeks, with the bottom trawl fisheries closing on April 19. Through August 14, total halibut bycatch mortality from trawl gear was 1,641 mt, and 1,408 mt for hook and line gear. The 1993 sablefish fishery took 1,176 mt, or 84% of the GOA hook and line halibut bycatch mortality. The other hook and line fisheries, including the Pacific cod fishery, had lower halibut bycatch mortality in 1993 (232 mt).

Table 1. Groundfish maximum sustainable yields (MSYs), 1993 and 1994 ABCs, 1993 TACs, and 1993 catches through August 21, 1993.

Species	MSY (mt)	ABC (mt)		1993		1993 Catch
		1993	1994	TAC		
Pollock	Unknown	W(61)	34,068	37,320	24,087	20,540
		C(62)	36,737	40,250	25,974	20,603
		C(63)	86,195	94,430	60,939	45,649
		E	3,400	12,250	3,400	427
	Total	160,400	184,250	114,400	87,219	
Pacific cod	Unknown	W	18,700	17,400	18,700	18,356
		C	35,200	32,700	35,200	33,152
		E	2,800	2,600	2,800	1,555
		Total	56,700	52,700	56,700	53,063
Flatfish <sup>1</sup> (deep water)	7,940	W	2,020	740	1,740	324
		C	35,580	20,680	15,000	5,917
		E	7,930	4,490	3,000	124
		Total	45,530	26,410	19,740	6,365
Rex sole <sup>2</sup>	5,750	W	included	1,280	included	
		C	in	14,900	in	
		E	deepwater	2,940	deepwater	
		Total	flatfish	19,120	flatfish	
Flatfish <sup>3</sup> (shallow water)	28,254	W	27,480	27,480	4,500	380
		C	21,260	21,260	10,000	4,820
		E	1,740	1,740	1,740	5
		Total	50,480	50,480	16,240	5,205
Flathead sole	16,589	W	12,580	12,580	2,000	607
		C	31,830	31,830	5,000	1,803
		E	5,040	5,040	3,000	7
		Total	49,450	49,450	10,000	2,417
Arrowtooth flounder	110,042	W	38,880	38,880	5,000	1,852
		C	253,330	253,330	20,000	15,656
		E	29,080	29,080	5,000	813
		Total	321,290	321,290	30,000	18,321

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Table 1 (cont.) Groundfish maximum sustainable yields (MSYs), 1993 and 1994 ABCs, 1993 TACs, and 1993 catches through August 21, 1993.

Species	MSY (mt)	ABC (mt)		1993 TAC	1993 Catch	
		1993	1994			
Sablefish	23,700	W	2,030	2,030	2,030	726
		C	9,610	9,610	9,610	11,945
		WYK	3,830	3,830	3,830	4,561
		SEO	5,430	5,430	5,430	5,367
		<b>Total</b>	<b>20,900</b>	<b>20,900</b>	<b>20,900</b>	<b>22,599</b>
Slope rockfish (other)	Unknown	W	330	330	214	444
		C	1,640	1,640	1,064	1,541
		E	6,330	6,330	4,105	1,455
		<b>Total</b>	<b>8,300</b>	<b>8,300</b>	<b>5,383</b>	<b>3,440</b>
Northern Rockfish	Unknown	W	1,000	1,000	1,000	798
		C	4,720	4,720	4,720	3,822
		E	40	40	40	61
		<b>Total</b>	<b>5,760</b>	<b>5,760</b>	<b>5,760</b>	<b>4,681</b>
Pacific Ocean Perch	Unknown	W	753	760	341	492
		C	949	950	949	1,177
		E	1,676	1,670	1,270	511
		<b>Total</b>	<b>3,378</b>	<b>3,380</b>	<b>2,560</b>	<b>2,180</b>
Shortraker/Rougheye	Unknown	W	100	100	90	135
		C	1,290	1,290	1,161	1,190
		E	570	570	513	538
		<b>Total</b>	<b>1,960</b>	<b>1,960</b>	<b>1,764</b>	<b>1,863</b>
Pelagic shelf rockfish	Unknown	W	1,010	1,010	1,010	260
		C	4,450	4,450	4,450	1,773
		E	1,280	1,280	1,280	1,058
		<b>Total</b>	<b>6,740</b>	<b>6,740</b>	<b>6,740</b>	<b>3,091</b>
Demersal shelf rockfish	Unknown	SEO	800	943	800	524 <sup>4</sup>

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Table 1 (cont.) Groundfish maximum sustainable yields (MSYs), 1993 and 1994 ABCs, 1993 TACs, and 1993 catches through August 21, 1993.

Species	MSY (mt)		ABC (mt)		1993 TAC	1993 Catch
			1993	1994		
Atka mackerel	Unknown	GW	included in other	4,800	included in other	3,258 <sup>5</sup>
Thornyhead rockfish	Unknown	GW	1,180	1,180	1,062	1,395
Other species		W	NA	NA	3,053	5,645
		C	NA	NA	9,721	2,990
		E	NA	NA	1,828	664
		<b>Total</b>			<b>14,602</b>	<b>9,299</b>
<b>Totals</b>			<b>732,868</b>	<b>738,543</b>	<b>306,651</b>	<b>221,662</b>

- 1/ Shelikof Strait pollock is included within the W/C ABC range.
- 2/ "Deep water flatfish" means rex sole, Dover sole, and Greenland turbot in 1993. In 1994 included rex sole is a separate target category.
- 3/ "Shallow water flatfish" means rock sole, yellowfin sole, butter sole, starry flounder, and other flatfish not specifically defined.
- 4/ Catch of Atka mackerel is 3,258 mt.
- 5/ Demersal Shelf rockfish catch includes 103 mt of unreported mortality from halibut fisheries.

NOTE: GW means Gulfwide  
 ABCs are rounded to nearest 10.  
 Catch data source: NMFS Blend Reports.  
 Northern Rockfish were separated from Slope Rockfish in 1993.  
 Atka mackerel may be separated from "other species" in 1994.

Table 2. Exploitable biomasses, 1994 ABCs, and estimated trends and abundances of groundfish.

Species	Exploitable Biomass (mt)	1994		Abundance, Trend		
		ABC	Overfishing Level			
Pollock	726,000	{ W(61)	37,320	230,000	Low, stable	
		{ C(62)	40,250			
		{ C(63)	94,430			
		E	12,250			16,400
		<b>Total</b>	<b>184,250</b>			<b>246,400</b>
Pacific cod	324,000	W	17,400	68,400	Medium, declining	
		C	32,700			
		E	2,600			
		<b>Total</b>	<b>52,700</b>			
Flatfish (deep water)	132,030	W	740	34,590	High, stable	
		C	20,680			
		E	4,490			
		<b>Total</b>	<b>26,410</b>			
Rex sole	95,630	W	1,280	25,060	High	
		C	14,900			
		E	2,940			
		<b>Total</b>	<b>19,120</b>			
Flatfish (shallow water)	261,724	W	27,480	70,860	High, stable	
		C	21,260			
		E	1,740			
		<b>Total</b>	<b>50,480</b>			
Flathead sole	247,247	W	12,580	64,780	High, stable	
		C	31,830			
		E	5,040			
		<b>Total</b>	<b>49,450</b>			
Arrowtooth flounder	1,889,922	W	38,880	451,690	High, stable	
		C	253,330			
		E	29,080			
		<b>Total</b>	<b>321,290</b>			
Sablefish	190,400	W	2,030	27,750	Medium, decreasing slightly	
		C	9,610			
		WYK	3,830			
		SEO	5,430			
		<b>Total</b>	<b>20,900</b>			

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Table 2. (cont.) Exploitable biomasses, 1994 ABCs, overfishing levels, and estimated abundances and trends of groundfish.

Species	Exploitable Biomass (mt)	1994		Abundance, Trend	
		ABC	Overfishing Level		
Slope rockfish (Other)	134,400	W	330	9,850	Low, unknown
		C	1,640		
		E	6,330		
		<b>Total</b>	<b>8,300</b>		
Northern Rockfish	96,070	W	1,000	10,360	Relative abundance unknown
		C	4,720		
		E	40		
		<b>Total</b>	<b>5,760</b>		
Pacific ocean Perch	156,400	W	760	3,380	Low, stable
		C	950		
		E	1,670		
		<b>Total</b>	<b>3,380</b>		
Shortraker/Rougeye	72,961	W	100	2,900	Low, unknown
		C	1,290		
		E	570		
		<b>Total</b>	<b>1,960</b>		
Pelagic shelf rockfish	74,900	W	1,010	11,300	Relative abundance unknown
		C	4,450		
		E	1,280		
		<b>Total</b>	<b>6,740</b>		
Demersal shelf rockfish (SE Outside district)	49,277	SEO	970	1,680	Low, stable
Atka mackerel	32,100	GW	4,800	19,040	Low, unknown
Thornyhead rockfish	26,207	Gulfwide	1,180	1,440	Low, decreasing
Other species	NA	W	NA		TAC = 5% of the sum of TACs
		C	NA		
		E	NA		

Note: ABCs and Overfishing are rounded to nearest 10.  
 Overfishing is defined Gulf-wide.  
 Northern Rockfish were separated from Slope Rockfish in 1993.  
 Atka mackerel may be separate from "other species" in 1994.  
 Rex sole was part of deepwater flatfish until 1994.



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

AGENDA D-3  
SEPTEMBER 1993

September 16, 1993

Mr. Richard B. Lauber  
Chairman, North Pacific Fishery  
Management Council  
P.O. Box 103136  
Anchorage, Alaska 99510

Dear Rick,

Standard bycatch rate standards for trawl fisheries under the Pacific halibut and red king crab vessel incentive program during the first half of 1994 are scheduled to be published in the Federal Register by January 1, 1994. A summary of 1991, 1992, and 1993 observer data on fishery bycatch rates are listed in the attached table. The Council may wish to review this data when recommending halibut and red king crab bycatch rate standards for the first half of 1994.

Sincerely,

Steven Pennoyer  
Director, Alaska Region





1991 - 1993 (through 09/04/93) observed bycatch rates, by quarter, of halibut and red king crab in the fishery categories included in the vessel incentive program. The 1993 bycatch rate standards also are listed.

Halibut Bycatch (Kilograms Halibut/ MT Allocated Groundfish Catch)

Fishery and quarter	Bycatch Rate Standards	Observed Bycatch Rates		
		1991	1992	1993
<b>BSAI Midwater Pollock</b>				
QT 1	1.0	0.05	1.40	0.95
QT 2	1.0	0.17	0.73	0.20
QT 3	1.0	0.55	0.50	0.05
QT 4	1.0	****	0.40	****
Year to date		0.23	0.87	0.66
<b>BSAI Bottom Pollock</b>				
QT 1	7.5	14.30	7.58	7.59
QT 2	5.0	8.27	4.34	2.72
QT 3	5.0	1.89	2.31	1.03
QT 4	5.0	0.00	0.29	****
Year to date		4.13	5.64	6.35
<b>BSAI Yellowfin sole (in 1991, includes 'other flatfish')</b>				
QT 1	5.0	5.38	****	****
QT 2	5.0	2.45	3.40	13.78
QT 3	5.0	7.17	3.71	2.13
QT 4	5.0	2.99	5.52	****
Year to date		5.06	4.02	10.75
<b>BSAI Other Trawl Fisheries</b>				
QT 1	30.0	13.82	12.20	8.80
QT 2	30.0	20.04	16.25	13.51
QT 3	30.0	10.90	4.81	2.53
QT 4	30.0	30.10	0.94	****
Year to date		16.24	12.83	9.44
<b>GOA Midwater Pollock</b>				
QT 1	1.0	0.05	0.11	0.01
QT 2	1.0	0.03	0.06	0.02
QT 3	1.0	0.18	0.03	0.03
QT 4	1.0	0.89	0.35	****
Year to date		0.41	0.11	0.02
<b>GOA Other Trawl fisheries</b>				
QT 1	50.0	23.96	19.75	34.75
QT 2	50.0	65.91	22.08	25.41
QT 3	50.0	23.59	24.14	30.07
QT 4	50.0	26.33	26.85	****
Year to date		31.07	21.95	30.63

Zone 1 Red King Crab Bycatch Rates  
(number of crab/mt of allocated groundfish)

<b>BSAI yellowfin sole (in 1991 &amp; 1992, includes other flatfish)</b>				
QT 1	2.5	1.31	1.19	****
QT 2	2.5	1.44	1.34	3.27
QT 3	2.5	0.00	0.00	0.00
QT 4	2.5	****	****	****
Year to date		1.27	1.34	3.18
<b>BSAI Other Trawl</b>				
QT 1	2.5	0.93	1.19	2.39
QT 2	2.5	0.02	1.72	0.03
QT 3	2.5	0.00	0.00	****
QT 4	2.5	****	****	****
Year to date		0.78	1.21	1.50

T HORN SMITH

FISHERY GROUP  
HALIBUT MORTALITY  
SEASONAL APPORTIONMENT

(MT) (MT) %

PACIFIC COD  
JAN 1 - APRIL 30  
MAY 1 - AUG 31  
SEP 1 - DEC 31

725  
685  
40  
ROLLOVER ROLLOVER

~95%  
~5%

OTHER NON-TRAWL

175

GROUND FISH POT

EXEMPT

TOTAL  
3/4

900 MT

**GULF OF ALASKA TRAWL HALIBUT APPORTIONMENT WORKGROUP'S PROPOSAL  
FOR  
GULF OF ALASKA TRAWL HALIBUT APPORTIONMENT**

This proposal is submitted in lieu of exclusive registration for species other than pollock and cod in the Gulf of Alaska. Its purpose is to promote wise use of halibut bycatch, reduce conflict among user groups, allow the benefits of clean fishing to accrue to the fishermen who achieved the halibut savings and reduce the bycatch of sablefish, shortraker, rougheye, and thornyheads in the trawl fisheries.

**Apportionment**

Each quarterly trawl halibut bycatch allowance will be apportioned between the "deep water complex" and the "shallow water complex".

The Shallow Water Complex consists of: pollock, Pacific cod, shallow water flats, Atka mackerel, and other species.

The Deep Water Complex consists of deep water flatfish, rockfish, flathead sole, sablefish, and arrowtooth flounder.

**Proposed Trawl Halibut Apportionment for 1994  
(in metric tons of mortality)**

Quarter	Shallow Water Complex	Deep Water Complex	Total
1	500	100	600
2	100	300	400
3	200	400	600
4	No apportionment between deep and shallow water complexes		400

There is no apportionment between the two complexes in the 4th quarter due to uncertainty over which species may be available by the 4th quarter.

**Additional Elements of Proposal Package**

1. Halibut allocation will be part of the annual specifications process.
2. Any overages or shortfalls of quarterly halibut bycatch within a complex will be deducted from or added to that complex's subsequent quarterly allocation.
3. Bycatch-only species may not be retained against arrowtooth flounder. This is to

re-addressed as the commercial arrowtooth flounder fishery develops.

4. Bycatch-only species may not be retained against other bycatch-only species.
5. The Gulf of Alaska VIP rate will be adjusted from 5% to 4%.
6. Measures will be taken to increase the number of fishing opportunities in the Bering Sea during the 1st quarter. For example, the rockfish and the other flatfish fisheries in the Bering sea could be conducted earlier in the year.

This proposal sunsets three years after implementation or upon the implementation of a comprehensive rationalization program.

**TABLE 1. GULF OF ALASKA GROUND FISH**  
**Initial 1994 Plan Team, SSC, and AP recommendations and apportionments (metric tons)**

Species	Area	1993			Plan Team 1994 ABC	SSC 1994 ABC	Advisory Panel 1994 TAC
		ABC	TAC	Catch*			
Pollock	W (61)	34,068	24,087	20,540	37,320	16,930	16,930
	C (62)	36,737	25,974	20,603	40,250	18,250	18,250
	C (63)	86,195	60,939	45,649	94,430	42,820	42,820
	E	3,400	3,400	427	12,250	5,550	5,550
	Total	160,400	114,400	87,219	184,250	83,550	83,550
Pacific Cod	W	18,700	18,700	18,356	17,400	17,400	17,400
	C	35,200	35,200	33,152	32,700	32,700	32,700
	E	2,800	2,800	1,555	2,600	2,600	2,600
	Total	56,700	56,700	53,063	52,700	52,700	52,700
Flatfish, Deep	W	2,020	1,740	324	740	740	500
	C	35,580	15,000	5,917	20,680	20,680	8,000
	E	7,930	3,000	124	4,990	4,990	500
	Total	45,530	19,740	6,365	26,410	26,410	9,000
Rex sole	W				1,280	1,280	500
	C	included in deepwater flatfish			14,900	14,900	7,000
	E				2,940	2,940	500
	Total				19,120	19,120	8,000
Flathead sole	W	12,580	2,000	607	12,580	12,580	2,000
	C	31,830	5,000	1,803	31,830	31,830	5,000
	E	5,040	3,000	7	5,040	5,040	3,000
	Total	49,450	10,000	2,417	49,450	49,450	10,000
Flatfish, Shallow	W	27,480	4,500	380	27,480	27,480	4,500
	C	21,260	10,000	4,820	21,260	21,260	10,000
	E	1,740	1,740	5	1,740	1,740	1,740
	Total	50,480	16,240	5,205	50,480	50,480	16,240
Arrowtooth	W	38,880	5,000	1,852	38,880	38,880	5,000
	C	253,330	20,000	15,656	253,330	253,330	20,000
	E	29,080	5,000	813	29,080	29,080	5,000
	Total	321,290	30,000	18,321	321,290	321,290	30,000
Sablefish	W	2,030	2,030	726	2,030	2,030	2,030
	C	9,610	9,610	11,945	9,610	9,610	9,610
	W. Yakutat	3,830	3,830	4,561	3,830	3,830	3,830
	E. Yak./SEO	5,430	5,430	5,367	5,430	5,430	5,430
	Total	20,900	20,900	22,599	20,900	20,900	20,900
Pacific Ocean	W	753	341	492	760	760	341
Perch	C	949	949	1,177	950	950	949
	E	1,676	1,270	511	1,670	1,670	1,270
	Total	3,378	2,560	2,180	3,380	3,380	2,560
	Shorthead / Rougheye	W	100	90	135	100	100
Rockfish (Other Slope)	C	1,290	1,161	1,190	1,290	1,290	1,161
	E	570	513	538	570	570	513
	Total	1,960	1,764	1,863	1,960	1,960	1,764
	W	330	214	444	330	330	214
Northern Rockfish	C	1,640	1,064	1,541	1,640	1,640	1,064
	E	6,330	4,105	1,455	6,330	6,330	4,105
	Total	8,300	5,383	3,440	8,300	8,300	5,383
	W	1,000	1,000	798	1,000	1,000	1,000
Rockfish (Pelagic Shelf)	C	4,720	4,720	3,822	4,720	4,720	4,720
	E	40	40	61	40	40	40
	Total	5,760	5,760	4,681	5,760	5,760	5,760
	W	1,010	1,010	260	1,010	1,010	1,010
DSR	C	4,450	4,450	1,773	4,450	4,450	4,450
	E	1,280	1,280	1,058	1,280	1,280	1,280
	Total	6,740	6,740	3,091	6,740	6,740	6,740
	W	1,010	1,010	260	1,010	1,010	1,010
Thornyhead	S.E. Out.	800	800	524	943	943	800
Atka mackerel	Gulfwide	1,180	1,062	1,395	1,180	1,180	1,062
Other Species	Gulfwide	with other species		3,258	4,800	4,800	4,800
	Gulfwide	NA	14,602	9,299	NA	NA	14,602
<b>GULF OF ALASKA TOTAL</b>		<b>732,868</b>	<b>306,651</b>	<b>224,920</b>	<b>757,663</b>	<b>656,963</b>	<b>273,861</b>

\* Catch through August 21, 1993