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Exhibit F.1.b
Supplemental NMFS Report on halibut bycatch
September 2002

Estimates of Pacific Halibut Bycatch and Mortality in IPHC Area 2A in 2001

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This report updates the estimate of Pacific halibut bycatch and mortality in the bottom trawl fishery through the calendar year 2001. The estimate of halibut bycatch and mortality in the bottom trawl fishery is based upon the method developed in the report for 1999 which uses halibut bycatch rates observed during 1995-1999 in the Enhanced Data Collection Program (EDCP). These rates are stratified by season, depth, latitude, and level of arrowtooth flounder catch, then multiplied by the amount of trawl effort in each stratum determined from Oregon and Washington trawl logbooks in 2001. Estimated halibut bycatch and mortality in other gear types has not been updated for 2001.

GROUNDFISH FISHERY BACKGROUND

Changes in the groundfish fishery and its management affect the amount of groundfish fishing effort and the geographic and temporal distribution of this effort. These changes will affect the calculated halibut bycatch amount because of the differences in bycatch rate between the several time and area strata. Here we briefly describe the management changes that occurred in 2000 and 2001.

For the 2000 season, bottom trawl trip limits for shelf and nearshore rockfish were reduced by over 90% from 1999 levels. Further, the use of small footrope gear (rollers of 8" or less) was required in 2000 to land any shelf or nearshore rockfish species. Substantial limits for widow, yellowtail, and chilipepper rockfish remained available, but only when using mid-water gear. The intent of the new gear restriction and lower bottom trawl limits was to eliminate targeting on and reduce the bycatch of shelf species that had been declared overfished. While these changes could have shifted effort from rockier habitat into lower-relief bottom areas, landings of flatfish other than Dover sole actually fell by more than 2,100 mt in 2000, with most of the reduction occurring in Oregon and Washington. This response was likely influenced by processors inability to market the same amount of flatfish with dramatically lesser amounts of rockfish.

The restrictive rockfish limits and gear restrictions designed to protect overfished shelf species were maintained during the 2001 fishery. Additionally, north of 40o10' N. Lat. slope rockfish limits were reduced to protect darkblotched rockfish. While most fishing for flatfish species other than Dover sole in 2000 was not subject to trip limits, limits were imposed on landings of these species in 2001, from May through the end of the year. A bycatch allowance for yellowtail rockfish caught with flatfish was also added. Despite closure of the DTS complex from October through the end of the year, which could have redirected considerable effort into shelf flatfish fisheries, landings of flatfish species other than Dover fell by another 500 mt between 2000 and 2001.

HISTORICAL BYCATCH ESTIMATES

Bottom Trawl Fishery for Groundfish

Estimated bycatch and mortality of halibut in 1987, 1992, and 1995 are summarized in Table 1. As described by Williams, et al. (1998), these halibut bycatch and mortality estimates were based upon catch rates observed during a voluntary fisheries observer program conducted during the late 1980s. Approximately 1,062 tows by bottom trawl fisheries off Oregon and Washington were observed during 1985-1987. An additional 65 tows were observed off California during 1988-1990. Catch rates were stratified by fishing strategy, depth, season, and area as described by Pikitch, et al. (1998).

Shrimp Trawl

Halibut bycatch in shrimp trawls in 1987, 1992, and 1995 reported by Williams, et al (1998), are shown in Table 2 and the methods are briefly described below. Bob Hannah (ODFW, personal communication) produced three estimates of the 1998 halibut bycatch for PSFMC Areas 2B-3C and these are given in Table 3. The three bycatch estimates were based on three different data sources: 1) bycatch rates observed during 128 tows by Pikitch, et al., during 1985-87; 2) control net catch rates from 166 tows observed by Hannah, et al. (1996); and 3) data compiled from shrimp fishing trips observed during 1996-99 by the EDCP, combined with control net catches from ODFW research charters during the same time period (for a total of 203 observed tows). Given the range of estimates and the data limitations, Hannah estimates that the 1998 bycatch mortality of legal-sized halibut (>81 cm) from Oregon is about 16,000 lbs, net weight.

The approximate number of tows in the 1998 Oregon shrimp fishery was over 10,000. The halibut bycatch estimates for this fishery are based on expanding the encounter rates (pounds of halibut per single-rig equivalent hour (sreh)) by the effort expended by vessels landing shrimp in Oregon ports only. The estimates are not stratified by depth because the depth range of the shrimp fishery is very restricted and the amount of data is very limited. Bycatch from vessels landing shrimp into Washington ports is not included.

UPDATED BYCATCH ESTIMATES FOR 2001

Analysis of Enhanced Data Collection Program

From November 1995 through December 1998, observers quantified halibut catches on the west coast bottom trawl fisheries during the Enhanced Data Collection Program (EDCP). In addition, skippers participating in the EDCP filled out enhanced logbooks on which aggregate halibut catch information was recorded. During the program, when no observer was onboard, skippers continued to fill out the enhanced logbooks.

In the 1,825 EDCP tows from both Washington and Oregon, an estimated 11,434 halibut were caught. However, using only observed EDCP tows with complete strata information (see below), 4,816 halibut were measured by observers. The length frequency breakdown of these halibut can be seen in Table 4. Washington records in the EDCP data include individual lengths, but no individual weights. Also, since there were also some anomalies in the Oregon state landings of individual weights the 'net pounds per length interval' information in Table 4 is from a length-weight relationship for Pacific halibut (IPHC, personal communication).

Wallace (2000) used similar methods to those in Pikitch (1998) to analyze the EDCP data and identify appropriate strata for bycatch estimation. These strata are season (Jan-Aug and Sept-Dec), depth (0-100, 100-300, 300-700 fathoms), area (five latitude ranges) and catch of arrowtooth flounder (0-20 lbs per hour and >20 lbs). Numbers of tows, halibut catches, halibut catch rates, and proportion of legal-sized halibut (>81 cm) are given for each of these strata in Table 5. These methods and preliminary results were reviewed and approved by the Pacific Fishery Management Council's Scientific and Statistical Committee during the June and September 2000 meetings.

Bottom Trawl Effort from Logbooks

Logbook data for Oregon and Washington in 2001 was obtained from PacFIN. Trawl effort from logbooks was accumulated into each of the strata identified in the EDCP analyses. Port and Month were added as factors for Oregon logbooks to avoid any potential bias created by unequal collection of logbooks in the three major ports (Astoria, Newport, and Coos Bay). ODFW collects logbook data for 70-80% of the trawl deliveries during a typical year, thus the need to avoid collection bias.

Total trawl effort (hours) for the entire Oregon fleet was based on expanding the groundfish catch in logbook data by the total groundfish catch reported on fish tickets, as follows. Expansion ratios, by port and month, were derived by dividing aggregate catch on fish tickets by aggregate catch in the logbook data. These expansion ratios were applied to the tow effort (hours) to arrive at the expanded effort for Oregon's trawl fleet. The expanded effort was then combined into the strata based on the EDCP analysis.

Such an effort expansion was not conducted for the Washington fleet because WDFW expands their effort, so total fleet effort is equal to reported logbook effort. The total fleet effort for each stratum in 2001 is reported in Table 6.

Halibut bycatch for each stratum is estimated by multiplying total (expanded) effort by the halibut bycatch rate for that stratum. Bycatch by the bottom trawl fleet is estimated by summing across strata. If there was effort within a strata, but no EDCP tows, the average bycatch rate

was used: 1.795 halibut per hour by number and 13.652 kg per hour for weight. Likewise, the average proportion legal was used when no other estimate was available: 0.7444 by weight. Preliminary work with more a sophisticated approach to imputing these missing data had very little effect on the calculated total bycatch.

As in earlier years, half of the released halibut are assumed to survive capture, and therefore, bycatch mortality of halibut is assumed to be 50% of total bycatch. The bycatch mortality of legal-sized halibut (> 81cm) is estimated from the length frequencies of halibut measured in the EDCP study. Measurements of fish lengths were converted to fish weight based on a length-weight relationship for Pacific halibut (IPHC, personal communication), and the proportion of legal-sized fish (by weight) was computed for each stratum in the EDCP analysis. Updated results for 2001 are presented in Table 7 and added to the long-term time series in Tables 8 and 9. Although the total trawl effort decreased 5% from 2000 to 2001, the estimated halibut bycatch increased by 1.9%, due to redistribution of the effort into strata with higher halibut bycatch rates.

It is not possible to make a forecast at this time for the 2002 fishery. In the future, the observer program, started by the NWFSC in the autumn of 2001, will provide a more complete and timely view of the bycatch of Pacific halibut in the west coast bottom trawl fishery.

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Table 1. Halibut bycatch and mortality in the bottom trawl fisheries for groundfish off the west coast, estimated from Pikitch, et al., 1998 and reported by Williams, et al., Jan. 23, 1998 document.

Year	Trawl Effort (hours)	Estimated Halibut Bycatch (numbers)	Estimated Halibut Bycatch (kg., round)	Estimated Halibut Bycatch (lbs, net)	Estimated Total Halibut Mortality (lbs, net)	Estimated Legal-Sized Halibut Mortality (lbs, net)
1987	135,075	78,765	372,911	616,702	308,351	191,178
1992	182,155	89,756	465,595	769,979	384,989	238,693
1995	72,295	113,702	663,262	1,096,870	548,435	340,030

Note: For 1995, bycatch estimates for Areas 1B-2A off California are not included. Mortality estimated at 50% of bycatch. Legal-sized mortality (>81 cm) estimated at 62%, by weight, of total mortality. 1 kg, round = 1.65375 lbs, net weight.

Table 2. Halibut bycatch and mortality in the bottom trawl fishery for pink shrimp off the west coast, reported by Williams, et al., Jan. 23, 1998.

Year	Trawl Effort (hours)	Estimated Halibut Bycatch (numbers)	Estimated Halibut Bycatch (kg., round)	Estimated Halibut Bycatch (lbs, net)	Estimated Total Halibut Mortality (lbs, net)	Legal-sized Bycatch Mortality (lbs, net)
1987	193,694	20,536	98,983	163,693	81,847	50,745
1992	107,015	10,244	51,671	85,450	42,725	26,490
1995	----	----	----	100,000	50,000	31,000

Note: For 1995, bycatch estimates for Areas 1B-2A off California are not included. Mortality estimated at 50% of bycatch. Proportion of legal-sized mortality (>81 cm) is assumed to be 62% by weight. 1 kg, round = 1.65375 lbs, net weight.

Table 3. Estimated 1998 halibut bycatch and mortality in the bottom trawl fishery for pink shrimp (landings into Oregon ports only). (Bob Hannah, personal communication, October 8, 1999 memo).

Data Source	Single-rig Equivalent Hours (sreh) Observed	Bycatch Rate (lbs/sreh)	Fishing Effort (sreh) in Oregon Landings	Bycatch Estimate (kg., round)	Bycatch Mortality (lbs, net)	Legal-sized Bycatch Mortality (lbs, net)
Pikitch (1)	---	1.22	34,543	19,155	15,839	9,820
Hannah (2)	236.5	2.60	34,543	40,824	33,756	20,929
EDCP (3)	551.1	2.12	34,543	33,287	27,524	17,065

Note: Mortality estimated at 50% of bycatch. Proportion of legal-sized mortality (>81 cm) is assumed to be 62% by weight. 1 kg, round = 1.65375 pounds, net weight.

Table 4. Length frequency and net pounds per length interval for Pacific halibut from the EDCP database. (The upper limits on the length intervals are inclusive, the lower limits are not.)

Length Interval (cm)	Length Freq.	Percent Length Freq.	Net lbs per Interval	Percent net lbs per
20-25	1	0.02	0	0.00
25-30	2	0.04	1	0.00
30-35	2	0.04	1	0.00
35-40	0	0.00	0	0.00
40-45	4	0.08	5	0.01
45-50	7	0.15	13	0.02
50-55	10	0.21	25	0.04
55-60	17	0.35	61	0.09
60-65	123	2.55	572	0.87
65-70	379	7.87	2199	3.33
70-75	777	16.13	5614	8.51
75-80	754	15.66	6725	10.19
80-85	624	12.96	6815	10.33
85-90	561	11.65	7438	11.27
90-95	447	9.28	7125	10.80
95-100	356	7.39	6680	10.12
100-105	266	5.52	5901	8.94
105-110	151	3.14	3903	5.91
110-115	126	2.62	3748	5.68
115-120	71	1.47	2440	3.70
120-125	57	1.18	2237	3.39
125-130	39	0.81	1746	2.65
130-135	19	0.39	971	1.47
135-140	9	0.19	511	0.77
140-145	2	0.04	128	0.19
145-150	4	0.08	294	0.45
150-155	4	0.08	320	0.49
155-160	1	0.02	88	0.13
160-165	0	0.00	0	0.00
165-170	1	0.02	110	0.17
170-175	0	0.00	0	0.00
175-180	1	0.02	135	0.20
180-185	0	0.00	0	0.00
185-190	0	0.00	0	0.00
190-195	0	0.00	0	0.00
195-200	1	0.02	184	0.28
Total	4816	100.00	65992	100.00

Table 5. Numbers of tows, halibut catches, and halibut catch rates, by strata, observed during the Enhanced Data Collection Program of the bottom trawl fishery for groundfish. (The upper limits on the all intervals are inclusive, the lower limits are not.)

SEASON: JANUARY - AUGUST

Arrow-tooth Catch (lbs/h)	Latitude	Depth (Fathoms)	Number of Observed Tows	Number of Tows with >1 Halibut	Total Number of Halibut	Number of Halibut per Hour	Wgt. (kg., rnd) Halibut per Hour	Proportion Legal by Weight	Proportion Legal by Number
≤ 20	40.667 - 41.667	0 - 100	0						
		100 - 300	0						
		300 - 700	2	0	0	0.00	0.00		
	41.667 - 42.667	0 - 100	2	1	7	1.99	16.61	0.837	0.714
		100 - 300	9	0	0	0.00	0.00		
		300 - 700	14	1	1	0.01	0.14	1.000	1.000
	42.667 - 46.667	0 - 100	147	64	236	0.55	5.25	0.825	0.633
		100 - 300	164	81	590	0.80	8.12	0.792	0.604
		300 - 700	137	3	5	0.00	0.03	0.670	0.600
	46.667 - 47.667	0 - 100	68	40	238	3.81	32.65	0.793	0.601
		100 - 300	24	14	83	0.81	6.47	0.728	0.549
		300 - 700	37	2	2	0.02	0.11	0.618	0.500
	47.667 - 48.667	0 - 100	98	57	571	2.48	16.41	0.474	0.290
		100 - 300	76	52	1196	4.29	26.71	0.643	0.450
		300 - 700	57	14	312	0.64	4.05	0.679	0.482
> 20	40.667 - 41.667	0 - 100	0						
		100 - 300	0						
		300 - 700	0						
	41.667 - 42.667	0 - 100	0						
		100 - 300	1	1	1	1.33	8.83	1.000	1.000
		300 - 700	0						
	42.667 - 46.667	0 - 100	58	32	295	1.55	14.15	0.760	0.560
		100 - 300	89	54	658	1.45	13.07	0.804	0.621
		300 - 700	8	3	5	0.10	1.10	1.000	1.000
	46.667 - 47.667	0 -100	10	9	161	2.98	21.24	0.682	0.453
		100 - 300	17	16	486	8.01	70.71	0.751	0.570
		300 - 700	2	1	12	1.09	7.00	0.455	0.286
	47.667 - 48.667	0 -100	36	35	1179	10.63	68.60	0.442	0.254
		100 - 300	50	43	2157	16.37	114.68	0.600	0.376
		300 - 700	0						

Table 5. Continued.

SEASON: SEPTEMBER - DECEMBER

Arrow-tooth Catch (lbs/h)	Latitude	Depth (Fathoms)	Number of Observed Tows	Number of Tows with ≥1 Halibut	Total Number of Halibut	Number of Halibut per Hour	Wgt. (kg, rnd) Halibut per Hour	Proportion Legal by Weight	Proportion Legal by Number
≤ 20	40.667 - 41.667	0 - 100	1	0		0.00	0.00		
		100 - 300	5	0		0.00	0.00		
		300 - 700	9	0		0.00	0.00		
	41.667 - 42.667	0 - 100	19	9	32	0.53	9.37	0.981	0.938
		100 - 300	6	3	5	0.20	2.03	0.745	0.600
		300 - 700	19	0		0.00	0.00		
	42.667 - 46.667	0 - 100	198	50	145	0.29	2.48	0.775	0.560
		100 - 300	124	52	518	1.14	12.48	0.861	0.716
		300 - 700	65	3	4	0.01	0.04	0.392	0.250
	46.667 - 47.667	0 - 100	37	22	83	0.64	7.02	0.845	0.632
		100 - 300	11	4	25	0.42	3.03	0.631	0.429
		300 - 700	12	1	5	0.04	0.46	0.795	0.600
	47.667 - 48.667	0 - 100	31	13	133	2.52	18.68	0.636	0.481
		100 - 300	26	20	444	5.87	36.85	0.641	0.484
		300 - 700	6	1	23	0.38	3.73	0.771	0.600
> 20	40.667 - 41.667	0 - 100	0						
		100 - 300	0						
		300 - 700	0						
	41.667 - 42.667	0 - 100	0						
		100 - 300	0						
		300 - 700	0						
	42.667 - 46.667	0 - 100	16	4	6	0.12	1.89	0.872	0.667
		100 - 300	19	9	57	0.85	8.00	0.781	0.632
		300 - 700	0						
	46.667 - 47.667	0 - 100	0						
		100 - 300	7	6	11	0.27	2.97	0.857	0.727
		300 - 700	0						
	47.667 - 48.667	0 - 100	0						
		100 - 300	11	8	53	1.41	14.75	0.916	0.806
		300 - 700	0						

Table 6. Trawl effort (hours) from Oregon and Washington logbook data for catch of arrowtooth flounder less than or equal to 20 lbs per hour. (The upper limits on the all intervals are inclusive, the lower limits are not.)

		Jan-Aug Effort	Sept-Dec Effort
Latitude	Depth	2001	2001
40.667- 41.667	(0-100]	4	3
40.667- 41.667	100-300	159	41
40.667- 41.667	300-700	611	107
41.667- 42.667	0-100	367	459
41.667- 42.667	100-300	1625	164
41.667- 42.667	300-700	2201	371
42.667- 46.667	0-100	5797	2321
42.667- 46.667	100-300	10751	1950
42.667- 46.667	300-700	9332	1712
46.667- 47.667	0-100	941	399
46.667- 47.667	100-300	916	110
46.667- 47.667	300-700	1321	382
47.667- 48.667	0-100	2563	867
47.667- 48.667	100-300	1600	158
47.667- 48.667	300-700	1628	268

Table 6. (Continued.) Trawl effort (hours) from Oregon and Washington logbook data for catch of arrowtooth flounder greater than 20 lbs per hour. (The upper limits on the all intervals are inclusive, the lower limits are not.)

		Jan-Aug Effort	Sept-Dec Effort
Latitude	Depth	2001	2001
40.667- 41.667	0-100	0	0
40.667- 41.667	100-300	0	0
40.667- 41.667	300-700	0	0
41.667- 42.667	0-100	0	23
41.667- 42.667	100-300	87	36
41.667- 42.667	300-700	13	0
42.667- 46.667	0-100	1262	356
42.667- 46.667	100-300	7882	1064
42.667- 46.667	300-700	406	10
46.667- 47.667	0-100	491	290
46.667- 47.667	100-300	767	66
46.667- 47.667	300-700	28	0
47.667- 48.667	0-100	1148	334
47.667- 48.667	100-300	3060	539
47.667- 48.667	300-700	204	4

Table 7. Halibut bycatch and mortality in the Oregon and Washington bottom trawl fisheries for groundfish off the west coast, estimated from the Enhanced Data Collection Program (EDCP).

Year	Trawl Effort (hours)	Estimated Halibut Bycatch (numbers)	Estimated Halibut Bycatch (kg., round)	Estimated Halibut Bycatch (lbs, net)	Est. Total Halibut Mortality (lbs, net)	Estimated Legal-Sized Halibut Mortality (lbs, net)
1998	92,294	164,961	1,259,374	2,082,690	1,041,345	691,755
1999	81,420	147,995	1,144,236	1,892,280	946,140	638,091
2000	70,363	122,234	944,120	1,561,338	780,669	523,097
2001	67,199	124,969	962,348	1,591,482	795,741	532,912

Note: Halibut bycatch by California bottom trawl fishery is not included. Mortality estimated at 50% of bycatch. Proportion of legal-sized mortality (>81 cm) estimated from length frequencies of fish measured in EDCP. 1 kg, round = 1.65375 pounds, net weight.

Table 8. Summary of total estimated bycatch mortality of Pacific halibut, in thousands of pounds, net weight, by fishery in 2A. Bycatch mortality estimates for 1977-1997 are reported from Table 6 in Williams, et al. 1998.

Year	Foreign, JV & Catcher-Proc.	Groundfish Trawls	Shrimp Trawls	Hook & Line	TOTAL
1977	3	308	82	16	409
1978	2	308	82	16	408
1979	1	308	82	16	407
1980	1	308	82	16	407
1981	Trace	308	82	16	406
1982	Trace	308	82	16	406
1983	1	308	82	16	407
1984	Trace	308	82	16	406
1985	Trace	308	82	16	406
1986	1	308	82	16	407
1987	1	308	82	16	407
1988	1	308	82	16	407
1989	2	308	82	16	408
1990	2	308	82	16	408
1991	2	308	82	16	408
1992	0	385	43	16	444
1993	0	385	43	16	444
1994	0	385	43	16	444
1995	0	548	50	16	614
1996	0	548	50	16	614
1997	0	548	50	16	614
1998	0	1,041	25	---	---
1999	---	946	---	---	---
2000	---	781	---	---	---
2001	---	796	---	---	---

Note: Bycatch mortality by groundfish trawls in 1998-2000 does not include fisheries off California. Bycatch mortality by shrimp trawls in 1998 does not include fisheries off California and Washington.

Table 9. Summary of estimated legal-sized mortality of legal-sized Pacific halibut, in thousands of pounds, net weight, by fishery in 2A. Legal-sized mortality for 1977-1997 is estimated as 62% of total mortality for these years (as given in Table 8). Bycatch mortality estimates for legal-sized halibut for 1999 and 2000 are from this report. (Sums across fisheries may not always equal Total due to rounding.)

Year	Foreign, JV & Catcher-Proc.	Groundfish Trawls	Shrimp Trawls	Hook & Line	TOTAL
1977	2	191	51	10	254
1978	1	191	51	10	253
1979	0.6	191	51	10	252
1980	0.6	191	51	10	252
1981	Trace	191	51	10	252
1982	Trace	191	51	10	252
1983	0.6	191	51	10	252
1984	Trace	191	51	10	252
1985	Trace	191	51	10	252
1986	0.6	191	51	10	252
1987	0.6	191	51	10	252
1988	0.6	191	51	10	252
1989	1	191	51	10	253
1990	1	191	51	10	253
1991	1	191	51	10	253
1992	0	239	27	10	275
1993	0	239	27	10	275
1994	0	239	27	10	275
1995	0	340	31	10	381
1996	0	340	31	10	381
1997	0	340	31	10	381
1998	0	692	16	---	---
1999	---	638	---	---	---
2000	---	523	---	---	---
2001	---	533	---	---	---

Note: Bycatch mortality by groundfish trawls in 1998-2000 does not include fisheries off California. Bycatch mortality by shrimp trawls in 1998 does not include fisheries off California and Washington. The value for groundfish trawls in 1998, 1999 and 2000 is revised upwards from previous estimates due to an updated estimate of percent legal.

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON STATUS OF 2002 PACIFIC HALIBUT FISHERIES

Dr. Rick Methot presented an updated report on Pacific halibut bycatch and mortality in the groundfish fishery with new estimates for 2001. Although no new data on halibut bycatch rates are available, total bycatch estimates for 2001 were derived from effort data by stratum from trawl logbooks in 2001 and halibut bycatch rates during 1995-1999 in the Enhanced Data Collection Program (EDCP). The estimates use methodology accepted by the Scientific and Statistical Committee (SSC) in September 2000, and are based on bycatch rates stratified by season, depth, latitude, and the level of arrowtooth flounder catch.

The SSC notes that observer data collected since August 2001 are scheduled to become available in late 2002. These data will make it possible to obtain annual estimates of halibut bycatch and mortality starting with 2002. For future updates, the SSC recommends use of the current year bycatch rate and halibut length composition to estimate bycatch and mortality. Given the ad hoc nature of using mean bycatch rates and proportion legal for strata without observations, the SSC encourages exploration of alternative approaches to handle missing data. The SSC notes that estimating halibut bycatch is conceptually no different than estimating bycatch of other non-target species, so adopting a uniform approach to analyzing observer bycatch data may be advantageous.

PFMC
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Exhibit F.1
Attachment 1
September 2002

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Dr. Bruce M. Leaman
Executive Director
International Pacific Halibut Commission
P.O. Box 95009
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Dear Dr. Leaman:

Enclosed please find the final report of the Area 2A halibut bycatch mortality in 2000. Your staff have reviewed several drafts. Their comments have been included in this version. This report addresses the problem found in the draft report presented at the January 2002 IPHC meeting.

If you have any questions, please feel free to contact me at (206) 860-5616.

Sincerely,

Dr. M. Elizabeth Clarke
Director,
Fishery Resource Analysis & Monitoring Division

cc: McIsaac - PFMC
Robinson - NWR
Balsiger - AKR
Anderson - WDFW
Bodenmiller - ODFW
Varanasi - NWFSC
Hoard - IPHC

Estimates of Pacific Halibut Bycatch and Mortality in IPHC Area 2A in 2000

John Wallace
Richard Methot

NOAA Fisheries - NWFSC

April, 2002

This report updates the estimate of Pacific halibut bycatch and mortality in the bottom trawl fishery through the calendar year 2000 and corrects an error, in the calculation of percent legal-sized mortality, that occurred in the report for 1999 and the September 2001 draft of this report. The estimate of halibut bycatch and mortality in the bottom trawl fishery is based upon the method developed in the report for 1999 which uses halibut bycatch rates observed during 1995-1999 in the Enhanced Data Collection Program (EDCP). These rates are stratified by season, depth, latitude, and level of arrowtooth flounder catch, then multiplied by the amount of trawl effort in each stratum determined from Oregon and Washington trawl logbooks in 2000. Estimated halibut bycatch and mortality in other gear types has not been updated for 2000, so is assumed to be at the same level as the most recent estimate.

Changes in bottom trawl fishing regulations for 2000 were designed to redistribute trawl effort and may have affected halibut bycatch. For 2000 the trip limits for rockfish inhabiting the shelf area were reduced by approximately 80-90% from 1999 limits. Further, trawlers were allowed to use only small footrope gear (rollers of 8" or less) to land rockfish from nearshore or shelf areas. The intent of this gear requirement was to reduce rockfish catches to incidental levels. Some of the trawl effort could have moved nearshore to harvest flatfish. This may have affected the distribution of trawl effort among the strata used in the halibut bycatch estimate and thus could have affected the overall estimate of halibut bycatch.

HISTORICAL BYCATCH ESTIMATES

Bottom Trawl Fishery for Groundfish

Estimated bycatch and mortality of halibut in 1987, 1992, and 1995 are summarized in Table 1. As described by Williams, et al. (1998), these halibut bycatch and mortality estimates were based upon catch rates observed during a voluntary fisheries observer program conducted during the late 1980s. Approximately 1,062 tows by bottom trawl fisheries off Oregon and Washington were observed during 1985-1987. An additional 65 tows were observed off California during 1988-1990. Catch rates were stratified by fishing strategy, depth, season, and area as described by Pikitch, et al. (1998).

Shrimp Trawl

Halibut bycatch in shrimp trawls in 1987, 1992, and 1995 reported by Williams, et al (1998), are shown in Table 2 and the methods are briefly described below.

Bob Hannah (ODFW, personal communication) produced three estimates of the 1998 halibut bycatch for PSFMC Areas 2B-3C and these are given in Table 3. The three bycatch estimates were based on three different data sources: 1) bycatch rates observed during 128 tows by Pikitch, et al., during 1985-87; 2) control net catch rates from 166 tows observed by Hannah, et al. (1996); and 3) data compiled from shrimp fishing trips observed during 1996-99 by the EDCP, combined with control net catches from ODFW research charters during the same time period (for a total of 203 observed tows). Given the range of estimates and the data limitations, Hannah estimates that the 1998 bycatch mortality of legal-sized halibut (>81 cm) from Oregon is about 16,000 lbs, net weight.

The approximate number of tows in the 1998 Oregon shrimp fishery was over 10,000. The halibut bycatch estimates for this fishery are based on expanding the encounter rates (pounds of halibut per single-rig equivalent hour (sreh)) by the effort expended by vessels landing shrimp in Oregon ports only. The estimates are not stratified by depth because the depth range of the shrimp fishery is very restricted and the amount of data is very limited. Bycatch from vessels landing shrimp into Washington ports is not included.

UPDATED BYCATCH ESTIMATES FOR 2000

Analysis of Enhanced Data Collection Program

From November 1995 through December 1998, observers quantified halibut catches on the west coast bottom trawl fisheries during the Enhanced Data Collection Program (EDCP). In addition, skippers participating in the EDCP filled out enhanced logbooks on which aggregate halibut catch information was recorded. During the program, when no observer was onboard, skippers continued to fill out the enhanced logbooks.

In the 1,825 EDCP tows from both Washington and Oregon, an estimated 11,434 halibut were caught. However, using only observed EDCP tows with complete strata information (see below), 4,816 halibut were measured by observers. A preliminary version of this report prepared in September 2001 erroneously calculated the percent legal because of database complications caused by this difference in measured versus total sample size. The length frequency breakdown of these halibut can be seen in Table 4. Washington state landings in the EDCP data include individual lengths, but no individual weights. Also, since there were also some anomalies in the Oregon state landings of individual weights the 'net pounds per length interval' information in Table 4 is from a length-weight relationship for Pacific halibut (IPHC, personal communication).

The first author (Wallace, 2000) used similar methods to those in Pikitch (1998) to analyze the EDCP data and identify appropriate strata for bycatch estimation. These strata are season (Jan-Aug and Sept-Dec), depth (0-100, 100-300, 300-700 fathoms), area (five latitude ranges) and

catch of arrowtooth flounder (0-20 lbs per hour and >20 lbs). Numbers of tows, halibut catches, halibut catch rates, and proportion of legal-sized halibut (>81 cm) are given for each of these strata in Table 5. These methods and preliminary results were reviewed and approved by the Pacific Fishery Management Council's Scientific and Statistical Committee during the June and September 2000 meetings.

Bottom Trawl Effort from Logbooks

Logbook data for Oregon and Washington in 1999 and 2000 were obtained from PacFIN. Trawl effort from logbooks was accumulated into each of the strata identified in the EDCP analyses. Port and Month were added as factors for Oregon logbooks to avoid any potential bias created by unequal collection of logbooks in the three major ports (Astoria, Newport, and Coos Bay). ODFW collects logbook data for 70-80% of the trawl deliveries during a typical year, thus the need to avoid collection bias.

Total trawl effort (hours) for the entire Oregon fleet was based on expanding the groundfish catch rates in logbook data by the total groundfish catch reported on fish tickets, as follows. The average groundfish CPUE (catch per hour) was estimated from logbooks for each stratum in the EDCP analysis. The remaining "unknown" groundfish catch from deliveries for which representative logbooks were not available was divided by this average CPUE to estimate non-logbook effort. This year, the calculation of the non-logbook effort from 1999 Oregon logbook data is a few % less than the expansion calculated last year, possibly because of a better match of logbook to fish ticket records.

Total fleet effort is the combined logbook effort plus the estimated non-logbook effort in each stratum. Such an effort expansion was not conducted for the Washington fleet because WDFW provides essentially 100% logbook coverage, so total fleet effort is equal to reported logbook effort. The total fleet effort for each stratum in 1999 and 2000 is reported in Table 6.

Halibut bycatch for each stratum is estimated by multiplying total effort and the appropriate halibut bycatch rate for that stratum. Bycatch by the bottom trawl fleet is estimated by summing across strata. If there was effort within a strata, but no EDCP tows, the average bycatch rate was used. Likewise, the average percent legal was used when no other estimate was available. Since a relatively small amount of effort is unmatched by a rate, making this adjustment only increased the estimate of legal-sized halibut mortality by 1.64%.

As in earlier years, half of the released halibut are assumed to survive capture, and therefore, bycatch mortality of halibut is assumed to be 50% of total bycatch. The bycatch mortality of legal-sized halibut (> 81cm) is estimated from the length frequencies of halibut measured in the EDCP study. Measurements of fish lengths were converted to fish weight based on a length-weight relationship for Pacific halibut (IPHC, personal communication), and the proportion of legal-sized fish (by weight) was computed for each stratum in the EDCP analysis. Updated results for 1998 and 1999 and the new results for 2000 are presented in Table 7 and added to the long-term time series in Tables 8 and 9.

CONCLUSION

The EDCP is the first data to provide Pacific halibut discard information in IPHC Area 2A since 1987, and consequently the first since the new gear requirements. The analysis of this data has provided a fresh insight into the magnitude of this important bycatch and its correlation with the catch of other species. This new analysis was also interwoven with a challenging transition period in which the calculation of effort was moved from the state agencies to the Northwest Fisheries Science Center (NWFSC). In addition, the effort data is now being obtained from PacFIN.

In the future, the observer program, started by the NWFSC in the autumn of 2001, will provide a more complete and timely view of the bycatch of Pacific halibut in the west coast bottom trawl fishery.

REFERENCES

Pikitch, E.K., Wallace, J.R., Babcock, E.A., Erickson, D.L., Saelens, M., and Oddsson, G. (1998) Pacific halibut bycatch in the Washington, Oregon, and California groundfish and shrimp trawl fisheries. North American Journal of Fisheries Management. Volume 18, pp. 569-586.

Wallace, J.R. (2000) Unpublished report. Pacific halibut discard in the EDCP Observer Program. June 2000. 18 pg.

Williams, G. H., G. Stauffer, H. Weeks, M. Saelens, J. Scordino, D. Bodenmiller, and T. Northup (1998). Pacific halibut bycatch in Area 2A: Bycatch rates and current estimates of bycatch mortality. Int. Pac. Halibut Comm. Rep. of Assess. and Res. Activ. 1998: 269-282.

Table 1. Halibut bycatch and mortality in the bottom trawl fisheries for groundfish off the west coast, estimated from Pikitch, et al., 1998 and reported by Williams, et al., Jan. 23, 1998 document.

Year	Trawl Effort (hours)	Estimated Halibut Bycatch (numbers)	Estimated Halibut Bycatch (kg., round)	Estimated Halibut Bycatch (lbs, net)	Estimated Total Halibut Mortality (lbs, net)	Estimated Legal-Sized Halibut Mortality (lbs, net)
1987	135,075	78,765	372,911	616,702	308,351	191,178
1992	182,155	89,756	465,595	769,979	384,989	238,693
1995	72,295	113,702	663,262	1,096,870	548,435	340,030

Note: For 1995, bycatch estimates for Areas 1B-2A off California are not included. Mortality estimated at 50% of bycatch. Legal-sized mortality (>81 cm) estimated at 62%, by weight, of total mortality. 1 kg, round = 1.65375 lbs, net weight.

Table 2. Halibut bycatch and mortality in the bottom trawl fishery for pink shrimp off the west coast, reported by Williams, et al., Jan. 23, 1998.

Year	Trawl Effort (hours)	Estimated Halibut Bycatch (numbers)	Estimated Halibut Bycatch (kg., round)	Estimated Halibut Bycatch (lbs, net)	Estimated Total Halibut Mortality (lbs, net)	Legal-sized Bycatch Mortality (lbs, net)
1987	193,694	20,536	98,983	163,693	81,847	50,745
1992	107,015	10,244	51,671	85,450	42,725	26,490
1995	----	----	----	100,000	50,000	31,000

Note: For 1995, bycatch estimates for Areas 1B-2A off California are not included. Mortality estimated at 50% of bycatch. Proportion of legal-sized mortality (>81 cm) is assumed to be 62% by weight. 1 kg, round = 1.65375 lbs, net weight.

Table 3. Estimated 1998 halibut bycatch and mortality in the bottom trawl fishery for pink shrimp (landings into Oregon ports only). (Bob Hannah, personal communication, October 8, 1999 memo).

Data Source	Single-rig Equivalent Hours (sreh) Observed	Bycatch Rate (lbs/sreh)	Fishing Effort (sreh) in Oregon Landings	Bycatch Estimate (kg., round)	Bycatch Mortality (lbs, net)	Legal-sized Bycatch Mortality (lbs, net)
Pikitch (1)	---	1.22	34,543	19,155	15,839	9,820
Hannah (2)	236.5	2.60	34,543	40,824	33,756	20,929
EDCP (3)	551.1	2.12	34,543	33,287	27,524	17,065

Note: Mortality estimated at 50% of bycatch. Proportion of legal-sized mortality (>81 cm) is assumed to be 62% by weight. 1 kg, round = 1.65375 pounds, net weight.

Table 4. Length frequency and net pounds per length interval for Pacific halibut from the EDCP database.

Length Interval (cm)	Length Freq.	Percent Length Freq.	Net lbs per Interval	Percent net lbs per
20-25	1	0.02	0	0.00
25-30	2	0.04	1	0.00
30-35	2	0.04	1	0.00
35-40	0	0.00	0	0.00
40-45	4	0.08	5	0.01
45-50	7	0.15	13	0.02
50-55	10	0.21	25	0.04
55-60	17	0.35	61	0.09
60-65	123	2.55	572	0.87
65-70	379	7.87	2199	3.33
70-75	777	16.13	5614	8.51
75-80	754	15.66	6725	10.19
80-85	624	12.96	6815	10.33
85-90	561	11.65	7438	11.27
90-95	447	9.28	7125	10.80
95-100	356	7.39	6680	10.12
100-105	266	5.52	5901	8.94
105-110	151	3.14	3903	5.91
110-115	126	2.62	3748	5.68
115-120	71	1.47	2440	3.70
120-125	57	1.18	2237	3.39
125-130	39	0.81	1746	2.65
130-135	19	0.39	971	1.47
135-140	9	0.19	511	0.77
140-145	2	0.04	128	0.19
145-150	4	0.08	294	0.45
150-155	4	0.08	320	0.49
155-160	1	0.02	88	0.13
160-165	0	0.00	0	0.00
165-170	1	0.02	110	0.17
170-175	0	0.00	0	0.00
175-180	1	0.02	135	0.20
180-185	0	0.00	0	0.00
185-190	0	0.00	0	0.00
190-195	0	0.00	0	0.00
195-200	1	0.02	184	0.28
Total	4816	100.00	65992	100.00

Table 5. Numbers of tows, halibut catches, and halibut catch rates, by strata, observed during the Enhanced Data Collection Program of the bottom trawl fishery for groundfish.

SEASON: JANUARY - AUGUST

Arrow-tooth Catch (lbs/h)	Latitude	Depth (Fathoms)	Number of Observed Tows	Number of Tows with ≥1 Halibut	Total Number of Halibut	Number of Halibut per Hour	Wgt. (kg., rnd) Halibut per Hour	Proportion Legal by Weight	Proportion Legal by Number
≤ 20	40.667 - 41.667	0 - 100	0						
		100 - 300	0						
		300 - 700	2	0	0	0.00	0.00		
	41.667 - 42.667	0 - 100	2	1	7	1.99	16.61	0.837	0.714
		100 - 300	9	0	0	0.00	0.00		
		300 - 700	14	1	1	0.01	0.14	1.000	1.000
	42.667 - 46.667	0 - 100	147	64	236	0.55	5.25	0.825	0.633
		100 - 300	164	81	590	0.80	8.12	0.792	0.604
		300 - 700	137	3	5	0.00	0.03	0.670	0.600
	46.667 - 47.667	0 - 100	68	40	238	3.81	32.65	0.793	0.601
		100 - 300	24	14	83	0.81	6.47	0.728	0.549
		300 - 700	37	2	2	0.02	0.11	0.618	0.500
	47.667 - 48.667	0 - 100	98	57	571	2.48	16.41	0.474	0.290
		100 - 300	76	52	1196	4.29	26.71	0.643	0.450
		300 - 700	57	14	312	0.64	4.05	0.679	0.482
> 20	40.667 - 41.667	0 - 100	0						
		100 - 300	0						
		300 - 700	0						
	41.667 - 42.667	0 - 100	0						
		100 - 300	1	1	1	1.33	8.83	1.000	1.000
		300 - 700	0						
	42.667 - 46.667	0 - 100	58	32	295	1.55	14.15	0.760	0.560
		100 - 300	89	54	658	1.45	13.07	0.804	0.621
		300 - 700	8	3	5	0.10	1.10	1.000	1.000
	46.667 - 47.667	0 -100	10	9	161	2.98	21.24	0.682	0.453
		100 - 300	17	16	486	8.01	70.71	0.751	0.570
		300 - 700	2	1	12	1.09	7.00	0.455	0.286
	47.667 - 48.667	0 -100	36	35	1179	10.63	68.60	0.442	0.254
		100 - 300	50	43	2157	16.37	114.68	0.600	0.376
		300 - 700	0						

Table 5. Continued.

SEASON: SEPTEMBER - DECEMBER

Arrow-tooth Catch (lbs/h)	Latitude	Depth (Fathoms)	Number of Observed Tows	Number of Tows with ≥1 Halibut	Total Number of Halibut	Number of Halibut per Hour	Wgt. (kg, rnd) Halibut per Hour	Proportion Legal by Weight	Proportion Legal by Number
≤ 20	40.667 - 41.667	0 - 100	1	0		0.00	0.00		
		100 - 300	5	0		0.00	0.00		
		300 - 700	9	0		0.00	0.00		
	41.667 - 42.667	0 - 100	19	9	32	0.53	9.37	0.981	0.938
		100 - 300	6	3	5	0.20	2.03	0.745	0.600
		300 - 700	19	0		0.00	0.00		
	42.667 - 46.667	0 - 100	198	50	145	0.29	2.48	0.775	0.560
		100 - 300	124	52	518	1.14	12.48	0.861	0.716
		300 - 700	65	3	4	0.01	0.04	0.392	0.250
	46.667 - 47.667	0 - 100	37	22	83	0.64	7.02	0.845	0.632
		100 - 300	11	4	25	0.42	3.03	0.631	0.429
		300 - 700	12	1	5	0.04	0.46	0.795	0.600
	47.667 - 48.667	0 - 100	31	13	133	2.52	18.68	0.636	0.481
		100 - 300	26	20	444	5.87	36.85	0.641	0.484
		300 - 700	6	1	23	0.38	3.73	0.771	0.600
> 20	40.667 - 41.667	0 - 100	0						
		100 - 300	0						
		300 - 700	0						
	41.667 - 42.667	0 - 100	0						
		100 - 300	0						
		300 - 700	0						
	42.667 - 46.667	0 - 100	16	4	6	0.12	1.89	0.872	0.667
		100 - 300	19	9	57	0.85	8.00	0.781	0.632
		300 - 700	0						
	46.667 - 47.667	0 - 100	0						
		100 - 300	7	6	11	0.27	2.97	0.857	0.727
		300 - 700	0						
	47.667 - 48.667	0 - 100	0						
		100 - 300	11	8	53	1.41	14.75	0.916	0.806
		300 - 700	0						

Table 6. Trawl effort (hours) from Oregon and Washington logbook data for catch of arrowtooth flounder less than or equal to 20 lbs per hour.

		Jan-Aug Effort		Sept-Dec Effort	
Latitude	Depth	1999	2000	1999	2000
40.667- 41.667	0-100	4	0	6	0
40.667- 41.667	100-300	82	95	60	0
40.667- 41.667	300-700	502	653	281	179
41.667- 42.667	0-100	507	94	155	135
41.667- 42.667	100-300	1619	1019	856	669
41.667- 42.667	300-700	1779	1666	1060	850
42.667- 46.667	0-100	7863	4356	2165	1530
42.667- 46.667	100-300	8683	9184	4492	4931
42.667- 46.667	300-700	9106	9107	4864	4088
46.667- 47.667	0-100	2376	1603	392	265
46.667- 47.667	100-300	759	776	486	337
46.667- 47.667	300-700	1536	1040	509	373
47.667- 48.667	0-100	2752	1967	782	884
47.667- 48.667	100-300	1757	1632	610	778
47.667- 48.667	300-700	1533	1067	332	480

Table 6. (Continued.) Trawl effort (hours) from Oregon and Washington logbook data for catch of arrowtooth flounder greater than 20 lbs per hour.

		Jan-Aug Effort		Sept-Dec Effort	
Latitude	Depth	1999	2000	1999	2000
40.667- 41.667	0-100	0	0	0	0
40.667- 41.667	100-300	0	0	22	0
40.667- 41.667	300-700	0	0	0	0
41.667- 42.667	0-100	11	0	10	3
41.667- 42.667	100-300	250	237	165	32
41.667- 42.667	300-700	41	29	0	0
42.667- 46.667	0-100	1563	1831	599	658
42.667- 46.667	100-300	7455	7267	3834	3307
42.667- 46.667	300-700	495	650	218	148
46.667- 47.667	0-100	972	345	196	242
46.667- 47.667	100-300	907	358	369	217
46.667- 47.667	300-700	49	47	9	20
47.667- 48.667	0-100	1889	2019	210	291
47.667- 48.667	100-300	2898	2112	1073	601
47.667- 48.667	300-700	261	161	16	28

Table 7. Halibut bycatch and mortality in the Oregon and Washington bottom trawl fisheries for groundfish off the west coast, estimated from the Enhanced Data Collection Program (EDCP).

Year	Trawl Effort (hours)	Estimated Halibut Bycatch (numbers)	Estimated Halibut Bycatch (kg., round)	Estimated Halibut Bycatch (lbs, net)	Estimated Total Halibut Mortality (lbs, net)	Estimated Legal-Sized Halibut Mortality (lbs, net)
1998	92,294	164,961	1,259,374	2,082,690	1,041,345	691,755
1999	81,420	147,995	1,144,236	1,892,280	946,140	638,091
2000	70,363	122,234	944,120	1,561,338	780,669	523,097

Note: Halibut bycatch by California bottom trawl fishery is not included. Mortality estimated at 50% of bycatch. Proportion of legal-sized mortality (>81 cm) estimated from length frequencies of fish measured in EDCP. 1 kg, round = 1.65375 pounds, net weight. The slight upward change in the numbers and weight in 1998 is due to a re-estimate that is consistent with the analysis for 1999 and 2000. The values for 1999 and 2000 have been revised due to an updated estimate of effort. For all three years, the estimate of legal-sized halibut has been revised upwards from previous estimates due to an updated estimate of percent legal.

Table 8. Summary of total estimated bycatch mortality of Pacific halibut, in thousands of pounds, net weight, by fishery in 2A. Bycatch mortality estimates for 1977-1997 are reported from Table 6 in Williams, et al. 1998.

Year	Foreign, JV & Catcher-Proc.	Groundfish Trawls	Shrimp Trawls	Hook & Line	TOTAL
1977	3	308	82	16	409
1978	2	308	82	16	408
1979	1	308	82	16	407
1980	1	308	82	16	407
1981	Trace	308	82	16	406
1982	Trace	308	82	16	406
1983	1	308	82	16	407
1984	Trace	308	82	16	406
1985	Trace	308	82	16	406
1986	1	308	82	16	407
1987	**1**	**308**	**82**	**16**	**407**
1988	1	308	82	16	407
1989	2	308	82	16	408
1990	2	308	82	16	408
1991	2	308	82	16	408
1992	**0**	**385**	**43**	**16**	**444**
1993	0	385	43	16	444
1994	0	385	43	16	444
1995	**0**	**548**	**50**	**16**	**614**
1996	0	548	50	16	614
1997	0	548	50	16	614
1998	**0**	**1,041**	**25**	**---**	**---**
1999	**---**	**946**	**---**	**---**	**---**
2000	**---**	**781**	**---**	**---**	**---**

Note: Bycatch mortality by groundfish trawls in 1998-2000 does not include fisheries off California. Bycatch mortality by shrimp trawls in 1998 does not include fisheries off California and Washington. The slight upward change in 1998 for groundfish trawls is due to a re-estimate that is consistent with the analysis for 1999 and 2000. The value for groundfish trawls in 1999 and 2000 have been revised due to an updated estimate of effort.

Table 9. Summary of estimated legal-sized mortality of legal-sized Pacific halibut, in thousands of pounds, net weight, by fishery in 2A. Legal-sized mortality for 1977-1997 is estimated as 62% of total mortality for these years (as given in Table 8). Bycatch mortality estimates for legal-sized halibut for 1999 and 2000 are from this report. (Sums across fisheries may not always equal Total due to rounding.)

Year	Foreign, JV & Catcher-Proc.	Groundfish Trawls	Shrimp Trawls	Hook & Line	TOTAL
1977	2	191	51	10	254
1978	1	191	51	10	253
1979	0.6	191	51	10	252
1980	0.6	191	51	10	252
1981	Trace	191	51	10	252
1982	Trace	191	51	10	252
1983	0.6	191	51	10	252
1984	Trace	191	51	10	252
1985	Trace	191	51	10	252
1986	0.6	191	51	10	252
1987	**0.6**	**191**	**51**	**10**	**252**
1988	0.6	191	51	10	252
1989	1	191	51	10	253
1990	1	191	51	10	253
1991	1	191	51	10	253
1992	**0**	**239**	**27**	**10**	**275**
1993	0	239	27	10	275
1994	0	239	27	10	275
1995	**0**	**340**	**31**	**10**	**381**
1996	0	340	31	10	381
1997	0	340	31	10	381
1998	**0**	**692**	**16**	**---**	**---**
1999	**---**	**638**	**---**	**---**	**---**
2000	**---**	**523**	**---**	**---**	**---**

Note: Bycatch mortality by groundfish trawls in 1998-2000 does not include fisheries off California. Bycatch mortality by shrimp trawls in 1998 does not include fisheries off California and Washington. The value for groundfish trawls in 1998, 1999 and 2000 is revised upwards from previous estimates due to an updated estimate of percent legal.

Exhibit F.1
Attachment 2
September 2002

INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA

AND THE UNITED STATES OF AMERICA

DIRECTOR
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July 2, 2002

Dr. M. Elizabeth Clarke, Director
Fishery Resource Analysis and Monitoring Division
Northwest Fisheries Science Center
2725 Montlake Boulevard E
Seattle, WA 98112-2097

Dear Elizabeth:

Thank you for the revised report on IPHC Area 2A bycatch mortality. Gregg Williams of our staff had reviewed the report and we believe the revised version addresses the calculation issues we had noted previously concerning 1999 and 2000 estimates. I appreciate your constructive response to the issue and anticipate our staffs will strive to avoid recurrence. A minor editorial issue: intervals of length and depth in Tables 4-6 should be relabeled as they suggest overlap in measurements.

Our understanding is that this analysis will be updated this summer and that the estimate for 2001 will be transmitted to the Commission and the SSC for review and comments in September. We anticipate receiving a final number by October 15th in time for inclusion in our stock assessment. As you are aware, we normally carry forward the estimate from the previous year to use in our yield apportionment table for the coming year. In this case, we would use the forthcoming 2001 bycatch mortality estimate in the table for 2003 yields. However, the Pacific Fishery Management Council's recent decisions on restricted fishing opportunities for 2002 and likely for 2003 raises the question as to the appropriate level of bycatch mortality that should be used in calculations for 2003 yields. In addition, new observer data may also be available. We will need to make a determination this fall and would appreciate your views on methods to calculate an appropriate bycatch mortality figure for Area 2A.

Sincerely,

Bruce

Bruce M. Leaman
Executive Director

cc: McIsaac – PFMC
Hoard – IPHC
Varanasi – NMFS/NWFSC
Anderson - WDFW
Robinson – NMFS/NWR
Bodenmiller - ODFW
Balsiger – NMFS/AKR

STATUS OF 2002 PACIFIC HALIBUT FISHERIES

Situation: The 2002 Pacific halibut season in the Council management area is winding down. After August 16, 2002, only a few fisheries remain, including the incidental halibut catch in the directed longline sablefish fishery north of Point Chehalis, Washington. Other fisheries with remaining quotas include the Central Oregon all-depth recreational fishery and the south Washington recreational fishery. Supplemental Attachment 1 provides a preliminary report summarizing the harvest in the 2002 Pacific halibut fisheries in Area 2A to date.

Dr. Elizabeth Clarke, National Marine Fisheries Service (NMFS), will brief the Council on the status of bycatch estimates for Pacific halibut in the Council-area groundfish trawl fishery. The estimates for bycatch in the 2000 groundfish trawl fishery in International Pacific Halibut Commission (IPHC) Area 2A were revised by the IPHC subsequent to approval by the Council last September as a result of mis-communication between NMFS, the Council, and the IPHC regarding some technical concerns with the estimation methodology. Those concerns have been worked out satisfactorily among the parties (Exhibit F.1, Attachments 1 and 2), and are addressed in the 2001 bycatch estimates.

The halibut bycatch estimates for the 2001 groundfish trawl fishery in Area 2A waters should be completed just prior to the September Council meeting. A report will be provided to the Scientific and Statistical Committee (SSC) for review with the intent of providing estimates to the IPHC to use in establishing the 2003 halibut fisheries.

Council Task:

1. **Utilizing input from the SSC, provide any needed Council guidance to the completion of the bycatch assessment and its transmittal to the IPHC.**

Reference Materials:

1. Letter to Mr. Bruce Leaman, IPHC Executive Director, from Dr. Elizabeth Clarke and attached report: *Estimates of Pacific Halibut Bycatch and Mortality in IPHC Area 2A in 2000* (Exhibit F.1, Attachment 1).
2. Letter to Dr. Elizabeth Clarke, NMFS, from Mr. Bruce Leaman (Exhibit F.1, Attachment 2).
3. Preliminary Report on the 2002 Pacific Halibut Fisheries in Area 2A (Exhibit B.1, Supplemental Attachment 1).

Agenda Order:

a. Agendum Overview — Chuck Tracy
b. NMFS Report — Yvonne de Reynier/Elizabeth Clarke
c. Reports and Comments of Advisory Bodies
d. Public Comment
e. Council Discussion

PFMC
08/16/02

REPORT ON THE 2002 PACIFIC HALIBUT FISHERIES IN AREA 2A

The 2002 Area 2A total allowable catch (TAC) of 1,310,000 lb set by the International Pacific Halibut Commission (IPHC) was allocated as sub-TACs as follows:

Treaty Indian	483,500 lb	(35.0% + 25,000 lb)
Non-Treaty Total	826,500 lb	(65.0% - 25,000 lb)
Non-Treaty Commercial	350,390 lb	(includes incidental sablefish)
Washington Sport	214,110 lb	
Oregon/California Sport	262,001 lb	

The structure of each fishery and the resulting harvests are described below.

NON-TREATY COMMERCIAL FISHERY

A sub-TAC of 262,001 lb (31.7% of the non-treaty share) was allocated to this fishery. The commercial fishery was divided into two components: 1) a directed longline fishery targeting on halibut south of Point Chehalis, WA; and 2) an incidental catch fishery during the salmon troll fisheries off Washington, Oregon, and California.

In 2002, the overall Area 2A TAC was high enough to allow incidental halibut retention in the primary, limited entry, fixed gear sablefish fishery. Although this is a non-treaty commercial fishery, the allocation for this fishery comes from the Washington sport fishery allocation. If the Area 2A TAC is greater than 900,000 lb, the primary sablefish fishery north of Pt. Chehalis is allocated the Washington sport allocation that is in excess of 214,110 lb, provided that at least 10,000 lb is available to the fishery. If the amount above 214,110 lb is less than 10,000 lb, then the excess is allocated to the Washington sport fisheries. The 2002 allocation to this fishery was 88,389 lb.

Incidental halibut catch in the salmon troll fishery A quota of 39,300 lb (15% of the non-Indian commercial fishery allocation) was allocated to the salmon troll fishery in Area 2A as an incidental catch during chinook fisheries. According to the Catch Sharing Plan, the primary management objective for this fishery is to harvest the troll quota as an incidental catch during the May/June salmon troll fishery. If any of the allocation for this fishery remains after June 30, the fishery may continue to retain incidentally caught halibut in the July through September salmon troll fisheries until the quota is taken, or until the overall non-treaty commercial catch limit is taken. The final catch ratio established preseason by the Council at the April meeting was one halibut (minimum 32") per three chinook landed by a salmon troller, except that one halibut could be landed without meeting the ratio requirement, and no more than 35 halibut could be landed per trip.

- Halibut retention was permitted in the salmon troll fishery from May 1 through August 21, 2002. Of the halibut taken in the salmon troll fisheries 9,686 lb were landed in

Oregon and 28,281 lb were landed in Washington, for a total of 37, 967 lb (3.3% under quota.)

Directed fishery targeting on halibut A quota of 222,270 lb (85% of the non-treaty commercial fishery allocation) was allocated to the directed longline fishery targeting on halibut in southern Washington, Oregon, and California. The fishery was confined to the area south of Subarea 2A-1 (south of Point Chehalis, WA; 46° 53'18" N. lat.). One-day fishing periods of 10 hours in duration were scheduled by the IPHC for June 26, July 10, July 24, August 7, August 21, and September 4. A 32" minimum size limit was in effect for all openings. Vessel landing limits per fishing period based on vessel length were imposed by IPHC during all openings as shown in the following table. Vessels choosing to operate in this fishery could not land halibut in the incidental catch salmon troll fishery, nor operate in the recreational fishery.

Fishing period limits (dressed weight, head-off in pounds) by vessel size.

Vessel Class/Size	6/26/01 Opening	7/10/01 Opening	7/24/01 Opening
A 0 - 25 ft.	405 lb	335 lb	335 lb
B 26 - 30 ft.	505 lb	420 lb	420 lb
C 31 - 35 ft.	805 lb	670 lb	670 lb
D 36 - 40 ft.	2,220 lb	1,850 lb	1,850 lb
E 41 - 45 ft.	2,390 lb	1,990 lb	1,990 lb
F 46 - 50 ft.	2,860 lb	2,385 lb	2,385 lb
G 51 - 55 ft.	3,190 lb	2,660 lb	2,660 lb
H 56+ ft.	4,800 lb	4,000 lb	4,000 lb

- The June 26 directed commercial fishery resulted in a catch of about 129,000 lb, leaving 93,700 lb for later openings.
- The July 10 directed commercial fishery resulted in a catch of about 46,000 lb, leaving 47,700 lb for later openings.
- The July 24 directed commercial fishery resulted in a catch of about 48,000 lb, closing the directed commercial fishery for 2002 with an approximate 300 lb (0.13%) overage.

Incidental halibut catch in the primary sablefish longline fishery north of Point Chehalis
A quota of 88,389 lb was allocated to the limited entry primary sablefish fishery in Area 2A as an incidental catch during longline sablefish operations north of Point Chehalis, WA. The primary sablefish season began on April 1, 2002, and closes October 31, 2002, although incidental halibut retention was not available until May 1. Properly licensed vessels could retain up to 150 lb of dressed weight (headed-and gutted) halibut per 1,000 lb of dressed weight sablefish, plus up to two additional halibut per fishing trip. Each vessel was allowed to retain up to a total cumulative limit of halibut that was based on the amount of primary season sablefish available to that vessel when the vessel applied for a 2002 IPHC license. Incidental halibut landings in the primary sablefish fishery through August 22, 2002 were 33,908 lb.

SPORT FISHERIES (Non-treaty).
A sub-TAC of 476,111 lb (68.3% of non-treaty share) was allocated between sport fisheries in the Washington area (48.5%) and Oregon/California (51.5%). The allocations were further subdivided as quotas among seven geographic subareas as described below.

Washington Inside Waters Subarea (Puget Sound and Straits of Juan de Fuca). This area was allocated 57,393 lb (26.1% of the Washington sport allocation). Due to inability to monitor the catch in this area inseason, a fixed season was established preseason based on projected catch per day and number of days to achieve the sub-quota. For the first time, this subarea was divided into two regions with two seasons. The Eastern Region (East of Low Point) opened on May 9 and continued through July 12, 5 days per week (closed Tuesday and Wednesday). The Western Region opened on May 23 and continued through July 26, 5 days per week. The daily bag limit was one halibut of any size per person. Catch totals from this sub-area are not yet available.

Northern Washington Coastal Waters Subarea (landings in Neah Bay and La Push). The coastal area off Cape Flattery to Queets River was allocated 108,030 lb (53.0% of the Washington sport allocation). The fishery was divided into two seasons with 38,000 lb set aside for the second season. The fishery was to open May 1 and continue 5 days per week (closed Sunday and Monday) until 70,030 lb were estimated to have been taken. The second season was to open July 1- 4, and to reopen after July 4 if quota were available. A portion of this subarea, located about 19 miles southwest of Cape Flattery, was closed to halibut fishing. The daily bag limit was one halibut of any size per person.

- The fishery opened May 1 and continued 5 days a week, until May 28, when 80,094 lb was estimated to have been taken. This left 27,936 lb remaining for the July 4th weekend, not enough to open for the entire July 1-4 period.

- The season re-opened for July 3-4, during which 17,456 lb were taken, for a total of 97,550 lb, leaving approximately 10,480 lb in the quota.

- The halibut remaining in the quota was estimated to be enough for another day of North Coast fishing. The season re-opened on August 3, when an additional 6,873 lb was taken. The fishery was closed with 3,607 lb remaining in the quota (3.3% under quota.)

Washington South Coast Subarea (landings in Westport). The area from the Queets River to Leadbetter Point was allocated 42,739 lb (18.3% of the Washington sport allocation). The fishery was to open on May 1 and continue 5 days per week (closed Friday and Saturday) offshore, until the quota was taken. An inshore fishery was also to open May 1 and continue 7 days per week in waters between the Queets River and 47° 00'00" N. lat., and east of 124°40'00" W. long. through the closure of the offshore fishery until either the subarea quota were estimated to have been taken, or until September 30, whichever occurred first. The daily bag limit was one halibut of any size per person.

- The 5 day per week offshore fishery and the 7 day per week inshore fishery opened on May 1 and continued until July 11, when an estimated 35,549 lb of halibut had been taken.

- To reduce incidental catch of rockfish taken in the sport halibut fisheries, particularly yelloweye rockfish, available fishing zones within the South Coast subarea were restricted to a halibut hotspot approximately 34 miles offshore of Westport, Washington, and to the nearshore area between 47° N. lat., south to 46°38'10" N. lat., and east of 124°27' W. long. Fishing in this area was restricted to 2 days per week (Friday and Saturday). Both this restricted-area fishery and the 7 day per week inshore fishery remain open as of August 21, 2002.

Columbia River Subarea (Leadbetter Point to Cape Falcon). This sport fishery subarea was allocated 11,188 lb, consisting of 2.7% of the Washington sport allocation plus 2.0% of the Oregon/California sport allocation. The fishery was to open May 1 and continue 7 days per week until September 30 or until the quota has been taken. The daily bag limit is the first halibut taken of 32 inches or greater in length.

- This 7 day per week fishery began on May 1 and continued through to May 25, with a total of 9,764 lb landed, 1,424 lb under quota.

Oregon North Central and South Central Coast Subareas (Cape Falcon to the Siuslaw River and the Siuslaw River to Humbug Mountain). These two sport fishery subareas have traditionally been managed as a single unit with separate allocations for the May all-depth fishery. The North Central Coast subarea was allocated 230,639 (88.03% of the Oregon/California sport allocation) and the South Central Subarea was allocated 18,261 lb (6.97% of the Oregon/California sport allocation).

Three seasons were set for these combined subareas: 1) a restricted depth (inside 30 fathoms) fishery to commence on May 1 and continue every day until the combined North Central and

South Central nearshore sub-quota of 19,797 lb was estimated to have been taken; 2) a fixed May season in all depths that was to open on May 10, 11, 17, and 18, with catch allocations of 156,835 lb in the North Central Subarea and 14,609 lb in the South Central Subarea, and; 3) a fixed August season in all depths from Cape Falcon to Humbug Mountain on August 2 and/or 3, or until the combined all-depth subquotas for Oregon south of Cape Falcon totaling 229,103 lb were estimated to have been taken. The daily bag limit was the first halibut taken of 32 inches or greater in length.

- The inside 30-fathom fishery opened on May 1 and is scheduled to close September 30. As of August 25, 2,017 lb of halibut had been taken in the inside 30-fathom fishery.

- The first fixed all-depth season in May, held May 10, 11, 17 and 18, had a total catch of 75,434 lb in the North and 8,123 in the South, which was far enough below the 156,835 lb North and 14,609 lb South quotas to allow openings on additional days during the May-June period. The all-depth season re-opened on the following pre-scheduled days: June 7, 8, 21, and 22. During these four all-depth days in June, the combined North Central and South Central fisheries took an additional 42,698 lb, leaving 45,189 lb in the May-June all-depth quota. This remaining poundage was made available to the August-September all-depth fishery .

- The August all-depth season draws on the combined quotas of the Oregon north central and south central fisheries. The initial 57,660 lb available to this fishery was supplemented by the 45,189 lb underage from the May-June all-depth fisheries. As a result of this revision, 102,849 lb was available to the August 2 and 3 all-depth fishery. In any brief fishery, weather has a significant effect on harvest rates and the weather for August 2 and 3 was poor. The combined central coast fisheries took 38,425 lb on August 2 and 3, which was far enough below the available quota amount to allow additional opening days in August and September. The all-depth season had been scheduled to re-open on August 23 and 24. On those dates, the fishery took 24,692 lb, leaving 39,732 lb remaining in the available quota. Before the season, additional potential opening dates had been scheduled for September 20 and 21. Because both the all-depth fishery and nearshore fishery were well under their respective quotas, ODFW, NMFS and IPHC decided to provide further opening dates. The final all-depth halibut season off central Oregon is scheduled for September 20-21 and the agencies agreed that sufficient halibut remained to also open on September 18-19. NMFS expects to finalize this recommendation through a Federal Register publication in mid-September.

South of Humbug Mountain, Oregon and off the California Coast Subarea This sport fishery was allocated 6,809 lb (3.0% of the Oregon/California quota). This area had a pre-set season of 7 days per week from May 1 to September 30 and a bag limit of the first halibut taken of 32 inches or greater in length.

- This season is scheduled to remain open through September 30. No catch estimates are available for this fishery, but it is very unlikely that this subarea quota will be taken.

TRIBAL FISHERIES

A sub-TAC of 483,500 lb (35% + 25,000 lb of the Area 2A TAC) was allocated to Tribal fisheries. The tribes estimated that 16,000 lb would be used for ceremonial and subsistence (C&S) fisheries and the remaining 467,500 lb was allocated to the commercial fishery. The tribal commercial fishery was scheduled to open on March 18, 2002 pursuant to regulations adopted by the IPHC and continue until the tribal commercial subquota was reached. The tribal C&S fishery was scheduled to run throughout the year.

The tribal commercial halibut allocation is divided so that approximately 80-85% of the allocation is taken in brief, open competition derbies, in which vessels from all halibut tribes compete against each other for landings. In addition to these unrestricted openings, 15-20% of the commercial allocation is reserved for "restricted" fisheries, in which participating vessels from all halibut tribes are restricted to a per vessel and per day poundage limit for halibut (500 lb per vessel/day for 2002 restricted fisheries.)

Fishery	Dates Held	Pounds Landed	# of Landings
Unrestricted, 48-hour	March 18-20	80,867 lb	33 landings
Restricted, 500 lb/vessel/day	March 20 - April 19	69,105 lb	196 landings
Unrestricted, 24-hour	April 2	106,064 lb	34 landings
Restricted, 500 lb/vessel/day	May 5-9	11,746 lb	33 landings
Unrestricted, 36-hour	April 30	202,862 lb	41 landings
Total		470,644 lb	337 landings

The C&S fishery will continue through December 31 and tribal estimates of catch will be reported by the tribes in January 2003.

2002 Area 2A TAC and Catch (in pounds)

	Quota	Inseason Revised Quota	Catch	Over/Under
TREATY INDIAN	483,500			
Commercial	467,500		470,644	0.7%
Ceremonial & Subsistence	16,000		(Ongoing)	
NON-TREATY	826,500			
COMMERCIAL	350,389			
Troll	39,300		37,967	-3.3%
Directed	222,700		223,000	0.1%
Sablefish Incidental	88,389		(Ongoing)	
SPORT	476,111			
WA Sport	214,110			
OR/CA Sport	262,001			
WA Inside Waters	57,393		(Estimates not yet available)	
WA North Coast	108,030		104,423	-3.3%
WA South Coast	42,739		(Ongoing)	
Col River Area	11,188		9,764	-12.7%
OR Central Coast	248,901			
Inside 30 fathoms (all areas)	19,797	4,797	(Ongoing)	
May (North Central Coast)	156,835	113,851	113,851 ★	0.0%
May (South Central Coast)	14,609	12,674	12,674 ★	0.0%
August/September (all areas)	57,660	117,849	(Ongoing)	
OR S. of Humbug/CA	7,860		(Ongoing)	
TOTAL	1,310,000			

★ Although the initial allocation to the August all-depth fisheries was 57,660, the quota was augmented by the underage from the May all-depth fisheries, resulting in 45,189 lb being added to the August all-depth. In accordance with the Catch Sharing plan, an additional 15,000 lb were transferred from the inside-30-fathom fishery to the August all-depth fishery, making the total quota available in August-September 117,849 lb.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PROPOSED CHANGES TO THE 2003 HALIBUT CATCH SHARING PLAN FOR AREA 2A

(f) SPORT FISHERIES

(1)(ii) Washington north coast subarea.

....The ~~structuring~~ **management** objective for this subarea is to **provide a quality recreational** ~~maximize the season length for viable~~ fishing opportunity **during May and July 1 through 4, and June, if possible**. ~~and, if possible, stagger the seasons to spread out this opportunity to anglers who utilize these remote grounds~~. **To meet this objective, the north coast subarea quota will be allocated as follows: 65% for the May/June time period and 35% for the July 1-4 time period.** The fishery **will** open on **a date between** May 1 **and May 15**, and continue 5 days per week (Tuesday through Saturday) **until the May/June allocation is projected to be taken. The fishery will then reopen on July 1 and continue through July 4, if sufficient quota remains. Any unutilized quota will be used to extend the halibut fishery beyond July 4, 5 days per week (Tuesday through Saturday).**...~~The highest priority is for the season to last through the month of May. If sufficient quota remains, the second priority is to establish a fishery that will be open July 1, through at least July 4. If the preseason prediction indicates that these two goals can be met without using the quota for this subarea, then the next priority is to extend the fishery into June and continue for 5 days per week (Tuesday through Saturday) for as long a period as possible~~. ~~A closure to sport fishing for halibut will be established in an area that is approximately 19.5 nm (36.1 km) southwest of Cape Flattery. The size of this closed area may be modified preseason by NMFS to maximize the season length. The closed area is defined as the area within a rectangle defined by these four corners:~~ **An "L-shaped" yelloweye rockfish conservation area which is closed to recreational groundfish and halibut fishing is described by the following coordinates:**

48°00'00"	**124°59'00"**
48°00'00"	**125°18'00"**
48°04'00"	**124°59'00"**
48°04'00"	**125°18'00"**
48°04'00"	**125°11'00"**
48°04'00"	**125°18'00"**
48°18'00"	**125°11'00"**
48°18'00"	**125°18'00"**

OREGON DEPARTMENT OF FISH AND WILDLIFE PROPOSALS FOR MODIFYING THE PACIFIC HALIBUT CATCH SHARING PLAN FOR THE 2002 OREGON FISHERY

The Oregon Department of Fish and Wildlife (ODFW) proposes three changes to the Pacific Halibut Catch Sharing Plan for the 2003 fishery.

1. Flexible inseason management provision

The ODFW proposes increased flexibility to move recreational fishery quota between subareas. During 2002 it appears that the catch limit for the central Oregon area will not be entirely taken. At the same time the subarea off the Columbia River area, which closed May 25, could have used additional poundage to access their remaining poundage of over fourteen hundred pounds. Yet, there is no flexibility within the Catch Sharing Plan to move poundage between sub-areas south of Cape Falcon. This flexibility is only provided for the area north of Cape Falcon.

Another example of the need for flexibility to move poundage between subareas has occurred during the spring all-depth fishery between the north central and south central subareas off Oregon. These fisheries are managed under the fixed day approach. On occasion, during the preseason process to set the number of fixed days, the projected quota for one sub-area is slightly insufficient to allow the same number of fixed days as the other subarea. At the same time the second subarea appears to have excess poundage. These subareas are combined for the summer fishery with the overall objective of equal number of total season days for both subareas. The reason the overall central coast area is split into two subareas during the spring fishery is due to more adverse ocean and bar crossing conditions in the south central subarea. Often the north central subarea is able to fish on a given fixed spring day, while the south central area is not due to adverse weather and/or bar conditions.

Proposal: If either the Columbia River or central Oregon coast sport fishery subareas are not projected to utilize their respective quotas by the season ending date, NMFS may take inseason action to transfer any projected unused quota from one subarea to the other. Additionally before the Spring fishery, NMFS may transfer quota between the north central and south central Oregon sport fishery subareas to meet the objective of setting equal number of fixed fishing days for the spring fishery.

2. Extend the recreational fishery season south of Cape Falcon

The ODFW proposes extending the duration of the south of Cape Falcon recreational season to the end of October. During 2002 it appears that the catch limit for the central Oregon area will not be entirely taken. If the fishery ending date had been October 31, it would allow opening additional days to take the available poundage remaining after the May through September fishery.

Proposal: Extend the recreational fishery season for all subareas south of Cape Falcon, both the all-depth and 30-fathom fishery, through October 31.

3. Change the wording in the catch sharing plan for the Oregon north central and south central subareas from May to Spring and August to Summer and define the spring and summer fishery periods.

The ODFW proposes to better define the spring and summer fisheries off central Oregon. The catch sharing plan refers to May and August for fisheries that often extend over more than one month.

Proposal: Change the wording in the catch sharing plan for the Oregon north central and south central subareas from May to Spring and from August to Summer. Furthermore, define the Spring season to cover the May through July period and Summer season to cover the period August through October period (or through September if proposal 2 is not adopted).

Subject: Fwd: Recreational Halibut Season Costs Too Many Angler Lives
Date: Tue, 21 May 2002 18:10:51 -0700
From: "PFMC Comments" <pfmc.comments@noaa.gov>
To: chuck.tracy@noaa.gov

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384
Phone: 503-820-2280
Fax: 503-820-2299
Toll-Free: 1-866-806-7204
On the web at: http://www.pcouncil.org

Subject: Recreational Halibut Season Costs Too Many Angler Lives
Date: Tue, 21 May 2002 17:05:06 EDT
From: <MarkFPowers@cs.com>
To: pfmc.comments@noaa.gov

Gentlemen:

Another halibut season is here, but I have not had time to get my boat out onto the water to enjoy it! We just came home from a month in Scandinavia where we spent more time dining on fish than on fishing! We found some interesting fishing tackle that we want to try out. We just called a friend to give him a gift of some fishing tackle from Finland when we heard the bad news about the halibut fishing disasters off of the Oregon coast.

We never seem to be available when your halibut meetings are scheduled, but I have tried to give some input by e-mail. I have always been opposed to having the start of halibut season so early in the spring. My reason has always been that the ocean is generally too rough for recreational boats before June. This year, the well-known guide, "Tuna Ted," was involved in an accident at the entrance to Tillamook bay on the way back from a halibut trip. Two of his customers died in the mishap. I have already heard that 4 boats have been lost while halibut fishing this year, and I have only been back from Scandinavia for a few days.

May 1 is just too early for halibut season to open. June 1 is a much more reasonable date, since the water is generally calmer. Perhaps there even need to be some rules limiting the fishery to boats over 25' in length to reduce the chance of boating mishaps. The active fishing season has been pushed to earlier and earlier dates by the charter interests as to not interfere with their own ocean salmon fishing. I really think that more consideration has to be given to the safety of the charter customers and of the private participants in the recreational halibut fishery. With the relatively small number of vessels that are involved in the halibut fishery, the loss of life and property this year was just unacceptable. The accident rate this year was so high that you almost wonder if there should be a fishery at all! The odds were not good for halibut fishermen at all this year. I think that the most reasonable thing to do is to start next year's seasons on June 1. You won't find me going out for halibut under the rough conditions that people have been fishing under at times this month. Charter and guide customers should also feel that they are safe when going fishing. The emphasis has shifted too far in the interest of the profitability of the charter operators. This is supposed to be the public's fishery -- not the private fishery of the charter operators.

Sincerely,
Mark F. Powers
Portland, Oregon

PFMC Comments <pfmc.comments@noaa.gov>

2002 PACIFIC HALIBUT CATCH SHARING PLAN FOR AREA 2A

(a) FRAMEWORK

This Plan constitutes a framework that shall be applied to the annual Area 2A total allowable catch (TAC) approved by the International Pacific Halibut Commission (IPHC) each January. The framework shall be implemented in both IPHC regulations and domestic regulations (implemented by NMFS) as published in the *Federal Register*.

(b) ALLOCATIONS

(1) Except as provided below under (b)(2), this Plan allocates 35 percent of the Area 2A TAC to U.S. treaty Indian tribes in the State of Washington in subarea 2A-1, and 65 percent to non-Indian fisheries in Area 2A. The allocation to non-Indian fisheries is divided into three shares, with the Washington sport fishery (north of the Columbia River) receiving 36.6 percent, the Oregon/California sport fishery receiving 31.7 percent, and the commercial fishery receiving 31.7 percent. Allocations within the non-Indian commercial and sport fisheries are described in sections (e) and (f) of this Plan. These allocations may be changed if new information becomes available that indicates a change is necessary and/or the Pacific Fishery Management Council takes action to reconsider its allocation recommendations. Such changes will be made after appropriate rulemaking is completed and published in the *Federal Register*.

(2) To meet the requirements of U.S. District Court Stipulation and Order (*U.S., et al. v. State of Washington, et al.* Case No. 9213 Phase I, Subproceeding No. 92-1, Stipulation and Order, July 7, 1999), 25,000 lb (11.3 mt) dressed weight of halibut will be transferred from the non-treaty Area 2A halibut allocation to the treaty allocation in Area 2A-1 each year for eight years commencing in the year 2000 and ending in the year 2007, for a total transfer of 200,000 lb (90.7 mt). To accelerate the total transfer, more than 25,000 lb (11.3 mt) may be transferred in any year upon prior written agreement of the parties to the stipulation.

(c) SUBQUOTAS

The allocations in this Plan are distributed as subquotas to ensure that any overage or underage by any one group will not affect achievement of an allocation set aside for another group. The specific allocative measures in the treaty Indian, non-Indian commercial, and non-Indian sport fisheries in Area 2A are described in paragraphs (d) through (f) of this Plan.

(d) TREATY INDIAN FISHERIES

Except as provided above in (b)(2), thirty-five percent of the Area 2A TAC is allocated to 12 treaty Indian tribes in subarea 2A-1, which includes that portion of Area 2A north of Point Chehalis, WA (46°53'18" N. lat.) and east of 125°44'00" W. long. The treaty Indian allocation is to provide for a tribal commercial fishery and a ceremonial and subsistence fishery. These two

fisheries are managed separately; any overages in the commercial fishery do not affect the ceremonial and subsistence fishery. The commercial fishery is managed to achieve an established subquota, while the ceremonial and subsistence fishery is managed for a year-round season. The tribes will estimate the ceremonial and subsistence harvest expectations in January of each year, and the remainder of the allocation will be for the tribal commercial fishery.

(1) The tribal ceremonial and subsistence fishery begins on January 1 and continues through December 31. No size or bag limits will apply to the ceremonial and subsistence fishery, except that when the tribal commercial fishery is closed, treaty Indians may take and retain not more than two halibut per day per person for subsistence purposes. Ceremonial fisheries shall be managed by tribal regulations promulgated inseason to meet the needs of specific ceremonial events. Halibut taken for ceremonial and subsistence purposes may not be offered for sale or sold.

(2) The tribal commercial fishery begins between March 1 and April 1 and continues through November 15 or until the tribal commercial subquota is taken, whichever is earlier. Any halibut sold by treaty Indians during the commercial fishing season must comply with IPHC regulations on size limits for the non-Indian fishery.

(e) NON-INDIAN COMMERCIAL FISHERIES

The non-Indian commercial fishery is allocated 31.7 percent of the non-Indian share of the Area 2A TAC for a directed halibut fishery and an incidental catch fishery during the salmon troll fishery. The non-Indian commercial allocation is approximately 20.6 percent of the Area 2A TAC. Incidental catch of halibut in the primary directed sablefish fishery north of Point Chehalis, WA will be authorized if the Washington sport allocation exceeds 224,110 lb (101.7 mt) as described in section (e)(3) of this Plan. The structuring and management of these three fisheries is as follows.

(1) Incidental halibut catch in the salmon troll fishery.

Fifteen percent of the non-Indian commercial fishery allocation is allocated to the salmon troll fishery in Area 2A as an incidental catch during salmon fisheries. The quota for this incidental catch fishery is approximately 3.1 percent of the Area 2A TAC. The primary management objective for this fishery is to harvest the troll quota as an incidental catch during the May/June salmon troll fishery. The secondary management objective is to harvest the remaining troll quota as an incidental catch during the July through September salmon troll fishery.

(i) The Council will recommend landing restrictions at its spring public meeting each year to control the amount of halibut caught incidentally in the troll fishery. The landing restrictions will be based on the number of incidental harvest license applications submitted to the IPHC, halibut catch rates, the amount of allocation, and other pertinent factors, and may include catch or landing ratios, landing limits, or other means to control the rate of halibut harvest. NMFS will publish the

landing restrictions annually in the *Federal Register*, along with the salmon management measures.

(ii) Inseason adjustments to the incidental halibut catch fishery.

(A) NMFS may make inseason adjustments to the landing restrictions, if requested by the Council Chairman, as necessary to assure that the incidental harvest rate is appropriate for salmon and halibut availability, does not encourage target fishing on halibut, and does not increase the likelihood of exceeding the quota for this fishery. In determining whether to make such inseason adjustments, NMFS will consult with the applicable state representative(s), a representative of the Council's Salmon Advisory Sub-Panel, and Council staff.

(B) Notice and effectiveness of inseason adjustments will be made by NMFS in accordance with paragraph (f)(5) of this Plan.

(iii) If the overall quota for the non-Indian, incidental commercial troll fishery has not been harvested by salmon trollers during the May/June fishery, additional landings of halibut caught incidentally during salmon troll fisheries will be allowed in July and will continue until the amount of halibut that was initially available as quota for the troll fishery is taken or the overall non-Indian commercial quota is estimated to have been achieved by the IPHC. Landing restrictions implemented for the May/June salmon troll fishery will apply for as long as this fishery is open. Notice of the July opening of this fishery will be announced on the NMFS hotline (206) 526-6667 or (800) 662-9825. No halibut retention in the salmon troll fishery will be allowed in July unless the July opening has been announced on the NMFS hotline.

(iv) A salmon troller may participate in this fishery or in the directed commercial fishery targeting halibut, but not in both.

(2) Directed fishery targeting halibut.

Eighty-five percent of the non-Indian commercial fishery allocation is allocated to the directed fishery targeting halibut (e.g., longline fishery) in southern Washington, Oregon, and California. The allocation for this directed catch fishery is approximately 17.5 percent of the Area 2A TAC. This fishery is confined to the area south of Subarea 2A-1 (south of Point Chehalis, WA; 46°53'18" N. lat.). The commercial fishery opening date(s), duration, and vessel trip limits, as necessary to ensure that the quota for the non-Indian commercial fisheries is not exceeded, will be determined by the IPHC and implemented in IPHC regulations. If the IPHC determines that poundage remaining in the quota for the non-Indian commercial fisheries is insufficient to allow an additional day of directed halibut fishing, the remaining halibut will be made available for incidental catch of halibut in the fall salmon troll fisheries (independent of the incidental harvest allocation).

(3) Incidental catch in the sablefish fishery north of Point Chehalis.

If the Area 2A TAC is greater than 900,000 lb (408.2 mt), the primary directed sablefish fishery north of Point Chehalis will be allocated the Washington sport allocation that is in excess of 214,110 lb (97.1 mt), provided a minimum of 10,000 lb (4.5 mt) is available (i.e., the Washington sport allocation is 224,110 lb (101.7 mt) or greater). If the amount above 214,110 lb (97.1 mt) is less than 10,000 lb (4.5 mt), then the excess will be allocated to the Washington sport subareas according to section (f) of this Plan.

The Council will recommend landing restrictions at its spring public meeting each year to control the amount of halibut caught incidentally in this fishery. The landing restrictions will be based on the amount of the allocation and other pertinent factors, and may include catch or landing ratios, landing limits, or other means to control the rate of halibut landings. NMFS will publish the landing restrictions annually in the Federal Register.

(4) Commercial license restrictions/declarations.

Commercial fishers must choose either (1) to operate in the directed commercial fishery in Area 2A and/or retain halibut caught incidentally in the primary directed sablefish fishery north of Point Chehalis, WA or (2) to retain halibut caught incidentally during the salmon troll fishery. Commercial fishers operating in the directed halibut fishery and/or retaining halibut incidentally caught in the primary directed sablefish fishery must send their license application to the IPHC postmarked no later than April 30, or the first weekday in May, if April 30 falls on a weekend, in order to obtain a license to fish for halibut in Area 2A. Commercial fishers operating in the salmon troll fishery who seek to retain incidentally caught halibut must send their application for a license to the IPHC for the incidental catch of halibut in Area 2A postmarked no later than March 31, or the first weekday in April, if March 31 falls on a weekend. Fishing vessels licensed by IPHC to fish commercially in Area 2A are prohibited from operating in the sport fisheries in Area 2A.

(f) SPORT FISHERIES

The non-Indian sport fisheries are allocated 68.3 percent of the non-Indian share, which is approximately 44.4 percent of the Area 2A TAC. The allocation is further divided as subquotas among seven geographic subareas.

(1) Subarea management. The sport fishery is divided into seven sport fishery subareas, each having separate allocations and management measures as follows.

(i) Washington inside waters (Puget Sound) subarea.

This sport fishery subarea is allocated 23.5 percent of the first 130,845 lb (59.4 mt) allocated to the Washington sport fishery, and 32 percent of the Washington sport allocation between 130,845 lb (59.4 mt) and 224,110 lb (101.7 mt) (except as provided in

section (e)(3) of this Plan). This subarea is defined as all U.S. waters east of the mouth of the Sekiu River, as defined by a line extending from 48°17'30" N. lat., 124°23'70" W. long. north to 48°24'10" N. lat., 124°23'70" W. long., including Puget Sound. The structuring objective for this subarea is to provide a stable sport fishing opportunity and maximize the season length. To that end, the Puget Sound subarea may be divided into two regions with separate seasons to achieve a fair harvest opportunity within the subarea. Due to inability to monitor the catch in this area inseason, fixed seasons, which may vary and apply to different regions within the subarea, will be established preseason based on projected catch per day and number of days to achievement of the quota. Inseason adjustments may be made, and estimates of actual catch will be made postseason. The fishery will open in April or May and continue until a dates established preseason (and published in the sport fishery regulations) when the quota is predicted to be taken, or until September 30, whichever is earlier. The Washington Department of Fish and Wildlife will sponsor a public workshop shortly after the IPHC annual meeting to develop recommendations to NMFS on the opening date and weekly structure of the fishery each year. The daily bag limit is one fish per person, with no size limit.

(ii) Washington north coast subarea.

This sport fishery subarea is allocated 62.2 percent of the first 130,845 lb (59.4 mt) allocated to the Washington sport fishery, and 32 percent of the Washington sport allocation between 130,845 lb (59.4 mt) and 224,110 lb (101.7 mt) (except as provided in section (e)(3) of this Plan). This subarea is defined as all U.S. waters west of the mouth of the Sekiu River, as defined above in paragraph (f)(1)(i), and north of the Queets River (47°31'42" N. lat.). The structuring objective for this subarea is to maximize the season length for viable fishing opportunity and, if possible, stagger the seasons to spread out this opportunity to anglers who utilize these remote grounds. The fishery opens on May 1, and continues 5 days per week (Tuesday through Saturday). If May 1 falls on a Sunday or Monday, the fishery will open on the following Tuesday. The highest priority is for the season to last through the month of May. If sufficient quota remains, the second priority is to establish a fishery that will be open July 1, through at least July 4. If the preseason prediction indicates that these two goals can be met without using the quota for this subarea, then the next priority is to extend the fishery into June and continue for 5 days per week (Tuesday through Saturday) for as long a period as possible. No sport fishing for halibut is allowed after September 30. The daily bag limit in all fisheries is one halibut per person with no size limit. A closure to sport fishing for halibut will be established in an area that is approximately 19.5 nm (36.1 km) southwest of Cape Flattery. The size of this closed area may be modified preseason by NMFS to maximize the season length. The closed area is defined as the area within a rectangle defined by these four corners: 48°18'00" N. lat., 125°11'00" W. long.; 48°18'00" N. lat., 124°59'00" W. long.; 48°04'00" N. lat., 125°11'00" W. long.; 48°04'00" N. lat., 124°59'00" W. long.

(iii) Washington south coast subarea.

This sport fishery is allocated 12.3 percent of the first 130,845 lb (59.4 mt) allocated to

the Washington sport fishery, and 32 percent of the Washington sport allocation between 130,845 lb (59.4 mt) and 224,110 lb (101.7 mt) (except as provided in section (e)(3) of this Plan). This subarea is defined as waters south of the Queets River (47°31'42" N. lat.) and north of Leadbetter Point (46°38'10" N. lat.). The structuring objective for this subarea is to maximize the season length, while maintaining a quality fishing experience. The fishery will open on May 1. If May 1 falls on a Friday or Saturday, the fishery will open on the following Sunday. The fishery will be open Sunday through Thursday in all areas, except where prohibited, and the fishery will be open 7 days per week in the area from Queets River south to 47°00'00" N. lat. and east of 124°40'00". The fishery will continue until September 30, or until the quota is achieved, whichever occurs first. Subsequent to this closure, if any remaining quota is insufficient for an offshore fishery, but is sufficient for a nearshore fishery, the area from the Queets River south to 47°00'00" N. lat. and east of 124°40'00" W. long. will reopen for 7 days per week until either the remaining subarea quota is estimated to have been taken and the season is closed by the IPHC, or until September 30, whichever occurs first. The daily bag limit is one halibut per person, with no size limit.

(iv) Columbia River subarea.

This sport fishery subarea is allocated 2.0 percent of the first 130,845 lb (59.4 mt) allocated to the Washington sport fishery, and 4 percent of the Washington sport allocation between 130,845 lb (59.4 mt) and 224,110 lb (101.7 mt) (except as provided in section (e)(3) of this Plan). This subarea also is allocated 2.0 percent of the Oregon/California sport allocation. This subarea is defined as waters south of Leadbetter Point, WA (46°38'10" N. lat.) and north of Cape Falcon, OR (45°46'00" N. lat.). The fishery will open on May 1, and continue 7 days per week until the subquota is estimated to have been taken, or September 30, whichever is earlier. The daily bag limit is the first halibut taken, per person, of 32 inches (81.3 cm) or greater in length.

(v) Oregon north central coast subarea.

If the Area 2A TAC is 388,350 lb (176.2 mt) and greater, this subarea extends from Cape Falcon to the Siuslaw River at the Florence north jetty (44°01'08" N. lat.) and is allocated 88.03 percent of the Oregon/California sport allocation, which is approximately 18.13 percent of the Area 2A TAC. If the Area 2A TAC is less than 388,350 lb (176.2 mt), this subarea extends from Cape Falcon to the Humbug Mountain, Oregon (42°40'30" N. lat.) and is allocated 95.0 percent of the Oregon/California sport allocation. The structuring objectives for this subarea are to provide two periods of fishing opportunity in May and in August in productive deeper water areas along the coast, principally for charterboat and larger private boat anglers, and provide a period of fishing opportunity in the summer for nearshore waters for small boat anglers. Fixed season dates will be established preseason for the May and August openings and will not be modified inseason except that the August openings may be modified inseason if the combined Oregon all-depth quotas are estimated to be achieved. Recent year catch rates will be used as a guideline for estimating the catch rate for the May and August fishery each year. The number of fixed

season days established will be based on the projected catch per day with the intent of not exceeding the subarea season subquotas. ODFW will monitor landings and provide a post-season estimate of catch within 2 weeks of the end of the fixed season. If sufficient catch remains for an additional day of fishing after the May season or the August season, openings will be provided if possible in May and August respectively. Potential additional open dates for both the May and August seasons will be announced preseason. If a decision is made inseason to allow fishing on one or more additional days, notice of the opening will be announced on the NMFS hotline (206) 526-6667 or (800) 662-9825. No all-depth halibut fishing will be allowed on the additional dates unless the opening date has been announced on the NMFS hotline. Any poundage remaining unharvested in the May all-depth subquota will be added to the August all-depth sub-quota. Any poundage that is not needed to extend the inside 30-fathom fishery through to September 30 will be added to the August all-depth season if it can be utilized, and any poundage remaining unharvested from the August all-depth fishery will be added to the inside 30-fathom fishery subquotas. The daily bag limit for all seasons is the first halibut taken, per person, of 32 inches (81.3 cm) or greater in length. ODFW will sponsor a public workshop shortly after the IPHC annual meeting to develop recommendations to NMFS on the open dates for each season each year. The three seasons for this subarea are as follows.

A. The first season opens on May 1, only in waters inside the 30-fathom (55 m) curve, and continues daily until the combined subquotas for the north central and south central inside 30-fathom fisheries (7 percent of the north central subarea quota plus 20 percent of the south central subarea quota) are taken, or until September 30, whichever is earlier. Poundage that is estimated to be above the amount needed to keep this season open through September 30 will be transferred to the August all-depth fishery if it can be utilized. Any overage in the all-depth fisheries would not affect achievement of allocation set aside for the inside 30-fathom curve fishery.

B. The second season is an all-depth fishery that begins on the second Thursday in May and is allocated 68 percent of the subarea quota. Fixed season dates will be established preseason based on projected catch per day and number of days to achievement of the subquota for this season. No inseason adjustments will be made, except that additional opening days (established preseason) may be allowed if any quota for this season remains unharvested. The fishery will be structured for 2 days per week (Friday and Saturday) if the season is for 4 or fewer fishing days. The fishery will be structured for 3 days per week (Thursday through Saturday) if the season is for 5 or more fishing days.

C. The last season is a coastwide (Cape Falcon, Oregon to Humbug Mountain, Oregon) all-depth fishery that begins on the first Friday in August and is allocated 25 percent of the subarea quota. Fixed season dates will be established preseason based on projected catch per day and number of days to achievement of the combined Oregon all-depth quotas for the Central and South Oregon Coast

subareas. The fishery will be structured for 2 days per week (Friday and Saturday). No inseason adjustments will be made (unless the combined Oregon all-depth quotas are estimated to be achieved), except that additional opening days may be allowed if quota remains unharvested. If quota remains unharvested, but is insufficient for one day of an all-depth fishery, that additional quota will be transferred to the fisheries inside the 30-fathom (55 m) curve.

(vi) Oregon south central coast subarea.

If the Area 2A TAC is 388,350 lb (176.2 mt) and greater, this subarea extends from the Siuslaw River at the Florence north jetty (44°01'08" N. lat.) to Humbug Mountain, Oregon (42°40'30" N. lat.) and is allocated 6.97 percent of the Oregon/California sport allocation, which is approximately 1.43 percent of the Area 2A TAC. If the Area 2A TAC is less than 388,350 lb (176.2 mt), this subarea will be included in the Oregon Central Coast subarea. The structuring objective for this subarea is to create a south coast management zone that has the same objectives as the Oregon central coast subarea and is designed to accommodate the needs of both charterboat and private boat anglers in the south coast subarea where weather and bar crossing conditions very often do not allow scheduled fishing trips. Fixed season dates will be established preseason for the May and August openings and will not be modified inseason except that the August openings may be modified inseason if the combined Oregon all-depth quotas are estimated to be achieved. Recent year catch rates will be used as a guideline for estimating the catch rate for the May and August fishery each year. The number of fixed season days established will be based on the projected catch per day with the intent of not exceeding the subarea season subquotas. ODFW will monitor landings and provide a post-season estimate of catch within 2 weeks of the end of the fixed season. If sufficient quota remains for an additional day of fishing after the May season or the August season, openings will be provided if possible in May and August respectively. Potential additional open dates for both the May and August seasons will be announced preseason. If a decision is made inseason to allow fishing on one or more additional days, notice of the opening will be announced on the NMFS hotline (206) 526-6667 or (800) 662-9825. No all-depth halibut fishing will be allowed on the additional dates unless the opening date has been announced on the NMFS hotline. Any poundage remaining unharvested in the May all-depth subquota will be added to the August all-depth sub-quota. Any poundage that is not needed to extend the inside 30-fathom fishery through to September 30 will be added to the August all-depth season if it can be utilized, and any poundage remaining unharvested from the August all-depth fishery will be added to the inside 30-fathom fishery subquotas. The daily bag limit for all seasons is the first halibut taken, per person, of 32 inches (81.3 cm) or greater in length. ODFW will sponsor a public workshop shortly after the IPHC annual meeting to develop recommendations to NMFS on the open dates for each season each year. The three seasons for this subarea are as follows.

A. The first season opens on May 1, only in waters inside the 30-fathom (55 m) curve, and continues daily until the combined subquotas for the north central and south central inside 30-fathom fisheries (7 percent of the north central subarea quota plus 20 percent of the south central subarea quota) are taken, or until September 30, whichever is earlier. Poundage that is estimated to be above the amount needed to keep this season open through September 30 will be transferred to the August all-depth fishery if it can be utilized. Any overage in the all-depth fisheries would not affect achievement of allocation set aside for the inside 30-fathom curve fishery.

B. The second season is an all-depth fishery that begins on the second Thursday in May and is allocated 80 percent of the subarea quota. Fixed season dates will be established preseason based on projected catch per day and number of days to achievement of the subquota for this season. No inseason adjustments will be made, except that additional opening days (established preseason) may be allowed if any quota for this season remains unharvested. The fishery will be structured for 2 days per week (Friday and Saturday) if the season is for 4 or fewer fishing days. The fishery will be structured for 3 days per week (Thursday through Saturday) if the season is for 5 or more fishing days.

C. The last season is a coastwide (Cape Falcon, OR to Humbug Mountain, OR) all-depth fishery that begins on the first Friday in August. Fixed season dates will be established preseason based on projected catch per day and number of days to achievement of the combined Oregon all-depth quotas for the Central and South Oregon Coast subareas. The fishery will be structured for 2 days per week (Friday and Saturday). No inseason adjustments will be made (unless the combined Oregon all-depth quotas are estimated to be achieved), except that additional opening days may be allowed if quota remains unharvested. If quota remains unharvested, but is insufficient for one day of an all-depth fishery, that additional quota will be transferred to the fisheries inside the 30 fathom (55 m) curve.

(vii) South of Humbug Mountain subarea.

This sport fishery subarea is allocated 3.0 percent of the Oregon/California subquota, which is approximately 0.62 percent of the Area 2A TAC. This area is defined as the area south of Humbug Mountain, OR (42°40'30" N. lat.), including California waters. The structuring objective for this subarea is to provide anglers the opportunity to fish in a continuous, fixed season that is open from May 1 through September 30. The daily bag limit is the first halibut taken, per person, of 32 inches (81.3 cm) or greater in length. Due to inability to monitor the catch in this area inseason, a fixed season will be established preseason by NMFS based on projected catch per day and number of days to achievement of the subquota; no inseason adjustments will be made, and estimates of actual catch will be made post season.

(2) Port of landing management. All sport fishing in Area 2A will be managed on a "port of

landing" basis, whereby any halibut landed into a port will count toward the quota for the subarea in which that port is located, and the regulations governing the subarea of landing apply, regardless of the specific area of catch.

(3) Possession limits. The sport possession limit on land is two daily bag limits, regardless of condition, but only one daily bag limit may be possessed on the vessel.

(4) Ban on sport vessels in the commercial fishery. Vessels operating in the sport fishery for halibut in Area 2A are prohibited from operating in the commercial halibut fishery in Area 2A. Sport fishers and charterboat operators must determine, prior to May 1 of each year, whether they will operate in the commercial halibut fisheries in Area 2A which requires a commercial fishing license from the IPHC. Sport fishing for halibut in Area 2A is prohibited from a vessel licensed to fish commercially for halibut in Area 2A.

(5) Flexible inseason management provisions.

(i) The Regional Administrator, NMFS Northwest Region, after consultation with the Chairman of the Pacific Fishery Management Council, the IPHC Executive Director, and the Fisheries Director(s) of the affected state(s), or their designees, is authorized to modify regulations during the season after making the following determinations.

(A) The action is necessary to allow allocation objectives to be met.

(B) The action will not result in exceeding the catch limit for the area.

(C) If any of the sport fishery subareas north of Cape Falcon, OR are not projected to utilize their respective quotas by September 30, NMFS may take inseason action to transfer any projected unused quota to a Washington sport subarea projected to have the fewest number of sport fishing days in the calendar year.

(ii) Flexible inseason management provisions include, but are not limited to, the following:

(A) Modification of sport fishing periods;

(B) Modification of sport fishing bag limits;

(C) Modification of sport fishing size limits;

(D) Modification of sport fishing days per calendar week; and

(E) Modification of subarea quotas north of Cape Falcon, OR consistent with the standards in section (f)(5)(i)(C) of this Plan

(iii) Notice procedures.

(A) Inseason actions taken by NMFS will be published in the *Federal Register.*

(B) Actual notice of inseason management actions will be provided by a telephone hotline administered by the Northwest Region, NMFS, at 800-662-9825 (May through September) and by U.S. Coast Guard broadcasts. These broadcasts are announced on Channel 16 VHF-FM and 2182 kHz at frequent intervals. The announcements designate the channel or frequency over which the notice to mariners will be immediately broadcast. Since provisions of these regulations may be altered by inseason actions, sport fishermen should monitor either the telephone hotline or U.S. Coast Guard broadcasts for current information for the area in which they are fishing.

(iv) Effective dates.

(A) Inseason actions will be effective on the date specified in the Federal Register notice or at the time that the action is filed for public inspection with the Office of the Federal Register, whichever is later.

(B) If time allows, NMFS will invite public comment prior to the effective date of any inseason action filed with the *Federal Register.* If the Regional Administrator determines, for good cause, that an inseason action must be filed without affording a prior opportunity for public comment, public comments will be received for a period of 15 days after of the action in the *Federal Register.*

(C) Inseason actions will remain in effect until the stated expiration date or until rescinded, modified, or superseded. However, no inseason action has any effect beyond the end of the calendar year in which it is issued.

(v) Availability of data. The Regional Administrator will compile, in aggregate form, all data and other information relevant to the action being taken and will make them available for public review during normal office hours at the Northwest Regional Office, NMFS, Sustainable Fisheries Division, 7600 Sand Point Way NE, Seattle, WA.

(6) Sport fishery closure provisions.

The IPHC shall determine and announce closing dates to the public for any subarea in which a subquota is estimated to have been taken. When the IPHC has determined that a subquota has been taken, and has announced a date on which the season will close, no person shall sport fish for halibut in that area after that date for the rest of the year, unless a reopening of that area for sport halibut fishing is scheduled by NMFS as an inseason

action, or announced by the IPHC.

(g) PROCEDURES FOR IMPLEMENTATION

Each year, NMFS will publish a proposed rule with any regulatory modifications necessary to implement the Plan for the following year, with a request for public comments. The comment period will extend until after the IPHC annual meeting, so that the public will have the opportunity to consider the final Area 2A TAC before submitting comments. After the Area 2A TAC is known, and after NMFS reviews public comments, NMFS will implement final rules governing the sport fisheries. The final ratio of halibut to chinook to be allowed as incidental catch in the salmon troll fishery will be published with the annual salmon management measures.

PROPOSED CHANGES TO THE CATCH SHARING PLAN AND ANNUAL REGULATIONS

Situation: Each September meeting, the Council considers proposed changes to the halibut regulations. The purpose of this consideration is for relatively minor adjustments in the annual regulations (primarily in the recreational fishery) or catch sharing plan, not major changes in catch allocation among areas or gear groups.

Attachment 1 contains the current catch sharing plan. The plan includes the equitable adjustment agreement, first implemented in 2000, which transfers 25,000 pounds dressed weight of halibut from the standard non-treaty allocation to the treaty Indian allocation. This transfer is to occur each year for eight years (2000 through 2007).

Washington Department of Fish and Wildlife and Oregon Department of Fish and Wildlife normally hold public meetings prior to the September Council meeting to consider changes in the halibut regulations. Any recommendations resulting from these meetings will be presented for review at the Council meeting. The Council will take final action on proposed changes for 2003 at the October-November meeting.

Council Action:

1. Adopt, for public review, any proposed changes to season structuring and minor changes to the catch sharing plan in 2003.

Reference Materials:

1. 2002 Pacific Halibut Catch Sharing Plan for Area 2A (Exhibit F.2, Attachment 1).
2. Written public comment (Exhibit F.2.e, Public Comment).

Agenda Order:

a.	Agendum Overview	Chuck Tracy
b.	State Proposals	WDFW/ODFW
c.	Tribal Comments	Jim Harp
d.	Reports and Comments of Advisory Bodies	
e.	Public Comment	
f.	**Council Action:** Adopt Proposed Changes for Public Review	

PFMC
08/21/02