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Provisional Summary
of U.S. Observer Activities
and
Foreign and Joint Venture Fisheries
in the Northeast Pacific Ocean
and Eastern Bering Sea, 1987

June 1988

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PROVISIONAL SUMMARY OF U.S. OBSERVER ACTIVITIES AND FOREIGN AND
JOINT VENTURE FISHERIES IN THE NORTHEAST PACIFIC OCEAN AND
EASTERN BERING SEA, 1987

by

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CONTENTS

INTRODUCTION.....	1
OBSERVER COVERAGE.....	2
ALASKA REGION GROUND FISH AND INCIDENTAL CATCHES.....	2
BERING SEA (TABLE 5-6).....	2
GULF OF ALASKA.....	5
WOC REGION GROUND FISH AND INCIDENTAL CATCHES.....	6
FIGURE AND TABLES.....	9

INTRODUCTION

The Northwest and Alaska Fisheries Center is responsible for administering the Foreign Fisheries Observer Program for foreign and joint venture fisheries (fisheries conducted between U.S. fishermen and foreign fishing vessels) conducted in the U.S. 200-mile Exclusive Economic Zone (EEZ) in the northeast Pacific Ocean and eastern Bering Sea. The Magnuson Fishery Conservation and Management Act of 1976 requires that, with some exceptions, all foreign fishing and joint venture processing vessels carry a U.S. fisheries observer while conducting fishing operations within the U.S. EEZ. Foreign fishing is defined as foreign vessels which catch and process fish against a foreign quota. Joint venture fishing is defined as foreign vessels processing U.S. caught and delivered fish taken against a U.S. quota. The primary purpose for the placement of observers on foreign fishing vessels is to collect data required for fisheries management and research and the monitoring of vessel compliance to U.S. fishing regulations.

Throughout the year, the Foreign Fisheries Observer Program at the Northwest and Alaska Fisheries Center prepares a monthly report which summarizes observer coverage within the fisheries conducted in the EEZ off the northwest and Alaskan coasts of the United States and reports on the estimated catches of groundfish and species whose retention is prohibited by U.S. fishing regulations. These reports are prepared to keep those associated with the seasonal management of these fisheries apprised of current conditions within the fisheries. This document provides an annual summary of the fisheries and information contained in those monthly reports for 1987. It is important to remember that at this time the data and estimates presented are provisional. Final statistics on observer coverage and foreign fishing effort will be reported later in the year after the final editing of data collected by

observers has been completed. Those interested in the final statistics and estimates for the year can obtain them from the Foreign Fisheries Observer Program of the Northwest and Alaska Fisheries Center, Seattle, Washington.

OBSERVER COVERAGE
(Tables 1-4)

Total observer coverage for 1987 was 96.1% in the foreign and joint venture fisheries in the northeast Pacific Ocean and Bering Sea, an increase of 2.0% from the coverage in 1986. Observers spent 16,370 cumulative days aboard vessels from Japan, U.S.S.R., The Republic of Korea (ROK), Poland, and The Peoples' Republic of China (PRC). By major fishing region, observer coverage for 1987 was 96.4% in the Bering Sea, 99.7% in the Gulf of Alaska and 93.9% in the Washington-Oregon-California (WOC) region. The comparative coverage figures for 1986 were: all regions - 94.1%, Bering Sea - 93.5%, Gulf of Alaska - 97.8%, and WOC - 95.3%. The total effort (foreign and joint venture) by foreign vessels for 1987 of 17,041 cumulative vessel days on grounds was 2,259 days less than the 1986 effort of 19,300 days, a decrease of 11.7%. In 1987, 4,330 days (25.4%) was effort directed on foreign quotas and 12,711 days (74.6%) of effort directed to joint venture fisheries. Comparative numbers for 1986 were: 7,172 days (37.2%) of effort on foreign quotas and 12,128 days (62.8%) of effort in joint venture fisheries.

ALASKA REGION GROUND FISH AND INCIDENTAL CATCHES

Bering Sea (Tables 5-6)

The foreign fishery caught 69,000 t of groundfish for 1987, an 85.5% decrease from the 1986 catch of 476,200 t. The largest monthly catch occurred during November with a catch of 14,400 t (20.9% of total). Only Japan and the ROK fished on a foreign quota during 1987. For comparison, the foreign

nations fishing on a foreign quota during 1986 were Japan, ROK, Poland, and PRC. The percentage breakdown of the total catch by nation for 1987 was Japan 97.7% and ROK 2.3%. Vessels from Japan were present every month of 1987. Vessels from the ROK were present during April and June through August. The total number of foreign vessels which fished on a foreign quota in the Bering Sea during 1987 numbered 95 vessels; Japan - 85 vessels and ROK - 10 vessels. The greatest number of directed vessels present at one time was 48 vessels during October. The trawl fisheries conducted by the ROK and Japan were closed on 13 September 1987 and 26 November 1987 respectively, due to the attainment of each nations' Pacific halibut (Hippoglossus stenolepis) prohibited species catch limit (retention of halibut or other prohibited species is not allowed).

The catches of prohibited species by the foreign vessels in 1987 were less than the catches of 1986, with the exception of Pacific salmon (Oncorhynchus spp.). Halibut, king (Paralithodes camtschatica) and snow (Tanner) (Chionoecetes spp.) crab catches decreased by 5.2%, 61.8% and 76.6%, respectively. The incidental catch of 3,300 Pacific salmon represents an 83.0% increase over the 1,800 salmon taken through 1987. The largest incidental catch by month for each of the prohibited species was: halibut - February (68,200 fish); salmon - October (1,900 fish); king crab - November (3,600 crab); Tanner crab - November (87,400 crab). For comparison, the largest incidental catch by month for 1986 was: halibut - November (115,400); Pacific salmon - November (500 fish); king crab - February (4,700 crab); Tanner crab - October (737,500 crab).

The joint venture fishery caught 1,342,200 t of groundfish in 1987, a 15.4% increase from the 1986 catch of 1,163,100 t. The largest monthly catch of groundfish occurred during February with 329,300 t taken (24.5% of total).

The nations involved with joint ventures during 1987 were Japan, ROK, PRC, U.S.S.R., and Poland. Vessels from the ROK were present every month of 1987. Vessels from Japan were present January through July and September. Vessels from the U.S.S.R. operated January through September. Vessels from Poland operated during the month of January and March through May. Vessels from the PRC operated February through June and September and October. The total number of vessels involved in joint venture operations in the Bering Sea during 1987 numbered 107 vessels: Japan - 38 vessels, ROK - 31 vessels, U.S.S.R. - 24 vessels, Poland - 9 vessels, and PRC - 5 vessels. The greatest number of foreign vessels involved with joint venture operations during any one month numbered 91 vessels during March.

The catches of prohibited species by joint ventures in 1987, with the exception of Tanner crab, were less than those of 1986. Halibut, salmon, and king crab catches decreased by 11.0%, 48.8% and 50.0%, respectively. The Tanner crab catch increased by 21.4%. The largest incidental catch by month for each of the prohibited species is as follows: halibut - June (118,300 fish); salmon - March (2,300 fish); king crab - April (72,900 crab); Tanner crab - April (3,107,500 crab). For comparison, the largest incidental catch by month for 1986 was halibut - May (102,600 fish); salmon - August (11,000 fish); king crab - May (106,900 crab); Tanner crab - June (4,229,500 crab).

Area and zone regulations implemented in 1986 which set catch limits for incidental catches of king and Tanner crab in joint venture fisheries targeting on yellowfin sole (Limanda aspera)/flounders in the Bering Sea and Aleutian region were again in effect for 1987 (see Fig. 1). The regulations are intended to help protect the stocks of red king and Chionoecetes bairdi Tanner crab. On 25 April 1987, Zone 1 was closed for the remainder of the fishing year to the yellowfin sole/flounders joint venture fishery due to the bycatch

limit of 80,000 C. bairdi Tanner crab being exceeded. On 29 June 1987, the fishery for yellowfin sole/flounders in all zones of the Bering Sea was closed as a result of the joint venture allowable catch of yellowfin sole/flounders being obtained. The 1987 groundfish and prohibited species catch in the yellowfin sole/flounders fishery in relation to the quotas and zones established by regulations are summarized as follows. The groundfish catches by area were Zone 1 - 74,300 t; Zone 2 - 21,750 t; Zone 3 - 149,450 t. The incidental catches of C. bairdi Tanner crab were Zone 1 - 98,200 crab; Zone 2 - 78,900 crab; Zone 3 - 38,600 crab. The incidental catches of other Tanner crab (primarily C. opilio) were Zone 1 - 28,200 crab; Zone 2 - 2,654,700 crab; Zone 3 - 3,462,600 crab. The incidental catches of red king crab were Zone 1 - 64,400 crab; Zone 2 - 1,160 crab; Zone 3 - 16,150 crab. The incidental catches of halibut, also of concern in this fishery, by area were Zone 1 - 63,600 fish; Zone 2 - 21,700 fish; Zone 3 - 136,700 fish.

Gulf of Alaska (Tables 7-8)

There was no foreign fishing in the Gulf of Alaska during 1987 due to reduced groundfish allocations.

The joint venture fishery caught 32,500 t of groundfish in 1987, a 50.2% decrease from the 1986 catch of 65,300 t. The decrease in groundfish catch is due to a 37.3% reduction in the joint venture quota (primarily due to the termination of the joint venture walleye pollock (Theragra chalcogramma) fishery in the Shelikof Strait). The 1987 joint venture quota was 55,830 t compared to the 88,987 t for 1986. The largest monthly groundfish catch occurred in October with 27,900 t (85.8% of total) taken. Joint venture fisheries targeting on pollock operated during October and took 22,657 t of pollock from the Shumagin subarea. Joint venture fisheries targeting on flatfish operated August through November in the Chirikof and Kodiak subareas.

Nations involved with joint ventures during 1987 were Japan, ROK, and PRC. Vessels from Japan were present August through November. Vessels from the ROK and the PRC were present during the month of October. The total number of foreign vessels which were involved in joint venture operations in the Gulf of Alaska during 1987 numbered 15: Japan - 8 vessels, ROK - 5 vessels, and PRC - 2 vessels. The greatest number of foreign vessels which were involved in joint venture operations during any one month numbered 15 vessels during October.

The joint venture incidental catch of less than 100 king crab is comparable to the catch through 1986. The incidental catches of 5,500 Tanner crab and 1,100 salmon represent decreases from the catches through 1986 by 67.5% and 94.6%, respectively. The incidental catches of 169,900 halibut represents a 5.9-fold increase from the 28,400 halibut taken during 1986. On 5 November 1987, the joint venture fishery was closed due to the halibut prohibited species catch quota of 607 t being exceeded.

The largest incidental catch by month for each of the prohibited species was halibut - October (144,800 fish); salmon - October (1,100 fish); king crab - September-October (<100 crab); Tanner crab - September (3,700 crab).

WOC Region Groundfish and Incidental Catches
(Tables 9-10)

The foreign fishery for the WOC region in 1987 consisted of Polish, ROK, and PRC vessels targeting on Pacific whiting (Merluccius productus). The foreign fishery took 50,400 t of fish; a 28.8% decrease from the 70,800 t taken in 1986. The largest monthly catch occurred during October with 18,700 t taken (37.1% of total). The total number of foreign vessels which fished during 1987 numbered 33 vessels: Poland - 31 vessels, ROK - 1 vessel, and PRC

- 1 vessel. The greatest number of vessels present during any one month numbered 18 vessels during August.

The incidental catch in the foreign fishery of less than 100 halibut is comparable to the halibut catch for 1986. The incidental catch of 4,600 salmon represents a 60.7% decrease from the 11,700 salmon taken in 1986. Of the salmon taken in 1987, 71.2% were chinook salmon (O. tshawytscha). All of the salmon were taken in the International North Pacific Fisheries Commission Columbia area. The largest catch of salmon occurred during October (2,800 fish). Breakdown of the total salmon catch by month was June - 2.2%; July - 10.9%; August - 4.3%; September - 21.7%; October - 60.9%.

The joint venture fishery for Pacific whiting caught 107,200 t of groundfish in 1987, a 29.5% increase from the 1986 catch of 82,800 t. The largest monthly catch occurred in July with 30,400 mt of groundfish taken (28.4% of total). Vessels from the U.S.S.R., Poland, ROK and PRC comprised the foreign joint venture partners in 1987. Vessels from the U.S.S.R. operated April through September. Vessels from Poland operated May through October. Vessels from the ROK operated July through September. Vessels from the PRC operated August through October. The total number of vessels present during 1987 numbered 30 vessels: Poland - 22 vessels, U.S.S.R. - 6 vessels, ROK - 1 vessel, and PRC - 1 vessel. The greatest number of vessels present during any one month numbered 26 vessels during August.

The joint venture prohibited species catch of less than 100 halibut was less than the 100 halibut taken in 1986. The incidental catch of 8,600 Pacific salmon represents a 73.1% decrease from the 32,000 salmon taken in 1986. Of the total salmon, 91.7% were chinook salmon. The percent of the total salmon taken by INPFC areas were Vancouver - 16.4%; Columbia - 83.6%; Eureka - 0.0%; Monterey - 0.0%. The largest incidental catch of salmon occurred during July

(3,300 salmon). Breakdown of the total salmon catch by month was April - <0.1%; May - 12.8%; June - 18.6%; July - 38.4%; August - 18.6%; September - 9.3%; October - 2.3%.

FIGURE

Figure 1.--Bering Sea zones by which the restrictions on the incidental catch of King and Tanner crab apply.....	10
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TABLES

Page

Table 1.--Observer coverage of foreign and joint venture processing vessels by month for 1987.....	11
Table 2.--Summary of observer coverage of foreign and joint venture fisheries in the Bering Sea/Aleutian region by month for 1987.....	14
Table 3.--Summary of observer coverage of foreign and joint venture fisheries in the Gulf of Alaska region by month for 1987.....	21
Table 4.--Summary of observer coverage of foreign and joint venture fisheries in the Washington-Oregon-California region by month for 1987.....	25
Table 5.--Monthly foreign catch, joint venture catch, and prohibited species summary (by number) in the Bering Sea, 1987.....	30
Table 6.--Monthly foreign catch, joint venture catch, and prohibited species summary (by weight) in the Bering Sea, 1987.....	33
Table 7.--Monthly foreign catch, joint venture catch, and prohibited species summary (by number) in the Gulf of Alaska, 1987.....	36
Table 8.--Monthly foreign catch, joint venture catch, and prohibited species summary (by weight) in the Gulf of Alaska, 1987.....	38
Table 9.--Monthly foreign catch, joint venture catch, and prohibited species summary (by number) in the Washington-Oregon-California region, 1987.....	40
Table 10.--Monthly foreign catch, joint venture catch, and prohibited species summary (by weight) in the Washington-Oregon-California region, 1987.....	42

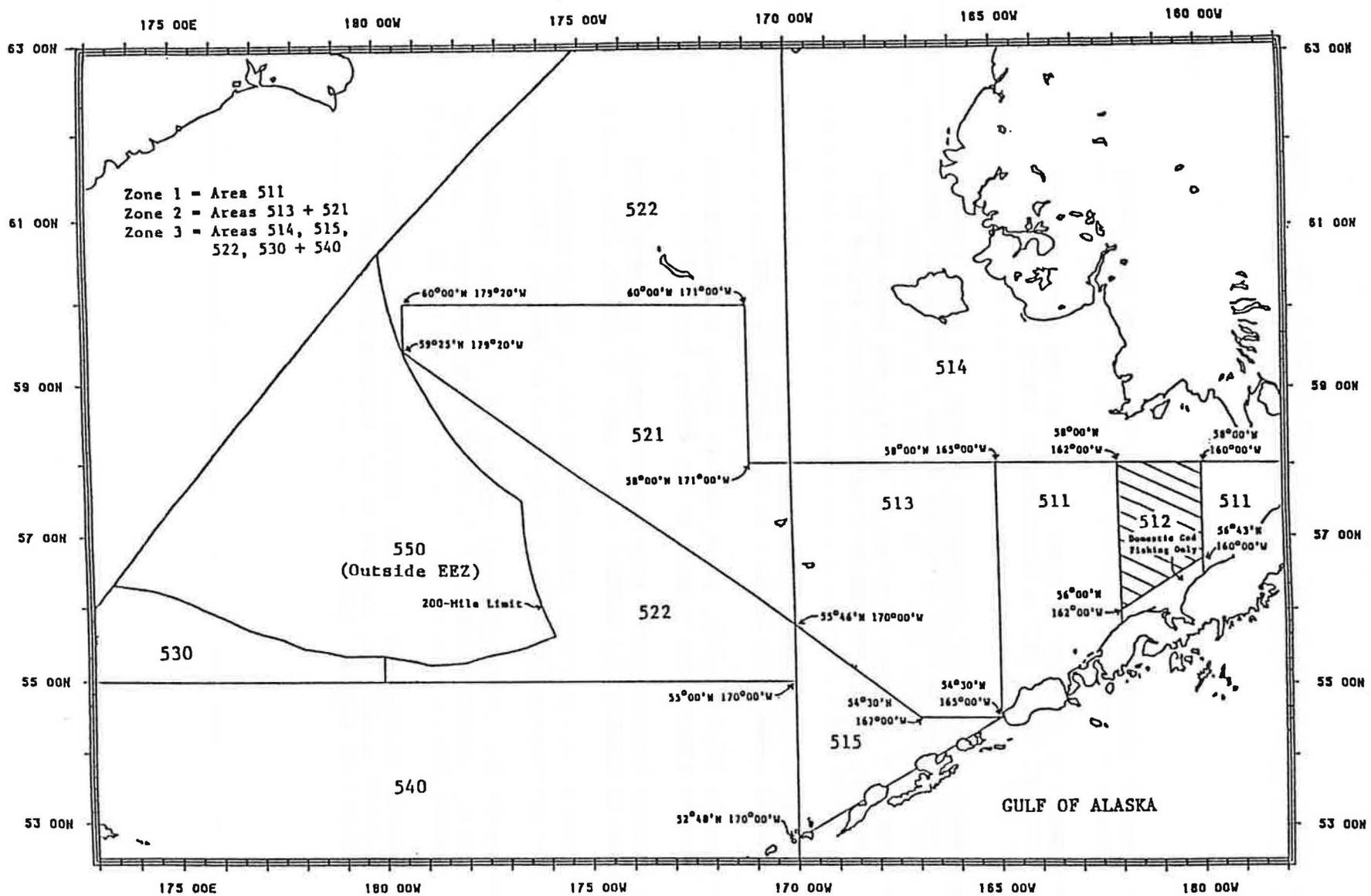


Figure 1.--Bering Sea zones by which the restrictions on the incidental catch of king and Tanner crab apply.

Table 1.--Observer coverage of foreign and joint venture processing vessels by month for 1987.

Region	Foreign Effort (days)	Observer Effort (days)	Percent Coverage
JANUARY			
BSA	371	333	89.8
GOA	0	0	0.0
WOC	0	0	0.0
	---	---	---
TOTAL	371	333	89.8
FEBRUARY			
BSA	1956	1909	97.6
GOA	0	0	0.0
WOC	0	0	0.0
	----	----	----
TOTAL	1956	1909	97.6
MARCH			
BSA	2002	1942	97.0
GOA	0	0	0.0
WOC	0	0	0.0
	----	----	----
TOTAL	2002	1942	97.0
APRIL			
BSA	2426	2333	96.2
GOA	0	0	0.0
WOC	47	47	100.0
	----	----	----
TOTAL	2473	2380	96.2
MAY			
BSA	1629	1548	95.0
GOA	0	0	0.0
WOC	180	174	96.7
	----	----	----
TOTAL	1809	1722	95.2

Table 1.--Continued.

Region	Foreign Effort (days)	Observer Effort (days)	Percent Coverage
JUNE			
BSA	1531	1468	95.9
GOA	0	0	0.0
WOC	364	350	96.2
	-----	-----	-----
TOTAL	1895	1818	95.9
JULY			
BSA	871	853	97.9
GOA	0	0	0.0
WOC	670	625	93.4
	-----	-----	-----
TOTAL	1541	1478	95.9
AUGUST			
BSA	173	171	98.8
GOA	24	24	100.0
WOC	655	578	88.2
	-----	-----	-----
TOTAL	852	773	90.7
SEPTEMBER			
BSA	572	550	96.2
GOA	101	101	100.0
WOC	534	509	95.3
	-----	-----	-----
TOTAL	1207	1160	96.1
OCTOBER			
BSA	871	851	97.7
GOA	235	234	99.6
WOC	509	496	97.4
	-----	-----	-----
TOTAL	1615	1581	97.9

Table 1.--Continued.

Region	Foreign Effort (days)	Observer Effort (days)	Percent Coverage
NOVEMBER			
BSA	712	680	95.5
GOA	14	14	100.0
WOC	0	0	0.0
	---	---	---
TOTAL	726	694	95.6
DECEMBER			
BSA	594	580	97.2
GOA	0	0	0.0
WOC	0	0	0.0
	---	---	---
TOTAL	594	580	97.2
TOTALS FOR 1987			
BSA	13708	13218	96.4
GOA	374	373	99.7
WOC	2959	2779	93.9
	-----	-----	-----
TOTAL	17041	16370	96.1

Table 2.--Summary of observer coverage of (A) foreign and (B) joint venture fisheries in the Bering Sea/Aleutian region by month for 1987.

Nation-Vessel	January						February					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Japan												
Longliner	113	104	92.0	15	14	93.3	403	391	97.0	20	20	100.0
Total	113	104	92.0	15	14	93.3	403	391	97.0	20	20	100.0
B. Joint venture fishery												
US-USSR JV mothership	38	32	84.2	4	4	100.0	210	197	93.8	9	9	100.0
US-Japan JV mothership	72	60	83.3	6	6	100.0	550	547	99.4	28	27	96.4
US-Korea JV mothership	136	125	91.9	17	13	76.5	758	739	97.5	31	31	100.0
US-Poland JV mothership	12	12	100.0	2	2	100.0	--	--	--	--	--	--
US-China JV mothership	--	--	--	--	--	--	35	35	100.0	3	3	100.0
Total	258	229	88.8	29	25	86.2	1553	1518	97.7	71	70	98.6
GRAND TOTAL	371	333	89.8	44	39	88.6	1956	1909	97.6	91	90	98.9

Table 2.--Continued.

Nation-Vessel	March						April					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Japan												
Longliner	93	91	97.8	12	11	91.7	51	50	98.0	6	6	100.0
South Korea												
Large freezer trawler	--	--	--	--	--	--	1	1	100.0	1	1	100.0
Total	93	91	97.8	12	11	91.7	52	51	98.1	7	7	100.0
B. Joint venture fishery												
US-USSR JV mothership	374	363	97.1	20	20	100.0	573	547	95.5	22	21	95.5
US-Japan JV mothership	647	634	98.0	33	33	100.0	842	802	95.2	27	27	100.0
US-Korea JV mothership	772	741	96.0	31	31	100.0	751	726	96.7	28	27	96.4
US-Poland JV mothership	42	39	92.9	4	4	100.0	97	96	99.0	8	8	100.0
US-China JV mothership	74	74	100.0	3	3	100.0	111	111	100.0	4	4	100.0
Total	1909	1851	97.0	91	91	100.0	2374	2282	96.1	89	87	97.8
GRAND TOTAL	2002	1942	97.0	103	102	99.0	2426	2333	96.2	96	94	97.9

Table 2.--Continued.

Nation-Vessel	May						June					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Japan												
Longliner	73	66	90.4	10	9	90.0	3	3	100.0	1	1	100.0
Snailpot	43	39	90.7	2	2	100.0	55	53	96.4	2	2	100.0
South Korea												
Large freezer trawler	--	--	--	--	--	--	1	1	100.0	1	1	100.0
Total	116	105	90.5	12	11	91.7	59	57	96.6	4	4	100.0
B. Joint venture fishery												
US-USSR JV mothership	461	430	93.3	22	22	100.0	444	423	95.3	19	19	100.0
US-Japan JV mothership	510	486	95.3	22	22	100.0	380	364	95.8	23	23	100.0
US-Korea JV mothership	425	417	98.1	23	23	100.0	637	613	96.2	28	28	100.0
US-Poland JV mothership	41	40	97.6	4	4	100.0	--	--	--	--	--	--
US-China JV mothership	76	70	92.1	4	4	100.0	11	11	100.0	1	1	100.0
Total	1513	1443	95.4	75	75	100.0	1472	1411	95.9	71	71	100.0
GRAND TOTAL	1629	1548	95.0	87	86	98.9	1531	1468	95.9	75	75	100.0

Table 2. --Continued.

Nation-Vessel	July						August					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Japan												
Small trawler	30	28	93.3	5	5	100.0	55	55	100.0	6	6	100.0
Snailpot	15	12	80.0	2	2	100.0	46	46	100.0	2	2	100.0
South Korea												
Large freezer trawler	7	7	100.0	2	2	100.0	17	15	88.2	4	3	75.0
Large surimi trawler	11	11	100.0	4	4	100.0	--	--	--	--	--	--
Total	63	58	92.1	13	13	100.0	118	116	98.3	12	11	91.7
B. Joint venture fishery												
US-USSR JV mothership	307	304	99.0	17	17	100.0	2	2	100.0	1	1	100.0
US-Japan JV mothership	58	53	91.4	13	12	92.3	--	--	--	--	--	--
US-Korea JV mothership	443	438	98.9	25	25	100.0	53	53	100.0	3	3	100.0
US-Poland JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-China JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
Total	808	795	98.4	55	54	98.2	55	55	100.0	4	4	100.0
GRAND TOTAL	871	853	97.9	68	67	98.5	173	171	98.8	16	15	93.8

Table 2.--Continued.

Nation-Vessel	September						October					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Japan												
Small trawler	43	38	88.4	9	7	77.8	364	351	96.4	26	26	100.0
Longliner	66	58	87.9	5	3	60.0	392	387	98.7	20	20	100.0
Snailpot	35	34	97.1	2	2	100.0	56	56	100.0	2	2	100.0
South Korea												
Large freezer trawler	--	--	--	--	--	--	--	--	--	--	--	--
Large surimi trawler	--	--	--	--	--	--	--	--	--	--	--	--
Total	144	130	90.3	16	12	75.0	812	794	97.8	48	48	100.0
B. Joint venture fishery												
US-USSR JV mothership	11	11	100.0	1	1	100.0	--	--	--	--	--	--
US-Japan JV mothership	131	129	98.5	6	6	100.0	--	--	--	--	--	--
US-Korea JV mothership	220	216	98.2	11	11	100.0	54	52	96.3	5	4	80.0
US-Poland JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-China JV mothership	66	64	97.0	3	3	100.0	5	5	100.0	1	1	100.0
Total	428	420	98.1	21	21	100.0	59	57	96.6	6	5	83.3
GRAND TOTAL	572	550	96.2	37	33	89.2	871	851	97.7	54	53	98.1

Table 2.--Continued.

Nation-Vessel	November						December					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Japan												
Small trawler	256	240	93.8	21	21	100.0	--	--	--	--	--	--
Longliner	431	419	97.2	20	20	100.0	580	571	98.4	20	20	100.0
Snailpot	23	20	87.0	2	2	100.0	--	--	--	--	--	--
South Korea												
Large freezer trawler	--	--	--	--	--	--	--	--	--	--	--	--
Large surimi trawler	--	--	--	--	--	--	--	--	--	--	--	--
Total	710	679	95.6	43	43	100.0	580	571	98.4	20	20	100.0
B. Joint venture fishery												
US-USSR JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-Japan JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-Korea JV mothership	2	1	50.0	2	1	50.0	14	9	64.3	1	1	100.0
US-Poland JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-China JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
Total	2	1	50.0	2	1	50.0	14	9	64.3	1	1	100.0
GRAND TOTAL	712	680	95.5	45	44	97.8	594	580	97.6	21	21	100.0

Table 2.--Continued.

		Totals For Year 1987					
Nation	Vessel	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery							
Japan							
	Surimi mothership	--	--	--	--	--	--
	Small trawler	748	712	95.2	62	58	93.5
	Large freezer trawler	--	--	--	--	--	--
	Large surimi trawler	--	--	--	--	--	--
	Longliner	2205	2140	97.1	21	21	100.0
	Freezer mothership	--	--	--	--	--	--
	Snailpot	273	260	95.2	2	2	100.0
South Korea							
	Large freezer trawler	26	24	92.3	6	5	83.3
	Large surimi trawler	11	11	100.0	4	4	100.0
	Total	3263	3147	96.4	95	90	94.7
B. Joint venture fishery							
	US-USSR JV mothership	2420	2309	95.4	24	24	100.0
	US-Japan JV mothership	3190	3075	96.4	38	38	100.0
	US-Korea JV mothership	4265	4130	96.8	31	31	100.0
	US-Poland JV mothership	192	187	97.4	9	9	100.0
	US-China JV mothership	378	370	97.9	5	5	100.0
	Total	10445	10071	96.4	107	107	100.0
GRAND TOTAL		13708	13218	96.4	202	197	97.5

Table 3.--Summary of observer coverage of (A) foreign and (B) joint venture fisheries in the Gulf of Alaska region by month for 1987.

Nation-Vessel	July						August					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
None												
Total	--	--	--	--	--	--	--	--	--	--	--	--
B. Joint venture fishery												
US-Japan JV mothership	--	--	--	--	--	--	24	24	100.0	3	3	100.0
US-Korea JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-China JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	24	24	100.0	3	3	100.0
GRAND TOTAL	--	--	--	--	--	--	24	24	100.0	3	3	100.0

** No fishing January - June, and December.

Table 3.--Continued.

Nation-Vessel	September						October					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
None												
Total	--	--	--	--	--	--	--	--	--	--	--	--
B. Joint venture fishery												
US-Japan JV mothership	101	101	100.0	3	3	100.0	145	145	100.0	8	8	100.0
US-Korea JV mothership	--	--	--	--	--	--	64	63	98.4	5	5	100.0
US-China JV mothership	--	--	--	--	--	--	26	26	100.0	2	2	100.0
Total	101	101	100.0	3	3	100.0	235	234	99.6	15	15	100.0
GRAND TOTAL	101	101	100.0	3	3	100.0	235	234	99.6	15	15	100.0

Table 3. --Continued.

Nation-Vessel	November						December					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
None												
Total	--	--	--	--	--	--	--	--	--	--	--	--
B. Joint venture fishery												
US-Japan JV mothership	14	14	100.0	3	3	100.0	--	--	--	--	--	--
US-Korea JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-China JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
Total	14	44	100.0	3	3	100.0	--	--	--	--	--	--
GRAND TOTAL	14	14	100.0	3	3	100.0	--	--	--	--	--	--

Table 3.--Continued.

Nation-vessel	Totals For Year 1987					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery						
None						
Total	--	--	--	--	--	--
B. Joint venture fishery						
US-Japan JV mothership	284	284	100.0	8	8	100.0
US-Korea JV mothership	64	63	98.4	5	5	100.0
US-China JV mothership	26	26	100.0	2	2	100.0
Total	374	373	99.7	15	15	100.0
GRAND TOTAL	374	373	99.7	15	15	100.0

Table 4.--Summary of observer coverage of (A) foreign and (B) joint venture fisheries in the Washington-Oregon-California region by month for 1987.

Nation-Vessel	March						April					
	Foreign effort (days)	Observer effort (days)	Per- cent cover- age (%)	For- eign ves- sels (no.)	Obser- ver ves- sels (no.)	Per- cent sam- pled (%)	Foreign effort (days)	Observer effort (days)	Per- cent cover- age (%)	For- eign ves- sels (no.)	Obser- ver ves- sels (no.)	Per- cent sam- pled (%)
A. Foreign directed fishery												
None												
Total	--	--	--	--	--	--	--	--	--	--	--	--
B. Joint venture fishery												
US-USSR JV mothership	--	--	--	--	--	--	47	47	100.0	6	6	100.0
US-Poland JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-Korea JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-China JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	47	47	100.0	6	6	100.0
GRAND TOTAL	--	--	--	--	--	--	47	47	100.0	6	6	100.0

** No fishing January - February and November - December.

Table 4. --Continued.

Nation-Vessel	May						June					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Korea												
Large freezer trawler	--	--	--	--	--	--	--	--	--	--	--	--
Poland												
Large freezer trawler	--	--	--	--	--	--	25	23	92.0	5	5	100.0
China												
Large freezer trawler	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	25	23	92.0	5	5	100.0
B. Joint venture fishery												
US-USSR JV mothership	167	165	98.8	6	6	100.0	168	167	99.4	6	6	100.0
US-Poland JV mothership	13	9	69.2	3	3	100.0	171	160	93.6	10	10	100.0
US-Korea JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
US-China JV mothership	--	--	--	--	--	--	--	--	--	--	--	--
Total	180	174	96.7	9	9	100.0	339	327	96.5	16	16	100.0
GRAND TOTAL	180	174	96.7	9	9	100.0	364	350	96.2	21	21	100.0

Table 4.--Continued.

Nation-Vessel	July						August					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Korea												
Large freezer trawler	--	--	--	--	--	--	3	2	66.7	1	1	100.0
Poland												
Large freezer trawler	143	133	93.0	13	13	100.0	141	133	94.3	16	16	100.0
China												
Large freezer trawler	--	--	--	--	--	--	1	1	100.0	1	1	100.0
Total	143	133	93.0	13	13	100.0	145	136	93.8	18	18	100.0
B. Joint venture fishery												
US-USSR JV mothership	194	176	90.7	6	6	100.0	160	151	94.4	6	6	100.0
US-Poland JV mothership	328	315	96.0	15	15	100.0	297	252	84.8	18	18	100.0
US-Korea JV mothership	5	1	20.0	1	1	100.0	27	13	48.1	1	1	100.0
US-China JV mothership	--	--	--	--	--	--	26	26	100.0	1	1	100.0
Total	527	492	93.4	22	22	100.0	510	442	86.7	26	26	100.0
GRAND TOTAL	670	625	93.3	35	35	100.0	655	578	88.2	44	44	100.0

Table 4. --Continued.

Nation-Vessel	September						October					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery												
Korea												
Large freezer trawler	14	14	100.0	1	1	100.0	--	--	--	--	--	--
Poland												
Large freezer trawler	262	252	96.2	14	14	100.0	477	465	97.5	24	24	100.0
China												
Large freezer trawler	1	1	100.0	1	1	100.0	--	--	--	--	--	--
Total	277	267	96.4	16	16	100.0	477	465	97.5	24	24	100.0
B. Joint venture fishery												
US-USSR JV mothership	14	13	92.9	3	3	100.0	--	--	--	--	--	--
US-Poland JV mothership	202	188	93.1	15	15	100.0	18	18	100.0	4	4	100.0
US-Korea JV mothership	9	9	100.0	1	1	100.0	--	--	--	--	--	--
US-China JV mothership	32	32	100.0	1	1	100.0	14	13	92.9	1	1	100.0
Total	257	242	94.2	20	20	100.0	32	31	96.9	5	5	100.0
GRAND TOTAL	534	509	95.3	36	36	100.0	509	496	97.4	29	29	100.0

Table 4.--Continued.

Nation-vessel	Totals For Year 1987					
	Foreign effort (days)	Observer effort (days)	Percent coverage (%)	Foreign vessels (no.)	Observer vessels (no.)	Percent sampled (%)
A. Foreign directed fishery						
Korea						
Large freezer trawler	17	16	94.1	1	1	100.0
Poland						
Large freezer trawler	1048	1006	96.0	31	31	100.0
China						
Large freezer trawler	2	2	100.0	1	1	100.0
Total	1067	1024	96.0	33	33	100.0
B. Joint venture fishery						
US-USSR JV mothership	750	719	95.9	6	6	100.0
US-Poland JV mothership	1029	942	91.5	22	22	100.0
US-Korea JV mothership	41	23	56.1	1	1	100.0
US-China JV mothership	72	71	98.6	1	1	100.0
Total	1892	1775	92.8	30	30	100.0
GRAND TOTAL	2959	2779	93.9	63	63	100.0

Table 5.--Monthly foreign catch, joint venture catch, and prohibited species summary (by number) in the Bering Sea, 1987.

Month/Nation	Groundfish catch (1,000's t)		Numbers (1000's)							
	1986	1987	Halibut		Salmon		King Crab		Tanner Crab	
			1986	1987	1986	1987	1986	1987	1986	1987
January										
Japan	1.1	2.8	10.6	26.4	0.0	0.0	0.0	0.0	2.8	7.3
Foreign Total	1.1	2.8	10.6	26.4	0.0	0.0	0.0	0.0	2.8	7.3
Joint-Venture	1.0	43.7	<0.1	10.6	<0.1	1.4	0.0	1.0	<0.1	10.9
February										
China	<0.1	--	0.1	--	<0.1	--	<0.1	--	0.9	--
Japan	5.4	13.0	19.4	68.2	0.0	0.0	4.7	0.0	24.5	9.3
Korea	5.4	--	0.0	--	<0.1	--	0.0	--	0.0	--
Foreign Total	10.9	13.0	19.5	68.2	<0.1	0.0	4.7	0.0	25.4	9.3
Joint-Venture	52.6	329.3	50.6	56.4	0.3	1.8	0.2	<0.1	45.9	63.2
March										
China	0.4	--	0.0	--	<0.1	--	0.0	--	0.0	--
Japan	4.9	2.9	0.7	13.9	<0.1	0.0	<0.1	0.0	10.3	0.5
Korea	4.3	--	0.6	--	<0.1	--	0.0	--	<0.1	--
Foreign Total	9.6	2.9	1.3	13.9	0.1	0.0	<0.1	0.0	10.4	0.5
Joint-Venture	189.5	276.6	85.9	108.2	1.7	2.3	13.2	25.9	115.1	110.4
April										
China	--	--	--	--	--	--	--	--	--	--
Japan	3.7	1.4	5.8	11.0	<0.1	0.0	0.7	0.0	13.5	0.8
Korea	<0.1	<0.1	0.0	<0.1	0.0	0.0	0.0	<0.1	2.0	32.8
Foreign Total	3.8	1.4	5.8	11.0	<0.1	0.0	0.7	<0.1	15.5	33.6
Joint-Venture	179.3	286.8	35.2	94.1	0.7	2.0	20.7	72.9	234.0	3107.5
May										
China	0.4	--	1.6	--	0.0	--	0.2	--	13.8	--
Japan	2.7	2.1	12.2	6.2	0.0	0.0	0.2	0.0	12.3	0.2
Korea	3.4	--	0.3	--	<0.1	--	<0.1	--	1.9	--
Foreign Total	6.5	2.1	14.1	6.2	<0.1	0.0	0.5	0.0	28.0	0.2
Joint-Venture	81.4	184.8	102.6	64.1	0.2	1.0	106.9	7.7	467.1	1062.2

Table 5.--Continued.

Month/Nation	Groundfish catch (1,000's t)		Numbers (1000's)							
			Halibut		Salmon		King Crab		Tanner Crab	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
June										
China	0.8	--	1.3	--	<0.1	--	<0.1	--	11.8	--
Japan	14.9	0.3	3.7	0.3	<0.1	0.0	4.0	0.0	8.4	0.0
Korea	19.4	<0.1	4.7	0.2	<0.1	0.0	<0.1	<0.1	16.1	0.0
Foreign Total	35.1	0.3	9.7	0.5	<0.1	0.0	4.1	<0.1	36.3	0.0
Joint-Venture	91.1	120.8	84.3	118.3	0.2	0.6	3.0	9.1	4229.5	112.1
July										
China	--	--	--	--	--	--	--	--	--	--
Japan	87.3	1.0	14.6	1.2	<0.1	<0.1	2.1	1.0	13.8	4.5
Korea	16.2	0.8	4.9	1.5	<0.1	<0.1	<0.1	0.2	5.7	3.6
Foreign Total	103.5	1.8	19.5	2.7	<0.1	<0.1	2.1	1.2	19.5	8.1
Joint-Venture	213.3	43.8	63.7	46.9	1.5	0.2	5.8	7.3	82.1	2351.9
August										
China	--	--	--	--	--	--	--	--	--	--
Japan	83.4	1.9	11.3	2.0	<0.1	<0.1	0.9	0.9	14.9	68.5
Korea	13.6	0.8	4.5	0.9	0.4	0.0	<0.1	<0.1	15.5	4.9
Foreign Total	97.0	2.7	15.8	2.9	0.4	<0.1	0.9	0.9	30.4	73.4
Joint-Venture	160.0	5.1	55.1	2.8	11.0	<0.1	22.4	0.1	92.3	0.0
September										
China	--	--	--	--	--	--	--	--	--	--
Japan	77.5	2.3	7.8	5.7	0.1	<0.1	1.9	1.5	67.0	7.9
Korea	8.8	--	3.2	--	<0.1	--	0.1	--	64.7	--
Poland	0.4	--	0.0	--	<0.1	--	0.0	--	0.0	--
Foreign Total	86.7	2.3	11.0	5.7	0.2	<0.1	2.0	1.5	131.7	7.9
Joint-Venture	102.0	46.4	32.6	34.1	2.5	1.2	12.5	8.3	160.8	44.4
October										
China	--	--	--	--	--	--	--	--	--	--
Japan	37.8	13.8	38.2	45.4	<0.1	1.9	2.7	1.0	471.9	104.8
Korea	17.6	--	5.6	--	0.1	--	0.4	--	265.6	--
Poland	5.0	--	<0.1	--	0.1	--	0.0	--	<0.1	--
Foreign Total	60.4	13.8	43.8	45.4	0.3	1.9	3.1	1.0	737.5	104.8
Joint-Venture	71.9	4.0	75.2	0.7	2.0	0.1	75.0	0.1	213.9	<0.1

Table 5.--Continued.

Month/Nation	Groundfish catch (1,000's t)		Numbers (1000's)							
	1986	1987	Halibut		Salmon		King Crab		Tanner Crab	
			1986	1987	1986	1987	1986	1987	1986	1987
November										
China	<0.1	--	<0.1	--	0.0	--	0.0	--	<0.1	--
Japan	31.5	14.4	110.8	42.8	0.3	1.4	2.2	3.6	321.9	87.4
Korea	8.4	--	4.5	--	<0.1	--	<0.1	--	11.6	--
Poland	1.3	--	0.0	--	0.1	--	0.0	--	0.0	--
Foreign Total	41.3	14.4	115.4	42.8	0.5	1.4	2.2	3.6	333.5	87.4
Joint-Venture	12.7	0.2	12.1	<0.1	0.3	<0.1	3.7	0.0	9.0	0.0
December										
China	0.2	--	0.2	--	0.0	--	0.0	--	<0.1	--
Japan	19.8	11.5	19.4	45.6	<0.1	0.0	1.6	0.1	146.5	22.7
Korea	<0.1	--	<0.1	--	0.0	--	0.0	--	0.3	--
Poland	<0.1	--	0.0	--	<0.1	--	0.0	--	0.0	--
Foreign Total	20.2	11.5	19.7	45.6	<0.1	0.0	1.6	0.1	146.9	22.7
Joint-Venture	8.3	0.7	4.7	0.0	0.2	0.0	1.8	0.0	2.6	0.0
Total through December										
China	2.0	--	3.3	--	0.1	--	0.3	--	26.6	--
Japan	370.0	67.4	254.7	268.7	0.9	3.3	21.0	8.1	1108.0	313.8
Korea	97.4	1.6	28.2	2.6	0.6	<0.1	0.7	0.3	383.4	41.4
Poland	6.8	--	<0.1	--	0.2	--	0.0	--	<0.1	--
Foreign Total	476.2	69.0	286.2	271.3	1.8	3.3	22.0	8.4	1518.0	355.2
Joint-Venture	1163.1	1342.2	602.2	536.2	20.7	10.6	265.2	132.5	5652.4	6862.6

Table 6.--Monthly foreign catch, joint venture catch, and prohibited species summary (by weight) in the Bering Sea, 1987.

Month/Nation	Weights (tons)									
	Groundfish catch (1,000's t)		Halibut		Salmon		King Crab		Tanner Crab	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
January										
Japan	1.1	2.8	33.8	85.4	0.0	*	0.0	*	1.6	*
Foreign Total	1.1	2.8	33.8	85.4	0.0	*	0.0	*	1.6	*
Joint-Venture	1.0	43.7	0.2	17.0	*	*	*	*	*	*
February										
China	<0.1	--	0.3	--	<0.1	*	<0.1	*	<0.1	*
Japan	5.4	13.0	70.0	224.5	0.0	*	3.2	*	13.8	*
Korea	5.4	--	0.0	--	<0.1	*	0.0	*	0.0	*
Foreign Total	10.9	13.0	70.3	224.5	<0.1	*	3.2	*	13.9	*
Joint-Venture	52.6	329.3	59.0	80.2	*	*	*	*	*	*
March										
China	0.4	--	0.0	--	<0.1	--	0.0	--	0.0	--
Japan	4.9	2.9	2.1	43.7	0.1	*	<0.1	*	2.3	*
Korea	4.3	--	1.6	--	<0.1	*	0.0	*	<0.1	*
Foreign Total	9.6	2.9	3.7	43.7	0.2	*	<0.1	*	2.3	*
Joint-Venture	189.5	276.6	105.4	218.6	*	*	*	*	*	*
April										
China	--	--	--	--	--	--	--	--	--	--
Japan	3.7	1.4	19.1	38.9	<0.1	*	0.5	*	3.4	*
Korea	<0.1	<0.1	0.0	0.1	0.0	*	0.0	*	0.2	*
Foreign Total	3.8	1.4	19.1	39.0	<0.1	*	0.5	*	3.6	*
Joint-Venture	179.3	286.8	94.9	289.8	*	*	*	*	*	*
May										
China	0.4	--	4.9	--	0.0	--	0.4	--	1.3	--
Japan	2.7	2.1	45.2	21.6	0.0	*	0.2	*	1.7	*
Korea	3.4	--	0.9	--	<0.1	--	<0.1	--	1.2	--
Foreign Total	6.5	2.1	51.0	21.6	<0.1	*	0.6	*	4.2	*
Joint-Venture	81.4	184.8	310.8	159.2	*	*	*	*	*	*

Table 6.--Continued.

Month/Nation	Weights (tons)									
	Groundfish catch (1,000's t)		Halibut		Salmon		King Crab		Tanner Crab	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
June										
China	0.8	--	3.4	--	<0.1	--	<0.1	--	1.3	--
Japan	14.9	0.3	14.6	1.0	<0.1	*	4.4	*	1.3	*
Korea	19.4	<0.1	19.7	0.5	<0.1	*	0.1	*	5.1	*
Foreign Total	35.1	0.4	37.7	1.5	0.1	*	4.6	*	7.7	*
Joint-Venture	91.1	120.8	250.8	322.8	*	*	*	*	*	*
July										
China	--	--	--	--	--	--	--	--	--	--
Japan	87.3	1.0	54.7	5.8	<0.1	*	1.9	*	2.7	*
Korea	16.2	0.8	17.8	7.6	<0.1	*	<0.1	*	1.4	*
Foreign Total	103.5	1.8	72.5	13.4	<0.1	*	1.9	*	4.1	*
Joint-Venture	213.3	43.8	229.5	188.6	*	*	*	*	*	*
August										
China	--	--	--	--	--	--	--	--	--	--
Japan	83.4	1.9	56.7	11.0	0.2	*	1.0	*	2.8	*
Korea	13.6	0.8	27.5	5.6	1.8	*	0.1	*	2.6	*
Foreign Total	97.0	2.7	84.2	16.6	2.0	*	1.1	*	5.4	*
Joint-Venture	160.0	5.1	205.4	34.1	*	*	*	*	*	*
September										
China	--	--	--	--	--	--	--	--	--	--
Japan	77.5	2.3	45.4	25.3	0.5	*	2.7	*	10.3	*
Korea	8.8	--	14.7	--	0.2	--	0.2	--	7.8	--
Poland	0.4	--	0.0	--	0.0	--	0.0	--	0.0	--
Foreign Total	86.7	2.3	60.1	25.3	0.7	*	2.9	*	18.1	*
Joint-Venture	102.0	46.4	141.3	157.6	*	*	*	*	*	*
October										
China	--	--	--	--	--	--	--	--	--	--
Japan	37.8	13.8	163.3	218.0	0.2	*	1.6	*	92.4	*
Korea	17.6	--	22.1	--	0.5	--	0.7	--	29.9	--
Poland	5.0	--	0.0	--	0.4	--	0.0	--	0.0	--
Foreign Total	60.4	13.8	185.4	218.0	1.1	*	2.3	*	122.3	*
Joint-Venture	71.9	4.0	288.6	4.1	*	*	*	*	*	*

Table 6. --Continued.

Month/Nation	Weights (tons)									
	Groundfish catch (1,000's t)		Halibut		Salmon		King Crab		Tanner Crab	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
November										
China	<0.1	--	0.5	--	0.0	--	0.0	--	0.0	--
Japan	31.5	14.4	454.1	196.5	1.5	*	1.9	*	58.2	*
Korea	8.4	--	14.3	--	0.1	--	<0.1	--	1.6	--
Poland	1.3	--	0.0	--	0.3	--	0.0	--	0.0	--
Foreign Total	41.3	14.4	468.9	196.5	1.9	*	2.0	*	59.8	*
Joint-Venture	12.7	0.2	37.7	0.0	*	*	*	*	*	*
December										
China	0.2	--	1.9	--	0.0	--	0.0	--	<0.1	--
Japan	19.8	11.5	81.4	183.5	0.4	*	3.2	*	19.4	*
Korea	<0.1	--	<0.1	--	0.0	--	0.0	--	<0.1	--
Poland	<0.1	--	0.0	--	0.0	--	0.0	--	0.0	--
Foreign Total	20.2	11.5	83.3	183.5	0.4	*	3.2	*	19.4	*
Joint-Venture	8.3	0.7	15.9	0.0	*	*	*	*	*	*
Total through December										
China	2.0	--	10.9	--	<0.1	--	0.5	--	2.8	--
Japan	370.0	67.4	1040.6	1055.2	3.0	*	20.5	*	210.0	*
Korea	97.4	1.6	118.6	13.8	2.7	*	1.3	*	49.8	*
Poland	6.8	--	0.0	--	0.6	--	0.0	--	0.0	--
Foreign Total	476.2	69.0	1170.1	1069.0	6.4	*	22.3	*	262.6	*
Joint-Venture	1163.1	1342.2	1739.4	1472.0	*	*	*	*	*	*

Table 7.--Monthly foreign catch, joint venture catch, and prohibited species summary (by number) in the Gulf of Alaska, 1987.

Month/Nation	Numbers (1,000's)											
	Groundfish catch (1,000's t)											
	1986		1987		Halibut		Salmon		King Crab		Tanner Crab	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
January												
Japan	--	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	--	--	--	--	--	--	--	--	--	--	--	--
February												
Japan	8.4	--	57.4	--	0.0	--	<0.1	--	0.5	--	--	--
Joint-Venture	52.6	--	2.7	--	2.0	--	0.0	--	<0.1	--	--	--
March												
Japan	6.8	--	43.8	--	0.0	--	0.0	--	0.7	--	--	--
Joint-Venture	0.6	--	2.9	--	0.2	--	<0.1	--	3.1	--	--	--
April												
Japan	0.3	--	7.6	--	0.0	--	0.0	--	<0.1	--	--	--
Joint-Venture	<0.1	--	0.1	--	<0.1	--	0.0	--	0.0	--	--	--
May												
Japan	--	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	<0.1	--	<0.1	--	<0.1	--	0.0	--	0.0	--	--	--
June												
Japan	--	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	<0.1	--	0.3	--	0.0	--	0.0	--	0.0	--	--	--
July												
Japan	--	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	--	--	--	--	--	--	--	--	--	--	--	--
August												
Japan	--	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	0.4	0.9	<0.1	6.9	0.0	<0.1	0.0	0.0	<0.1	1.4	--	--
September												
Japan	--	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	0.5	3.2	1.5	38.1	<0.1	0.1	<0.1	<0.1	<0.1	3.7	--	--

Table 7.--Continued.

Month/Nation	Groundfish catch (1,000's t)				Numbers (1,000's)						
	1986		1987		Salmon		King Crab		Tanner Crab		
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	
October											
Japan	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	4.6	27.9	7.4	144.8	8.8	0.9	<0.1	<0.1	10.3	0.4	
November											
Japan	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	5.2	0.5	8.3	7.1	9.0	<0.1	0.0	0.0	2.2	<0.1	
December											
Japan	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	1.4	--	5.2	--	0.2	--	<0.1	--	1.0	--	
Total through December											
Japan	15.5	--	108.8	--	0.0	--	<0.1	--	1.3	--	
Joint-Venture	65.3	32.5	28.4	196.9	20.3	1.1	<0.1	<0.1	16.9	5.5	

Table 8.--Monthly foreign catch, joint venture catch, and prohibited species summary (by weight) in the Gulf of Alaska, 1987.

Month/Nation	Weights (tons)									
	Groundfish catch (1,000's t)		Halibut		Salmon		King Crab		Tanner Crab	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
January										
Japan	--	--	--	--	--	--	--	--	--	--
Joint-Venture	--	--	--	--	--	--	--	--	--	--
February										
Japan	8.4	--	159.7	--	0.0	--	<0.1	--	0.4	--
Joint-Venture	52.6	--	7.2	--	*	--	*	--	*	--
March										
Japan	6.8	--	160.6	--	0.0	--	0.0	--	0.4	--
Joint-Venture	0.6	--	3.2	--	*	--	*	--	*	--
April										
Japan	0.3	--	27.1	--	0.0	--	0.0	--	0.1	--
Joint-Venture	<0.1	--	0.2	--	*	--	*	--	*	--
May										
Japan	--	--	--	--	--	--	--	--	--	--
Joint-Venture	<0.1	--	<0.1	--	*	--	*	--	*	--
June										
Japan	--	--	--	--	--	--	--	--	--	--
Joint-Venture	<0.1	--	0.6	--	*	--	*	--	*	--
July										
Japan	--	--	--	--	--	--	--	--	--	--
Joint-Venture	--	--	--	--	--	--	--	--	--	--
August										
Japan	--	--	--	--	--	--	--	--	--	--
Joint-Venture	0.4	0.9	0.2	25.6	*	*	*	*	*	*
September										
Japan	--	--	--	--	--	--	--	--	--	--
Joint-Venture	0.5	3.2	3.6	101.0	*	*	*	*	*	*

Table B. --Continued.

Month/Nation	Groundfish catch (1,000's t)		Weights (tons)								
	1986	1987	Halibut		Salmon		King Crab		Tanner Crab		
			1986	1987	1986	1987	1986	1987	1986	1987	
October											
Japan	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	4.6	27.9	30.6	501.2	*	*	*	*	*	*	
November											
Japan	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	5.2	0.5	27.1	28.2	*	*	*	*	*	*	
December											
Japan	--	--	--	--	--	--	--	--	--	--	--
Joint-Venture	1.4	--	7.8	--	*	--	*	--	*	--	
Total through December											
Japan	15.5	--	347.4	--	0.0	--	<0.1	--	0.9	--	
Joint-Venture	65.3	32.5	80.6	656.0	*	*	*	*	*	*	

Note: * indicates weight was not taken.

Table 9.--Monthly foreign catch, joint venture catch, and prohibited species summary
(by number) in the Washington-Oregon-California region, 1987.

Month/Nation	Groundfish catch (1,000's t)		Numbers (1,000's)			
	1986	1987	Halibut		Salmon	
			1986	1987	1986	1987
January - March						
No foreign or joint venture fishing						
April						
Poland	--	--	--	--	--	--
Joint-Venture	0.4	3.1	<0.1	0.0	<0.1	<0.1
May						
Poland	--	--	--	--	--	--
Joint-Venture	12.0	10.1	<0.1	<0.1	1.9	1.1
June						
Poland	9.4	1.0	<0.1	0.0	0.2	<0.1
Joint-Venture	19.2	20.4	<0.1	<0.1	2.4	1.6
July						
Poland	19.1	8.0	<0.1	<0.1	1.9	0.5
Joint-Venture	19.2	30.4	<0.1	<0.1	21.2	3.3
August						
China	--	<0.1	--	<0.1	--	0.0
Korea	--	0.2	--	0.0	--	<0.1
Poland	17.3	6.5	<0.1	<0.1	1.2	0.2
Foreign total	17.3	6.7	<0.1	<0.1	1.2	0.2
Joint-Venture	19.6	27.6	<0.1	<0.1	3.0	1.6
September						
China	--	<0.1	--	0.0	--	<0.1
Korea	--	1.2	--	<0.1	--	0.4
Poland	11.6	14.8	<0.1	<0.1	4.3	0.6
Foreign total	11.6	16.0	<0.1	<0.1	4.3	1.0
Joint-Venture	8.3	14.1	<0.1	0.0	2.1	0.8
October						
China	--	--	--	--	--	--
Korea	--	--	--	--	--	--
Poland	13.4	18.7	0.0	<0.1	4.1	2.8
Foreign total	13.4	18.7	0.0	<0.1	4.1	2.8
Joint-Venture	4.1	1.5	0.0	0.0	1.4	0.2

Table 9.--Continued.

Month/Nation	Groundfish catch (1,000's t)		Numbers (1,000's)			
	1986	1987	Halibut		Salmon	
			1986	1987	1986	1987
November - December						
No foreign or joint venture fishing						
Total through December						
China	--	<0.1	--	<0.1	--	<0.1
Korea	--	1.4	--	<0.1	--	0.4
Poland	70.8	49.0	<0.1	<0.1	11.7	4.2
Foreign Total	70.8	50.4	<0.1	<0.1	11.7	4.6
Joint-Venture	82.8	107.2	0.1	<0.1	32.0	8.6

Table 10.--Monthly foreign catch, joint venture catch, and prohibited species summary
(by weight) in the Washington-Oregon-California region, 1987.

Month/Nation	Groundfish catch (1,000's t)		Weights (tons)			
	1986	1987	Halibut		Salmon	
	1986	1987	1986	1987	1986	1987
January - March						
No foreign or joint venture fishing						
April						
Poland	--	--	--	--	--	--
Joint-Venture	0.4	3.1	0.2	0.0	0.3	*
May						
Poland	--	--	--	--	--	--
Joint-Venture	12.0	10.1	0.1	<0.1	3.1	*
June						
Poland	9.4	1.0	<0.1	0.0	0.7	*
Joint-Venture	19.2	20.4	0.0	<0.1	4.3	*
July						
Poland	19.1	8.0	<0.1	0.0	4.6	*
Joint-Venture	19.2	30.4	0.1	0.1	27.9	*
August						
China	--	<0.1	--	0.0	--	*
Korea	--	0.2	--	0.0	--	*
Poland	17.3	6.5	<0.1	0.1	3.1	*
Foreign total	17.3	6.7	<0.1	0.1	3.1	*
Joint-Venture	19.6	27.6	0.1	0.2	5.5	*
September						
China	--	<0.1	--	0.0	--	*
Korea	--	1.2	--	0.1	--	*
Poland	11.6	14.8	<0.1	0.0	8.2	*
Foreign total	11.6	16.0	<0.1	0.1	8.2	*
Joint-Venture	8.3	14.1	0.1	0.0	3.6	*
October						
China	--	--	--	--	--	*
Korea	--	--	--	--	--	*
Poland	13.4	18.7	0.0	0.0	9.3	*
Foreign total	13.4	18.7	0.0	0.0	9.3	*
Joint-Venture	4.1	1.5	0.0	0.0	2.8	*

Table 10. --Continued.

Month/Nation	Groundfish catch (1,000's t)		Weights (tons)			
	1986	1987	Halibut		Salmon	
			1986	1987	1986	1987
November - December						
No foreign or joint venture fishing						
Total through December						
China	--	<0.1	--	<0.1	--	*
Korea	--	1.4	--	0.1	--	*
Poland	70.8	49.0	0.1	0.1	25.9	*
Foreign Total	70.8	50.4	0.1	0.2	25.9	*
Joint-Venture	82.8	107.2	0.6	0.4	47.5	*

Note: * indicates weight was not taken.

