



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE

Northwest and Alaska Fisheries Center  
Resource Ecology and Fisheries Management  
2725 Montlake Blvd. East  
Seattle, WA 98112

March 2, 1982

F/NWC2:RF

MAR 15 1982

Mr. Jim H. Branson, Executive Director  
North Pacific Fishery Management Council  
P. O. Box 3136DT  
Anchorage, AK 99510

Dear Jim:

In response to requests from the Council for a written summary of data on the incidence of salmon in foreign trawl catches, we have prepared the attached series of tables. In these tables are given 1981 data on the incidence and estimated catch of salmon and data on observer coverage for the year. Also, we have included up-to-date information on salmon catches for 1982 and our plans for observer coverage this year. As requested, Bob French will be on hand to summarize the report before the Council and respond to questions.

Sincerely yours,

Richard J. Marasco  
Division Director

Encls  
RF:dms



Foreign Fisheries Observer Program

The following tables represent advanced data on observer coverage, foreign groundfish catches, and details of the incidence of salmon in foreign catches for 1981. Also included are data on the trend in salmon catches by foreign trawlers in the past five years (1977-81) and preliminary estimates of early-season catches of salmon for 1982. Full details of these catch estimates, as well as information on other prohibited species, will be available in a written report to be prepared this summer.

The Center's observer program is expanding coverage in 1982 and estimated coverage for various vessel classes is included in the final table.

Northwest and Alaska Fisheries Center

March , 1982

Table 1.--Summary of observer effort, foreign vessel effort, and observer coverage (observer months x 100/vessel month) in foreign fisheries in the north-eastern Pacific and Bering Sea during 1981.<sup>1/</sup>

Fishery plan	Nation	Vessel type	Observer months	Vessel months	Percent coverage	
Bering Sea/Aleutian groundfish	Japan	Surimi mothership	11.3	26.3	42.9	
		Freezer mothership	5.0	5.2	96.1	
		Small stern trawler	30.9	694.5	4.4	
		Large stern trawler	23.5	144.8	16.2	
		Longline	5.5	43.0	12.8	
		Subtotal		76.2	913.8	8.3
	S. Korea	Large stern trawler	19.4	118.3	16.4	
		Longline	0.0	1.5	0.0	
		Subtotal	19.4	119.8	16.2	
	Poland	Large stern trawler	11.5	62.0	18.5	
Taiwan	Small stern trawler	0.0	11.2	0.0		
W. Germany	Large stern trawler	0.9	9.6	9.4		
	Subtotal Bering Sea		108.0	1,116.4	9.6	
Bering Sea snail	Japan	Independent pot	0.0	4.4	0.0	
Gulf of Alaska	Japan	Small stern trawler	9.5	73.4	12.9	
		Large stern trawler	9.5	50.9	18.7	
		Longline	7.7	114.7	6.7	
		Subtotal	26.7	239.0	11.2	
	S. Korea	Large stern trawler	3.6	48.8	7.4	
		Longline	0.0	9.5	0.0	
		Subtotal	3.6	58.3	6.2	
	Poland	Large stern trawler	2.4	51.2	4.7	
		Subtotal Gulf of Alaska		32.7	348.5	9.3
	Wash-Ore-Calif. Pacific whiting	Poland	Large stern trawler	18.7	83.2	22.5
Bulgaria		Large stern trawler	3.3	7.7	42.8	
Subtotal WA-OR-CA			22.0	90.9	24.2	
OVERALL TOTALS			162.7	1,560.2	10.4	

<sup>1/</sup> One vessel or observer month is equal to 28 days.

Table 1.--Continued.

Fishery plan	Nation	Vessel type	Observer months	Vessel months	Percent coverage
Bering Sea/Aleutian Joint-Ventures	US-USSR	Mothership	6.1	30.2	20.2
	US-S. Korea	Mothership	1.7	7.5	22.7
	US-Poland	Mothership	0.1	2.9	3.4
	US-Japan	Mothership	2.5	3.4	73.5
	US-W. Germany	Mothership	0.0	3.7	0.0
		Subtotal	10.4	47.7	21.8
Gulf of Alaska Joint-Ventures	US-W. Germany	Mothership	1.0	6.4	15.6
	US-Japan	Mothership	T	T	100.0
		Subtotal	1.0	6.4	15.6
Wash-Ore-Calif. Joint-Ventures	US-USSR	Mothership	14.0	35.1	39.9
	US-Poland	Mothership	1.0	4.3	23.2
	US-Bulgaria	Mothership	1.3	10.0	13.0
	US-Greece	Mothership	0.2	0.5	40.0
		Subtotal	16.5	49.9	33.1
OVERALL TOTALS			27.9	104.0	26.

Table 2.--Estimated groundfish catches (mt), 1981.

Fishery/Nation	Region	
	Bering Sea/Aleutian	Gulf of Alaska
<b>Foreign</b>		
Japan	1,029,147	122,563
Poland	55,025	44,615
Korea	167,355	75,613
Taiwan	5,914	
W. Germany	11,874	
Total	1,269,315	242,791
<b>Joint-venture</b>		
US-USSR	47,640	
US-Korea	13,742	16,944
US-Poland	2,250	
US-Japan	11,391	21
US-W. Germany	3,497	
Total	78,520	16,955
All Fisheries	1,347,835	259,746

Table 3.--Salmon incidence rates in the Bering Sea/Aleutian region, 1981.

Nation/Vessel class	Quarter of the Year			
	Bering Sea/Aleutian Area 1			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Japan				
Mothership surimi		0	.001	0
Mothership freezer		0	0	0
Large trawler surimi		0	.004	.031
Large trawler freezer	.004	0	0	
Small trawler	.367	0	0	.021
Korea	.425	.007	.001	.096
Poland	.020	.072	.008	.064
W. Germany				.175
US-USSR	.015	.005	.001	
US-Korea		0	.005	
US-Japan		.044	.021	
US-Poland				.102
	Bering Sea/Aleutian Area 2			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Japan				
Mothership surimi		0	0	
Mothership freezer				
Large trawler surimi	.080	.019	.018	.030
Large trawler freezer				
Small trawler	.061	.011	.005	.014
Korea	.144	.124	0	.110
Poland		.186		
W. Germany				1.609
US-USSR				
US-Korea				
US-Japan				

Table 4.--Salmon incidence rates in the Gulf of Alaska, 1981.

Area	Quarter of the Year			
	1	2	3	4
Japan Small Trawlers				
Shumagin		0	.026	.116
Chirikof			.019	.111
Kodiak		0	.009	.057
Yakutat		0	0	0
Southeastern				0
Japan Surimi Trawler				
Shumagin			.030	.109
Chirikof			.227	.194
Japan Large Freezer Trawlers				
Shumagin			.007	.036
Chirikof			.087	.177
Kodiak		0	.023	.066
Yakutat		0	.036	.172
Southeastern		0		.038
Japan Longliner				
Shumagin	0	0	0	0
Chirikof	0	0	.034	0
Kodiak		0	.066	0
Yakutat				0
Poland Large Trawlers				
Shumagin	1.006			.017
Chirikof	.996			.311
Korea Large Trawlers				
Shumagin		.007	.008	.024
Chirikof		.026	.018	.081
Kodiak			.110	
Yakutat			0	

Table 5.--Estimated incidental catch of salmon by foreign groundfish fisheries and species composition, 1981.

Incidental Salmon Catch						
	Directed fishery		Joint venture fishery		Total	
	Nos.	T	Nos.	T	Nos.	T
Bering Sea/Aleutian Region						
Japan	13,520	50	392	1	13,912	51
Korea	17,917	56	48	T	17,965	56
Poland	6,167	17	227	1	6,394	18
W. Germany	5,428	17	5	T	5,433	17
Taiwan	94	T			94	T
USSR	-	-	182	1	182	1
TOTAL	43,126	140	854	3	43,980	143
Gulf of Alaska						
Japan	8,624	32	0	0	8,624	32
Korea	1,239	5	0	0	1,239	5
Poland	24,441	68	-	-	24,441	68
TOTAL	34,304	105	0	0	34,304	105
Species Composition						
Area	<u>Chinook</u>	<u>Chum</u>	<u>Coho</u>	<u>Pink</u>	<u>Sockeye</u>	
	Percent					
Bering Sea/Aleutian	90.8	8.0	0.6	0.1	0.3	
Gulf of Alaska	91.9	7.6	0.1	0.3	0	



Table 6.--Incidental catch of salmon by quarter of the year, 1981.

Nation	Quarter				Total
	1	2	3	4	
Bering Sea/Aleutian Region					
Japan	8,619	546	915	3,440	13,520
Korea	14,489	771	19	2,638	17,917
Poland	488	4,907	14	758	6,167
W. Germany	2,980	461	717	1,270	5,428
Taiwan	41	6	0	47	94
Total	26,617	6,691	1,665	8,153	43,126
Gulf of Alaska					
Japan	155	61	2,662	5,746	8,624
Korea	0	25	472	742	1,239
Poland	19,500	0	0	4,941	24,441
Total	19,655	86	3,134	11,159	34,304

Table 7.--Trends in catches of salmon by foreign  
groundfish fisheries, 1977-1981.

Year	Nos.	Salmon T
Bering Sea/Aleutian Region		
1977	47,840	198
1978	44,548	137
1979	107,706	340
1980	120,104	381
1981	43,126	140
Gulf of Alaska Region		
1977	5,272	NA
1978	45,603	131
1979	20,410	69
1980	35,901	106
1981	34,304	105
Washington-Oregon-California Region		
1977	14,627	50
1978	5,905	19
1979	7,044	30
1980	4,831	17
1981	5,071	18

NA = not available

Table 8.--Incidental catch of salmon, Bering Sea/Aleutian Area,  
1982.

Nation	Month	
	January	February
Japan	1,055	Not available at this time. Will be presented at March Council meeting.
S. Korea	60	
W. Germany	2	
Total	1,117	

Table 9.--Estimated observer coverage - 1982.

Joint venture fisheries	90-100%
Japanese mothership fisheries	100%
Large stern trawlers	35-40%
Small trawlers	20%
Longliners	25%
Overall - annual	35-40%

Table 1.--Estimated incidental catch of salmon by foreign groundfish fisheries, 1981.

	<u>Directed fishery</u>		<u>Joint-venture fishery</u>		<u>Total</u>	
	nos.	t	nos.	t	nos.	t
Bering Sea / Aleutian Region (Preliminary)						
Japan	13,520	50	392	1	13,912	51
Korea	17,917	56	48	T	17,965	56
Poland	6,167	17	227	1	6,394	18
W. Germany	5,428	17	5	T	5,433	17
Taiwan	94	T	-	-	94	T
U.S.S.R.	-	-	182	1	182	1
Total	43,126	140	854	3	43,980	143
Gulf of Alaska Region (Preliminary)						
Japan	8,624	32	0	0	8,624	32
Korea	1,239	5	0	0	1,239	5
Poland	24,441	68	-	-	24,441	68
Total	34,304	105	0	0	34,304	105
Washington-Oregon-California Region						
Poland	4,833	17	409	1	5,242	18
Bulgaria	238	1	308	1	546	2
Greece	-	-	121	T	121	T
U.S.S.R.	-	-	6,152	13	6,152	13
Total	5,071	18	6,990	15	12,061	33
Total all areas	82,501	263	7,844	18	90,345	281

Table 2.--Estimated incidental catch of Pacific halibut by foreign groundfish fisheries, 1981.

	Directed fishery		Joint-venture fishery		Total	
	nos.	t	nos.	t	nos.	t
Bering Sea / Aleutian Region (Preliminary)						
Japan	728,744	1,943	487	1	729,231	1,944
Korea	285,505	714	2,134	6	287,639	720
Poland	0	0	0	0	0	0
W. Germany	16,102	36	3,876	17	19,978	53
Taiwan	3,251	38	-	-	3,251	38
U.S.S.R.	-	-	97,083	207	97,083	207
Total	1,033,602	2,731	103,580	231	1,137,182	2,962
Gulf of Alaska Region (Preliminary)						
Japan	424,567	2,377	0	0	424,567	2,377
Korea	33,818	461	274	5	34,092	466
Poland	300	7	-	-	300	7
Total	458,685	2,845	274	5	458,959	2,850
Washington-Oregon-California Region						
Poland	22	T	0	0	22	T
Bulgaria	0	0	0	0	0	0
Greece	-	-	0	0	0	0
U.S.S.R.	-	-	0	0	0	0
Total	22	T	0	0	22	T
Total all areas	1,492,309	5,576	103,854	236	1,596,163	5,812

Table 3.--Estimated incidental catch of king crab by foreign groundfish fisheries, 1981.

	<u>Directed fishery</u>		<u>Joint-venture fishery</u>		<u>Total</u>	
	nos.	t	nos.	t	nos.	t
Bering Sea / Aleutian Region (Preliminary)						
Japan	659,360	587	58	T	659,418	587
Korea	71,448	80	9,385	3	80,833	83
Poland	0	0	0	0	0	0
W. Germany	993	1	1,039	T	2,032	1
Taiwan	10,772	8	-	-	10,772	8
U.S.S.R.	-	-	1,072,744	638	1,072,744	638
Total	742,573	676	1,083,226	641	1,825,799	1,317
Gulf of Alaska Region (Preliminary)						
Japan	6,344	7	0	0	6,344	7
Korea	490	1	0	0	490	1
Poland	1	T	-	-	1	T
Total	6,835	8	0	0	6,835	8
Total all areas	749,408	684	1,083,226	641	1,832,634	1,325

Table 4.--Estimated incidental catch of Tanner crab by foreign groundfish fisheries, 1981.

	<u>Directed fishery</u>		<u>Joint-venture fishery</u>		<u>Total</u>	
	nos.	t	nos.	t	nos.	t
Bering Sea / Aleutian Region (Preliminary)						
Japan	3,814,811	896	187	T	3,814,998	896
Korea	1,702,179	278	6,924	1	1,709,103	279
Poland	0	0	0	0	0	0
W. Germany	6,643	1	0	0	6,643	1
Taiwan	178,721	38	-	-	178,721	38
U.S.S.R.	-	-	736,621	275	736,621	275
Total	5,702,354	1,213	743,732	276	6,446,086	1,489
Gulf of Alaska Region (Preliminary)						
Japan	97,938	72	0	0	97,938	72
Korea	2,828	2	0	0	2,828	2
Poland	6	T	-	-	6	T
Total	100,772	74	0	0	100,772	74
Total all areas	5,803,126	1,287	743,732	276	6,546,858	1,563



Table 5.--Estimated incidental catch of salmon, halibut, king crab, and Tanner crab taken in foreign and joint-venture fisheries, 1980.

	<u>Directed fishery</u>		<u>Joint-venture fishery</u>		<u>Total</u>	
	nos.	t	nos.	t	nos.	t
Bering Sea / Aleutian Region						
Salmon	120,104	381	1,898	7	122,002	388
Halibut	959,566	4,311	204,948	286	1,164,514	4,597
King crab	858,129	781	289,542	241	1,147,671	1,022
Tanner crab	11,108,359	2,058	179,332	56	11,287,691	2,114
Gulf of Alaska Region						
Salmon	35,901	107	168	1	36,069	108
Halibut	511,521	3,206	19,318	48	530,839	3,254
King crab	6,395	9	6,285	13	12,680	22
Tanner crab	27,844	17	58,022	14	85,866	31
Washington-Oregon-California Region						
Salmon	4,831	17	3,602	9	8,433	26
Halibut	135	1	0	0	135	1

## ESTIMATED GROUND FISH CATCHES (in metric tons), 1981

		————— REGION —————	
		Bering Sea/ Aleutian	Gulf of Alaska
	Fishery/Nation		
<b>Foreign</b>	Japan	1,029,147	122,563
	Poland	55,025	44,615
	Korea	167,355	75,613
	Taiwan	5,914	
	West Germany	11,874	
	<b>TOTAL</b>		<b>1,269,315</b>
<b>Joint- Venture</b>	U.S.—U.S.S.R.	47,640	
	U.S.—Korea	13,742	16,944
	U.S.—Poland	2,250	
	U.S.—Japan	11,391	21
	U.S.—West Germany	3,497	
	<b>TOTAL</b>		<b>78,520</b>
<b>All Fisheries</b>		<b>1,347,835</b>	<b>259,746</b>

## OBSERVER COVERAGE, 1981

<b>Fishery</b>	<b>Nation/Area</b>	<b>Percent coverage</b>
<b>Bering Sea/Aleutian Area</b>	Japan	8.3
	South Korea	16.2
	Poland	18.5
	Taiwan	0
	West Germany	9.4
	<b>SUBTOTAL</b>	<b>9.6</b>
<b>Gulf of Alaska</b>	Japan	11.2
	South Korea	6.2
	Poland	4.7
	<b>SUBTOTAL</b>	<b>9.3</b>
<b>Joint Venture Fisheries</b>	Bering Sea/Aleutian	21.8
	Gulf of Alaska	15.6
	<b>SUBTOTAL</b>	<b>21.0</b>
<b>All Alaskan Fisheries</b>		<b>10.0</b>

## ESTIMATED INCIDENTAL CATCH OF SALMON BY FOREIGN GROUND FISH FISHERIES, 1981

	Directed Fishery		Joint-Venture Fishery		Total	
	Numbers	Metric tons	Numbers	Metric tons	Numbers	Metric tons
<b>Bering Sea/Aleutian Region</b>						
Japan	13,520	50	392	1	13,912	51
Korea	17,917	56	48	Trace	17,965	56
Poland	6,167	17	227	1	6,394	18
West Germany	5,428	17	5	Trace	5,433	17
Taiwan	94	Trace			94	Trace
U.S.S.R.	—	—	182	1	182	1
<b>TOTAL</b>	<b>43,126</b>	<b>140</b>	<b>854</b>	<b>3</b>	<b>43,980</b>	<b>143</b>
<b>Gulf of Alaska</b>						
Japan	8,624	32	0	0	8,624	32
Korea	1,239	5	0	0	1,239	5
Poland	24,441	68	—	—	24,441	68
<b>TOTAL</b>	<b>34,304</b>	<b>105</b>	<b>0</b>	<b>0</b>	<b>34,304</b>	<b>105</b>

## INCIDENTAL CATCH OF SALMON (by quarter of the year), 1981

Nation	Quarter				Total
	1	2	3	4	
<b>Bering Sea/Aleutian Region</b>					
Japan	8,619	546	915	3,440	13,520
Korea	14,489	771	19	2,638	17,917
Poland	488	4,907	14	758	6,167
West Germany	2,980	461	717	1,270	5,428
Taiwan	41	6	0	47	94
<b>TOTAL</b>	<b>26,617</b>	<b>6,691</b>	<b>1,665</b>	<b>8,153</b>	<b>43,126</b>
<b>Gulf of Alaska</b>					
Japan	155	61	2,662	5,746	8,624
Korea	0	25	472	742	1,239
Poland	19,500	0	0	4,941	24,441
<b>TOTAL</b>	<b>19,655</b>	<b>86</b>	<b>3,134</b>	<b>11,159</b>	<b>34,304</b>

## INCIDENTAL CATCH OF SALMON (by nation and area), 1981

Nation	Area				Total
	1	2	3	4	
Japan	3,434	9,336	0	749	13,519
Korea	8,642	9,047	0	228	17,917
Poland	1,825	3,760	0	582	6,167
Taiwan	31	63	0	0	94
West Germany	1,562	3,862	0	4	5,428
<b>TOTAL</b>	<b>15,494</b>	<b>26,068</b>	<b>0</b>	<b>1,563</b>	<b>43,125</b>

Gulf of Alaska	Shumagin	Chirikof	Kodiak	Yakutat	S.E.	Total
Japan	950	5,988	1,268	216	202	8,624
Korea	449	750	40	0		1,239
Poland	8,191	16,246		4		24,441
<b>TOTAL</b>	<b>9,590</b>	<b>22,984</b>	<b>1,308</b>	<b>220</b>	<b>202</b>	<b>34,304</b>

**SPECIES COMPOSITION OF INCIDENTAL CATCH OF SALMON  
(in percent), 1981**

<b>Area</b>	<b>Chinook</b>	<b>Chum</b>	<b>Coho</b>	<b>Pink</b>	<b>Sockeye</b>
<b>Bering Sea/ Aleutian</b>	<b>90.8</b>	<b>8.0</b>	<b>0.6</b>	<b>0.1</b>	<b>0.3</b>
<b>Gulf of Alaska</b>	<b>91.9</b>	<b>7.6</b>	<b>0.1</b>	<b>0.3</b>	<b>0</b>

## TRENDS IN CATCHES OF SALMON BY FOREIGN GROUNDFISH FISHERIES, 1977-81

	Year	Numbers	Metric tons
<b>Bering Sea/Aleutian Region</b>	1977	47,840	198
	1978	44,548	137
	1979	107,706	340
	1980	120,104	381
	1981	43,126	140
<b>Gulf of Alaska Region</b>	1977	5,272	Not available
	1978	45,603	131
	1979	20,410	69
	1980	35,901	106
	1981	34,304	105
<b>Washington-Oregon- California Region</b>	1977	14,627	50
	1978	5,905	19
	1979	7,044	30
	1980	4,831	17
	1981	5,071	18



## ESTIMATED OBSERVER COVERAGE, 1982

Joint venture fisheries	90–100%
Japanese mothership fisheries	100%
Large stern trawlers	35–40%
Small trawlers	20%
Longliners	25%
OVERALL—annual	35–40%

## INCIDENTAL CATCH OF SALMON, Bering Sea/Aleutian Area, 1982

Nation	Month	
	January	February
Japan	1058	2244
South Korea	120	0
West Germany	2	0
<b>TOTAL</b>	<b>1180</b>	<b>2244</b>