

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 86 / 2

74 SCOMM 7: INTERIM COMM. ON SUBSISTENCE 1977

annual harvest, but was 57% below the 1975 harvest total.

Horton Bay fish were flown, in the round, via light aircraft to the fishermen's co-operative in Unalakleet or tendered to Moses Point for processing.

Commercial chum salmon catches were 15.2% below the recent 4-year average annual harvest, while pink salmon harvests were 2.4 times the recent 4-year average.

This fishery is the most sporadic of the subdistrict fisheries in Horton Sound. The remoteness of the fishing grounds from the buying stations and difficulties with operating tenders in the shallow waters of Horton Bay account for the thus far limited character of this fishery. Due to average escapements and light commercial fishing effort, the commercial season remained open on a normal 4-day per week fishing schedule from June 15 to August 31. Comparative commercial catch data are presented in Appendix Table 11.

Subsistence fishery

The subsistence catches of 4 fishermen from the village of Koyuk included 2 king, 41 pink and 236 chum for a total of 279 salmon (Table 1).

Escapement

The Koyuk, Ungalik and Inglutalik Rivers are the main spawning

fishing to provide a base of income (Table 1 and Appendix Table 2).

Escapement

The Kwiniuk and Tubutulik Rivers are the main spawning grounds for fish entering this subdistrict. An aerial survey index count of the Tubutulik River of 1,095 chum, 6,065 pink salmon and 2,600 "salmon" (not identified by species) indicated the smallest return on record for chum salmon and a slightly below average return for pink salmon. The total expanded escapement enumerated by a tower into the Kwiniuk River in 1976 was 12 king, 6,834 chum, 20,431 pink and 12 coho salmon. Pink salmon escapements decreased 30% from the 1975 brood year escapement, while chum escapement were 80% below the 1972 escapement (Table 2 and Appendix Table 7).

Norton Bay (Subdistrict 4)

Commercial fishery

A total of 23 vessels and 21 gear licenses were issued, representing decreases of 41% and 50%, respectively, from record 1975 levels (Appendix Table 1).

Twenty-seven commercial fishermen caught 103 king, 4,399 pink, 95 coho and 7,135 chum salmon, totaling 11,722 salmon (Table 6). This total harvest was 23.9% above the recent 4-year average

average annual harvest.

Pink salmon catches were 4.7 times the recent 5-year average annual harvest of 3,300 fish, while the king salmon harvest was 2.0 times the recent 5-year average of 450 salmon.

Aerial survey information and commercial catch data indicated a possible below average run of chum salmon to the Shaktoolik River, resulting in a reduction in fishing time on July 15 and a closure on July 19. The commercial season was not re-opened until July 25. Comparative commercial catch data are presented in Appendix Table 12.

#### Subsistence fishery

Five subsistence fishermen caught 24 king, 121 coho, 1,108 pink and 269 chum salmon totaling 1,602 salmon. The bulk of this harvest came from subsistence fishing activities on the Shaktoolik River. This harvest was the lowest on record and may be attributed to the growing numbers of fishermen engaged in the commercial fishery (Table 1 and Appendix Table 2).

#### Escapement

In 1976, the Shaktoolik River, the main spawning stream in this subdistrict, was aerially surveyed with an escapement count of 139 king, 12,175 pink and 1,736 chum salmon (Table 2).

ground for fish entering this subdistrict. In 1976 an aerial index survey conducted of the Ungalik River resulted in a count of 5,753 chum, 982 pink and 1,600 salmon (not identified by species). A total of 115 pink and 247 chum were counted in the Koyuk River and 4,674 pink, 1,394 chum and 117 king salmon were counted in the Inglutalik River (Table 2).

#### Shaktoolik (Subdistrict 5)

#### Commercial fishery

Vessel licenses decreased 12.9% from 1975 levels, while gill net licenses increased 3.9%.

Thirty-seven commercial fishermen harvested 806 king, 129 coho, 15,740 pink and 15,727 chum, totaling 32,482 salmon (Table 7). This catch was 18.9% above the recent 5-year average annual harvest of 27,000 fish and 72.9% above the recent 10-year average annual harvest of 18,750 salmon.

Salmon were tendered to facilities at Unalakleet (subdistrict 6) to be dressed, chilled or frozen and flown to markets elsewhere in the state.

The chum salmon harvest was 32% below the recent 5-year average annual harvest of 23,000 fish and equal to the 10-year

Coho salmon catches were 1.5 times the recent 5-year average of 3,400 fish, while the king salmon harvest was 37.2% below the recent 5-year harvest average of 1,900 salmon (Appendix Table 2).

Comparative commercial catch information and aerial survey data indicated a below average chum salmon run to the Unalakleet River in 1976. Less conclusive data from the Chirosky River counting tower also seemed to point towards a below average run and corresponding escapements. Commercial fishing time was reduced on July 15 and a closure was instituted on July 19. The season was re-opened on July 25. Comparative commercial catch data are presented in Appendix Table 13.

It should be noted that in response to Department encouragement to fishermen to harvest abundant pink salmon, increasing amounts of pink salmon gear was utilized during the 1976 season.

A total of 2,891 char were captured incidentally to the commercial salmon fishery.

#### Subsistence fishery

Thirty subsistence fishermen in this subdistrict harvested 142 king, 694 coho, 4,316 pink and 2,832 chum totaling 7,894 salmon. This catch was the second smallest subdistrict harvest recorded and may be attributed to growing numbers of fishermen

#### Unalakleet (Subdistrict 6).

#### Commercial fishery

A total of 59 vessels and 59 gear licenses were issued representing reductions of 11.9% and 1.7%, respectively, from 1975 levels.

A total of 60 participating commercial fishermen harvested 1,198 king, 5,148 coho, 37,113 pink and 24,484 chum salmon for a total of 67,943 salmon (Table 8). This total harvest was equal to the recent 5-year average annual harvest of 69,000 but 10% above the 10-year average annual harvest of 61,500 fish.

All fish caught were purchased in Unalakleet by the fishermen's co-operative. The salmon catch was dressed, iced or chilled at the shore based facility, and later flown to markets and processors elsewhere in the state.

The commercial chum salmon harvest was 28% below the recent 5-year average annual harvest of 34,000 fish and 9.6% below the recent 10-year average annual harvest of 27,000 salmon.

The pink salmon harvest exceeded the previous 5-year average annual harvest by 1.2 times and was 34.3% above the recent 10-year average of 27,600 salmon.

#### Horton Sound District Outlook for 1977

Insufficient data is available to enable accepted forecasting methods to be employed in Horton Sound. The 1977 "Outlook" is based upon analysis of comparative commercial catch and escapement information, age data and subjective determinations. The "Outlook" is presented only as an indicator of possible 1977 run strength.

Horton Sound pink salmon do not demonstrate a strong odd/even year cycle and run strength is difficult to predict. The pink salmon return to Horton Sound in 1977 will be produced from the 1975 brood year. Pink salmon escapements in 1975 were average, but were notably strong in subdistrict 3, Moses Point. Therefore, overall pink salmon returns are expected to be of average magnitude in 1977.

The 1977 Horton Sound chum salmon return will be produced by the 1972-1974 escapements, with the bulk of the run composed of the four-year-old age class from the 1973 escapement. Inspection of 1976 age data tends to indicate below average recruitment from the 1972 brood year in some subdistricts. This may indicate below average returns of age 5<sub>1</sub> chums this year. Chum salmon escapements in 1972 were judged to be average; 1973 escapements were below average and 1974 escapements were average. Overall, Horton Sound chum salmon returns are anticipated to be of below average to average magnitude in 1977.

and individuals placing more reliance upon commercial fishing and associated industries to provide a base of income (Table 1 and Appendix Table 2).

#### Escapement

Aerial surveys of the Unalakleet River, North River and Egavik Creek, in addition to Chirosky River tower counts documented approximately 363 king, 79,290 pink and 6,477 chum salmon in streams of this subdistrict. Escapements for king salmon were judged to be poor, whereas pink and chum salmon escapements were above average and below average respectively (Table 2).

Table 1. Norton Sound district subsistence catches, 1976.

Village	No. of Fishermen Interviewed	Kings	Reds	Cohn	Pink	Chin	TOTAL 5/1/76
Uhalakleet	30	142	-	6/4	4316	2832	7,924
Shakttoolik	5	24	-	121	1102	269	1,602
Kayuk	4	2	-	-	41	279	279
Lila	9	22	-	-	5916	1578	6,536
Chilovin	6	--	-	-	1995	1128	3,123
White Mountain	2	--	-	-	361	149	510
Nuze	77	13	-	189	5492	1795	7,399
District TOTAL 1976	133	203	-	1,004	18,409	7867	27,483
District TOTAL 1975	133	186	-	192	15,203	8124	24,305
District TOTAL 1974	117	420	-	1,064	16,426	3953	21,868
District TOTAL 1973	79	392	-	520	14,770	7135	22,867

Commercial fishing effort, in terms of gear licenses, decreased 29% in 1976 from previous record 1975 levels; however, 1976 gear license totals were very similar to previous record levels set in 1973 and 1974. The 1975 levels are believed to have increased due to anticipated implementation of the "limited entry" program. Last year's license registration level is believed to be representative of "normal" fishing effort and is not expected to change greatly in 1977.

Appendix Table 2. Commercial and subsistence catches by species by subdistrict, Norton Sound district, 1961-1976

Year	Commercial				Subsistence				Combined								
	King	Red	Chinook	Chum	King	Chinook	Pink	Chum	King	Red	Chinook	Pink	Chum	Total			
NOSE (SUBDISTRICT 1)																	
1964	5	-	-	1	1,194	1,200	-	-	5	-	-	1	1,194	1,200			
1965	1	-	-	193	1,941	2,135	-	-	1	-	-	193	1,941	2,135			
1966	1	-	32	-	581	615	12	192	1,794	1,762	3,760	13	224	1,795	2,343	4,375	
1967	-	-	-	72	406	478	11	36	349	677	1,023	11	36	421	1,053	1,501	
1968	-	-	-	56	102	162	7	103	6,567	621	7,243	7	108	6,567	723	7,409	
1969	-	-	63	330	601	994	2	27	3,649	508	4,186	2	90	3,979	1,109	5,110	
1970	-	-	6	55	960	1,019	-	35	5,001	458	5,494	-	39	5,056	1,674	6,513	
1971	11	-	-	14	2,315	2,360	-	122	5,457	2,960	8,479	11	122	5,471	5,215	10,819	
1972	15	-	-	12	2,643	2,670	19	57	6,486	315	5,670	34	52	6,696	2,958	7,746	
1973	-	-	-	-	1,132	1,453	14	129	5,165	1,563	7,116	14	129	5,459	2,595	8,567	
1974	19	-	123	772	10,451	18,295	8	5	3,818	183	4,014	27	-	128	11,543	10,614	22,309
1975	2	-	310	2163	8,364	10,859	2	97	6,267	2,358	9,224	5	-	416	8,840	11,222	17,073
1976	2	10	-	1348	7,477	8,027	13	189	5,452	1,705	7,399	15	10	189	6,040	9,382	15,236
COLOVIN BAY (SUBDISTRICT 2)																	
1962	45	11	264	10,276	68,720	79,316	-	-	-	-	-	-	-	-			
1963	46	46	-	19,677	69,850	69,057	-	118	5,767	9,319	15,139	46	46	118	24,779	59,709	84,186
1964	27	40	3	7,236	56,301	65,607	-	-	-	-	-	27	40	3	7,236	56,301	65,607
1965	-	-	-	-	-	-	2	49	1,523	3,847	5,421	2	49	-	1,523	3,847	5,421
1966	17	14	584	4,665	29,791	35,071	4	176	1,573	3,520	5,273	21	14	760	6,238	31,311	40,354
1967	10	-	747	5,790	31,193	37,745	3	185	2,774	4,803	7,765	13	-	932	8,566	35,996	45,505
1968	12	-	705	18,428	10,011	28,656	4	181	4,955	1,744	6,884	16	-	306	23,383	11,755	35,538
1969	28	-	1,224	23,268	20,959	45,409	2	190	2,760	2,514	5,466	30	-	1,414	25,668	23,563	50,875
1970	15	-	3	10,771	26,566	39,705	4	353	3,056	2,514	6,017	17	-	354	21,767	23,186	45,146
1971	17	-	197	2,735	33,824	36,793	7	191	1,544	1,936	3,678	44	-	388	4,279	35,760	40,471
1972	34	-	20	6,562	27,097	33,715	4	62	1,735	2,058	3,829	50	-	82	8,297	29,125	37,553
1973	70	-	183	14,145	41,629	56,097	1	43	9	74	132	71	-	231	14,384	41,705	56,719
1974	30	-	3	22,340	30,173	58,566	3	-	967	206	1,176	33	-	3	22,307	30,379	53,727
1975	17	-	266	10,770	41,761	52,754	-	-	2,011	2,025	4,027	17	-	207	12,781	43,786	56,771
1976	11	-	1,311	24,220	39,614	56,166	-	-	1,995	1,128	3,123	11	-	1,311	26,225	41,742	59,399
MOSES POINT (SUBDISTRICT 3)																	
1962	27	-	-	11,100	50,683	61,810	-	-	-	-	-	-	-	-			
1963	15	-	-	2,549	26,274	28,823	5	-	5,808	8,316	14,129	20	-	-	8,157	34,990	43,147
1964	32	3	-	3,372	28,568	31,975	-	-	63	358	411	32	3	-	3,435	28,916	32,136
1965	-	-	-	-	-	-	16	72	1,325	9,857	11,270	16	-	72	1,325	9,857	11,270
1966	17	-	-	2,745	24,741	27,503	14	250	2,511	5,409	8,164	31	-	250	5,256	30,190	35,607
1967	-	-	-	-	-	-	39	116	1,127	9,913	11,390	39	-	116	1,322	9,913	11,390
1968	12	-	1	9,012	17,938	26,933	2	80	6,134	2,527	8,744	14	-	81	15,167	20,415	35,677
1969	29	-	-	11,607	26,595	38,430	9	109	1,798	1,493	3,211	38	-	109	13,597	27,697	41,654
1970	39	-	-	13,052	29,726	42,817	16	160	4,661	6,960	11,797	55	-	160	17,713	36,686	54,614
1971	95	-	4	922	43,611	44,852	16	271	1,654	2,727	3,560	111	-	275	1,968	46,638	48,612
1972	193	-	11	5,866	30,919	36,984	44	108	1,579	2,070	3,601	234	-	119	7,445	32,809	40,287
1973	134	-	-	10,603	31,369	42,176	2	-	-	293	300	136	-	-	10,603	31,667	42,476
1974	193	-	9	12,821	55,276	68,304	3	-	2,332	1,723	4,101	201	-	9	15,203	56,999	72,612
1975	16	-	-	4,297	46,649	51,127	7	6	1,280	503	1,796	18	-	6	5,687	47,179	52,614
1976	19	-	233	5,672	10,513	16,137	22	-	5,016	1,548	6,586	41	-	233	10,608	12,321	17,222
NORTON BAY (SUBDISTRICT 4)																	
1962	387	7	40	4,402	24,380	29,216	-	-	-	-	-	-	-	-			
1963	137	2	-	17,676	12,469	30,284	-	-	5,097	-	5,097	137	2	-	22,773	12,469	35,301
1964	50	3	-	988	5,916	6,957	-	-	-	-	-	50	3	-	988	5,916	6,957
1965	-	-	-	-	-	-	4	22	252	3,032	3,310	4	-	22	252	3,032	3,310
1966	-	-	-	-	-	-	7	41	929	3,612	4,589	7	-	41	929	3,612	4,589
1967	-	-	-	-	-	-	17	34	1,097	2,945	4,068	12	-	34	1,097	2,945	4,068
1968	-	-	-	-	-	-	28	71	1,916	1,872	3,887	28	-	71	1,916	1,872	3,887
1969	24	-	-	4,849	3,974	8,849	39	169	2,115	1,655	6,018	85	-	169	6,964	2,629	14,607
1970	-	-	-	-	-	-	3	10	840	7,500	4,353	3	-	10	840	7,500	4,353
1971	-	-	-	-	-	-	5	47	92	2,679	2,763	5	-	47	92	2,679	2,763
1972	43	-	-	1,713	7,799	9,555	30	44	2,639	2,022	4,185	73	-	44	3,802	9,821	13,740
1973	28	-	-	1,645	4,672	6,355	1	-	10	130	141	29	-	-	1,655	4,802	6,486
1974	21	-	-	654	3,826	4,501	-	-	17	800	917	21	-	-	671	4,276	5,418
1975	68	-	80	1,137	17,385	18,679	1	-	93	361	455	69	-	89	1,730	17,746	18,133
1976	163	-	95	4,389	7,135	11,722	2	-	41	236	279	105	-	95	4,530	7,471	12,001

Appendix Table 2. (Continued) Commercial and subsistence catches by species by subdistrict, Norton Sound district, 1961-1976

Year	Commercial					Total	Subsistence					Total	Combined					Total
	King	Red	Chin	Pink	Clas		King	Chin	Pink	Clas	King		Red	Chin	Pink	Clas		
SIKOTUIE (SUBDISTRICT)																		
1961	140	-	-	29,075	24,744	53,961	-	-	-	-	-	-	-	-	-	-		
1962	1,738	-	2,113	640	8,714	13,209	-	-	-	-	-	-	-	-	-	-		
1963	480	11	563	5,183	19,153	25,390	-	-	-	-	-	-	-	-	-	-		
1964	631	79	16	1,969	35,272	37,967	77	340	2,132	5,412	7,961	708	79	356	4,101	40,684		
1965	127	30	-	-	8,356	8,513	31	107	3,767	7,479	7,321	158	30	107	3,766	11,776		
1966	310	-	956	344	8,292	9,962	142	762	1,445	4,343	6,512	452	-	1,718	1,789	12,475		
1967	43	-	88	1,056	1,655	2,842	262	387	2,010	4,436	7,095	305	-	475	3,066	6,091		
1968	61	-	130	2,205	2,504	4,900	10	458	6,355	1,915	8,738	71	-	588	8,560	4,419		
1969	33	-	276	6,197	8,643	15,151	40	193	4,018	3,439	7,690	73	-	469	10,215	12,044		
1970	197	-	155	2,301	15,757	18,400	43	719	2,475	2,016	4,744	740	-	365	4,776	17,769		
1971	284	-	238	28	13,844	14,394	47	329	494	5,060	5,970	371	-	567	522	18,909		
1972	419	-	11	2,798	12,022	15,250	64	235	939	3,399	4,637	483	-	245	3,737	15,421		
1973	289	-	177	6,450	14,580	21,416	51	130	3,410	1,357	4,998	340	-	307	9,860	15,607		
1974	583	-	179	5,650	26,391	32,853	93	353	1,501	353	2,705	676	-	532	7,951	26,749		
1975	651	2	-	1,774	49,536	52,775	18	14	1,394	334	1,760	669	2	876	3,168	49,870		
1976	866	-	129	15,740	15,727	32,482	24	121	1,168	269	1,602	910	-	260	16,928	15,996		
UNALASIK (SUBDISTRICT)																		
1961	5,160	35	13,807	5,162	23,586	47,750	-	-	-	-	-	-	-	-	-	-		
1962	5,089	-	6,739	6,769	30,283	48,880	-	-	-	-	-	-	-	-	-	-		
1963	5,941	18	16,202	11,140	27,003	60,304	-	-	-	-	-	-	-	-	-	-		
1964	1,273	1	79	1	19,611	20,965	488	2,727	7,030	6,776	16,471	1,761	1	2,306	7,031	26,337		
1965	1,321	-	2,040	24	26,498	29,873	521	4,562	11,480	8,791	25,362	1,842	-	6,592	11,512	35,289		
1966	1,208	-	4,183	5,023	16,840	27,254	90	789	6,683	3,387	10,349	1,298	-	4,972	11,106	20,227		
1967	1,751	-	1,544	21,961	8,502	33,758	490	484	9,964	-	10,938	2,741	-	2,028	31,925	44,506		
1968	960	-	6,549	41,474	14,865	63,848	186	1,493	11,044	2,982	15,705	1,144	-	8,042	52,518	17,847		
1969	2,276	-	5,273	40,558	27,012	70,119	324	1,483	4,230	4,196	10,713	2,600	-	6,756	44,788	26,228		
1970	1,604	-	4,241	30,779	40,029	76,673	495	3,907	10,105	7,214	21,721	2,099	-	8,168	40,803	47,244		
1971	2,166	-	2,688	1,196	37,543	43,593	911	3,137	2,230	7,073	13,351	3,077	-	5,825	3,426	44,616		
1972	2,235	-	412	28,231	20,440	51,318	643	1,818	3,132	4,132	9,775	2,878	-	2,230	31,363	24,572		
1973	1,397	-	8,572	13,335	25,716	46,370	323	213	6,233	3,426	10,195	1,720	-	9,135	19,568	29,142		
1974	7,100	-	1,778	93,332	36,170	133,390	313	706	7,351	599	8,948	2,413	-	2,488	100,673	36,758		
1975	1,638	-	3,167	12,137	48,740	64,682	163	74	4,753	2,030	7,033	1,301	-	3,251	16,385	50,778		
1976	1,193	1	5,148	37,113	24,484	67,944	142	694	4,316	2,832	7,584	1,340	1	5,842	41,429	27,316		
ALL SUBDISTRICTS																		
1961	5,300	35	13,807	34,237	48,332	101,711	-	-	-	-	-	-	-	-	-	-		
1962	7,286	18	9,156	33,187	182,783	232,431	-	-	-	-	-	-	-	-	-	-		
1963	6,613	71	16,765	55,625	154,789	233,863	5	118	14,607	17,635	34,365	6,618	71	16,883	72,732	177,424		
1964	7,018	126	98	13,567	148,862	166,671	565	2,567	9,225	12,486	24,843	2,583	126	2,665	22,792	161,348		
1965	1,449	30	2,040	270	36,795	40,574	574	4,812	19,131	30,772	55,289	2,025	30	6,842	19,351	67,567		
1966	1,553	14	5,755	12,778	80,745	100,345	269	2,210	14,335	21,873	38,687	1,822	14	7,965	27,113	102,118		
1967	1,804	-	2,379	28,879	41,756	74,818	817	1,222	17,516	22,724	42,279	2,621	-	3,600	46,395	66,480		
1968	1,044	-	6,885	71,179	45,900	124,599	217	2,391	36,912	11,661	51,201	1,282	-	9,276	108,091	57,051		
1969	2,397	-	6,816	66,949	62,795	178,975	436	2,191	18,562	15,615	36,804	2,828	-	9,027	105,511	98,410		
1970	1,853	-	4,423	64,908	107,034	176,218	561	4,675	26,127	22,761	54,126	2,414	-	9,098	91,035	129,797		
1971	2,593	-	3,127	4,895	131,362	141,977	1,026	4,097	20,863	21,815	47,601	3,619	-	7,226	15,738	153,172		
1972	2,918	-	455	45,182	103,920	149,455	804	2,319	14,158	13,966	31,247	3,742	-	2,773	59,340	114,886		
1973	1,918	-	9,287	66,499	119,003	177,707	302	570	14,775	7,135	22,867	2,310	-	9,807	61,769	126,243		
1974	7,951	-	2,092	143,519	162,267	315,829	423	1,054	16,426	3,980	21,658	3,771	-	3,156	164,944	165,725		
1975	7,323	2	4,565	32,388	212,486	251,661	186	192	15,803	8,124	24,305	2,570	2	4,288	58,191	70,180		
1976	2,219	11	6,916	87,892	96,250	193,308	703	1,004	18,048	7,718	26,973	2,422	11	7,920	105,940	103,968		

1/ Includes 197 recorded red salmon in all subdistricts.  
 2/ Includes 93 recorded red salmon in all subdistricts.  
 3/ Includes 11 recorded red salmon in all subdistricts.

## PORT CLARENCE DISTRICT

### District boundaries

The Port Clarence district encompasses all waters from Cape Douglas to Cape Prince of Wales (Figure 3). A unique feature of this district is the Pilgrim River-Salmon Lake red salmon run which is one of the northern most occurrences of this species on the continent.

### Commercial fishery

Commercial fishing in freshwater is prohibited. In 1966 a total of 1,216 salmon consisting of 93 reds, 131 pinks and 992 chums was taken commercially in the Grantley Harbor-Tuksuk Channel area. This was the only bona fide commercial fishery in the district, but a few salmon are probably sold or bartered each year in Teller and Nome. In 1974 the Board of Fish & Game officially closed the Port Clarence district to commercial salmon fishing.

### Subsistence fishery

Red salmon bound for the Salmon Lake-Grand Central River spawning grounds must pass through Port Clarence, Grantley Harbor, Tuksuk Channel, Imuruk Basin and Pilgrim River. Teller and

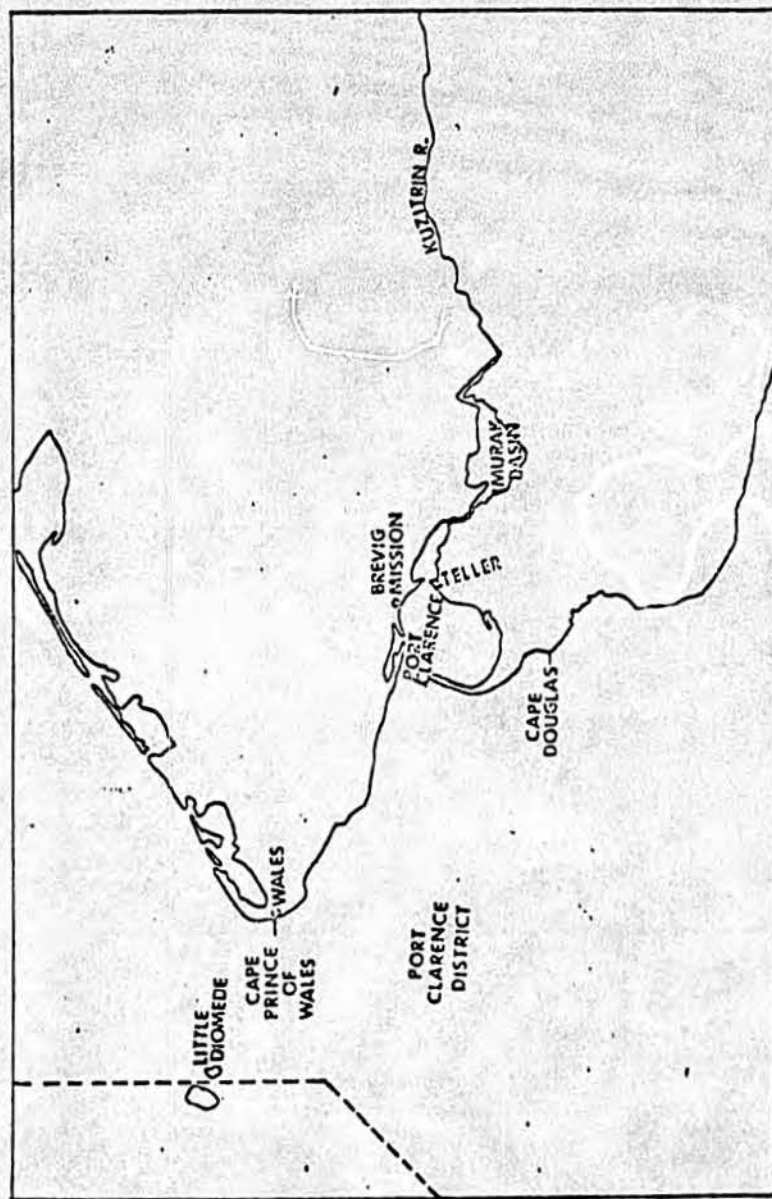


Figure 3. Port Clarence District.

1. Beginning with the 1964 season, a permit was required under which numbers of salmon taken could be limited. Fishermen were also required to record daily catches.
2. In 1964 the Grand Central River was closed to subsistence fishing for salmon.
3. No salmon gill net or fishing device can obstruct one-half of any salmon migration waterway or spawning stream. This took effect in 1964.
4. Subsistence fishing for salmon was prohibited within 300 feet of a marker placed at the outlet of Salmon Lake. This also took effect in 1964.
5. In 1966 fishermen were restricted to a total salmon take of either 25 or 50 fish (all species combined), depending on need. The effort in the Salmon Lake-Pilgrim area decreased by 50 percent that year (Appendix Table 14).
6. Beginning with the 1969 season, fishermen were restricted to a total of 25 salmon of all species. Failure to return their daily catch records would result in not being able to receive a permit the following year.
7. Beginning with the 1971 season, the following regulation went into effect: a set gill net may obstruct no more than one-half the width of any fish stream. A stationary fishing device

Brevig Mission subsistence fishermen take an unrestricted harvest of all species of salmon, mainly in the Grantley Harbor and Tuksuk Channel areas. Subsistence fishermen from Nome fish for all species of salmon in the Pilgrim River and Salmon Lake areas under special permits.

The subsistence salmon fishery in the Tuksuk Channel-Grantley Harbor area is a traditional fishery probably dating back hundreds of years. Subsistence fishing in Salmon Lake dates back at least to the 1930's. The Pilgrim River was not fished until 1962.

It is likely that the traditional subsistence fishery in the area had been harvesting this run at or near its maximum sustained yield for many years. Easier access to Salmon Lake and Pilgrim River due to road construction in 1957 increased subsistence utilization by Nome fishermen in these areas and resulted in overharvest by the combined subsistence fisheries. The red salmon in this district are currently at threshold population levels.

Since 1964 the subsistence fishery in the Pilgrim River-Salmon Lake area has been made more restrictive. A summary of the important restrictions, in chronological order, is presented below:

Appendix Table 14. Subsistence catches (all species) for Pilgrim River, Salmon Lake, and Teller, (1963-1976).

Location	No. of Fishermen	Catch/ Fishermen	King	Fcd 1963	Coho	Pink	Chum	TOTAL
Pilgrim River	7	246	0	303	0	205	419	1,727
Salmon Lake	9	263	0	3,203	25	0	0	3,303
TOTAL	16	315	0	3,506	25	205	419	5,035
Teller	3	802	9	1,280	0	256	260	2,405
DISTRICT TOTAL	19	392	9	4,866	25	1,061	1,279	7,440
1964								
Pilgrim River	14	197	17	1,266	174	312	986	2,755
Salmon Lake	8	43	0	209	53	59	63	304
TOTAL	22	143	17	1,475	227	371	1,049	3,139
Teller-no survey	22	143	17	1,475	227	371	1,049	3,139
DISTRICT TOTAL	22	143	17	1,475	227	371	1,049	3,139
1965								
Pilgrim River	12	101	11	305	64	199	628	1,207
Salmon Lake	11	103	1	962	100	23	43	1,129
TOTAL	23	102	12	1,267	164	222	671	2,336
Teller	6	600	24	537	475	1,632	931	3,599
DISTRICT TOTAL	29	205	36	1,804	639	1,854	1,602	5,935

in gradual increases in run magnitudes over the next few years. However, it is also possible that the run has suffered such a significant decline that it cannot be restored to former levels by management techniques alone. It may be necessary to initiate an expensive rehabilitation program and prohibit all subsistence fishing. One problem concerning a blanket subsistence closure is that other harvestable species such as pink and chum salmon migrate concurrently with the red salmon. To prohibit the taking of red salmon would prohibit, or at least seriously limit, the taking of these other species as well. An alternative management policy would be to subject the subsistence fishery to open and closed periods in order to increase escapement and still allow a subsistence harvest. This latter policy was initiated during the 1972 season.

Appendix Table 14. Subsistence catches (all species) for Pilgrim River, Salmon Lake, and Teller, (1963-1976)

Location	No. of Fishermen	Catch/ Fishermen	King	Red	Coho	Pink	Chum	TOTAL
<u>1969</u>								
Pilgrim River	3	5	0	4	0	10	0	14
Salmon Lake	4	13	0	51	0	0	0	51
TOTAL	7	9	0	55	0	10	0	65
Teller	6	270	2	128	27	538	932	1,617
DISTRICT TOTAL	13	122	2	180	27	548	922	1,582
<u>1970</u>								
Pilgrim River	3	20	0	32	0	2	25	59
Salmon Lake	4	22	0	30	6	23	30	89
TOTAL	7	21	0	62	6	25	55	148
Teller	9	710	4	481	1,040	1,261	3,601	6,387
Brevig Mission	2	334	0	45	25	22	575	667
TOTAL	11	644	4	526	1,065	1,283	4,176	7,054
DISTRICT TOTAL	18	400	4	588	1,071	1,308	4,231	7,202
<u>1971</u>								
Pilgrim River	4	21	3	37	3	0	39	82
Salmon Lake	4	30	4	90	2	14	10	120
TOTAL	8	25	7	127	5	14	49	202
Teller	12	531	23	608	899	1,155	3,605	6,370
Brevig Mission	2	104	1	35	55	2	115	208
TOTAL	14	470	23	723	954	1,157	3,720	6,578
DISTRICT TOTAL	22	308	31	850	959	1,171	3,769	6,780

Appendix Table 14. Subsistence catches (all species) for Pilgrim River, Salmon Lake, and Teller, (1963-1976)

Location	No. of Fishermen	Catch/ Fishermen	King	Red	Coho	Pink	Chum	TOTAL
<u>1966</u>								
Pilgrim River	7	58	5	7	14	84	295	405
Salmon Lake	4	32	0	123	2	0	2	127
TOTAL	11	48	5	130	16	84	297	532
Teller	13	348	2	702	785	645	2,393	4,527
Brevig Mission	2	291	3	168	95	130	135	581
TOTAL	15	341	5	870	880	775	2,528	5,108
DISTRICT TOTAL	26	217	10	1,000	896	859	2,875	5,640
<u>1967</u>								
Pilgrim River	4	22	7	51	4	5	21	88
Salmon Lake	9	32	0	286	2	0	0	288
TOTAL	13	34	7	337	6	5	21	376
Teller	6	629	5	1,731	226	762	1,051	3,776
DISTRICT TOTAL	19	244	12	2,068	232	767	1,073	4,152
<u>1968</u>								
Pilgrim River	3	22	3	34	4	7	19	67
Salmon Lake	3	25	0	73	1	0	0	74
TOTAL	6	24	3	107	5	7	19	141
Teller	11	249	25	361	75	1,542	738	2,741
Brevig Mission	7	113	12	220	53	537	147	789
TOTAL	18	196	37	581	128	1,809	885	3,530
DISTRICT TOTAL	24	153	40	688	133	1,906	901	3,671

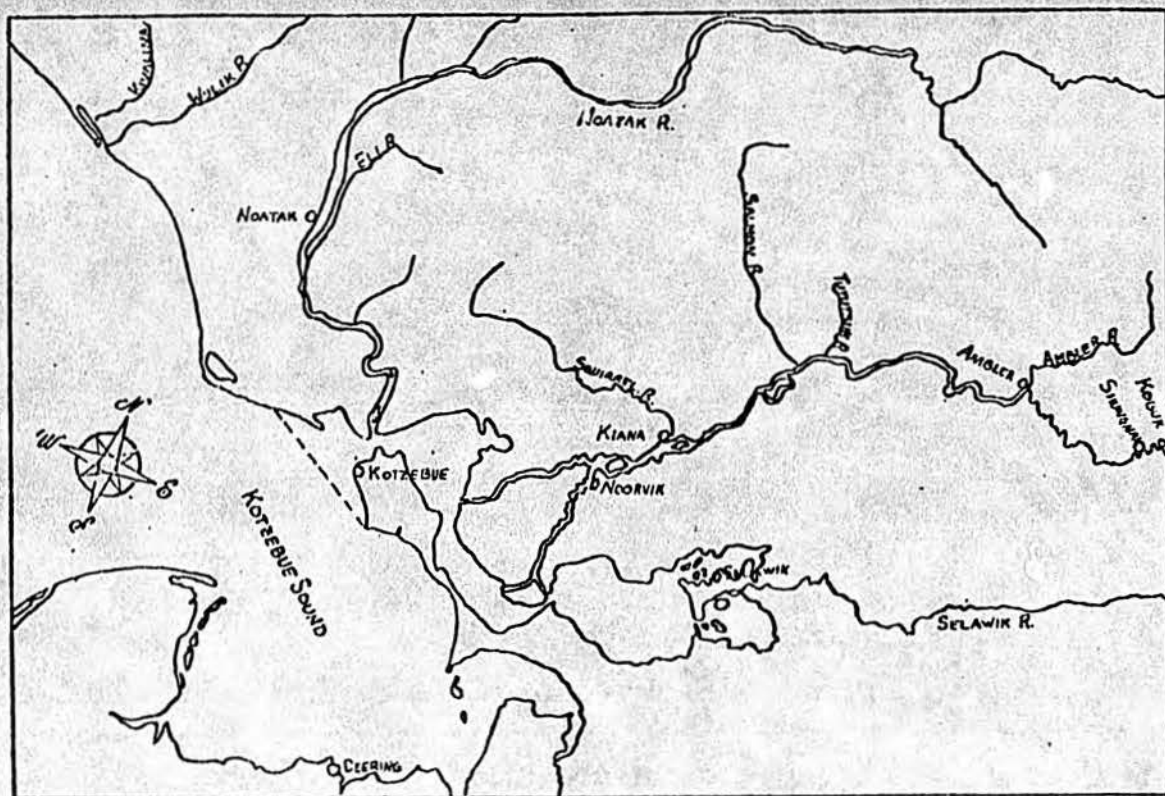
Appendix Table 14. Subsistence catches (all species) for Pilgrim River, Salmon Lake and Teller, (1963-1976)  
(continued)

Location	No. of Fishermen	Catch/ Fishermen	King	Red	Coho	Pink	Chum	TOTAL
1976								
Teller	6	1,034	4	200	0	200	5,800	6,204
Brevig Mission								
TOTAL	6	1,034	4	200	0	200	5,800	6,204
Pilgrim River	8	67	2	53	20	236	226	537
Salmon Lake	1	39	1	33	0	0	0	39
TOTAL	9	106	3	51	20	236	226	576
DISTRICT TOTAL	15	452	7	291	20	436	6,026	6,780

Appendix Table 14. Subsistence catches (all species) for Pilgrim River, Salmon Lake and Teller, (1963-1976).  
(continued)

Location	No. of Fishermen	Catch/ Fishermen	King	Red	Coho	Pink	Chum	Total
1972								
Teller	7	442	0	63	287	75	2,661	3,091
Brevig Mission	1	250	4	0	101	0	145	250
DISTRICT TOTAL	8	418	4	63	388	75	2,806	3,341
1973								
Teller	4	584	22	46	280	424	1,562	2,334
Brevig Mission	0	0	0	0	0	0	0	0
DISTRICT TOTAL	4	584	22	46	280	424	1,562	2,334
1974								
Teller	7	218	0	0	62	12	1,445	1,529
Salmon Lake	4	7	0	23	0	0	0	28
Brevig Mission	2	605	0	0	0	2	1,208	1,210
DISTRICT TOTAL	13	213	0	23	62	14	2,663	2,767
1975								
Teller	7	310	0	216	5	743	1,209	2,173
Brevig Mission	2	153	0	0	0	0	305	305
TOTAL	9	275	0	216	5	743	1,514	2,478
Pilgrim River	2	38	0	1	0	0	75	76
Salmon Lake	6	5	0	27	0	0	0	27
TOTAL	8	13	0	23	0	0	75	103
DISTRICT TOTAL	17	152	0	244	5	743	1,589	2,581

Figure 4. Kotzebue District, drainage and fish streams.



Appendix Table 15. Comparative red salmon aerial survey counts and subsistence catches, Port Clarence District, 1963-1976.

Year	Aerial Survey Counts			Subsistence Catch		
	Salmon Lake	Grand Central River	Total	Pilgrim River Drainage	Teller Brevig Mission	Total
1963	866	620	1,486	3,586	1,200	4,866
1964	76	590	666	1,475	0	1,475
1965	250	160	410	1,267	537	1,804
1966	1,120	370	1,490	130	870	1,000
1967	129	200	409	337	1,731	2,068
1968	830	645	1,475	107	581	688
1969	24	171	195	55	128	183
1970	1/	1/	1/	62	526	588
1971	538	512	1,050	127	723	850
1972	600	300 <sup>2/</sup>	980	0	68	68
1973	1,747	607	2,354	0	46	46
1974	820	0	820	28	0	28
1975	537	123	660	28	216	244
1976	132	22	154	53	291	344

1/ No survey made.  
 2/ Boat survey:

consumed as dried fish. All portions are utilized, e.g. the flesh is dried and used for both human and animal consumption, while the head and viscera are fed to dogs.

It is difficult to calculate the value of the subsistence fishery in terms of dollars to the residents of this area. However, if subsistence fishermen had to purchase a protein food in the place of their subsistence salmon catch, this fishery would probably rival the value of the commercial fishery. In some years the numbers of salmon taken for subsistence in the Kotzebue Sound area exceeds the commercial catch. Subsistence catches of salmon and other fish were especially important in 1976 due to reduced numbers of caribou.

All available subsistence chum salmon catches are presented in Appendix Table 23. The 1957 studies of Raleigh document estimates of average annual subsistence catches for recent years prior to 1957. The methods and completeness of this survey were not fully documented. The catch estimates were obtained from interviews of a certain percentage of each village population. The interview data was then expended to include the entire village. Possible large errors in the estimation of total catches could have occurred.

#### Commercial Fishery-other species

Other species of fish that are harvested commercially include sheefish and Arctic char. The Arctic char fishery is incidental to the commercial salmon fishery. In 1976 no commercial landings of incidentally caught Arctic char were recorded. There were Arctic char being caught during the last week of the commercial salmon fishery, but the fishermen utilized them for personal use.

The sheefish fishery is generally considered a winter fishery. This fishery is regulated by permit and area to be fished with an area quota of 25,000 pounds in effect. During the winter of 1975-1976, 556 sheefish, averaging 9.0 pounds, were harvested. The bulk of this harvest was marketed and sold locally with some sheefish flown in the round to marketing outlets in Fairbanks and Anchorage (Table 23).

#### Subsistence Fishery-salmon

Subsistence salmon fishing has long been an important food gathering activity for the Eskimo people of the Kotzebue district. Remnants of salmon spears and nets have been found in old village sites on the Kobuk River that date back to 1250 A.D.. At present, subsistence fishermen use set gill nets and beach seines to catch salmon in the bays and rivers. Nearly all of the catch is

this is expected to result in less subsistence fishing effort in the future.

In 1976, 15,765 chum salmon were harvested for subsistence purposes by 91 fishermen. The subsistence harvest is annually assessed either by personal interviews or catch calendars. The personal interview is the predominant means of gathering this information. Appendix Table 24 presents mean catches per fisherman (fishing family) for the seven villages surveyed annually since 1962.

The 1976 subsistence harvest of 15,765 chum salmon represented a decrease from the 1975 harvest. The 1976 harvest was approximately 32% below the recent 5-year average of 23,264 (Appendix Table 25).

#### Escapements

During 1976, aerial surveys were conducted of key tributaries as well as the main streams of the Kobuk and Noatak River systems and the Inmachuk River of southern Kotzebue Sound. Aerial and foot survey counts of spawning chum salmon in 1976 are presented in Table 10.

Chum salmon escapements indices recorded for the Noatak and Kobuk River systems were respectively 32% and 78% below primary brood year abundance indices. The Noatak River escapement indexes for 1976 was 52% below comparable annual average indices. Appendix Table 26 represents comparative escapements for the 1962-1976 period.

Catches during the period 1962-1976 were obtained by the Alaska Department of Fish and Game. The catches were tabulated by direct counts of salmon, interviews, or by the return of catch forms that were distributed to the fishermen who are not contacted by interviewers. On the basis of observations and analysis of catch records, it was estimated that the recorded catches represented at least 70 percent of the actual harvest. The villages of Deering, Buckland, Candle and Shishmaref were not surveyed until the 1965 season.

The estimated average annual catch, both commercial and subsistence, of chum salmon in the Kotzebue Sound drainage during the 1962-1976 period was slightly less than one-half of that for the 1957 study. There is insufficient information to determine whether this apparent decline in catch is a result of less fishing effort, fewer available salmon, errors in catch estimates or a combination of all of these factors.

Although there is no fishing effort or other data available, there is some indication that the dependence on subsistence fishing has declined in this region during recent years as a result of increased welfare payments and more employment opportunities. Motorized snow vehicles are beginning to replace sled dogs and

Appendix Table 23. Subsistence and commercial sheefish catches, (continued) Kotzebue district, 1966-1976.

Village	1971		1972	
	Fishermen Interviewed	Number of Sheefish	Fishermen Interviewed	Number of Sheefish
<b>SUBSISTENCE</b>				
Noorvik	32	5,975	21	2,213
Kiana	25	1,060	17	307
Ambler	13	711	6	350
Shungnak	20	671	10	639
Kobuk	5	1,069	7	12
Subtotal	95	9,485	61	3,521
Selawik	27	3,416	-	--
Kotzebue	33	682	18	311
Totals	155	13,583	79	3,832
<b>COMMERCIAL</b>				
Kotzebue	5	456	11	2,325
Combined				
TOTALS	160	14,039	90	6,157
<b>SUBSISTENCE</b>				
	1973		1974	
Noorvik	19	4,394	21	519
Kiana	25	--	15	51
Ambler	5	83	10	257
Shungnak	9	195	7	127
Kobuk	7	226	5	100
Subtotal	65	4,888	58	1,062
Selawik	-	--	-	--
Kotzebue	-	--	-	--
Totals	65	4,888	58	1,062
<b>COMMERCIAL</b>				
Kotzebue	6	--	-	--
Combined				
TOTALS	71	4,888	58	1,062

Appendix Table 23. Subsistence and commercial sheefish catches, Kotzebue district, 1966-1976.

Village	1966-1967		1967-1968	
	Fishermen Interviewed	Number of Sheefish	Fishermen Interviewed	Number of Sheefish
<b>SUBSISTENCE</b>				
Noorvik	28	3,792	35	1,910
Kiana	19	925	25	766
Ambler	11	194	14	559
Shungnak	11	166	13	837
Kobuk	7	99	5	270
Subtotal	76	5,176(6-10/67)	92	4,342(6-10/68)
Selawik	29	7,164(3-11/67)	39	5,030(4-11/68)
Kotzebue	30	10,060(10/66-5/67)	48	21,871(10/67-9/68)
Totals	135	22,400	178	31,293
<b>COMMERCIAL</b>				
Kotzebue	10	922(10/66-5/67)	17	2,375(10/67-9/68)
Combined				
TOTALS	145	23,322	195	33,668
<b>SUBSISTENCE</b>				
	1968-1969		1970	
Noorvik	20	1,324	46	7,126
Kiana	22	409	25	790
Ambler	20	554	12	125
Shungnak	17	530	19	603
Kobuk	11	553	4	158
Subtotal	90	3,370(10/68-12/69)	106	8,007
Selawik	35	4,140(3-11/69)	29	1,601
Kotzebue	19	4,352(10/68-12/69)	33	3,520
Totals	144	11,872	168	13,928
<b>COMMERCIAL</b>				
Kotzebue	-	2,206(10/68-12/69)	4	350(1/70-12/70)
Combined				
TOTALS	144	14,078	172	14,278

Appendix Table 24. Subsistence chum salmon catch per fisherman, Kotzebue district, 1962-1976.

Village	1962	1963	1964	1965	1966	1967	1968	1969	1970
Kotzebue	1/	650	515	400	158	202	135	98	187
Noatak	1,190	800	710	810	820	914	220	760	242
Noorvik	665	160	220	220	137	90	84	163	132
Kiana	350	2/	260	265	62	68	96	223	138
Ambler	1/	94	310	190	76	49	33	235	242
Shungnak	1/	2/	2/	220	45	125	114	318	182
Kobuk	335	67	205	145	104	35	206	206	150

1/ No survey.  
2/ Number of fishermen unknown.

Appendix Table 23. Subsistence and commercial sheefish catches, Kotzebue district, 1966-1976.

Village	1975		1976	
	Fishermen Interviewed	Number of Sheefish	Fishermen Interviewed	Number of Sheefish
<b>SUBSISTENCE</b>				
Noorvik	22	660	6	210
Kiana	15	68	20	58
Ambler	12	114	8	60
Shungnak	14	540	15	539
Kobuk	6	255	8	99
Subtotal	69	1,637	57	966
Selawik	-	--	-	--
Kotzebue	-	--	-	--
Totals	69	1,637	57	966
<b>COMMERCIAL</b>				
Kotzebue	14	2,633(12/74-6/75)	2	566
Combined TOTALS	83	4,270	59	1,522
<b>SUBSISTENCE</b>				
Noorvik				
Kiana				
Ambler				
Shungnak				
Kobuk				
Subtotal				
Selawik				
Kotzebue				
Totals				
<b>COMMERCIAL</b>				
Kotzebue				
Combined TOTALS				

Appendix Table 25. Kotzebue district subsistence chum salmon catches, 1962-1976.

Village	1962	1963	1964	1965	1966	1967	1968	1969
Noorvik	15,934	4,304	2,167	5,596	3,141	2,350	2,424	1,301
Kiana	3,139	1,973	783	1,598	433	1,489	2,488	2,458
Ambler	1/	755	2,142	1,340	912	679	457	3,525
Shungnak	1/	1,240	3,134	2,160	899	1,500	1,600	2,550
Kobuk	2,321	200	1,020	877	625	175	1,030	1,655
Kobuk River								
TOTAL	21,393	8,472	9,246	11,571	6,010	6,193	7,999	11,489
Noatak River								
TOTAL <sup>2/</sup>	48,890	16,762	12,763	5,671	19,700	26,512	5,490	14,458
Kotzebue	-	5,835	7,753	8,058	3,640	4,032	4,324	1,768
Deering	-	-	-	5,200	6,238	3,098	2,838	1,897
Buckland	-	-	-	-	-	162	37	-
Candle	-	-	-	-	-	11	89	200
Shishmaref	-	-	-	-	-	100	37	-
DISTRICT								
TOTAL	70,283	31,069	29,762	30,500	35,503	40,108	20,814	29,812

1/ Not surveyed.

2/ Represents catches of the village of Noatak; 40,693 chums taken during 1961.

Appendix Table 24. Subsistence chum salmon catch per fisherman, Kotzebue district, 1962-1976.

Village	1971	1972	1973	1974	1975	1976
Kotzebue	53	63	195	1/	1/	1/
Noatak	148	74	36	393	138	212
Noorvik	223	84	121	324	210	259
Kiana	207	84	178	181	288	79
Ambler	177	244	305	165	282	250
Shungnak	133	266	469	891	647	281
Kobuk	386	302	273	450	293	70

1/ No survey.

2/ Number of fishermen unknown.

Appendix Table 26. Comparative chum salmon aerial survey counts, Kotzebue district, 1962-1976.

	1962	1963	1964	1965	1966	1967	1968
<b>Noatak River System</b>							
Noatak River (below Kelly River)	168,000	1,970 <sup>1/</sup>	89,798	4,177 <sup>1/</sup>	101,640	28,620	39,394
Eli River	9,080	35 <sup>1/</sup>	-	-	12 <sup>1/</sup>	-	5,502
Kelly River & Lake	1,818	600	-	3,155 <sup>1/</sup>	570	225	375
<b>TOTAL</b>	<b>178,898</b>	<b>2,605<sup>1/</sup></b>	<b>89,798</b>	<b>7,332<sup>1/</sup></b>	<b>102,222</b>	<b>28,845</b>	<b>45,271<sup>1/</sup></b>
<b>Kobuk River System</b>							
<b>Main Kobuk River</b>							
Mouth to Kobuk	-	-	7,985	-	-	-	-
Kobuk to Pah River	-	-	-	1,000	266	-	530
Pah River to just below Selby River	-	400	-	-	-	-	50
Selby River mouth and Slough	-	2,575	-	1,750	630	1,625	70
Selby River mouth to just below Beaver R.	-	-	-	-	-	75	170
Beaver River mouth	-	1,095	-	-	460	795	1,550
Above Beaver River	-	465	-	-	118	-	-
<b>TOTAL Main Kobuk River</b>	<b>23,150<sup>2/</sup></b>	<b>4,535</b>	<b>7,985</b>	<b>2,750</b>	<b>1,474</b>	<b>2,495</b>	<b>2,370</b>
Squirrel River	16,050	2,200	8,009	7,230	1,350	3,332	6,746
Salmon River	12,936	1,535	9,353	1,500 <sup>1/</sup>	3,957	2,117	3,367
Tutuksuk River	10,841	670	2,635	-	1,303	169	823 <sup>1/</sup>
<b>TOTAL KOBUK R. System</b>	<b>62,977<sup>3/</sup></b>	<b>8,940</b>	<b>28,032</b>	<b>11,480</b>	<b>8,164</b>	<b>8,113<sup>1/</sup></b>	<b>13,306</b>

1/ Poor survey conditions or incomplete survey.

2/ Probably represents over-estimate and includes some sheefish.

3/ Counts have been revised and are now correct.

Appendix Table 25. Kotzebue district subsistence chum salmon catches, 1962-1976. (continued)

Village	1970	1971	1972	1973	1974	1975	1976	Fishermen Interviewed (1976)
Noorvik	6,077	7,144	1,774	2,312	6,809	4,620	1,555	6
Kiana	3,457	5,177	1,435	4,470	2,726	4,320	1,579	20
Ambler	2,899	2,299	1,469	1,529	1,651	3,390	2,000	8
Shungnak	3,450	2,653	2,665	4,406	6,243	9,060	4,213	15
Kobuk	600	1,931	2,119	1,917	2,251	1,755	562	8
<b>Kobuk River TOTAL</b>	<b>16,483</b>	<b>19,204</b>	<b>9,462</b>	<b>14,634</b>	<b>19,680</b>	<b>23,145</b>	<b>9,909</b>	<b>57</b>
Noatak River TOTAL <sup>2/</sup>	4,120	9,919	741	216	4,330	1,515	4,448	21
Kotzebue	6,184	1,737	1,151	1,172	<sup>1/</sup>	<sup>1/</sup>		<sup>1/</sup>
Deering	1,242	763	369	1,098	1,880	1,175	1,358	12
Buckland	344	155	59	1,722	639	1,540		
Candle	113	50	15	<sup>1/</sup>	<sup>1/</sup>	<sup>1/</sup>	50	1
Shishmaref	-	131	29	100	200	230		
<b>DISTRICT TOTAL</b>	<b>28,406</b>	<b>31,950</b>	<b>11,085</b>	<b>18,912</b>	<b>26,729</b>	<b>27,605</b>	<b>15,765</b>	<b>91</b>

1/ Not surveyed.

2/ Represents catches of the village of Noatak; 40,693 chums taken during 1961.

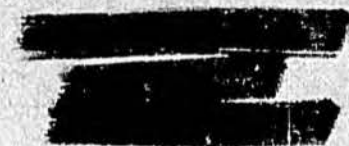
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ALASKA DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES



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PREFACE

This report presents all available information concerning the management of commercial and subsistence fisheries in the Kuskokwim district. Although data from many special research projects are included in this report, complete documentation of these projects and results will be presented in separate reports. All catch data tables are based upon field data.

Data presented in this report supercedes information found in previous management reports. An attempt has been made to correct errors in previous reports and previously unrecorded data have been incorporated into this report which are so indicated by appropriate footnotes.

This report is organized into the following major sections:

1. District Introduction. This is a general and brief description of the area, inhabitants, fishery resources, fisheries and management practices.
2. District Summary. This section summarizes current year data for the area and makes comparisons with previous years.
3. Subdistrict Reports. There are several unique and separate fisheries in the district and separate comprehensive reports are presented for each.

In order to facilitate use of this report, the tabular data has been separated into current year tables and appendix tables where annual comparisons are made. The text for each major section is followed by current year tables and then appendix tables.

The following is an explanation of how effort and catch per unit effort data, presented throughout this report, have been derived. Total boat (or fisherman) hours are computed by arbitrarily assuming that if a fishing boat delivers in any 24 hour fishing period, it fished the

### Commercial Fishery

Although the Kuskokwim district commercial fishery is the oldest in the AYK region with catches reported as early as 1913, commercial fishing did not mature for a half-century. For many years, small commercial mild-cure operations were conducted in or near Kuskokwim Bay while the Kuskokwim River fishery remained virtually undeveloped. During the 1930's when dog teams were intensely utilized for freight hauling, a "quasi-commercial" fishery operated in the McGrath area for the sale of dried, subsistence caught salmon for dog food. However, this fishery declined with the dog teams and the Kuskokwim district experienced little additional commercial effort until Alaska became a state more than twenty years later.

Commercial salmon fishing activity has grown significantly since statehood as district fishermen have been making the difficult transition from a subsistence culture to a cash economy. This has affected fishing effort, resulting in a tremendous expansion in fishermen numbers and in increased, sustained effort. Fishing vessels have remained virtually unchanged over the years, but increased utilization of highly mobile nylon drift nets has greatly improved the efficiency of the fleet. Of course, the overall expansion of the commercial fishery could not have been accomplished without improvements in processing and tendering facilities that have occurred throughout the district (Appendix Table 1).

King, red, coho, pink and chum salmon are of primary commercial significance in the Kuskokwim district. Although these fish are commercially utilized locally to some extent, the vast majority are transported from the district as a fresh or frozen product. Sheefish and whitefish are harvested incidentally to the salmon catch, however, a limited fall and

winter "whitefish fishery" is conducted to satisfy local market requirements.

### Subsistence Fishery

District residents have long depended upon the fishery resources as a source of food. Until relatively recently, traditional fishing methods and materials limited the size and scope of the fishery. Spears, dip nets, fish traps, and willow or caribou strip gill nets were slowly supplanted by more efficient linen gill nets enabling the fishery to expand tremendously. Whitefish, cisco, black fish, pike, burbot, and sheefish have been historically utilized along with salmon, particularly chum salmon. Recent improvements in fishing gear, notably the introduction of nylon gill net webbing, have increased the availability and importance of king salmon since statehood. Estimated peak subsistence salmon harvest levels were reached during the 1930's coincidentally with the quasi-commercial McGrath fishery, but harvest trends indicated a continuing decline into the 1940's. Little additional catch data is available for the twenty year span prior to statehood (Appendix Table 1).

Today the dependence on fish for personal use remains as important as money realized from the commercial fishery. However, several factors, as yet not totally defined, are affecting the complexion of the subsistence fishery. These factors include:

- (1) Increasing commercialization of subsistence products.
- (2) Cultural changes of local residents.
- (3) Various State and Federal social-aid programs.

Any management of the Kuskokwim district fishery resources must take into account the growing - and changing - requirements of the subsistence fishery.

### Subsistence Salmon Roe Fishery

The Governor approved legislation on May 29, 1975 allowing the sale of subsistence caught salmon roe within the AYK region. In order to administer the legislation, the Commissioner of Fish and Game issued an emergency regulation in June, 1975 which controlled the purchase and sale of subsistence roe in portions of the region. The key elements of the emergency regulation were:

- 1) Permits are required of all persons or companies purchasing or processing subsistence-caught roe.
- 2) Revocation of permits upon violation of permit terms, regulations or laws.
- 3) Strict reporting requirements in regard to amount of subsistence-caught roe in order that estimates of subsistence harvests can be made.
- 4) Prohibition of subsistence-caught roe sales when subsistence harvests are likely to exceed traditional personal use needs.
- 5) Prohibition of subsistence-caught roe sales in districts and subdistricts where salmon runs are especially vulnerable to overharvest or where subsistence catches in the past have been negligible.

Numbers of salmon were "back-calculated" from reported subsistence roe poundages by utilizing in-season sampling of the various runs. Therefore, estimates of the subsistence harvest were possible and were available for in-season management purposes. Attachment 1 presents a comprehensive review of the "subsistence roe fishery".

### Management

The Division of Commercial Fisheries of the Alaska Department of Fish and Game is responsible for the management of the commercial and

subsistence fisheries within the Kuskokwim district. The permanent staff assigned to this district includes one management biologist and two research biologists. In addition, 10-15 temporary summer employees are hired each season to assist the permanent staff in conducting various management and research studies.

The main objective of the Department's program is to manage the commercial salmon fisheries on a sustained yield basis in addition to obtaining needed information to determine the potential for commercial fisheries on under utilized species such as herring, char and whitefish. Present commercial salmon fishing regulations are still relatively restrictive in order to insure that sufficient salmon are provided for subsistence fishery and spawning ground requirements.

The basic regulation that governs the commercial salmon harvest in all districts is the scheduled weekly fishing period. Commercial fishing is normally allowed from 6 hours to four days a week during the open season, depending upon the sub-district and species involved. Fishing effort usually occurs during the entire run and not just during any particular segment of the run. Occasionally more, or less, fishing time is allowed, depending upon fishing conditions, the strength of the runs or spawning escapements as determined by special studies conducted by the Department.

Due to the vast size of the area and the turbid nature of many streams, accurate estimates of the size of salmon runs and the spawning escapements are difficult to obtain. Fishery management is also hampered by the relative lack of comparative catch and return information since all the fisheries were either initiated or expanded through regulation changes since 1961 and 1962. The management problem is further compounded by having to provide sufficient escapement after commercial fishing for the important subsistence fishery as well as for spawning purposes.

### Subsistence Fishery

Methods: The annual survey of the Kuskokwim River subsistence fishery was initiated in 1960. During the early years, the Department utilized "smokehouse counts" to determine total utilization of subsistence-caught fish. In an effort to determine additional timing and magnitude data, the Department began using "subsistence catch calendars" which are distributed to fishermen prior to the fishing season. Subsistence fishermen enter their daily catches of salmon and non-salmon species on the calendar. During July and August a Department crew utilizes a cabin skiff to travel more than 360 river miles (Eek to Swift River) to collect catch data from the individual fishermen in addition to recording certain information from non-fishing families. After the river survey is completed, catch questionnaires are sent to those fishermen not individually contacted.

In the 1969 Annual Report, a review is presented regarding methods used to obtain subsistence harvest and related information. All subsistence information presented in tabular form in this report, except in Appendix Table 17 represents "expanded data". This includes those families known to have fished but for one reason or another were not personally contacted by the survey crew. Catch data for these families are assumed to be the same as the averages for the particular village and are included in most of the tables.

Reported coho salmon catches are very minimal as the coho salmon run occurs after the survey is completed. Most of the coho salmon catch data is obtained from the return of catch calendars. Prior to 1969, little effort was made to determine the coho salmon harvest. The coho salmon estimates are not included in the comparative catch tables.

Catch and Effort: The Kuskokwim River system's harvest included 57,917 king salmon and 223,792 chum salmon utilized by 672 fishing

families during 1976 (Table 11). The king salmon catch was the largest since 1970 and was 33 percent above the recent 15 year average (Appendix Table 13). The chum salmon harvest was 18 percent below the high 1974 catch, but 8 percent above the recent 16-year average (Appendix Table 14).

In order to evaluate the effect of snowmachines on the subsistence harvest, all fishing families interviewed since 1967 have been checked for the number of snowmachines they owned. The number of families owning snowmachines has more than doubled since 1969 (Appendix Table 15). Average numbers of snowmachines per fishing family during 1967-1975 are shown in Appendix Table 16.

The public relations aspect of the annual subsistence fishery survey is important to the success of the survey itself and the Department's management program. By any method tested, the results of the voluntary contribution of the people of this program are as accurate as the people are capable of giving. The major problem is that many of the fishermen are illiterate and speak only Eskimo and have to relay much of the catch information through their school-age children.

There is still a moderate sale or trading of dried salmon on the Kuskokwim River, but is not documented. People from the coastal delta villages still bring their pokes of seal oil to trade for dried fish. The lower river dried fish are now primarily being used for human consumption.

The use of the fishwheel to capture salmon is slowly disappearing from the Kuskokwim River. Only 8 fishwheels were used along the survey route in 1976, compared to 30 in 1965 and 65 in 1960. The fishwheel is being replaced by the much more mobile gill net, which involves a lot less time and effort to operate. The use of gill nets is a relatively new technique for most Kuskokwim River residents. The efficiency of the two types of gear is difficult to evaluate, as large catches are often made with both. Table 15 presents an overview of all the subsistence data conducted in 1976.

### Escapement

Kuskokwim River drainage escapement estimates from aerial surveys have proved difficult and costly to obtain. Varying stream and weather conditions, in addition to pilot and observer skills, often make the data difficult to interpret (Appendix Table 18). Although aerial surveys will be continued for some streams, emphasis will be placed on obtaining accurate escapement figures by use of counting towers or weirs on several "key" spawning tributaries.

All the kuskokwim River aerial survey results for 1976 are presented in Table 12. Escapements of kings, chums and reds were generally above average as documented by aerial survey.

A counting tower has been operated yearly on the Kogrukluk River (Nolitna River system) since 1969 (except 1971). The Kogrukluk River crew counted 3,261 kings, 9,170 chums, and 4,433 reds. The chum and red salmon counts were the highest on record, while the king count was average in magnitude.

### QUINHAGAK (SUBDISTRICT 4)

#### Commercial Fishery

The Quinhagak fishery is one of two located south of the Kuskokwim River mouth (Figure 1). This fishery has traditionally been very sporadic due to unstable processing facilities, however, the commercial fishery has stabilized during the past few seasons.

Fishing regulations for this subdistrict are very similar to those found on the Kuskokwim River, except that there are no distinct fishing seasons. Beginning with the 1971 season, the basic fishing period was reduced from two 24-hour periods to two 12-hour periods per week. Commercial fishing is allowed only in Kuskokwim Bay waters. This is necessary to ensure escapement of adequate numbers of salmon up the

narrow Kanektok River. The vast majority of gear operated consists of drift gill nets that are fished at low tide in "gutters" located two to three miles off shore and next to shore at high tide. Most of the fishing takes place near the mouth of the Kanektok River.

The Kanektok River king salmon run is later than that of the Kuskokwim River and for this reason the Quinhagak fishery opening is delayed until mid-June. The delayed opening prevents possible interception of Kuskokwim River fish and aids in preventing overharvest of the king salmon run.

Fishermen were required to use small mesh gear (6-inch stretched mesh or smaller) during the entire commercial fishing season. This was necessary primarily to prevent selective harvesting of the larger, more productive king salmon by the large mesh nets. However, the mesh limitation was also designed to increase harvests of the more abundant "other salmon" species (i.e. red, pink, chum, and coho).

The commercial salmon season was opened on June 21 with two 12-hour fishing periods a week continuing until July 19 when an additional 12-hour period was added to the schedule. (Table 16). A total of 14,110 kings, 6,090 reds, 13,777 cohos, 31,412 pinks and 43,659 chums totaling 109,048 fish was taken. All catches were considerably above the recent 5 year averages with the exception of the red salmon catch (Appendix Table 3). Fishermen were placed on limit for much of the season by one of the major buyers. Commercial fishing effort totaled 181 fishermen, an 8 percent decrease from the record 1974 levels but still above average.

#### Subsistence Fishery

Accurate comparable subsistence data has been lacking for the Quinhagak subsistence fishery during recent years. However, observation by the staff indicates that dependence on subsistence fishing has not been high. Apparently the greatest amount of fishing effort occurs in

the Kanektok River after the commercial fishing season when mostly coho salmon are taken.

Methods used to tabulate catches made by Quinhagak fishermen were similar to those used for the Kuskokwim River survey. A total of 50 Quinhagak fishing families returning catch calendars reported catching 2,200 kings and 5,950 "other salmon"..

Appendix Table 17 shows comparative catch data for 1967-76.

#### Escapement

Escapement counts made during various aerial surveys of the Kanektok River system are shown in Table 17. Poor weather conditions frequently hampered aerial surveys in the Quinhagak subdistrict. The king salmon escapement appeared to be at least average in magnitude. Based on comparative catch data, escapement of all other species was probably average also.

#### GOODNEWS BAY (SUBDISTRICT 5)

#### Commercial Fishery

Traditionally, the male residents from the villages of Goodnews Bay and Platinum have gone to Bristol Bay each summer to fish or work in the canneries, leaving the women and children home to fish for subsistence purposes. Prior to 1968, there are no records indicating that commercial salmon harvests were ever made in Goodnews Bay. The Department held public meetings in the area during the early 1960's regarding the possibility of initiation of a commercial fishery, but the negative response from village residents plus the absence of salmon buyers precluded this development.

In late August of 1968, the commercial salmon fishing was opened by emergency order in Goodnews Bay. This commercial fishery was created as

a result of a request from area residents and Department surveys, which indicated that a small harvestable supply of salmon was available. The fishery has been sporadic in nature due to inconsistent processing capabilities and inclement weather.

The commercial salmon season was opened June 21. The harvest was composed of 4,417 kings, 5,575 reds, 9,852 cohos, 8,453 pinks and 10,354 chums, totaling 38,651 fish. The king salmon catch was 51 percent above the 1975 harvest and 56 percent above the recent five-year average. Numbers of reds were 40 percent below the 1974 record level but were 22 percent above the recent average. The coho salmon harvest was 54 percent below 1974 record but 6 percent above the five-year average, while the chum salmon harvest was 37 percent below the 1974 record and 36 percent above the recent average. Commercial fishing terminated on September 11 when buyers left the subdistrict (Table 18).

A total of 40 fishermen made commercial landings in 1976, a decrease of 24 fisherman below 1975 levels.

This fishery has an important potential enforcement problem, indicated by fishermen's reports of illegal commercial fishing in the Goodnews River. Department personnel held several meetings in Goodnews Bay to discuss the fishing activities, and toward the end of the season, illegal fishing in the Goodnews River abated somewhat.

#### Subsistence Fishery:

Subsistence information from Goodnews Bay was very sparse for 1976. Subsistence catches from the subdistrict are always minimal.

#### Escapement:

Escapements of all species in the Goodnews River appeared adequate.

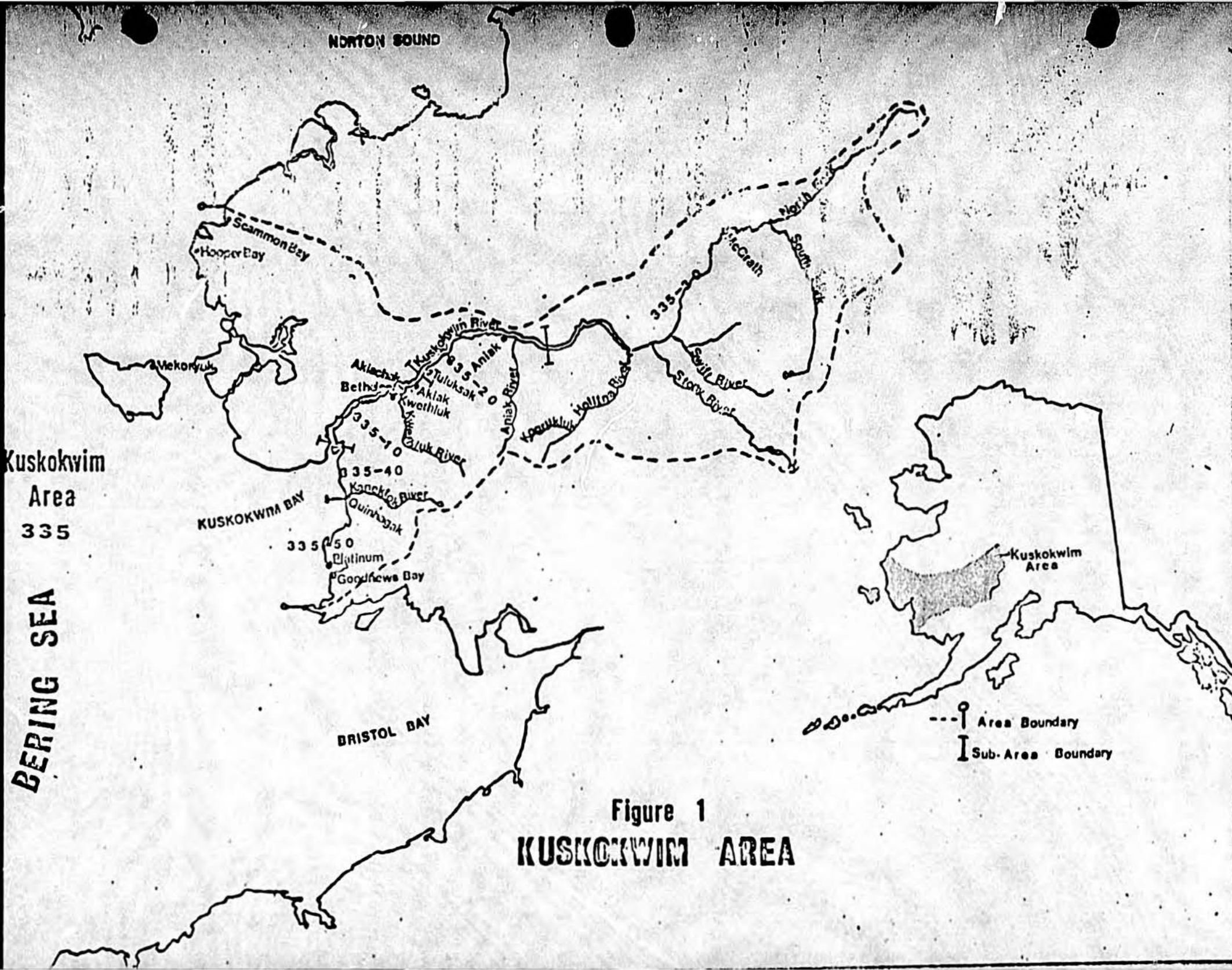


Figure 1  
**KUSKOKWIM AREA**

Table 8. Commercial and subsistence salmon catches by species and statistical area, Kuskokwim district, 1976.

<u>Subdistrict</u>	<u>King</u>	<u>Red</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u> <sup>1/</sup>	<u>Total</u>
<u>335-10 Lower Kuskokwim</u>						
Commercial	27,418	2,971	87,933	133	176,727	295,182
Subsistence <sup>2/</sup>	46,522	-	- 3/	-	140,258	186,780
Total	73,940	2,971	87,933	133	316,985	481,962
<u>335-20 Middle Kuskokwim</u>						
Commercial	3,317		568		1,137	5,022
Subsistence <sup>2/</sup>	9,507		- 3/		58,537	68,044
Total	12,824		568		59,674	73,066
<u>335-30 Upper Kuskokwim</u>						
Commercial	0		0		0	0
Subsistence <sup>2/</sup>	1,888		- 3/		24,997	26,885
Total	1,888		0		24,997	26,885
<u>Subtotal Kuskokwim River</u>						
Commercial	30,735	2,971	88,501	133	177,864	300,204
Subsistence <sup>2/</sup>	57,917	-	- 3/	-	223,792	281,709
Total	88,652	2,971	88,501	133	401,656	581,913
<u>335-40 Quinhagak</u>						
Commercial	14,110	6,090	13,777	31,412	43,659	109,048
Subsistence <sup>2/</sup>	2,217	-	- 3/	-	5,930	8,147
Total	16,327	6,090	13,777	31,412	49,589	117,195
<u>335-50 Goodnews Bay</u>						
Commercial	4,417	5,575	9,852	8,453	10,354	38,651
Subsistence	201	-	- 3/	-	1,428	1,629
Total	4,618	5,575	9,852	8,453	11,782	40,280
<u>Total Kuskokwim District</u>						
Commercial	49,262	14,636	112,130	39,998	231,877	447,903
Subsistence <sup>2/</sup>	60,335	-	- 3/	-	231,150	291,485
Total	109,597	14,636	112,130	39,998	463,027	739,388

1/ Subsistence catches contain small numbers of red and pink salmon.

2/ Expanded data.

3/ Insufficient data for valid determination.

Table 15. Kuskokwim River subsistence fishery data, 1976.

Village	Fishing Family Data				Estimated Salmon catch 1/			Units of Gear		
	Families	People	Dogs	Snow-Machines	King	Other 2/ Salmon	Coho 3/	8-1/2" Nets	5-1/2" Nets	Fish Wheels
Kipnuk					75	463				
Kwigillingok					122	439				
Kongigonak										
Eek	24	134	75	28	3232	3637	788	19	15	
Tuntutuliak	29	183	112	36	4807	8390	50	27	25	
Kasigluk	29	240	81	37	1613	4044	6	19	19	
Nunapitchuk	33	223	134	54	2578	6466	85	23	23	
Atmauthluak	13	82	33	15	1159	3367	85	12	10	
Napakiak	34	204	83	42	3330	9265	212	32	31	
Oscarville	7	45	31	7	623	2376	40	7	3	
Napaskiak	18	121	63	22	3566	21380	138	18	19	
Bethel	97	720	258	105	13215	26533	437	83	78	
Kwethluk	43	245	203	58	4193	26443	677	41	40	
Akiachak	29	209	91	43	4915	15298	752	26	25	
Akiak	22	135	207	28	3076	12163	174	23	25	
Tuluksak	22	169	98	30	1411	11673	160	19	23	
Lower Kalskag	23	139	105	26	4536	17158	11	18	20	
Upper Kalskag	15	83	73	15	1413	8527	167	11	13	
Aniak	14	73	47	13	1490	13355	152	10	7	2
Chuathbaluk	9	58	26	26	657	7824	143	8	8	
Hapaimute	2	7	8	2	420	1636	17		2	1
Georgetown										
Crooked Creek	5	35	20	3	264	3236		2	4	1
Red Devil	3	15	13	3	195	4231		1	3	1
Sleetmute	13	57	50	5	356	7571	57	3	13	
Stony River	6	30	36	9	620	5523		2	7	3
Lime Village	4	18	33		33	2800	161		6	
Totals	494	3225	1880	607	57917	223792	4312	404	419	8

1/ Expanded data.

2/ Mostly chum with lesser number of reds, pinks, and a few small kings.

3/ Data is very fragmented and minimal.

Appendix Table 8. Total utilization of Kuskokwim River king salmon, 1960-1976.

Year	Commercial Catch 1/	Subsistence Catch 2/	Total Utilization
1960	5,969	20,361	26,330
1961	18,918	30,910	49,828
1962	15,341	14,642	29,983
1963	12,016	37,246	49,262
1964	17,149	29,017	46,166
1965	21,989	27,143	49,132
1966	25,545	49,606	75,151
1967	29,986	57,875	87,861
1968	34,278	30,230	64,508
1969	43,997	40,138	84,135
1970	39,290	69,204	108,494
1971	40,274	42,926	83,200
1972	39,454	40,145	79,599
1973	32,838	38,526	71,365
1974	18,664	26,665	45,329
1975	21,720	47,784	69,504
1976	30,735	57,917	88,652
5 year average	30,590	39,209	69,799

1/ Subdistricts 335-10, 335-20 and 335-30.

2/ Catches are expanded and include all villages surveyed each year.  
Data includes a few villages not included in comparative catch tables.

Appendix Table 10. Total utilization of Kuskokwim River chum salmon, 1960-1976

Year	Commercial Catch 1/	Subsistence Catch 2/	Total Utilization
1960		327,297	327,297
1961		185,447	185,447
1962		165,626	165,626
1963		141,550	141,550
1964		189,660	189,660
1965		283,459	283,459
1966		174,660	174,660
1967	148	205,263	205,411
1968	187	260,023	260,210
1969	7,165	198,628	205,793
1970	1,664	245,550	247,214
1971	68,914	116,391	185,305
1972	78,619	120,316	198,935
1973	148,746	179,259	328,005
1974	171,887	277,170	449,057
1975	181,840	176,389	358,229
1976	<u>177,864</u>	<u>223,792</u>	<u>401,656</u>
5 yr. average	130,001	173,905	303,906

1/ Subdistricts 335-10 and 335-20.

2/ Catches are expanded and include all villages surveyed each year, 335-10, 335-20 and 335-30.

Appendix Table 13. Comparative Kuskokwim River king salmon subsistence catches by village, 1960-1976

Village	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Kwigillingok, Kipnuk,											
Kongiganak	250	283	54	229	414	0 <sup>1/</sup>	205	957	70	385	1,111
Eek	1,474 <sup>3/</sup>	2,238 <sup>3/</sup>	1,060 <sup>3/</sup>	2,697 <sup>3/</sup>	1,857	2,737	2,872	4,375	2,760	2,037	2,065
Tuntutuliak	226	2,226	842	2,853	1,826	1,978	3,061	3,338	2,026	2,195	3,558
Kasigluk	135	1,215	127	1,302	4 <sup>4/</sup>	513	1,875	2,766	1,360	2,888	3,931
Nunapitchuk	683	2,042	848	1,874	636	490	2,875	1,926	1,360	2,279	4,680
Atmauthluak <sup>6/</sup>											1,205
Napakiak	1,830	2,573	2,191	3,148	2,677	1,670	3,592	3,922	2,317	3,546	4,960
Oscarville	1,968	282	75	309	339	678	301	1,327	393	457	542
Napaskiak	536	1,258	759	1,569	2,201	1,412	2,935	3,091	1,647	2,227	3,446
Bethel	1,923	4,150	1,378	7,019	4,114	3,342	7,604	11,772	4,900	7,472	17,026
Kwethluk	2,692	3,763	2,329	5,050	3,262	4,538	6,135	6,889	3,549	3,187	7,932
Akiakchak	1,626	3,052	1,800	2,533	3,488	3,952	4,957	5,543	3,415	2,602	7,022
Akiak	1,865	3,159	906	2,869	2,495	1,774	3,941	3,790	1,332	1,275	3,290
Tuluksak	737	1,486	493	1,295	572	1,019	1,559	1,710	1,048	1,131	1,995
Lower Kalskag	961	571	805	2,661	710	841	1,918	1,733	1,463	2,083	2,146
Upper Kalskag	667	1,049	7 <sup>7/</sup>	7 <sup>7/</sup>	1,143	719	1,333	1,699	1,404	1,623	734
Aniak	1,057	688	185	602	1,104	494	2,002	1,415	467	1,406	2,136
Chuathbaluk	64	54	10	30	74	29	139	217	40	180	219
Napamute	20	16	44	52	134	2	78	60	100	19	22
Crooked Creek	747	518	561	859	1,358	363	1,249	638	77	541	684
Georgetown	10 <sup>10/</sup>	10 <sup>10/</sup>	10 <sup>10/</sup>	10 <sup>10/</sup>	10 <sup>10/</sup>	10 <sup>10/</sup>	12	10 <sup>10/</sup>	10 <sup>10/</sup>	9	2
Red Devil	10 <sup>10/</sup>	40	144	228	314	10 <sup>10/</sup>	182	10 <sup>10/</sup>	111	142	232
Sleetmute	465	222	9 <sup>9/</sup>	9 <sup>9/</sup>	9 <sup>9/</sup>	491	149	343	200	267	161
Stony River	435	25	31	67	299	101	632	364	191	2,187	105
Totals	20,361	30,910	14,642	37,246	29,017	27,143	49,606	57,875	30,230	40,138	69,204

Village	1971	1972	1973	1974	1975	1976	1960	1974
							1973	1976
							Average Average	
Kwigillingok, Kipnuk								
Kongiganak	241	10	75	10 <sup>10/</sup>	10 <sup>10/</sup>	197	330	65.67
Eek	1,882	1,969	1,981	2,356	2,110	3,232	2,286	2,566
Tuntutuliak	1,841	3,214	2,859	1,577	3,492	4,807	2,289	3,292
Kasigluk	1,645	1,292	1,864	1,411	1,713	1,613	1,609	1,579
Nunapitchuk	1,970	2,496	2,663	1,165	2,092	2,578	1,916	1,945
Atmauthluak <sup>6/</sup>	548	864	1,106	382	1,042	1,159	931	861
Napakiak	1,868	2,009	1,763	1,224	2,864	3,330	2,719	2,473
Oscarville	570	196	586	180	891	623	573	565
Napaskiak	1,916	1,578	2,048	900	2,308	3,566	1,902	2,258
Bethel	8,731	8,371	8,898	4,631	11,688	13,215	6,907	9,845
Kwethluk	5,564	5,137	3,444	2,694	3,179	4,193	4,534	3,355
Akiakchak	4,818	3,872	2,592	1,726	3,534	4,915	3,662	3,392
Akiak	2,688	1,899	1,895	1,292	2,837	3,076	2,366	2,402
Tuluksak	1,280	1,318	1,322	883	1,338	1,411	1,212	1,211
Lower Kalskag	2,355	2,604	1,309	1,586	2,755	4,536	1,583	2,959
Upper Kalskag	601	401	938	463	1,752	1,431	1,026	1,215
Aniak	1,076	2,105	1,030	1,952	1,391	1,490	1,126	1,611
Chuathbaluk	179	261	942	674	594	657	174	642
Napamute	17	20	13	6	226	420	43	217
Crooked Creek	291	183	269	650	238	264	596	384
Georgetown	0	0	0	9 <sup>9/</sup>	10 <sup>10/</sup>	10 <sup>10/</sup>	4	10 <sup>10/</sup>
Red Devil	135	182	138	205	623	195	168	341
Sleetmute	181	69	504	269	256	356	277	294
Stony River	2,521 <sup>11/</sup>	95	287	439	861	653 <sup>11/</sup>	524	651
Totals	42,926	40,145	38,526	26,665	47,784	57,917	38,757	44,122

- 1/ Included with other villages.  
2/ Does not include 1965  
3/ Estimates based on catch data through 1969  
4/ Included with Eek  
5/ Does not include 1964  
6/ New village of Atmauthluak segregated in 1970 from parent village of Nunapitchuk.  
7/ Included with Lower Kalskag  
8/ Does not include 1962 and 1963  
9/ Included with Red Devil  
10/ Data not available  
11/ Includes Lime Village

Index Table 14. Comparative Kuskokwim River "other salmon" subsistence catches by village, 1960-1975.

Village	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1960-1974 Average	1974-1976 Average	
Uk. Kongiganak, <i>WIPWIC</i>																				
Agillingok, <i>KWIK</i>	1,430	3,279	1,990	2,562	2,323	0	680	2,846	2,800	2,481	3,977	1,110	1,284	807	9/	9/	902	1,966	902	
<i>EEK</i>	4,094	2,321	2,072	1,771	3,151	2,898	1,324	1,922	3,503	3,436	4,800	2,213	783	2,401	4,227	2,754	4,425	2,625	3,802	
Atuliak, <i>TUNT</i>	4,101	8,526	9,692	6,791	8,421	18,993	9,747	11,531	14,090	17,462	10,600	9,964	11,103	13,572	28,321	7,429	8,440	11,042	14,730	
Bluk, <i>KASIGAK</i>	1,400	3,657	1,705	1,020	5/	4,041	3,058	2,309	4,311	3,308	5,731	2,043	1,934	6,090	6,773	3,708	4,050	3,124	4,843	
Pitchuk, <i>ANWAP</i>	2,743	4,868	7,474	2,462	1,771	4,251	4,145	6,278	7,731	6,934	11,412	3,375	5,600	7,663	12,498	5,447	6,551	5,436	8,165	
Uthlusk, <i>ATWANTH</i>												1,191	1,197	947	2,818	4,585	2,524	3,446	1,538	3,518
Uk. <i>WAPAKIAK</i>	19,888	5,789	6,167	3,711	12,312	12,928	9,275	12,685	12,700	12,390	16,371	4,427	5,191	8,461	21,494	11,630	9,477	10,164	14,200	
Uk. <i>WAKWILLI</i>	3,948	1,680	1,723	1,025	487	8,010	407	2,580	2,104	2,743	4,669	1,675	498	3,081	5,617	3,237	2,416	2,474	3,756	
Uk. <i>WAKWILLI</i>	5,199	4,286	5,546	3,584	6,275	26,206	8,743	8,585	12,409	11,655	11,169	7,039	8,858	8,478	20,467	12,930	21,518	9,145	18,305	
Uk. <i>BETHEL</i>	12,972	12,845	8,470	8,623	15,623	19,099	14,011	14,055	28,603	14,613	33,475	9,905	16,885	33,930	34,892	26,808	26,970	17,365	29,223	
Uk. <i>KWETHLIK</i>	32,975	21,106	22,788	13,188	19,186	37,780	18,707	23,872	36,645	23,462	27,702	13,941	11,721	19,565	39,747	19,133	27,120	23,046	28,763	
Uk. <i>SKIAKCHAK</i>	15,932	12,518	10,521	6,725	10,096	25,138	15,049	13,584	19,461	10,306	29,776	12,298	9,266	9,864	15,106	14,008	16,050	14,324	15,055	
Uk. <i>AKIAK</i>	13,061	8,205	6,551	8,478	9,659	12,297	10,622	9,332	13,775	9,854	13,003	9,264	5,108	6,118	18,434	18,890	12,337	9,666	16,553	
Uk. <i>FOLKESAK</i>	19,261	7,928	8,526	10,289	9,777	12,820	11,670	8,898	11,114	6,058	7,626	5,115	5,115	5,946	13,261	7,819	11,833	9,298	10,971	
Uk. <i>KALSKAG LOWER</i>	11,563	7,764	16,478	23,249	9,472	21,906	10,346	16,018	8,114	8,468	11,158	3,509	3,490	2,873	12,265	9,823	17,169	11,029	13,085	
Uk. <i>KALSKAG UPPER</i>	38,398	27,149	7/	7/	11,391	11,970	6,236	8,364	9,733	9,413	5,309	3,530	1,460	5,607	9,631	6,904	8,694	11,547	8,409	
Uk. <i>ANIAK</i>	36,673	15,935	10,120	10,608	17,874	11,353	12,484	16,788	17,341	15,127	10,030	4,933	5,243	13,547	9,305	9,597	13,507	14,147	10,803	
Uk. <i>UPBALUK</i>	22,370	2,922	3,784	2,629	5,059	6,507	5,625	7,249	11,588	7,323	10,971	5,632	8,509	14,171	4,287	561	7,967	8,181	4,271	
Uk. <i>WAKWILLI</i>	11,017	6,235	3,898	5,192	4,873	704	3,704	5,750	1,774	1,453	1,224	1,862	4,645	3,451	76	226	1,653	3,584	651	
Uk. <i>WAKWILLI</i>	41,263	17,558	27,259	23,166	32,550	18,986	19,467	14,365	12,704	6,810	9,216	3,094	3,658	1,981	4,954	2,461	3,236	16,577	3,550	
Uk. <i>WAKWILLI</i>	9/	9/	9/	9/	9/	9/	70	9/	2,030	3,664	800	0	0	10	9/	9/	9/	939	9/	
Uk. <i>WAKWILLI</i>	9/	1,350	9,007	5,367	5,706	5/	2,746	5/	2,400	1,130	2,454	1,067	1,695	2,782	2,688	4,481	4,231	3,246	3,600	
Uk. <i>WAKWILLI</i>	17,259	6,684	10/	10/	10/	11,707	2,611	6,875	11,218	8,258	4,464	3,203	4,293	2,368	4,212	5,761	7,628	7,176	5,867	
Uk. <i>WAKWILLI</i>	11,750	2,642	1,855	1,110	4,254	15,865	3,933	11,377	13,875	12,080	8,407	5,995	3,000	3,875	4,328	5,202	8,484	7,144	6,004	
<b>TOTAL</b>	<b>327,297</b>	<b>185,447</b>	<b>185,626</b>	<b>141,550</b>	<b>189,660</b>	<b>283,459</b>	<b>174,660</b>	<b>205,263</b>	<b>260,023</b>	<b>198,628</b>	<b>245,550</b>	<b>116,391</b>	<b>120,316</b>	<b>179,259</b>	<b>277,170</b>	<b>176,389</b>	<b>228,104</b>	<b>205,183</b>	<b>229,246</b>	

Catches include a majority of chum salmon but include small numbers of red, coho, pink and small king salmon.

1965 to 1972 catches do not include late coho salmon catches.

Does not include 1965.

Estimate based on catch data through 1970.

Included with Eek.

Does not include 1964.

Included with Lower Kalskag.

Does not include 1962 and 1963.

Data not available.

Included with Red Devil.

Includes Lime Village.

Appendix Table 15. Comparative subsistence fishing data between families owning and not owning snowmachines, Kuskokwim River, 1967-1976. 1/

Year	Families	People	Dogs	Snow- machines	Average per family					
					People	Dogs	Snow- machines	Kings	Other Salmon	Percent fa with snowma
1967										
With snowmachine	59	410	288	63	6.95	4.88	1.07	143	355	14
Without snowmachine	359	2,264	1,963	0	6.31	5.47	0	101	404	
1968										
With snowmachine	159	1,100	808	182	6.92	5.08	1.14	70	382	3
Without snowmachine	374	2,247	2,052	0	6.01	5.49	0	51	493	
1969										
With snowmachine	158	1,097	876	189	6.94	5.54	1.20	78	306	4
Without snowmachine	191	1,208	1,173	0	6.32	6.14	0	71	425	
1970										
With snowmachine	287	1,962	1,413	375	6.84	4.92	1.31	121	380	5
Without snowmachine	212	1,201	972	0	5.66	4.58	0	87	413	
1971										
With snowmachine	361	2,459	1,504	494	6.79	4.16	1.37	89	243	7
Without snowmachine	128	734	601	0	5.73	4.70	0	84	278	
1972										
With snowmachine	278	2,096	949	385	7.54	3.41	1.38	76	220	7
Without snowmachine	85	508	328	0	5.98	3.86	0	48	247	
1973										
With snowmachine	343	2,246	1,375	506	6.55	4.00	1.48	79	362	8
Without snowmachine	81	429	283	0	5.15	3.49	0	47	254	
1974										
With snowmachine	337	2,153	1,339	491	6.39	3.97	1.46	47	495	9
Without snowmachine	68	350	158	0	5.15	2.32	0	29	342	

Appendix Table 15. Comparative subsistence fishing data between families owning and not owning snowmachines, Kuskokwim River, 1967-1976. 1/ (Continued)

Year	Families	People	Dogs	Snow- machines	Average per family					Percent families with snowmachines
					People	Dogs	Snow- machines	Kings	Other Salmon	
1975										
With snowmachine	313	2,029	1,252	482	6.55	4.00	1.54	79	309	84
Without snowmachine	59	313	126	0	5.30	2.13	0	62	301	
1976										
With snowmachine	416	2,815	1,578	607	6.77	3.79	1.46	91	340	81
Without snowmachine	78	410	302	0	5.26	3.87	0	60	306	

1/ Unexpanded data.

Appendix Table 16. Comparative Kuskokwim River subsistence fishery data, 1960-1976 <sup>4/</sup>

Year	Fishing families surveyed	Mean numbers per fishing family					
		People	Dogs	Snow-machines <sup>1/</sup>	King Salmon	Other salmon <sup>3/</sup>	Fishwheels
1960	247	5.89	6.66		60	1,074	<sup>2/</sup>
1961	342	6.02	6.33		39	453	.19
1962	349	6.50	6.30		79	470	.18
1963	405	6.14	5.29		87	351	.11
1964	394	6.33	5.44		70	454	.10
1965	332	5.95	5.45		64	669	.08
1966	492	5.91	4.49		91	320	.06
1967	472	6.36	5.22	.18	106	375	.06
1968	567	6.23	5.31	.35	53	447	.06
1969	376	6.49	5.51	.53	78	385	.05
1970	514	6.33	4.65	.75	108	384	.02
1971	488	6.53	4.30	1.01	88	238	.01
1972	576	6.78	3.08	1.00	51	166	.02
1973	408	6.55	3.84	1.48	81	356	.02
1974	596	6.24	3.61	1.12	45	466	.02
1975	437	6.41	3.99	1.35	79	310	.02
1976	494	6.53	3.81	1.23	86	335	.02

<sup>1/</sup> Snowmachine count started in 1967.

<sup>2/</sup> Information not available.

<sup>3/</sup> Does not include coho salmon.

<sup>4/</sup> Unexpanded data.

Appendix Table 17. Quinhagak subsistence fishery data, 1967-1976 <sup>1/</sup>

Year	Averages Per Fishing Family								
	Total Fishing Families	People	Dogs	Snow-machines	King Salmon	Dog Dalmon	Coho Salmon	8 1/2" Nets	5 1/2" Nets
1967	19	6.43	4.00		71	231		.86	1.00
1968	46	5.59	4.07	.28	88	234	380	.48	.54
1969	59	5.38	3.41	.46	27	29	179	.72	.28
1970	46	6.02	2.76	.74	47	110		.64	.69
1971	41	5.83	2.37	.73	55	87	36	.54	.73
1972	54	6.41	2.30	.80	56	116	9	.44	1.00
1973	44	5.80	2.07	.98	61	98	83	1.02	.98
1974	47	5.53	2.31	1.17	46	78	87	.63	.74
1975	46	5.86	1.85	1.13	71	88		1.00	.93
1976	50	5.62	2.2	1.42	44	119		0.84	1.24

<sup>1/</sup> Expanded data.

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PUBLIC HEARING TESTIMONY

BY THE ALASKA STATE LEGISLATURE  
INTERIM COMMITTEE ON SUBSISTENCE

COMMITTEE MEMBERS PRESENT:

Representative Nels Anderson, Jr.  
Chairman  
Representative Sam Cotten  
Representative Steve Cowper  
Representative Al Nakak  
Representative Leo Shaeffer  
Representative Joe Hayes  
Representative William Akers

STAFF MEMBERS PRESENT:

Dorothy Larson, Staff Assistant  
Adelheid Hermann

PUBLIC HEARING LOCATION:

Anchorage Community Center  
Anchorage, Alaska

DATE: November 10, 1977  
TIME: 6:00 P.M.

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ANCHORAGE PUBLIC HEARING- COMMUNITY CENTER

NOVEMBER 10, 1977 6:00 P.M.

NELS ANDERSON- I will call the Interim Committee on Subsistence to order at this time. My name is Nels Anderson, I'm Chairman of the Interim Committee on Subsistence. I would like to introduce the panel members that are up front here. To my far left is Representative Al Nakak, from Nome, sitting next to him is Representative Billy Akers from Chuloonawich, Representative Steve Cowper from Fairbanks and Representative Leo Schaeffer from Kotzebue. Our staff is Adelheid Hermann from Naknek, and Dorothy Larson, in the back in the gray, from Dillingham.

The reasons for our hearing has been made pretty well known in the media, thanks to Seanator Rodey, he was able to get a press release out and gave us a little publicity. The question that we've been asking the public throughout our hearings in various parts of the State, is asking the public whether or not subsistence or subsistence activities should be defined? How do you as individual Alaskan people feel about subsistence and what should the State of Alaska do to protect subsistence hunting and fishing. Those are basically the questions that the committee is interested in finding out at least to get comments from the public on those three issues. Anything that the public may have relevant to the question of subsistence is of course going to be important. It becomes increasingly important because one of our members has been asked to go back to Washington, D.C. and attend Mark up hearings on D-2 Land Legislation. Representative Cowper will be going back to Washington the latter part of this week. I don't know how long he's going to be back there

NELS ANDERSON continued

but whatever information we can get from the public on what their feelings are I think will be extremely important because Mr. Cowper then could transmit that information directly to the Congressmen that are going to be writing legislation that is going to directly affect Alaskans.

We are planning a full committee meeting tomorrow at nine a.m. and what we'll be doing will be reviewing some of the activities and some of the proposed legislation that has been drafted by Legislative Affairs Agency. The substance of that proposed legislation will be made known to the public after the subsistence committee meets tomorrow or else would be discussed tomorrow and I'm sure the press will be there and you are certainly welcome to attend. And any other members of the public at that time may attend as well. We plan the meeting at nine o'clock in the morning at the Federal/State Land Use Planning Commission Conference Room. I would ask if any members of the panel have any comments to make at this time.

I do have one request from the public, Mitch Demientieff has asked that he be the first to testify and if there is no objection from the panel we'll go ahead and do that. Before then Representative Nakak, Do you have any comments? Mr. Akers? Representative Cowper - Just this Mr. Chairman, the Congress has made it pretty clear that they are going to create a subsistence preference on the Federal Lands that are included in the D-2 Bill. The problem is they don't really know how to define subsistence. What is a subsistence hunter, what is a subsistence fisherman. We would like to help them draw a bill that is going to work, so I would like to find out how you would do it. If you have to have a limited harvest of animals in a given area who should have preference. Should it be on a class basis, should it be

on a geographical basis, these are all things that we'd be interested in hearing from you, about and also any comments you have on subsistence lifestyle.

MITCH DEMIENTIEFF - Thank you very much for allowing me to go back and retestify to those of you that were in Nenana will recall, I did testify in Nenana and since then we've had a few more meetings in the area and have changed our attitudes, of which I'll make specific reference to. Again, I thank you for the opportunity to talk, I know this is the first occasion to talk to the committee without having to do best man honors for committee members. Very interesting time we had in Nenana. Specifically, the concerns I had were in reference to the selling of salmon roe caught from subsistence fish. In working with the subsistence issue - I think we're beginning to realize that we need to have a clear distinction between commercial and subsistence activities and we begin to see the difference in, and in We I'm speaking of the Tanana Advisory Committee to the Department of Fish and Game, in reviewing the recent regulation changes that are proposed and that the Board will be considering very soon in December, I understand.

The Tanana Advisory Committee of which I'm currently Chairman of that Committee. We adopted the position unanimously that the sale of salmon roe caught from subsistence fish be terminated at the end of the commercial season. We were in favor of that contingent and we put that word in there, contingent on subsistence fishing reopening to 7 days a week, 24 hours a day. We feel that this will do a number of things, one - it will make a clear distinction between subsistence and commercial activity. And the only people on the river at that time will be true subsistence fishermen, true people who need the fish and have a use for the fish. If there is no monetary gain in the fish then we feel that a lot less people are going after the fish therefore we have

Mitch Demientieff's testimony continued

adopted that contingent that subsistence fisherman are allowed to return back to 7 days a week, 24 hours a day fishing. I say that we think it will significantly reduce the number of fisherman on the river after commercial season closes because some people aren't just going to fish if they can't make money at it and I know it's going to be of some burden, I speak for myself personally, I have my fishing operation is seven miles one way from Nenana and that's 14 miles round trip times twice a day minimum, that's 28 miles a day, I'm going to be hauling fish out of my own pocket plus the cost of maintaining my gear. We done some hard thinking about it and we just feel that there has to be that clearer distinction and if we are going to truly protect the subsistence resources this is what we're going to have to do. My testimony prior to this time was contrary and I felt the need to and I was going to write, I didn't realize you guys were going to have a hearing down here, I was going to write and let you know, that I've changed my position and if you read back through the testimony that is no longer standing - this is our position as we've adopted it now and my own personal feeling as well.

PARTICIPANT IN THE AUDIENCE- Question - Mr. Chairman, can I ask a question please? I just want a ballpark figure on how much he gets for the sale of roe?

Mitch - \$2.50 was the price we were getting this year. Last year it was \$3.00. There's more money in the eggs than in the fish that's why we think it's going to reduce the subsistence.

Isaac Juneby - My name is Isaac Juneby, I'm from Eagle, Alaska. I'm the head of the Eagle Village Council. I'm the chief up there. My deal is that this is subsistence - Who is to govern what subsistence means. Webster's dictionary explains that it means the support or

Isaac Juneby's testimony continued

livelihood. Yes, let me fulfill on that there it says in subsistence you are dealing with Natives to Alaska, Native from Alaska, and Caucasians who are registered up there. There is a lot of trouble that's going on - Native to Alaska means that your subsisting off the land and you're making your livelihood in that. I would like to say in Eagle many families have low income both white and Athabascans and we want all of these people to be able to feed their families and (inaudible). I just want to make it explanatory that I know my way of life - I live off the land and I would make it self-explanatory that according to the Alaska Native Land Claims it says, "Native"- Alaska Native yes, but you've got to consider that you were talking about two different people there. I've got Caucasian brother-in-law who is a trapper, who is making his living off the land so they didn't state that - it just says natives of Alaska which complies to me, Eskimos and it didn't say about Representative Cowper - in the bill did it explain to you that you could settle there as long as you're a resident.

Representative Cowper - Mr. Chairman, if I can repond to that. I think what the Congress is going to do and what we're urging them to do is just what you say is they are going to make a subsistence preference, and that is not to be based on race. That it be based on probably on geographical areas so that people who live close to the fishand game get first choice.

Isaac Juneby- What I'm talking about is not discrimination or anything against race or anything like that it says if you can get the ANLC and read over such and such, it says Alaska Natives. Now who is to consider the Alaska Natives as a whole - You are considered, Alaska Native because you're from Fairbanks, you're out of the Fairbanks area

so who in the - how can you consider, you can go to my area, Eagle, which you never have been and you could hunt and subsist off my land and who can consider you because you been well, I can tell you the fact there, I've known you, I've heard of your name in the Legislature, about 4 yrs. You're the head of the Finance and I know this as a fact to my notion, who can tell you that you can not come up there. You're a resident of the State of Alaska, you are a native to the land, who can determin that?

Representative Steve Cowper - Well, I guess the answer to that would be, of course I've never applied for a subsistence permit, and I don't imagine I would get one if I did apply for it. I have a regular job and I work in Fairbanks.

Isaac Juneby-But you do - in the fall time when the hunting season is there do you hunt moose or caribou?

Representative Steve Cowper - No, I don't. I'd have a lot of trouble skinning them.

Isaac Juneby- What is your last name there. I would like to take it. Steve Cowper, my name is Isacc Juneby from Eagle, How can you, like the State Fish and Game and the Federal Fish and Game get together in April last year and this year, the governing body of the Fish and Game, They made the rules, regulations that we cannot hunt moose on the south side of the Yukon River. It is 20 days, from September 1st through September 20th on the North side of the River, Unit 25 C. We live by moose, and by caribou and stuff like that and what it is is self explanatory. How come they let it go on the other side of the river and not on the south side where I live. It's causing quite a problem up there.

Representative Steve Cowper- I don't know the answer to that. But I'd be interested in findin out. A lot of times these rules are made by

Representative Cowper continued

regulation and we don't find out about it until somebody tells us like you're doing.

Isaas Juneby- What can be brought up about it if I tell you. I told you what it is there, you could promise and yet - Are you running this year again? Well, I'm going to tell you what, while you're sitting on the meeting there right now, if you are, if you get me, my name is Isaac Juneby, Chief of Eagle River, You can write me and let me find out the and I probably will have people support you if you run for Governor but I don't know if we're going to get something there.

REPRESENTATIVE COWPER- Assuming if there's not enough moose we'll say to go around up in you area, How do you think the State should decide who takes it. In other words, if you can't shoot but 300 moose, maybe it's 30 or 3,000 I don't know. But lets say if you can't shoot but 300 moose up in that area, who do you think should have the preference. How do you think we ought to decide who gets to go in and shoot the moose.

Isaace Juneby - Well, you've got to take it to the constitution that all men are equally. If I'm not in Eagle, and I come in here and I buy a \$2400 licence, I'm entitled to get it, so we got no discriminatory remarks on that. What it is, is that you as an individual, if you fly, and this is one of the things I brought up to the Tanana Chiefs, last March, who is to govern who flies an aircraft according to the State Statutes of the Fish and Game there, you can go into this and you're supposed to wait 24 hours or what have you on the same day airborne and all that. Up in Eagle I can get a plane and I could fly into this place there is no given area and I could shoot a moose there on the same day airborne. People are against it. Who is to determine all these there? Somebody has got to be there as a law enforcement.

Issac Juneby Testimony continued

Representative Steve Cowper - One of the things the committee's found out by having hearings around the state is that there's probably not enough money in the enforcement agency to keep enforcement agents around in the places where they should be because the they've chosen up until recently to go on the license fees, the hunting and the fishing license fees, that they get and then they get federal money that matches that. But they haven't asked the State for any more money for fish and game enforcement or management. That may be on of the problems - we just got too big a State and too few people. So what we may do is cut some general fund money.

Isaac Juneby - Would you give me all the revenues that the State got with the Fish and Game. How much they got during 1977 and I would like a complete report - that's throughout the whole State of Alaska. That't probably self explanatory right there if I see the figures in.

Steve Cowper- You'll have to give me your address.

Isaac Juneby - It's Isaac Juneby, Box 122, Eagle, Alaska. I take this opportunity. Nice talking with you there.

Charles Nelson- My name is Charles Nelson, I'm from Ketchikan, I'm with the Tlingit and Haida but I'm here representing myself and some of the older people that live out in the outlying villages of Hydaburg, Craig, Klawok, I have never given testimony on subsistence before and I don't really know what you require but I would like to try for the record to give you some of the things that we have lost over the period of the years by State regulations and some of the things that have been taken from us were never regulated until they became of some value. I can recite back to the years, '52, '53, '54, I used to bring tons of

Charles Nelson testimony continued

Herring roe to Ketchikan and sell it for less than 5¢ a lb., Nobody cared about it, nobody cared whether I took 10 tons, 20 tons, 50 tons, or how much I took. Indians used to use it for their garden. They supplemented their living in the spring with the herring eggs. And I think it done sort of a ecological factor in the environment by keeping the herring at a rate that you know that could be controlled. Same with our seagull eggs. We used to go gather our seagull eggs in the spring and pretty soon we get laws prohibiting us from taking them. These things, that don 't seem much to people today but this is the livelihood and the lifestyle of the people. It is the inherent right of the people that were born and raised in Alaska. I think there is some provisions , I'm not no lawyer, but I think there's some provisions and our constitution that gives Ethnic group of Indians some privilages that no other group enjoy and even in our State constitution it says no rights previously enjoyed by the Indians that the territorial of Alaska becoming a State shall be taken from them. But then the State says that you can't qualify these things because the State superceded these rights and they no longer are effective but Congress never repealed sone of these things.

I used to have an Indian Fishing and Trapping license that was given to me by the Federal Government, the fact that I was a quarter Indian, I had this license. I was going to test it in the State myself, but I didn't have the funds to go along with it. Congress never repealed that license, so therefore, I think that license should have been still in effect but rather than argue over \$10.00 I went and bought a State license but when you stop and look at some of these things. If you're taken away, if you want to look at in the sense, (inaudible) But terms that they use now - the impact on the ecomony

CHARLES NELSON- testimony continued

and lifestyle of the people. Some of those people don't have anything else but that there is no wages. The pipeline was up here, but that has come and gone, and maybe there will be some more but they live under an environment that very few people could subsist without the subsistence. When you come down measure this to who has the right to subsistence. Now everybody says that as an individual we all have this. as a citizen we have these rights. But those rights are not guaranteed to everybody, I think that Congress in their wisdom saw that the people would have to retain some of these rights and it's hard for anybody maybe justify these things but I don't think that they've ever hurt the environment in the taking of some of these things.

I've heard the people in the south eastern accusing the Indians of taking deer out of season. The Indians themselves in their own protection of deer, never took them in winter months, well after about November. December, January, February, March they're hardly fit to eat so they never used to take them, yet they accuse people of this. We found out there are clam beds we have supplemented our diet with, now they say they are poisonous, you're not supposed to go there and pick them, But for centuries people lived, I don't say some of them didn't die but through trial and error, they were able to eliminate some of the that biologist are finding out now - that the snout contains most of the toxin, the skin. And in the summer months, when the weather is warm, some of the plankton and stuff die cause the red tide. Well, they learned this through trial and error see, but all of a sudden, I don't think it's so confusing to the younger people but to the older people whose lifestyle has been this, and I've seen it in my time and I've lived it, I'm a half Indian, my mother was a full-blooded Indian, my dad was a Swede but he adopted he came up here with

CHARLES NELSON-testimony continued

Lieutenant Perry to Alaska and he was up in the North so he adapted to the lifestyle and unless you lived it is pretty hard to put into legislation something that would be really fair to the people and this is all I'm asking. If you get reasonable people, I don't care who they are, if they're reasonable in their decisions the people by appealing never get left out. But the fact that the people that are in the decision making position, if they don't know this there's no way they can put into effect good legislation. So if this is only my reason of appearing here is to try to add a little something that might help in your decision in making up some laws. Thank you very kindly.

Dale Bondurant - My name is Dale Bondurant and I'm here representing the Izaak Walton League and the Sportsmans Game Preservation Association. I'm not against subsistence hunting and fishing or the subsistence way of life. But we are against an exclusive or priority consideration for this way of life. Our main reasons are it's not an equitable consideration. The State constitution is pretty explicit, it says that the fish and the wildlife and the waters are reserved to the people for their common use. Taking the Native view that this is a lifestyle or a traditional way of living I would like to point out that there has been something that just came into effect that does no longer a valid claim. That's the Alaska Native Claims Settlement Act in which it says that aboriginal rights are hereby forever extinguished and if we had a settlement what did we settle? If this part doesn't apply. I think another thing we have to look at is the validity of this claim and what the Native people have done to themselves. NOW there is 44 million acres awarded under the claims Settlement Act whether this is a valid settlement or not it has been accepted

DALE BONDURANT - testimony continued

and those 44 million acres are in the process of being selected.

I think there's some things we must look at in this selection to see the validity of the claim. Very little of the selections as far as the regional corporations were made for subsistence reasons, they were mainly made for economic reasons that were controlled of course by the areas in which they were allowed to select. Again, in the transfer of these lands the Native Corporation leaders have been violently opposed to any type of easements on these lands. Not one subsistence easement was requested by any Native Corporation in the transfer of these lands. This is going to make a hardship on the Native people because if some village owns traditional hunting and fishing area, another village can be denied it because of no public easement. You can say well we can have agreements between ourselves but this doesn't assure the person of having it and it surely doesn't assure him of having the right of subsistence hunting and fishing if the land is sold which it can be as soon as they get a hold of it.

Another thing we hear about the D-2 Lands and the right of priority or exclusive subsistence hunting and fishing on these lands. How are people going to get to these lands. They have no easements into the land and they have no easements out of the land. If the village owns a traditional trail or access, they could (inaudible) tie this up.

Another one and I think a real important one, and I've considered a very selfish method was some of the game regulations that were proposed last year. There were five different proposals in which they asked for large areas of Alaska to be set aside for exclusive hunting and fishing, subsistence but they asked that any land within those areas that were going to be transferred to Native Corporations be excluded and I say this for the economic value that they'd have to sell rights

DALE BONDURANT - Testimony continued

to guides or sell rights to other people, access to the game on this land and this game belongs to everybody so I say the validity of their claims haven't been supported by some of the things they've done. Now we say traditional uses, well, let's actually look at traditional use- What is traditional use? I said in the D-2 land hearing here in Anchorage and here time after time that they use the traditional method of hunting on these lands of snowmachines, many Native groups have asked this that they can continue to use snow machines on the D-2 lands as tradition. Well, my tradition goes back that far I've lived in Alaska for 30 years, I hunt and I consume the game so my tradition goes back that far. How far does the traditional use of radios in hunting of whales and walrus - is that a traditional use? Let's go airplanes, or high powered rifles. I would admire and support anybody that could live off the land like they did 300 years ago but those days are past and we got to look at it as a fact of life so we got this question that MR. Cowper has asked and that Mr. Anderson has brought up that how do we determine subsistence. Well, I hope we are not going to determine it on race because we have a Constitution and A Native Claims Settlement Act that should have done away with that and I don't think we need this kind of problems in Alaska. I think most of the people in the State of Alaska supported the Native Claims Act because they believed in the validity of these claims so let's don't get into that.

Are we going to do it by method - I don't think we can because how far do you go back on method - do you go back past the snow machine. Do you go back past the airplane or radio or what do you do as far as method? I don't think you can do that. So then I think you have to get down to the economics of it. I think that is the only way you can make any determination. Okay, we're going to talk about economics

DALE BONDURANT- Testimony continued

and the way we got to talk about economics and any kind of management of the fish and game. We got to see how we're going to manage it and I hope that we manage it so that it perpetuates itself and when we do that we've got to look at the supply we've got and the demand and when look at the supply and the demand this economics has to be applied to that. Now you ask the example of say 300 moose lets get it down to say 10 moose, you've got 10 moose and we've got 10 people, we got no problem then next year we got nine moose and 10 people or 10 moose and 11 people whatever you got. Okay, we've got to make some economics determination then, We have got to say all the people under a \$2,000 income can hunt moose. Okay, what happens in the next year, we only got 8 moose and we still got 10 people - are we going to say all the people under \$1,900. can hunt moose and the next year are we going to say the same thing because we no longer have a leveling factor that I think the gentleman before me brought out a little bit that nature had before. I think this is why we had people and game in any type aboriginal type country - was we had nature's leveling factor. When man kill off the game - nature kill off the man. There was no management of the game by the people. The people exists and they had to live and they took the game as it come by and the only thing that managed the game was this way of nature.

So we get down to this economix thing and the only thing that we can say then is that it's welfare - it has to be welfare. It has to be welfare then, cause we all live off the land. There is nobody on this earth that doesn't live off the earth and it's the extent of the direct living off the earth so I say it becomes a method of welfare, if you're going to base it on who has the right to it under economics and if this resource belongs to all of us and I say it does, I say that

DALE BONDURANT - Testimony continued

the constitution guarantees it in the State of Alaska and I say the constitution of the United States guarantees it, that it belongs to every body. I don't want my share of welfare or my share of the resources used as a welfare. I think it's a pitiful thing if this country isn't rich enough to support the people in it. But I don't want it done in that way. Therefore, I am against an exclusive or preferential right of subsistence. I think in the management of the game subsistence is such a motherhood factor that it throws such a weight on the management of the game that it makes it impossible. I would like to give you some examples of this. Last year when the caribou were suddenly realized they were in desperate shape. They came by and tried to make some way to let some of the people have the caribou. We had, I think it was a magistrate in the North, said that they wouldn't even try somebody that went out and killed a caribou even though the Fish and Game said it was against the Law. We got people in the North now saying that they are going to hunt whale even though this is an international agreement. And we have had people that are hunting waterfowl and eggs for years even though we've had an agreement with Mexico a agreement with Mexico and Canada. Now, I say we're all equal, and we all have to be treated equal and we all have to obey the laws equally and if we don't do this what have we settled in Alaska. I say we haven't settled anything and if we haven't settled anything I think it's time for the State of Alaska to quit playing their part in the settlement and not use your and my money, royalty money for the other part of the settlement act, the billion dollars. If people aren't going to obey the laws that I have to obey then we have no obligation to our part of the settlement.

Representative Al Nakak- I've got a few thoughts from your comments. Theoretically, the Claims Act passed title to 40 million acres of land, more or less in realtors terms to Native Corporations, now if I was to sit here and Representative Schaeffer how many acres the Arctic Slope Regional Corp. has received or NANA Regional Corporation has received or if I was to ask Mr. Anderson how many acres the Bristol Bay Native Corporation has received or if I was to tell you how many acres Bering Straits Native Corporation has received and I were able to tell you presently that we don't have title to one acre and six years have passed you tell me that it's been settled, we've accepted the Act, but parity? hasn't been received, we don't have title to the land. Face it, the land area such as Bering Straits area, the title which a village Corporation receives which is surface estate in my area certainly with the condition of game, the traditional hunting patterns, you don't hunt withing a 36 square mile area, granted traditionally people went up to the coast 40 miles inland for moose, caribou, etc..But when you say, the land was in exchange for the Claims Act was given for economic reasons that is right - 36 square miles of land doesn't support 400 people (INAUDIABLE).

Dale Bondurant- I would like to answer you, I realize tha title to land hasn't been given.

Al Nakak- As far as requisition of easements etc. with all the easements everybody asked for you might as well recognize that the Natives get a piece of land and the public gets a third of it.

DALE BONDURANT - I would like to respond to some of the statements you're making.

REPRESENTATIVE AL NAKAK- Well, I'm responding to the statements you made.

Dale Bondurant- Okay, lets go to the easement question. The only easements that are being asked and the only valid easements that should be allowed is the same easements that will be allowed on any private land

Dale Bondurant - Testimony continued

that was given to anybody whether it was State land transferred to private or so forth and that land belongs to everybody, it belongs to the Native as well as does everybody else and that's what I'm trying to impress here is I think we're all Alaskans, we're not non-Natives and Native, there is no such thing anymore we're in the 20th Century, and there's no such a thing and I realize title hasn't been given, there's blame can be laid in a lot of places, I think the overselection is part of it, I think the fight for easements is part of it. There's a lot of things but there is an intent to make a settlement and it will be made and what I'm saying is that settlement also, or part of that settlement is also that the aboriginal rights of the Natives are hereby forever extinguished or is it not? Can we come back and say, like Mr. Hopson is saying, that we're going to hunt whales no matter what or are they going to say that we are going to hunt caribou no matter what? I have to abide by the laws of this State and I think everybody in them out to abide by them. Let's change them if they're not right but let's don't just say that the Native people don't have to abide by them and I have to. Some of my people crossed the Land Bridge ahead of yours because I'm part Indian from the lower 48 but I am an Alaskan right now and I think we're all Alaskans. We have had darn good rapport and I don't think we need these kinds of special privileges for one group or the other no matter who they are. I think this has to be cut out and I think like Mr. Hopson making statements that we're going to hunt whale even though the United States is in an International Agreement isn't the way to go if it's wrong we should get the agreement changed. The United States has an obligation to see that the people in dire

DALE BONDURANT - Testimony continued

need of living surely should be doing something about it but is shouldn't be okaying a right to violate an agreement that's been in good faith by the United States and I can't buy this under any conditions.

Representative Al Nakak - I've read some of these documents that have been prepared for the Committee and one which you may be interested in by the Interior Wildlife Association of Alaska and I imagine you may know some of the people involved there but its entirely evident to me that all the wrongs ave been committed historically, presently and in the future have been by the Natives of the Villages.

Dale Bondurant - What do you mean?

Representative Al Nakak - I'm saying that the Natives have wasted the resources.

Dale Bondurant - I don't even think that's even a consideration of what we're talking today. We're talking today about protecting a resource we have today.

Representative Al Nakak - We're talking about such a broad subject that I should have prefaced my statement by saying that it's my position that it's not an ethnic institution and it's my position that subsistence is not an ethnice institution. I come from and area in which covers maybe 80 thousand square miles from Siberia to above the Artic Circle to the mouth of the Yukon, 20 communities, St. Lawarance Islan, walrus, whale, the very same thing that you mentioned and its evident to me that the wrong-the fact that the concern is that subsistence is in this time and place, this Era, within Alaska's total society is totally and exclusively an ethnic institution. The right of subsistence use, hunting, gathering,

REPRESENTATIVE AL NAKAK - Testimony continued

fishing, I feel should be maintained and along the same lines as you state - without regard to race.

DALE BONDURANT - Well, I ask you how are you going to determine this?

REPRESENTATIVE AL NAKAK - This is why we're here.

DALE BONDURANT - I say the only way you're going to determine it - if you're not going to on the way of the race and you can't do it on method because everybody's using different methods now. There's not ly going to deny that you don't hunt walrus with a radio and in there's nobody denies you're not going to hunt whale with a radio.

REPRESENTATIVE AL NAKAK - There's nobody from Shaktoolik, to Koyuk, to St. Michaels, to Stebbins, who is going to deny that they haven't seen sportsmens come out with Supercubs etc. to the gravel bars behind the mountains. Had we the opportunity to earn \$25,000 or \$40,000 and buy ourselves an airplane maybe we could hunt in Anchorage but there's nothing - it's all hunted out.

DALE BONDURANT - I agree, and this is a problem and I don't support the guy that abuses the resource whether he's white or Native or what he is. I'm not for that. I'm for the resource and let's don't make any mistakes unless we make them for the resource. I don't think any of us have a right whether we're white, Native, or politicians, or John Doe public, have a right to destroy any one species of our resource. We don't have this right. Just because we live on this earth, we don't have the right.

REPRESENTATIVE AL NAKAK - I've never felt that from Kotlik, to Stebbins, to St. Micheals to Unalakleet, to Shaktoolik, to Koyuk, to Elim, to White Mountain, to Golivin. to Council, to Nome, to Brevig Mission, to Teller, to Mary's Igloo, to Wales, to Diomede,

REPRESENTATIVE AL NAKAK - Testimony continued

to Gambell, to Savoonga, to Shismaref, up in Deering or Selawik, I've never ever maintained that subsistence is a right only because we happen to be Natives out there or that we have the right aboriginal or otherwise to extinguish any species. I just think that subsistence is a way of life that can be maintained.. Now if you happen to live at Shaktoolik and that's what you want to do, fine.

DALE BONDURANT - I agree that my opening statement was that I'm not against subsistence, I'm against that subsistence has a priority or any exclusive right to a resource that belongs just as much to me as anybody in this room and that's what I'm saying. I only hunt what I use, I don't go out and kill a bear or something like that. I've live in Alaska for 30 years and I generally take a moose every year. I go fishing and I get my salmon and everything, I'm called a sportsman, but I subsist on that game that I take. I subsist just as much on that moose as you do. I have a job, I agree with that. But there's also some of these people that are hunting some of the marine mammals that are supposedly exclusive subsistence that have jobs too. And even beyond that, they're making profits to buy a way of life that isn't so much traditional and I have no objection to that. And I have no objection to that, that isn't my objection is if you give it a priority or an exclusive right. That's my objection. I say that when one community say that when one community takes 600 walrus, in which they can't use over 120 or 130 and the rest of them their heads cut off and the rest of the carcass goes to waste and they call that subsistence and they say that they should have a priority or a right to that, I say baloney. There isn't - what's traditional about a bunch of cribbage boards or so forth

DALE BONDURANT - Testimony continued

made out of walrus rusks, there's nothing traditional about this and we shouldn't be supporting this. But this is what it's getting down to, and that's what I say and if those people can compete with me to do that I got no objections but if you give it exclusive rights to do that - that's a choice of a way of life that they're taking. That's what I'm objecting to and that's why I'm here explaining my position and the position of the people that I represent.

REPRESENTATIVE AL NAKAK- First part inaudible). And then go back in the hills for moose or caribou or go up and help with the reindeer herd. You know that's a choice but I'd like to see that choice remain.

DALE BONDURANT - But I think it can remain but don't make it an exclusive choice. But I'd like to ask Mr. Cowper a question - I think he said something about there was, or maybe it was Mr. Nelson (Anderson) that there was a meeting tomorrow and they were going to present a proposal for legislation and the gentlemen here just tells me we're here tonight to get the people's view on this before we present legislation and evidently there is some legislation that is already.

REPRESENTATIVE NELS ANDERSON - I made the statement that we have asked Legislative Affairs to prepare proposed legislation for us.

DALE BONDURANT - So there must be preparation already made without the input here.

REPRESENTATIVE NELS ANDERSON - Now, wait a minute. You have to let me clarify that. The legislation that I referred to was one-creating a Division of Subsistence in the Department of Fish and Game okay - it has nothing to do with defining subsistence or

REPRESENTATIVE NELS ANDERSON- Testimony continued

describing the activities or anything else like that because we've still got until December 12 before we complete our hearings and the gentleman that spoke from Eagle brought out some points that have already been made and you're not telling us anything new either. All I'm saying that your comments are well taken, I agree basically with the premises that you have brought to the Committee's attention and I certainly appreciate those.

We've already been told, in the past, that if we are going to determine who may subsist that it should not be defined on the basis of race on the basis of the basis of method, that we ought to take a good close look at the economics. I think that idea has merit, we are certainly looking at those suggestions, and I certainly have no preconceived notions on how or what we're going to ultimately end up with and that's precisely why we're here. The other legislation is legislation that looks to me as Chairman of this Committee to be appropriate legislation for the Committee's consideration for proposal to the Legislative Council, which in turn can or cannot introduce it to the next legislative session. That's basically it.

DALE BONDURANT- Well, Mr. Nelson - ( Nels corrects him) Mr. Anderson pardon me. I think the one thing that we have to do and I've not heard anybody able to do it - I've heard everybody ask about it- is define subsistence because we're all here talking about it some people for it- how do they know they're for it when there's no definition of it. This is one thing - I've heard people stand right up here and argue I'm for subsistence and ask them how to define subsistence and they son't know how. So how can you be for something when it hasn't ever been given an acceptabele definition

DALE BONDURANT - Testimony continued

We better define subsistence and then decide whether we're for it - the gentleman over here may be against it just as much as I am.

REPRESENTATIVE NELS ANDERSON- I think what we've also accomplished to is that to try to define subsistence as it may relate to every part of the State of Alaska may not be the right thing to do because subsistence activities differ. We've been told to describe subsistence activities rather than try to define the term itself. When you came in, I remember the first thing you said was that you are for subsistence.

DALE BONDURANT - I'm for using the resource and living off it. I think every one of us is for subsistence.

REPRESENTATIVE NELS ANDERSON - But you're not against subsistence, but even though we haven't defined it you still have a position on it.

DALE BONDURANT - I'm against any priority or exclusive use of subsistence we all subsist, we all live off of mother earth, every one of us we don't get anything from anywhere else. And we're all subsistence. I don't think the farmer has anymore right to be a farmer from now on, and his ancestors to be farmers from now on than me as a machinist to be a machinist from now on and so forth. We're all living off mother earth and it's a competitive thing and let's not give people exclusive or priority rights.

CHARLES NELSON - I would like to ask one question - That's what I brought up in my statement - we used to be able to take these herring roe - hundreds of pounds of it. The law now says that you can have only 10 lbs. per family and yet last summer or the last two or three years seine boats have come in and taken hundred of tons, cut

CHARLES NELSON - Testimony continued

the roe out of the herring, shipped them to Japan, made big money off of them. Ho so you base that equal rights of the economy of the natural resource for the people? I don't care whether somebody sells it or I just eat it - it doesn't make any difference - it's there for the people - if I decide to put it up and use it throught the winter for part of my living, I have a right to do that but the saw has changed now and says I no longer have that right but somebody else has a right to come in and take hundreds of tons because he has a permit. Now can you show the equality of that thing when you're talking about economy?

DALE BONDURANT - Mr. I sure can and I'm for you just as much- if some of these gentlemen have seen me in the fish and game meetings fighting the commercialization of the resource just as much as I'm against a priority consideration for the subsistence use of the resource. I think that that resource belongs to everybodey and there should be an equitabe use of it and I'm not for the guy that goes out here and just says that's my livelihood. I should have the right to it I'm a commercial fisherman or I'm a guide - him having any more right than you or me - I'm for an equitabe right and I'll fight right along with you against that and I have in these hearings so I totally agree with what he says. I don't think somebody because they got a commercial license and a boat has any more right to that roe than the gentleman here does.

MARK JACOBS, JR. - My name is Mark Jacobs, Jr. from Sitka, Alaska I want to thank you for affording me this opportunity to express my views on subsistence hunting and fishing. Alathough I've been adapted to a cash economy I cannot turn my back on a Native Culture under which I was raised. Subsistence hunting and fishing. Although

MARK JACOBS, Jr. - Testimony continued

is something that I cherish. There's no monetary value that can be placed on it. Any laws or regulations that would either ban or severely restrict the Native would be destroying the Culture. I heard a statement here that was said - that no special groups of people have a right to destroy any species of people or any species of animal. I'd like to say that the State Legislature or the Federal Legislature has no right to destroy a culture either. We've been brought up under that system for many years - I cannot turn my back on it. I am concerned about my status and my right to continue to use of subsistence resources. It seems to me that I would be precluded because of my income.

My continued use of Native foods has not eroded. It will be a part of my life as long as I live. No amount of laws or regulations can be created to imply that I can no longer crave my traditional food. When one is acculturated to a certain food the best white man's steak cannot satisfy that craving. Traditional food taking away a traditional food is like taking the rice diet out of the oriental. That's how serious it is. Maybe it can be best expressed by taking the politician or the business man and especially those that enjoy their cocktail hours I realize it is something that is cherished just like we cherish our traditional use of Native foods. If you enact a prohibition, there will be a lot of screaming and hollering from the politician the business man because they cherish their cocktail hours. I believe that the Traditional uses is a lot deeper than this. I believe conservation and subsistence can be compatible. The State of Alaska, through its Governor, the legislature and mainly the State Fish and Game can be more responsible to those that use traditional subsistence

MARK JACOBS, JR. - Testimony continued

resources and not be sportsman oriented only.

REPRESENTATIVE NELS ANDERSON - I agree, they cannot take the cocktail hour away. They better not do that.

Judy Rosander - My name is Judy Rosander, I reside in Fairbank, Alaska but I grew up in rural Alaska. A lot of questions that have been asked this evening is concerning the definition of subsistence. I think if anybody tries to define it they should leave it as broad as possible. Cause if you start narrowing it down - it's going to become law and have to many restrictions on the people who have to use that law. It's kind of a touchy thing. I would leave it as broad as possible and then discuss regulations concerning it after. and then I'm also hearing tonight, traditional way of life, traditional lifestyle which connotes that they have a choice. The people who use those terms should go out to the villages where they have to live off the land there is no choice and if you take away subsistence living from them you don't take their lifestyle or their way of life, you take their life period cause that's what they live off. I would like the committee in mind also. And everything else I wanted to say has been said.

REPRESENTATIVE STEVE COWPER - Mr. Chairman, this is something that I think is correct. There is no cash economy to speak of in a lot of rural Alaska - it is in some of the larger towns and of course it is here in the urban areas. I think it's something that we just have to consider - a lot of the villages in Alaska, the subsistence economy is (inaudible) that's all it is. Somehow I think that fact has to be recognized - I don't know how long it will remain that way but it is something we have to recognize in order to make

REPRESENTATIVE STEVE COWPER - Testimony continued.

these decisions. The cash economy only extends so far into rural Alaska .

JUDY ROSANDER - It's nice to know you recognize that, lots of people don't realize that knowing that fact that people do live wholly off the land.

WOODROW MORRISON , JR. -My name is Woodrow Morrison Jr. I'm from Hydaburg but I've been living out in Shageluk, on the lower Yukon for the last three years. I like these other two gentlemen down here. I grew up subsisting. Here we get into that word again. Anyway, living off certain types of a diet. I think that as people born into generation after generation of eating food like this their body adapts to certain types of diets so there is no longer a matter of choice it's necessity but getting back to the word subsistence. The word subsistence has general usage in sociology and anthropology which generally refers to meeting and fulfilling basic needs. In other words enough to keep alive is how it's generally used. But we have two different styles since we are now getting into the cultural definition of it. Out in the village. when we're talking about subsistence we're talking about survival. But to the Natives that moved from the Villages to the city or large Urban centers subsistence has become traditional.

I operate a small grocery store out in the village. And people out there their primary diet comes from the land. The white fish, the pike, the shee, ravnits, and the stuff they buy in the store supplements that diet. Whereas, I believe that the people who have moved to the city their primary diet comes from the store and is supplemented by the moose that they get when they go out in the villages, fish so you have two different ones here. But

WOODROW MORRISON - Testimony continued

as you have noticed I have not made too much of a distinction on income but income does play a large part in it. I've heard somebody else say it should be put on income. Well. I believe along the same lines that if it does get down to the point where the State has to decide who may take the fish and game then I think it's going to have to be done along the lines of poverty level income. But then that would be only one of the criteria and I think for establishing it because if you go strictly on the income level the people who would be hurt most on it would be the ones that are not quite -their income would be slightly over that poverty level which would disqualify them for subsistence permits like you have in southeastern. Down there they just apply for them and you get it. But if it does go on the income level the guy that's making just a little bit over what's it going to do to him -is he going to quit his job so that his income will go below the level or is he going to work harder so he can afford to buy more food. And as far as protecting the game we did - I was an alternate delegate to a meeting down Pilot Station, down on the Yukon last February, we were concerned with the number of moose that were being killed on the upper (inaudible) and left. Some of the moose were left with only the hind quarters missing. Others, the entire carcass with only the head removed. Down in unit 18, an area down around Piamute, Kalskag, and Marshall they were having worse problems. down there with the airplane hunters coming in and using CB radios but there was nothing anybody could do about it. We used existing State laws and we proposed to the State Department of Fish and Game to set up two subsistence zones and we did it with the understanding that subsistence zones

WOODROW MORRISON'S -Testimony continued

would not keep out any State resident regardless if he was Native or white, it would keep out the foreign and non-resident hunters, primarily, it would limit the type of vehicle that could be used to travel into the hunting area. And Fish and Game backed off on it and gave us the control zone - called the Paradise Control Zone one the lower Yukon well, bounded on the west by the Yukon River and the Inoko River on the east running down below Holy Cross and then North above Grayling to Eagle Island and then on across to the mouth of the Ididarod River. So what happened was - what we did was it prohibited aircraft from landing within the zone, in other words if a hunter came out he could not land on the river with a float plane in front of the town of Shageluk, he could land on the lake behind the town, because it was beyond the boundary. But what it force him to do was to hunt under our terms. He had to go up river by boat the same way we do, then bringing the meat our, he could not remove any part of the meat with a chartered aircraft. It had to be taken our on a scheduled mail run or however you call it.

We wanted to go a step further but we were turned down. We were told the Fish and Game didn't have the money to do it. We wanted to put a control type of officer, more of a customs inspector type person, in each of the four landing zones, Well I think there were five anyway there was Graylin, Anvik, Holy Cross and Shageluk and what we were attempting to do was force that hunter to bring the entire carcass back to that designated landing area where that subsistence officer, or whatever you wanted to call him, would inspect the carcass and determine how much of it is no longer usable You know bloodshot and all the rest of it the parts he couldn't use. And also to check, and get an accurate account of how many