

AYK REGION  
SALMON REPORT TO THE BOARD  
OF FISHERIES #1

STATUS OF THE ARCTIC YUKON KUSKOKWIM AREA FISHERY  
1965

A Report to the Alaska Board of Fish and Game, 1965

AYK Staff

Alaska Department of Fish and Game  
Division of Commercial Fisheries

STATUS OF ARCTIC-YUKON-KUSKOKWIM AREA FISHERY

The Arctic-Yukon-Kuskokwim Area is that portion of Alaska north of the Alaska Range and the Bristol Bay drainage. This is the largest management area in the state and is equal to the combined areas of California, Oregon, Washington, and Idaho.

Prior to statehood in 1959, the only district having a sustained commercial fishery was the Yukon District. Since harvestable surpluses of salmon were available in other districts, the Department liberalized certain regulations and encouraged processors to explore and develop new fishing grounds. As a result, sustained commercial fisheries have been developed in three additional districts: Kuskokwim, Norton Sound, and Kotzebue.

In this area of low industrialization, income from commercial fisheries is of major significance. For example, Arctic-Yukon-Kuskokwim Area fishermen, mostly resident Eskimos and Indians, received approximately \$673,000 for salmon sold in 1965. Wages earned by cannery workers, tender boat operators, etc. are not known.

Department surveys reveal that nearly one million salmon are taken annually in the A-Y-K Area for subsistence. In terms of money required to purchase a similar quantity of a meat substitute, the subsistence catch is of equal or greater importance than the commercial catch. For this reason, subsistence fishing requirements influence management decisions to a great extent.

Management of commercial and subsistence fisheries is conducted by three full-time biologists. Research studies are also conducted by management biologists with the aid of temporary employees. Several tagging experiments and subsistence fishery surveys have been conducted since 1961 in an attempt to ascertain the magnitude, differentiation of races and native use of salmon populations. In addition basic life history information such as age, sex, and size compositions is determined each season for all districts.

Figures 1, 2, and 3 present yearly commercial catches made in Kuskokwim, Yukon, and Norton Sound-Kotzebue Districts respectively from 1951 to 1965.

#### KUSKOKWIM DISTRICT

This fishery continues to be managed largely for the purpose of supplying subsistence fishing requirements, but increases in commercial utilization of king and coho salmon have been allowed in recent years. The yearly commercial catches during the 1961-1965 period have been composed of an average of 21,595 kings, 14,770 cohos, 6,985 reds, 17,409 chums, and 1,712 pinks. There was no fishing effort for chums and reds during 1963 and 1963 to 1965 for pinks. During state management, commercial utilization of only king and coho salmon have been allowed in the Kuskokwim River. Catches of red, chum, and pink salmon were obtained in the vicinity of the mouth of the Kanektok River which drains into Kuskokwim Bay. Kuskokwim River subsistence catches for 1960-1964 have averaged 25,116 kings and 203,573 "small salmon", mostly chums.

#### YUKON DISTRICT

King salmon have been fished commercially since 1918 with the exception of 1925 to 1931. The Alaska Department of Fish and Game liberalized regulations for this district in 1961 which resulted in the development of the full potential of the commercial fishery for king salmon. Prior to 1961, the average seasonal commercial catch was 36,618 kings as compared to 108,806 kings for the 1961 to 1965 period. Chum and coho salmon have entered the yearly commercial catches only sporadically during the history of this fishery. During the last five years, an average of 31,820 chums and 6,906 cohos were taken each season. The major portion of the chum salmon run is reserved for subsistence utilization. Declines in subsistence requirements are expected and therefore, commercial

utilization of these species can be expected to increase in the future. The commercial fisheries are largely confined to the lower 150 miles of the Yukon River.

Historically the subsistence catch has been estimated to be as high as 26,500 kings and 1,400,000 "small salmon", mostly chums. During the 1961-1964 period, the average yearly catches have been estimated at 24,775 kings and 418,406 "small salmon".

#### NORTON SOUND AND KOTZEBUE DISTRICTS

Commercial utilization of Norton Sound and Kotzebue District salmon was first made in 1961 and 1962 respectively. King salmon catches are generally thought to reflect the size of the runs but catches of other species as shown in Figure 3 greatly reflect differences in fishing effort and not necessarily run size.

During the 1961-1965 period, the yearly Norton Sound District catch has averaged 4,516 kings, 8,355 cohos, 27,440 pinks, and 114,272 chums. The commercial chum salmon catch for the Kotzebue District has ranged from 40,025 to 129,948 with a yearly average of 75,361.

Subsistence utilization has not been documented for the entire Norton Sound District, but Department surveys indicate that in excess of 60,000 salmon have been taken annually during the last five years. The Kotzebue District subsistence catch is estimated to have ranged from 30,000 to 100,000 chums during the last four years.

FIGURE 1

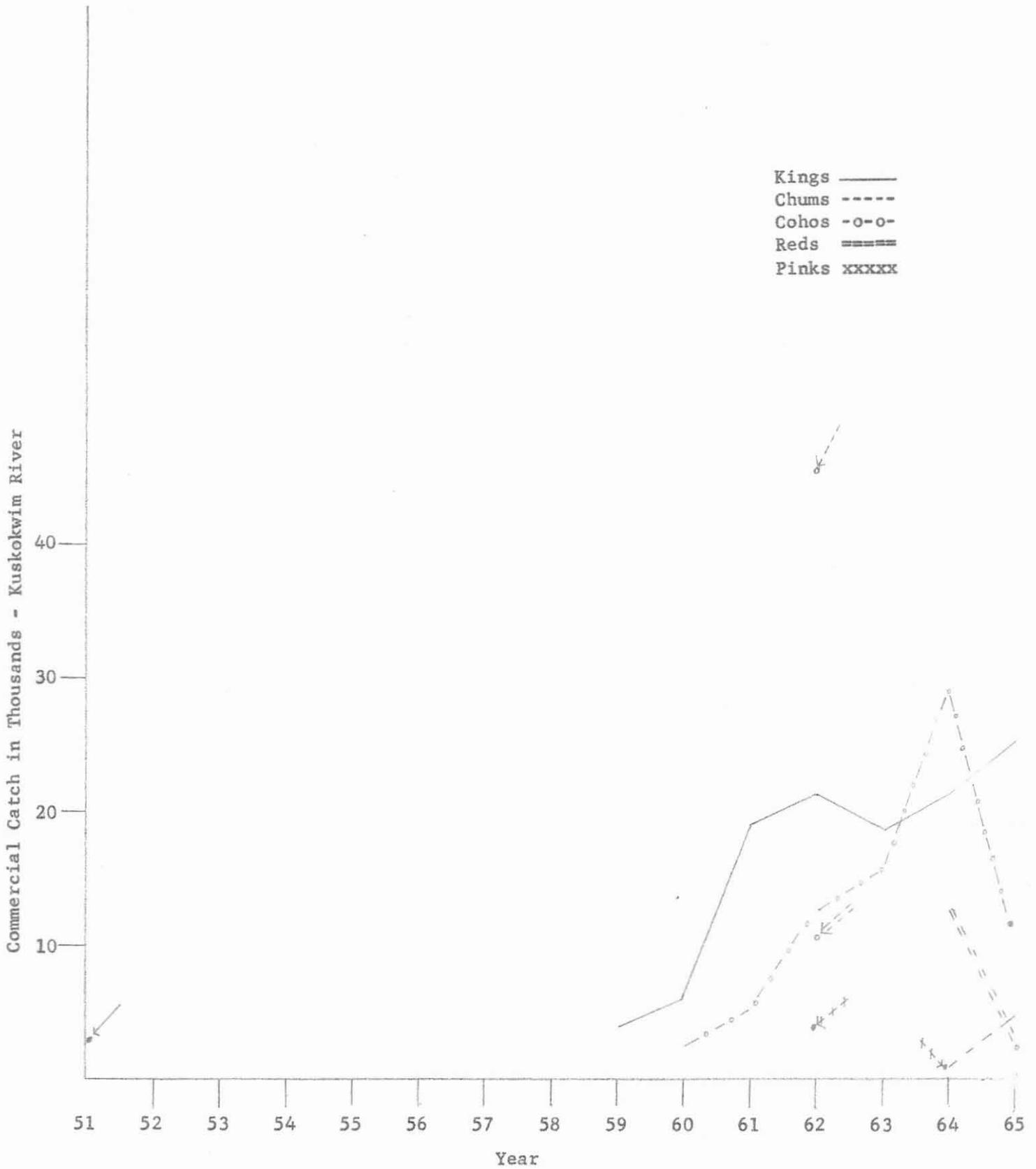


FIGURE 2

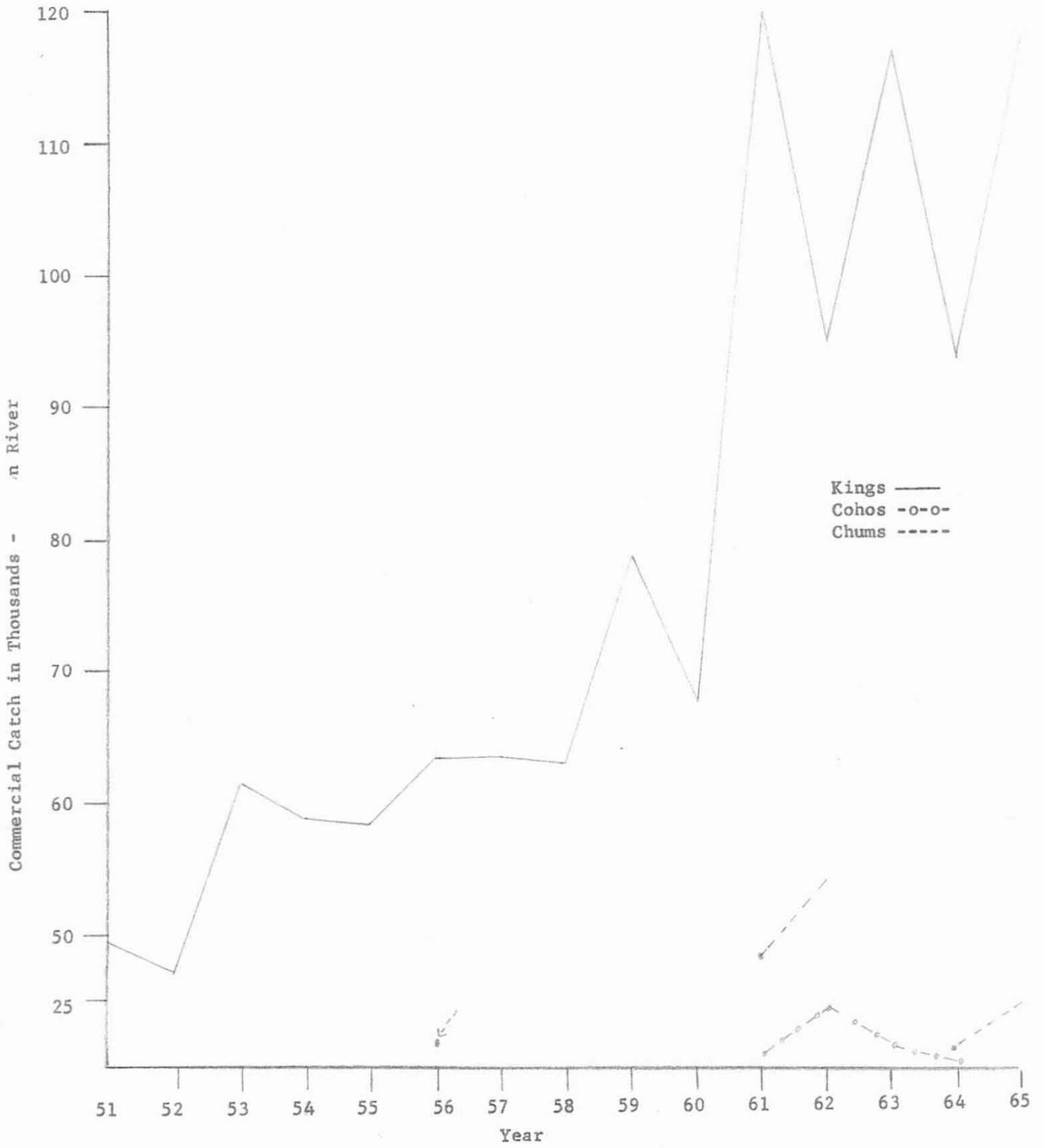
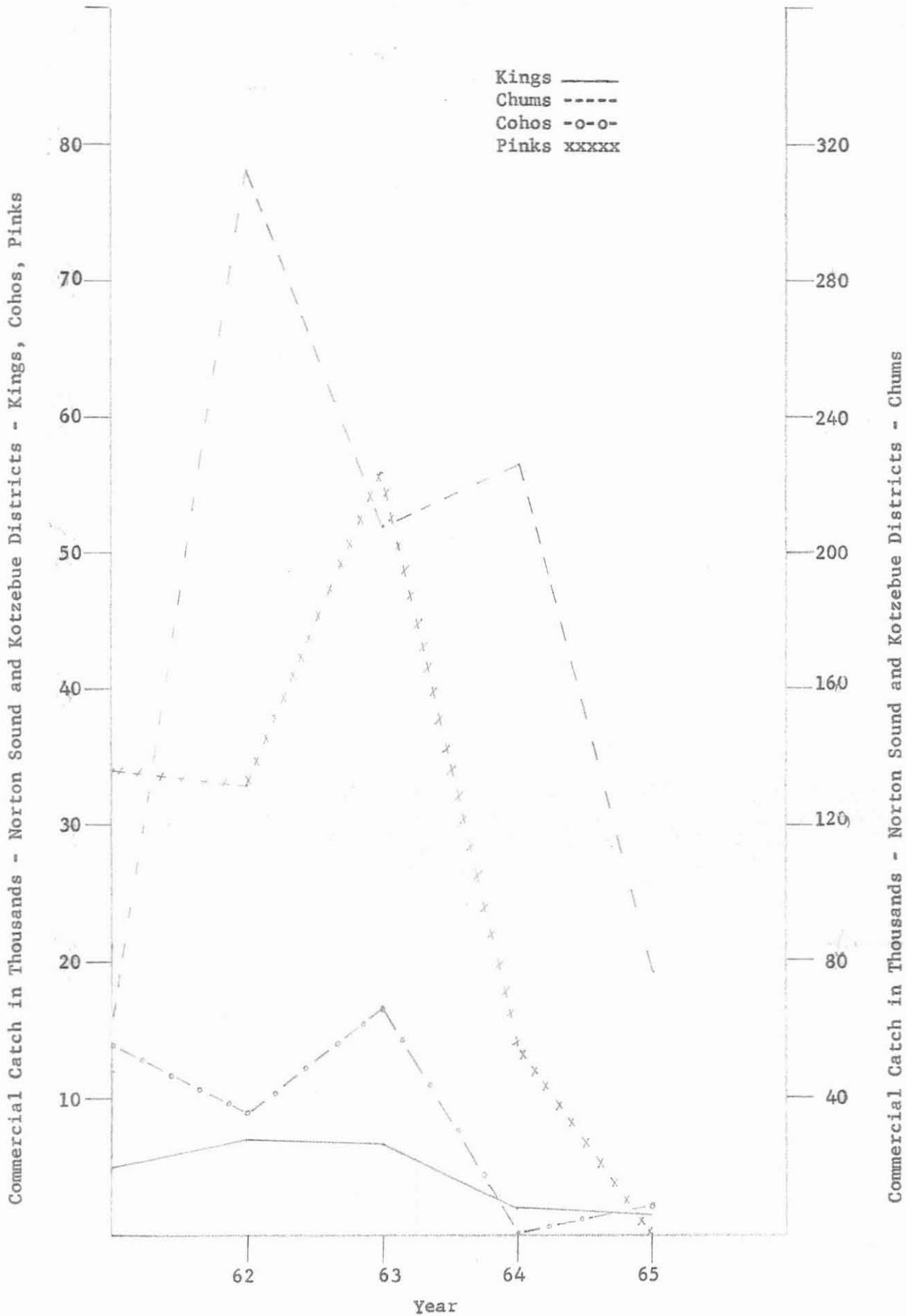


FIGURE 3



*Bynart*

# MEMORANDUM

# State of Alaska



TO: Southeastern Region Supervisor  
 Area Management Biologists (all other areas)  
 Division of Commercial Fisheries  
 Alaska Department of Fish and Game

DATE : November 22, 1965

FROM: Wallace Noerenberg, <sup>WNN</sup> Asst. Dir. SUBJECT: Upgrading of PSIAC status reports  
 Division of Commercial Fisheries  
 ADF&G - Juneau

The Pacific Salmon Inter-Agency Council, of which Alaska is a member, is attempting to upgrade the various Inventories of Coast Salmon Resources and Facilities put together in the past two years. Each Alaskan management area is covered quite briefly in the original report on "Status of Major North American Stocks of Pacific Salmon". I am attaching a copy of what was developed originally for your areas (or region). Could each of you quickly review the old text, add to it as you see fit, bring up to date all tables and graphs shown, etc., through 1965 if possible.

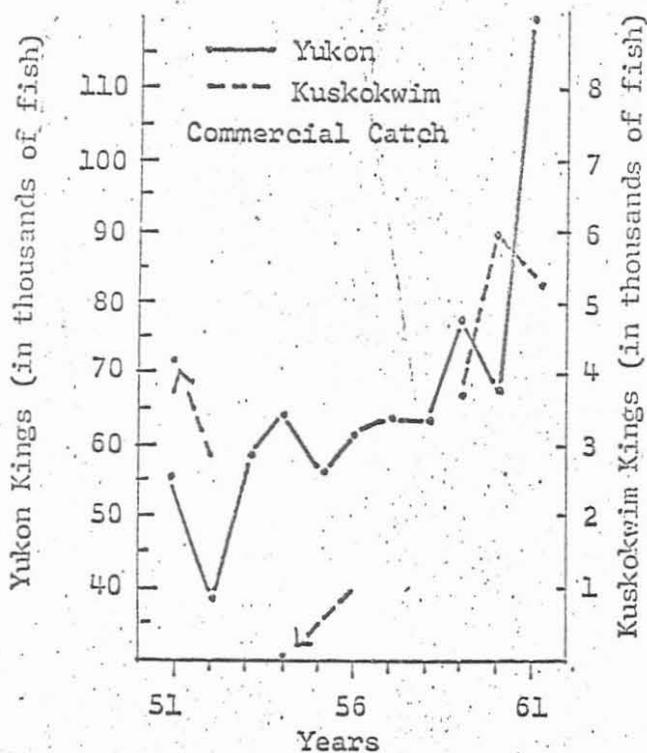
I would like to get this material back to Seattle in early December so please attempt to take care of this prior to the Board Meeting.

*Done*

Enclosure (1)

cc: S. D. Swanson

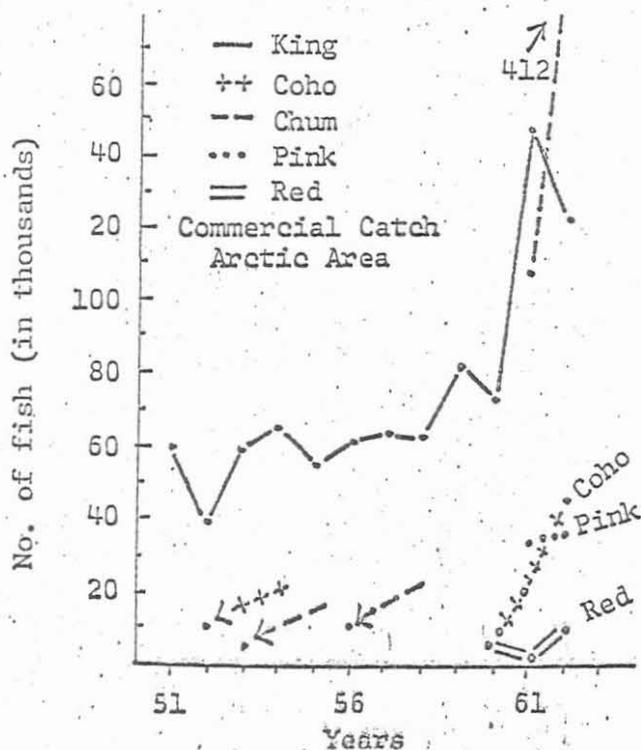
STATUS OF YUKON-KUSKOKWIM (ARCTIC) AREA FISHERY



The commercial fisheries in this large area is in the initial stages of exploitation with the potential as yet unknown. The personal use fisheries are on the decline and the commercial fisheries are increasing their catch.

The figures showing the commercial catch of king salmon for the Yukon and Kuskokwim Rivers and the total catch of all species for the entire Arctic area do not indicate the abundance of fish but do indicate the developing fishery in the area.

*Extensive* Very little research on the salmon stocks has been conducted, *for only 7 1/2 years*. Several tagging experiments and personal use surveys have been conducted since 1961 on the Yukon and Kuskokwim Rivers by the Alaska Department of Fish and Game and the Bureau of Commercial Fisheries in an attempt to ascertain the magnitude and native use of the king and chum salmon populations. *Sampling of catches*



The Yukon and Kuskokwim River commercial fisheries until statehood in 1959 were chiefly king salmon fisheries under quota limits. In addition, a large native subsistence fishery was conducted for human and dog food, mainly on king and chum salmon. Since 1961, a new fishery has also developed north of these rivers in the Norton and Kotzebue Sound areas which are included with the Yukon-Kuskokwim River fisheries forming a new statistical area (Arctic).

Yukon River Fishery

King salmon have been fished commercially since 1918 with the exception of 1925 to 1931. Chum salmon have entered the catch in the following years, 1918 to 1921, 1956, and since 1961 chums can be fished from August 1 to September 30. The commercial fisheries are largely confined to the lower 270 miles of the river. In addition,

## STATUS OF YUKON-KUSKOKWIM (ARCTIC) AREA FISHERY

the large subsistence fishery by the natives utilized chum and to a lesser degree king salmon. The estimated subsistence catch in 1961 and 1962 was 23,719 and 19,910 kings and 405,632 and 356,754 chums, respectively. Historically, the personal use catch has been estimated to be as high as 26,500 kings and 1,400,000 chums. The commercial catch has steadily increased with 119,700 kings and 42,500 chums landed in 1961.

### Kuskokwim River Fishery

The fishery in this river has largely been a native personal use fishery. Surveys have been conducted periodically since 1922 with the peak estimates for each major species being: 38,700 kings, 130,800 chums, and 54,500 reds. This subsistence fishery has utilized the salmon almost exclusively with only a small surplus being available for a commercial fishery. In the last few years the commercial fisheries has been increasing with 11,300 kings in 1963 and 48,300 chums, 34,200 pinks and 18,600 coho caught in 1961.

### North of the Yukon

This area has only had a commercial fisheries since 1961. The catch in 1961 was 23,500 kings, 5,100 coho, 2,300 reds, 91 pinks, and 18,700 chum salmon. A personal use fishery also is conducted on the salmon rivers in this area.

AYK REGION  
SALMON BOF RPT #4

STATUS OF THE ARCTIC YUKON KUSKOKWIM AREA FISHERY  
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A Report to the Alaska Department of Fish and Game  
Written and Oral Presentations

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Alaska Department of Fish and Game  
Division of Commercial Fisheries

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## ARCTIC-YUKON-KUSKOKWIM AREA FISHERY

A Report to the Alaska Board  
of Fish and Game, 1967

Division of Commercial Fisheries

### INTRODUCTION

The Arctic-Yukon-Kuskokwim area is that portion of the State north of the Bristol Bay drainage and the Alaska Range. Prior to statehood the only district having a sustained commercial fishery was the Yukon district. Since harvestable surpluses of salmon were available in the area, the Department liberalized certain regulations and encouraged processors to explore and develop new fishing grounds. As a result sustained commercial fisheries have been developed in the Kuskokwim, Norton Sound and Kotzebue districts.

A total of 160,907 king, 71,872 coho, 28,952 pink and 128,256 chum salmon were taken commercially in 1967. The 1967 recorded subsistence catch was 77,901 kings and 548,817 small salmon, mostly chums. Table 1 shows the 1967 catches by district and Table 2 compares catches for the area during the 1960 - 1967 period.

The value of the 1967 commercial salmon fishery to area residents was about 1.2 million dollars. This includes prices paid to fishermen and wages paid to laborers. This income has an important economic impact on the area since there is a relative lack of other means to obtain a cash income. Unlike other areas of the State, where non-residents may compose from 40% to 100% of the fishing fleet, all money earned from the commercial fishery stays in the area.

### STATUS OF DISTRICT SALMON FISHERIES

Kuskokwim District: A record total of 91,000 king salmon were harvested in 1967. This includes a commercial catch of nearly 30,000 and a subsistence catch of 61,000. The 1967 catch surpassed the previous record of 75,000 kings taken by commercial and subsistence fishermen in 1966. Surveys of certain index tributary streams indicated good king salmon escapements have occurred during the last two seasons. The 1967 commercial coho salmon catch of 58,268 was also a record harvest for this district.

Commercial fishing in the Kuskokwim River is closed from late June until the first of August. This is for the purpose of protecting the chum and red salmon runs for subsistence utilization. The annual Department survey of the Kuskokwim River subsistence fishery recorded 215,000 chum and red salmon taken for subsistence in 1967 which is a good catch for this river. The subsistence fishery still

remains the most important utilization of Kuskokwim River salmon. Unlike the Yukon River, subsistence fishing dependence and effort has remained relatively stable over the past few years.

Yukon District: The 1967 commercial king salmon catch of 129,000 was the largest ever taken. This catch is thought to be a result of a better than average run and an increase in fishing effort. Few good aerial surveys could be flown of index spawning streams during 1967 because of adverse river and weather conditions, but the limited data indicated that only "fair" king salmon escapements occurred. To insure that adequate escapements were obtained, the main commercial fishery was closed on June 27, a few days earlier than normal.

Prior to 1961 the commercial fishery was restricted to limited catch quotas varying between 50,000 to 65,000 king salmon. Fishing during this time was generally allowed for 5½ days a week. Since 1961 quotas have been removed for most of the fishery which has been regulated by scheduled openings and closures each week (two 48-hour periods each week).

A total of 120,203 kings were taken commercially in 1961, almost double that of previous years. Since 6-year old king salmon are the greatest contributors to the commercial catch, the 1967 fishery was anticipated to be the first test of the present system of management. On the basis of the record catch made this season, it appears that the 1961 fishery permitted sufficient numbers of king salmon to spawn and produce a run of similar magnitude in 1967.

However further restrictions seem necessary as the fishery has become more efficient in the capture of king salmon. This season a total of 530 fishing boats were registered, an increase of 23 over 1966 and 301 over 1960. This represents a 130% increase over the past seven seasons. In order to maintain adequate spawning escapements in the face of increasing fishing effort, the staff has proposed that fishing time be reduced beginning with the 1968 season.

A minimum total of 19,300 king and 271,000 small salmon was taken for subsistence purposes in the Yukon River drainage of Alaska and Canada. The small salmon catches for the last two seasons have been comparatively small as a result of less fishing effort caused by a decline in the dependence on subsistence fishing and adverse river conditions.

Norton Sound District: A total of 1,804 kings, 2,249 cohos, 28,952 pinks and 41,911 chums were taken for commercial purposes in 1967. Fishing effort was either lacking or reduced in the Moses Point, Shaktoolik and Norton Bay subdistricts due to lack of adequate processing facilities. This district has produced a record harvest of 7,200 king

salmon and 182,000 chum salmon in 1962 when adequate processing facilities were available.

The Golovin and Moses Point subdistricts have produced good runs of chum and pink salmon since the advent of the commercial fishery in 1962. However the Unalakleet subdistrict King, coho and chum salmon runs have been poor during the last few seasons. It appears that these runs may not be able to withstand the commercial fishing pressure in addition to heavy subsistence utilization. District subsistence fishermen took 35,500 salmon, mostly chums and pinks, during the 1967 season.

Kotzebue District: For the third consecutive year the 1967 Kotzebue commercial chum salmon catch has been relatively poor. Over the past six years the catch has ranged from 130,075 in 1962 to 29,395 in 1967, the average catch being 60,289 chums. The size of the 1967 run appears to have been greater than that indicated by the total catch as fishing effort declined 32% from 1966. Subsistence fishermen took an additional 37,000 chum salmon during 1967.

#### MAJOR MANAGEMENT PROBLEMS

Lack of good communications: Outside of Fairbanks, Nome and a few larger communities, most area residents do not read newspapers and lack telephone service. Some villages are not able to receive radio broadcasts. Many persons, especially in the Kuskokwim district, cannot speak or read the English language. These factors make it extremely difficult to properly disseminate information and to obtain public response to fishery matters.

Transportation and logistics: The major fisheries are located in remote regions of the area and are separated by more than 500 air miles (e.g. lower Kuskokwim to Kotzebue). There are no roads, railroads or practical water transportation between these fisheries. All transportation of personnel and materials is by small charter aircraft or scheduled airlines, an expensive and often slow means of transportation in northwestern Alaska. The high cost of transportation in combination with the great distances from markets has been the most limiting factor in the development of commercial fisheries in the area.

Increase in fishing effort: This is the immediate problem of the Yukon River king salmon commercial fishery. It is making it increasingly difficult for the Department to maintain optimum escapements. The population of most lower Yukon River villages is increasing and a greater proportion of local residents have entered the commercial fishery in recent years. Also a recent influx of fishermen from surrounding villages (Hooper Bay, Stebbins, Scammon Bay, etc.) has occurred.

Lack of processing facilities: Salmon processing facilities have either been lacking or inadequate in some subdistricts such as Quinhagak in the Kuskokwim district and Shaktoolik and Moses Point in

the Norton Sound district.

Lack of certain basic research data: Procedures for determining run predictions, population magnitudes and sustained yield have yet to be developed. Research efforts are hampered by the silty conditions of stream and coastal waters which prevent observation of salmon. Also a backlog of comparative data is not available due to the comparatively recent development of most of the commercial fisheries.

#### FUTURE

Although not as abundant as in many other areas of the State, Arctic-Yukon-Kuskokwim salmon are superior in quality, being rich in oil content and having good flesh color even when taken in freshwater. Japan's interest in purchasing and processing A-Y-K salmon is increasing. Most of the 1967 chum and pink salmon catch and some of the king and coho salmon catch was delivered to markets in Japan as frozen and cured fish.

The production and economic impact of the commercial fishery is expected to expand gradually during the next few years. One reason for this is that the dependance on subsistence fishing is declining, especially in the Yukon River drainage. The decline in the subsistence fishery will make available more salmon for commercial utilization.

TABLE 1

## ARCTIC-YUKON-KUSKOKWIM AREA TOTAL SALMON CATCH BY DISTRICT 1967

	Kings	Reds	Cohos	Pinks	Chums
<b>KUSKOKWIM:</b>					
Commercial	29,947	598	58,268	-	8,189
Subsistence	<u>61,342</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>221,192 <sup>1/</sup></u>
SUB-TOTAL	91,289	598	58,268		229,381
<b>YUKON:</b>					
Commercial	129,156	-	11,355	-	48,761
Subsistence	<u>19,314</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>271,021 <sup>1/</sup></u>
SUB-TOTAL	148,470		11,355		319,782
<b>NORTON SOUND:</b>					
Commercial	1,804	-	2,249	28,952	41,911
Subsistence	<u>675</u>	<u>-</u>	<u>716</u>	<u>15,488</u>	<u>18,668</u>
SUB-TOTAL	2,479		2,965	44,440	60,579
<b>PORT CLARENCE:</b>					
Commercial	-	-	-	-	-
Subsistence	<u>11</u>	<u>1,018</u>	<u>232</u>	<u>692</u>	<u>973</u>
SUB-TOTAL	11	1,018	232	692	973
<b>KOTZEBUE:</b>					
Commercial	-	-	-	-	29,395
Subsistence	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>37,100</u>
SUB-TOTAL					66,495

	<u>Kings</u>	<u>Reds</u>	<u>Cohos</u>	<u>Pinks</u>	<u>Chums</u>
GRAND TOTAL FOR A-Y-K AREA					
1967	242,249	1,616	72,820	45,132	677,210
1966	184,268	2,137	51,100	28,740	640,273
1965	189,888	3,690	20,452	21,464	875,830

1/ Small numbers of reds, cohos and pinks included in subsistence catches

TABLE 2

ARCTIC-YUKON-KUSKOKWIM AREA  
 COMMERCIAL AND SUBSISTENCE SALMON CATCH  
 1960-1967

## COMMERCIAL CATCH

## SUBSISTENCE CATCH

YEAR	COMMERCIAL CATCH						SUBSISTENCE CATCH		
	KING	RED	COHO	PINK	CHUM	TOTAL	KING	SMALL SALMON	TOTAL
1960	73,560	5,649	5,498			84,707	19,457	337,067	356,524
1961	148,741	2,308	21,752	34,443	109,657	316,902	52,617	593,115	645,732
1962	122,907	10,415	45,094	37,666	412,168	628,250	33,506	622,858	656,364
1963	142,185	38	37,997	56,031	209,234	445,485	67,271	593,584	660,855
1964	116,835	13,548	31,536	14,511	234,415	410,845	54,235	757,734	811,969
1965	144,512	1,886	14,571	220	104,388	265,577	45,376	800,371	845,747
1966	120,692	1,137	47,994	13,177	186,016	369,016	63,576	473,926	537,502
1967 <u>1/</u>	160,907	598	71,872	28,952	128,256	390,585	77,901	548,817	626,718

1/ Commercial catches represent preliminary data which is not final

ORAL PRESENTATION TO 1967 Alaska  
Board of Fish & Game

The A-Y-K area is that portion of the State north of Bristol Bay drainage and the Alaska Range. It is the largest management area in the State. Prior to statehood the only district having a sustained commercial fishery was the Yukon district. Since harvestable surpluses of salmon were available in the area, the Department liberalized certain regulations and encouraged processors to explore and develop new fishing grounds. As a result, sustained commercial fisheries have been developed in Kuskokwim, Norton Sound and Kotzebue districts.

This chart shows commercial catches made in the area since 1960. King salmon catches since 1961 generally reflect abundance of this species although differences in fishing effort have had some effect. Annual king salmon catches have made up about 20% of the States total production. Fluctuations in catches of other species reflect the availability of processing facilities and fishing effort <sup>more</sup> than salmon abundance. The largest chum catch of over 400,000 was made in 1962 when fishing effort and processing capacity were at peak levels. In addition to salmon, small numbers of whitefish, sheefish, herring and char are commercially harvested.

In 1967 there were 1,019 commercial fishermen licensed for the area, 99% of which are resident Indians and Eskimos. The value of the 1967 commercial salmon fishery to area residents was about 1.2 million dollars. This represents prices paid to fishermen and wages paid to laborers. This income has an important economic impact on the area since other means of obtaining a cash income are almost non-existent. Also, unlike other areas where the fishing fleets are composed of 40-100% non-residents, nearly all of the money earned from commercial fishing stays in the area.

This chart shows subsistence catches of salmon recorded in the area since 1961. It is estimated that our surveys tabulate about 90% of the actual subsistence harvest. More fish of all species, except king salmon, are taken for subsistence purposes as compared with commercial catches. Because of its importance in supplying food to area residents and their sled dogs, subsistence fishing requirements influence management decisions to a considerable extent.

#### STATUS OF DISTRICT SALMON FISHERIES

Kuskokwim District: A total of 91,000 king salmon were harvested in 1967. This includes a commercial catch of nearly 30,000 and a subsistence catch of 61,000. Both the subsistence and commercial catches were record catches. The 1967 catch surpassed the previous record of 75,000 kings taken by commercial and subsistence fishermen in 1966. Surveys of key tributary streams indicated good king salmon escapement, have occurred during the last two seasons. The 1967 commercial coho salmon catch of 58,268 was also a record harvest for this district.

Commercial fishing in the Kuskokwim River is closed from late June until the first of August. This is for the purpose of protecting the chum and red salmon runs for subsistence utilization. The annual Department survey of the Kuskokwim River subsistence fishery recorded 215,000 chum and red salmon taken for subsistence in 1967 which is a good catch for this river. The subsistence fishery still remains the most important utilization of Kuskokwim River salmon. Unlike the Yukon River, subsistence fishing dependence and effort has remained relatively stable over the past few years.

Yukon District: The 1967 commercial king salmon catch of 129,000 was the largest ever taken. This catch is thought to be a result of a better than average run and an increase in fishing effort. Few good aerial surveys

could be flown of key spawning streams during 1967, because of adverse river and weather conditions; but the limited data indicated that only "fair" king salmon escapements occurred. To insure that adequate escapements were obtained, the main commercial fishery was closed on June 27, five to ten days earlier than normal.

At this time I would like to discuss in more detail the expansion of the Yukon commercial king salmon fishery that has occurred since 1961 and the effects this has had upon escapements and run returns. Prior to 1961 the commercial fishery was restricted to limited catch quotas varying from 50,000 to 65,000 kings. Beginning with 1961 the quotas were removed for most of the fishery which has been regulated by scheduled openings and closures each week during the season. Generally, there have been four days open and three days closed to commercial fishing each week of the season since 1961.

A total of 120,000 kings were taken commercially in 1961, almost double that of previous years. Since six year-old king salmon are the greatest contributors to commercial catches, the 1967 fishery was anticipated to be the first test of the present system of management. On the basis of the record catch made this past season, it appears that the 1961 fishery permitted sufficient numbers of king salmon to spawn and produce a run of similar magnitude in 1967.

However, further restrictions seem necessary as the fishery has become more efficient in the capture of king salmon. This season a total of 530 fishing boats were registered. This represents a 130% increase over the past eight seasons. In order to maintain adequate spawning escapements in the face of increasing fishing effort, the staff has proposed that fishing time be reduced beginning with the 1968 season and will be one of the proposals before you at this session.

A minimum total of 19,300 king and 271,000 small salmon was taken for subsistence purposes in the Yukon River drainage. The chum salmon catches for the last two seasons have been comparatively small as a result of less fishing effort caused by a decline in the dependence on subsistence fishing and adverse river conditions.

Norton Sound District: Fishing effort was lacking in three of the six subdistricts. This was due to lack of adequate processing facilities. The resultant catches of small salmon were below average. This district has produced a high of 182,000 chums and 7,200 kings in 1962.

Kotzebue District: For the third consecutive year the 1967 Kotzebue commercial chum salmon catch has been relatively poor. Over the past six years the catch has ranged from 130,075 in 1962 to 29,395 in 1967, the average catch being 60,289 chums. The size of the 1967 run appears to have been greater than that indicated by the total catch as fishing effort declined 32% from 1966. Subsistence fishermen took an additional 37,000 chum salmon during 1967.

#### FUTURE

Although not as abundant as in many other areas of the State, A-Y-K salmon are excellent in quality. They are rich in oil content and have good flesh color. In addition, they retain their bright silvery appearance even when in freshwater. Japan's interest in purchasing and processing A-Y-K salmon is increasing. Most of the 1967 chum and pink salmon catch and some of the other species catch was delivered to markets in Japan as frozen and cured fish.

The production and economic impact of the commercial fishing is expected to expand gradually over the next few years. One reason is Japan's interest in the small salmon. Also the dependence on subsistence fishing is declining, especially in the Yukon. This decline will make more salmon available for commercial utilization.