

# ANNUAL SUMMARY OF YAKUTAT FINFISH AND SHELLFISH OPERATIONS, 1989



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Alaska Department of Fish and Game  
Division of Commercial Fisheries  
Juneau, Alaska

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AND  
SHELLFISH OPERATIONS, 1989

By

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## ABSTRACT

The 1989 Yakutat set gill net fishery produced an all species harvest of 582,800 salmon; a level almost two times the average since 1960. It was worth about \$4,200,000 to the fishermen, the third highest value on record. Sockeye returns to most streams were strong and the 1989 harvest of 329,600 sockeye was the highest since 1960 and made up 57% of the total salmon harvest in the Yakutat area. The Situk River sockeye return per spawner ratio of 3.5:1 was much improved over recent year returns of 1.5:1. Coho salmon returns were very good. The coho harvest of 176,800 fish made up 30% of the total Yakutat set net catch and was well above average. The pink salmon harvest of 59,300 fish and the chum salmon harvest of 16,200 fish were average. Most of the pink salmon (43,000 fish) were caught in the Situk River incidental to the sockeye fishery. The East River contribution of 13,700 chum salmon accounted for 85% of the Yakutat area chum salmon harvest.

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## INTRODUCTION/OVERVIEW

### *Yakutat Area Set Net - 1989*

The 1989 Yakutat set net fishery produced a cumulative catch of 582,777 salmon. This is 47% above the recent 10-year average and the highest production for the area since 1941. The sockeye and pink returns to most streams were strong, king and chum returns were average to below average, and coho returns were average to above average. Sockeye made up 57% of the harvest while coho and pinks made up 41% of the catch. The chum harvest was 2% above the recent 10-year average, with the East River accounting for 85% of the catch. King harvest was 54% below average, but harvest was affected by various restrictions, particularly the non-sale of chinook in the Situk River. The prices for all species were less than half the record levels of last year's season. The highest harvest in almost 50 years produced an average set net income of \$25,454.

### Sockeye Salmon

The sockeye harvest of 329,563 was 90% above the recent 10-year average, and the highest catch since 1938. The East and Situk Rivers combined for 74% of the total harvest. The East River catch of 145,516 was 76% above the recent 10-year average. The return per spawner off the parent year escapement of 60,000 was about 2.9:1. The Situk River catch of 99,945 is the highest catch in 22 years. As in 1987 and 1988, lower escapement goals allowed an increase in overall fishing time. A total of 84,383 sockeye passed through the Situk weir, exceeding the escapement goal. The return per spawner of approximately 3.2:1 was twice the 1.6:1 return in 1988.

The Alsek River continues to have problems with sockeye production, although there are some bright spots in this year's data. The catch of 13,513 sockeye is 32% below the recent 10-year average, but it is the second highest catch in five years. The Kluksu Weir escapement of 25,168 is 32% above the recent 10-year average. This production comes from a poor parent year escapement count of 12,727 through the Kluksu Weir. The Yakutat Bay harvest of 24,528 was 57% above the recent 10-year average. The Akwe River catch of 8,653 was 27% below the recent 10-year average. The Italo was not open during sockeye season due to poor escapement levels. The combined Manby fisheries catch of 33,078 was a record high harvest and is 261% above the recent 10-year average.

## Coho Salmon

Coho harvest of 176,847 was 28% above the recent 10-year average. The Situk, with a catch of 39,318, and the Tsiu River, with a catch of 62,939, were the peak producers. Combined catch for the two rivers accounted for 58% of the total harvest. The Yakataga District, including the Tsiu, Kaliakh, Kiklukh, and Tashalich Rivers, accounted for 47% of the total area catch. Several river systems sustained coho catches above their recent 10-year averages. The one notable exception is the combined Manby fisheries catch of 7,150 that was 33% below its previous 10-year average.

Escapement counts to date have been average to above average. All streams from Cape Yakataga to one-half mile west of the Yahtse, except the Priest River, remained closed to commercial fishing in 1989.

## Chinook Salmon

Chinook salmon harvest of 810 is 54% below the recent 10-year average. Harvest levels were affected by chinook salmon conservation measures. The non-sale of chinook for the Situk River was in effect for the entire season. A recruitment curve showed escapement goals would not be met, and during the entire commercial season fishermen were urged to stay on their gear and release as many chinook alive as possible. The final weir count of 652 large chinook was below the lowered escapement goal of 1,200.

The Alsek River chinook catch of 240 is 36% below the recent 10-year average catch of 664, but is average for the years since chinook conservation measures have been in force. A six inch mesh restriction was again enforced. The Kluksu Weir count of 2,546 is average for the years the weir has been in operation. Alsek chinook did not appear in the East River in large numbers. The East River opened two weeks later than in recent years, and few chinook were caught. The Akwe River catch of 192 chinook and Yakutat Bay catch of 297 chinook are above average.

## Pink Salmon

The pink salmon returns to Yakutat were again strong in 1989. However, the pink salmon harvest of 59,319 was 7% below the recent 10-year average. Humpback Creek, in Yakutat Bay, accounted for 14,299 pinks, or 24% of the total harvest. Escapement goals were met and fishing time on Humpback Creek was extended for three weeks during the pink salmon season. The Situk River harvest of 42,974 was 18% above the recent 10-year average. A total of 288,246 pinks were counted through the Situk weir. The Situk catch comprised 72% of the total pink harvest, and is the highest catch since 1938.

## Chum Salmon

The chum salmon returns were average in 1989. The catch of 16,238 chum is 2% above the recent 10-year average. The East River is the only major chum producer in Yakutat. The catch of 13,724 in the East is average and accounted for 85% of the total chum harvest. Most other areas sustained average to slightly above average catches. The East River chum escapement was average.

### *Yakutat Area Troll - 1989*

The 1989 troll season in the Yakutat area is characterized by early summer openings on June 5-7 and on June 21-23 in which 279 and 58 chinook were caught by 11 and 8 trollers, respectively. The coho season experienced an above average coho troll catch. Overall effort was above average, with approximately 128 vessels participating (29 hand troll, 99 power troll).

A chronology of the Yakutat trolling season is as follows: the winter troll season which had opened on October 1, 1988, for chinook only, closed on April 14 at 11:59 pm with very few chinook salmon taken from Yakutat Bay, the only portion of the Yakutat area open for trolling during the winter. Trolling re-opened at 12:01 am on June 5-7 and on June 21-23 for all species of salmon except coho. On 1 July it opened for all species of salmon; however, the area off the Situk River mouth was closed to the taking of chinook salmon to conserve returning Situk chinook. The Southeast Alaska-Yakutat (SE-YAK) chinook salmon quota was achieved rapidly and trolling for chinook closed at 11:59 pm on July 12, but remained open for the taking of other salmon species. Excellent coho catches over all of SE-YAK eliminated need of a conservation closure, but a ten day allocation closure occurred from August 14 through August 23. On August 7, specific Yakutat restrictions established by the Board of Fisheries several years ago went into effect (Figure 1) which make weekly troll time in state waters of Yakutat from approximately Grand Plateau Glacier to Sitkagi Bluffs the same as weekly set net fishing time on the Situk River through September 20 (the last day of summer trolling).

The chinook salmon troll catch of 7,303 was second highest of the past eight years, and was 101% above the recent seven year average (for years with comparable data). Most of these fish were caught during the July 1 through 12 chinook season. The winter catch was minimal. The peak weekly effort on chinook was 10 hand and 19 power boats during the week of July 3.

The coho salmon troll catch of 128,373 was 93% above the recent seven year average. The total of 128 vessels (hand troll and power troll combined) landing in Yakutat was 78% above average. The peak hand troll and power troll effort came during statistical week 35, August 27 through September 2, with 18 hand troll and 45 power troll boats. The lowest effort occurred during the weeks of August 13 and September 17 (13 vessels each week). Troll effort was concentrated in state and federal waters off of the Yakutat forelands, but several trollers fished westward in the Yakataga District, off the Tsiu River.

#### *Yakutat Area Fish-Buying Facilities - 1989*

One fish processor operated in the Yakutat area for the entire 1989 season. Sitka Sound Seafoods (SSS) operated two plants, the main one in Yakutat with freezer capacity, and a subsidiary plant in Dry Bay. The Dry Bay plant, with icing capacity only, bought set net-caught salmon from the Alsek and East Rivers and flew them to Yakutat in a DC-3 aircraft. The main plant operated from both the main dock and the old cold storage facility located about 1/2 mile west of the main dock. SSS operated through the end of the salmon season. They were the only buyer in the Yakataga District during the coho season, however, fish from Tashalich and Kiklukh rivers were flown to Copper River cannery in Cordova. Sitka Sound Seafoods bought fish from both the Tsiu and Kaliakh Rivers at a buying station on the Tsiu River, and flew all fish to Cape Yakataga by small planes. Fish were hauled to Yakutat from Cape Yakataga in a DC-3 aircraft. SSS also purchased and processed halibut, black cod, and shellfish in 1989.

Giant Clam; Seattle, Washington, leased the old Alaska Future Fish facilities located on the south shore of Monti Bay and bought shellfish during the dungeness crab season, as well as small amounts of troll caught coho. Giant Clam did not maintain processing facilities for dungeness crab, and shipped this product as live pack. Giant Clam ceased buying operations shortly after the close of the dungeness season.

Excursion Inlet M/V "Portage Cove", Icicle Seafoods floating processor "Bering Star", and Ward Fisheries M/V "Alaskan I" were processor/buyers in Yakutat Bay during the black-cod season.

#### *Weather - 1989*

The recent three year history of heavy precipitation (181 inches in 1986, 250 inches in 1987, and 202 inches in 1988) has had a discernable effect on the long term average annual precipitation for Yakutat.

Average annual precipitation for the 30 year period 1959-1988 is 150.02 inches. Through the end of September, 1989 has proved to be a reversal of the recent trend, as only 80.34 inches have been recorded to that date, 23.57 inches of which fell in September alone. The drought of late winter and early spring occurred throughout Southeast Alaska and Yakutat. The late fall and early winter months of 1988 were well above average in precipitation, with over 30 inches recorded in both October and December. Over 17 inches of rain fell in one two-day period in mid-December. Coming, as it did, on top of over two feet of snow, this deluge caused some of the worst flooding in years in Yakutat. It is possible that both sockeye egg survival and some coho spawning activity were affected by this flood. January, 1989, was average in precipitation, but with below freezing temperatures all month, this precipitation fell as snow. The 116 inches of snow in January is an all time single month record for Yakutat, and this snow pack was to some extent a mitigating factor in the effects of the drought.

February, 1989, was the driest month on record for Yakutat, as only .21 inches of precipitation was recorded. Only 3.34 inches were recorded in March, and only 2.85 inches were recorded in April. As mentioned, snow melt did help to maintain major stream flows. Note, however, that water tables became so low that even the slightly wetter than average conditions in May and June did not restore flow to areas such as Ophir Creek and many of the smaller tributary streams. July and August were both below average in precipitation, and it was not until the heavier rains of September that flow was returned to many of these areas. Coho fry survival and migration were probably not affected to any great extent, but fry loss in the smaller feeder streams is probably considerable and may effect adult returns over the next two years.

## SALMON - YAKUTAT DISTRICT

### *Alsek River*

The year 1989 marked fairly good sockeye returns to the Alsek River. A poor parent year escapement in 1984 of 12,727 sockeye through the Klukshu Weir, might have been expected to yield poor returns. The Sockeye catch of 13,513 is 32% below the recent 10-year average, but it is the second highest catch in the last five years (Table 1). The final Klukshu Weir count of 23,542 sockeye is the fifth highest escapement since the weir was installed in 1976.

Early run sockeye returns were expected to be fair and the Alsek was opened for one 24 hour period on June 12. Catches and CPUE were carefully checked in-season to assess run strength for possible extensions of fishing time. Fishing time was extended to 48 hours during the second week of the season when catches during the first 24 hours appeared good. Fishing then dropped off with very few fish caught in the following 24 hours. This pattern persisted for the next four weeks and the Alsek was fished 2 days a week through July 29. The in-season abundance model used from the end of the second week of fishing on, showed at the beginning that escapement goals would be met, but later the model predicted that the escapement goal would not be achieved. CPUE, however, was high and fishing time was not reduced. Aerial surveys indicate that the number of spawners in Tanis and Basin creeks are below average.

The Alsek is not a major coho producer, and catch of 5,972 was average. Early catches were slow and the river remained on normal fishing time. The catches during the later weeks of the season improved, and fishing time was extended one week to four days. Coho escapements were average. Good numbers of fish were seen in Tanis Creek. The Klukshu Weir count of 2,219 coho is one of the highest counts recorded for the weir, and is exceeded only by the 1977 and 1988 counts. The chum catch of 1,031 was the eighth highest catch in 59 years. A catch of 240 kings is below the recent 10-year average of 664, and well below historical levels. For the fourth year in a row a six inch mesh restriction was enforced on the Alsek as a conservation measure. The Klukshu Weir escapement of 2,456 chinook was average for the 14 years the weir has been operating.

Range markers delineate the commercial surf fishing area on the east side of the river. No markers were placed on the west side due to surf action there. Markers are also used to close the mouths of Williams, Gines and Emile creeks.

#### *East River*

The East River sockeye catch in 1989 was the second highest harvest on record, with a total of 145,516 fish landed (Table 2). The coho, pink and chum catches were about average. The sockeye and coho escapements were average.

The East River commercial fishery opened in 1989, by regulation, on the fourth Monday in June, (June 26). This later opening gives the depressed Doame River sockeye stock a chance to build up for possible future fishing. It also lessens the interception of the Alsek River chinook salmon that stray into the East River.

The fishing season on the East progressed as follows: the river opened on Monday, June 26 for one 24-hour period, and remained at one day for the following week. After the second week, additional time was given through August 19.

The final catch of sockeye on the East was 177% above the recent 10-year average of 82,358 (1979-1988). The final escapement was 30,000, for total return of 175,516 fish. The parent year escapement was 60,000, which yields a return per spawner (R/S) of 2.9:1. The average R/S since 1975 is 3.8:1 (Table 3). This year's R/S was the best ever from parent year escapements greater than 35,000 sockeye. The peak effort was 92 permits the week of August 6 to 12. This was the highest effort recorded for the East River.

The coho run was never more than average and normal fishing time occurred the rest of the season.

Once again, effort and catch on the East River was spread among three user groups by fishing location: ocean, surf, and in-river (Table 4). The in-river fishermen accounted for 60% of the effort and caught 52.7% of the sockeye harvest; the surf fishermen, 19.7% of the effort, took 29.7% of the catch; and the ocean fishermen, 20.3% of the effort, took 17.6% of the catch.

The use of pulley systems is popular on the East River, especially in the surf area. These systems increase efficiency and catches. They have one major benefit for the resource: they allow fishermen to pick fish out of their nets during high surf, conditions which before prevented most fishermen using skiffs from checking their nets. This had resulted in dead fish falling out of the nets and being lost or fish being beaten to a pulp in the surf and becoming unfit for sale; both situations are wasteful. Some fishermen are concerned that the semi-permanent pulley setups are the first step on the road to establishing fixed, permanent set net sites which would violate the nature of Yakutat set net sites as non-fixed sites. There is also concern that the lines of pulley systems near the mouth of the river are a potential navigational danger to boats transiting that area.

The coho catch on the East River of 7,287 was 10% above the recent 10-year average. The peak escapement count on the Doame was 1,000 coho on October 22. Visibility was good, but the entire river was not flown because of strong drainage winds. A total of 600 coho were also seen that same day in the East River/Doame River common lagoon.

The chinook catch of 42 was half the recent 10-year average. The pink catch of 678 was 21% below the recent 10-year average, and the chum catch of 13,742 is average. The total catch of 167,242 salmon was the second highest on record.

The 1990 sockeye return has a parent year escapement of 44,000 fish (in 1986). This is in the upper range of recorded escapements and is expected to produce in the lower range for return per spawner (R/S). If this escapement produces a 2.1:1 return (the average R/S for 40,000 or more parent years), the 1990 return would be 92,000 fish. After escapement, a harvest of approximately 60,000 fish could occur, which would be a below average catch.

#### *Akwe River*

The Akwe River experienced a below average overall production year in 1989. The total catch for all species of salmon (19,788) was 7% below the recent 10-year average. The sockeye catch of 8,653 was 27% below the previous 10-year average. The coho catch of 10,139 was 21% above the previous 10-year average. The pink catch of 496 and the chum catch of 313 were average. The catch of 192 chinook was 32% above average.

The Akwe remained very turbid this season, and it proved very difficult to check escapement from the air. The river opened on schedule on June 26. With heavy effort directed towards sockeye the river was managed conservatively. Fishing time was maintained on a reduced level of one and one-half days for most of the sockeye season, and reduced to a 12-hour period the final two weeks when run strength dropped. The reductions of fishing time on the Akwe River occurred because of high effort, and reduced C.P.U.E.

The run timing of coho tends to be a little later in the Akwe than it is in other area streams. Poor catches during the early part of the coho run resulted in reduced fishing time. As catches improved, fishing time was added and the river was fished three days a week for three weeks. It was reduced to two days for the final three weeks because run strength had decreased.

Markers were placed on the Akwe one-half mile upstream of the mid-tide level to lesson the problem of fishing mixed stocks of Italo and Akwe fish in the common mouth area. A total of 313 Italo chums were netted in the Akwe River. The evidence for such straying by sockeye and coho is not as strong as for chum; however, these species are probably being intercepted as well.

### *Italo River*

In 1989, fishing on the Italo occurred in two of the three distinct channels, the Old and New Italo Rivers. The New Italo, being the main channel of the river, continued to share a common mouth area with the Akwe River. The mouth of the New Italo was again closed to commercial fishing to prevent interception of mixed stocks. A limited fishing area of about one-quarter mile on the New Italo is delineated by regulatory markers. This was the same area established in 1987 and 1988.

Escapement counts built very slowly during the sockeye run, and the river remained closed to commercial fishing for sockeye. An aerial survey on July 18 revealed 1,200 sockeye off the mouth and the peak escapement count in river of 550 sockeye. This was far below average escapements of 9-10,000. A peak count of 200 sockeye was seen in Italo Lake on July 7.

The New Italo opened only one day on September 4, but was not fished. The Old Italo opened the last two weeks of the season, but light effort caught only 99 coho (Table 6). The peak coho escapement counts on the Old, Middle and New Italo Rivers were 3,000, 1,200, and 700, respectively. Coho escapements were slightly above average.

### *Dangerous River*

The Dangerous River opened on June 12, but was not fished until July 10. The total catch of 1,122 sockeye was half the average (Table 7). No fish were seen during an aerial survey on July 7 of the Harlequin Lake ponds.

The coho catch of 421 was the highest on record.

### *Situk-Ahrnklin Rivers*

The Situk-Ahrnklin River fishery (referred in this report as "the Situk River Fishery" for brevity) in 1989 recorded above average catches of all salmon species except chinook salmon. The 1989 harvest contributed 30% of the area's total ex-vessel setnet value (Table 8). The sockeye catch was the highest

since 1966. The pink catch is the highest since 1938. The chum catch was the fifth highest on record, and the coho catch was 21% above the recent 10-year average. Escapements of all species except chinook were good to excellent. For the second time since 1955, the Situk Weir was placed in the lower river and used directly in-season to manage the sockeye fishery. Research continued on the Situk to determine effects of any overflow of Russell Fjord (due to Hubbard Glacier advance) on salmonoids and their habitat.

### Chinook Salmon

The return of chinook salmon to the Situk River in 1989 showed no early signs of strength and it appeared that the 1,000 spawner escapement goal would not be achieved. The non-sale of chinook on the Situk was carried out from the beginning of the season until the end. We asked fishermen to stay on their gear and release as many chinook alive as possible. Approximately 87% of the commercial and subsistence chinook netted in the Situk were released alive. Of the large chinook counted through Situk Weir, approximately 51% were net-marked, indicating some survival of netted and released fish. Dead chinook could be retained for personal use. One Situk chinook was sold by a fisherman and a citation was issued.

The final escapement was 1,769 chinook salmon (652 large/spawners, 1,219 small). About 98% of the small fish were less than 16 inches. Only half of the large fish escapement goal was achieved.

### Sockeye Salmon

The escapement goal range for sockeye salmon on the Situk River was revised downward from 80,000-100,000 fish to 40,000-55,000 fish after detailed analysis in 1987. The river was managed in 1989 to achieve this revised goal. Fishing opened on schedule on the third Monday of June (June 19) for 2.5 days. Early catches, coupled with escapement counts in the lower river and through the Situk Weir, showed a strong return of sockeye. Subsequently, fishing time in the first and second week was increased to 4.5 days and in the following weeks went to 5.5, then 6.75, and finally to 7 days a week for the next three weeks (Table 9). Beginning with the week of July 24, two nets up to 20 fathoms each were allowed per Situk fisherman. Most of the extra nets ended up fishing the ocean in the 1/2 mile radius around the mouth, and sockeye escapement continued to be good. Final escapement of 84,383 sockeye exceeds the upper range of the escapement goal by 29,000 fish. By June 30, 35,000 sockeye passed the weir, but about 80% were small (2-ocean) fish. These small fish could easily swim through 5 1/8 inch mesh gear. Fishermen were informed about the abundance of these smaller fish during the first weeks of fishing, and

many of them had noticed these fish swimming through their gear. To my knowledge no one reacted, if they could have, by using smaller mesh gear. A catch of 99,945 was 3.2 times the recent 10-year average, and the highest catch since 1966. The total return of Situk sockeye from the parent year escapement of 58,088 was about 202,000 [Situk catch plus escapement, plus half of the Yakutat Bay sockeye catch (12,264) plus half of the Lost River catch (1,545) plus half the Manby Shore catch (15,185) minus 11,000 East River interception]. The return per spawner (R/S) was 3.5:1. This was twice the long-term average R/S of 1:5 for the Situk, and slightly above the 3:1 average for most North American sockeye systems. The improved returns per spawner from the lower escapements of sockeye on the Situk River in recent years continue to lend credence to the data analysis done in 1987 which shows that highest R/S resulted from mid-range escapements, in the range of 40,000 to 55,000.

In 1989, for the second time since 1955, the Situk Weir was placed in the lower river, only 1.5 miles upstream of the landing and 2.0 miles above the Situk-Ahrnklin fishery. Since 1955, the weir had been located 13 miles upriver where Forest Highway 10 crosses the river. The lower river weir location provides escapement information which is timely and therefore very useful in managing the sockeye fishery on a weekly basis. The weir operated from May 26 until August 18, and final escapement counts are in Table 9. A boat gate installed this year, helped recreational boaters get through the weir and delayed their activities as little as possible.

#### Coho Salmon

The coho catch of 39,318 was up 21% over the recent 10-year average. Early escapement counts were average, but later escapement surveys were flooded out. All indications were a run of normal strength. Fishing time was extended to four days per week for two of the final four weeks of the season (September 10 - October 7).

#### Pink and Chum Salmon

The pink salmon harvest of 42,974 was the highest since 1938 and 289% above the recent 10-year average. The escapement of 288,246 pinks was high and was 350% above last year's count. The chum catch of 883 was fifth highest on record for the Situk.

### *Lost River*

The 1989 catch of 3,090 sockeye was 25% above the recent 10-year average for the Lost River (Table 10). It is the highest catch in seven years. The Lost River was extended for the first four weeks of the season because of the strength of the Situk River run. However, escapement was very low and fishing time was cut back in the fifth week. For the next seven weeks fishing was at its normal period. Escapement improved and a peak count of 4,500 sockeye was seen on September 15.

The coho catch of 5,737 was 15% below the recent 10-year average. An aerial count of Tawah Creek, Coast Guard Lake, and Lost River, on September 15 revealed a peak count of 2,190 coho.

### *Yakutat Bay*

The Yakutat Bay sockeye catch of 24,528 was 58% above the recent 10-year average (Table 11). It was the third highest catch since 1930. The Bay fishery opened on June 12, and recorded fair catches. Fishing time increased for the next six weeks because of the strength of the Situk run.

The sockeye catches were fairly steady and, as in 1987, peak production occurred the sixth week of the season. The effort was highest in the first week with 47 permit holders fishing. Thereafter, effort averaged 21 fishermen per week.

The pink salmon returns to Humpback Creek were strong. The bay recorded a total pink catch of 14,299. That portion of Yakutat Bay containing Humpback Creek was extended to five days fishing time per week for three weeks to harvest surplus pinks. The remainder of the Bay, including the Monti Bay/Khantaak Island fishery area, remained on normal fall fishing time of three days during this period. The area of the Bay extended is defined as south of a line stretching west from Eleanor Island and east of a line stretching north from the west point of Sawmill Cove. A total of 2,145 of the 14,299 pink salmon caught were not sold. A soft market caused very little effort at Humpback Creek and escapement was more than 15,000.

Yakutat Bay is not a major coho producer, but effort was up and a catch of 4,713 coho was the highest since 1964. The recent 10-year average is 2,816 coho. Fishing time was normal except for one day extensions in two of the last four weeks of the season.

### *Manby Fisheries*

The combined Manby fisheries total harvest of 40,304 fish was the second year in a row of record breaking catch for this area (Table 12). The catch of 33,078 sockeye was 261% above the recent 10-year average. The coho catch of 7,150 was 33% below the 10-year average. The sockeye catch is distributed between the outside Manby Shore fishery (30,370) and the Sudden Stream-Grand Wash inside fishery (1,976). Manby Stream, Spoon River, and Esker Creek, fished later in the season for coho, contribute small numbers of sockeye to the total catch. The Manby Shore outside fishery opened initially on June 19 and inside fisheries on June 26. A peak weekly count of 21 permit holders fished the Manby Shore outside fishery during the fourth week of the season.

The coho catch is almost equally distributed between Manby Stream (2,627), and Esker Creek (2,944). Spoon River did not break out into Yakutat Bay until the first week of September and the coho harvest of 1,319 was 65% below its recent three year average. Sudden Stream-Grand Wash was not fished during the coho season. Escapement surveys were limited due to the glacial nature of most systems. The final surveys show good escapement in Manby stream only, with a peak count of 1,200 coho. The future may be quite dismal for other systems on that side of the Bay. There weren't any extensions and fishing time was reduce the final two weeks of the season.

### *Yahtse River to Icy Bay*

The Yahtse River coho catch of 10,762 was 24% above the recent 10-year average catch of 8,661 (Table 13). The effort was up and lack of escapement resulted in reduced fishing time early in the season. Normal fishing time resumed after two weeks of reduced fishing time. Yahtse coho were moved to Yakutat primarily in small planes. A fair number of coho were taken from the Yana River and it was seriously fished the final four weeks of the season. The Priest River opened for two weeks but was not fished. Escapement surveys of the Yahtse and Icy Bay area streams are limited in nature due to the turbidity of most systems. The peak escapement in the Yahtse was 800 coho on September 29. Jetty Creek showed excellent numbers (6,000 coho) on a survey flown the last weekend of the season. The Priest River had a high count of 1,000 coho.

Markers were used to protect spawning tributaries entering the Yahtse lagoon. One set of markers was placed approximately 300 yards either side of the mouth of a creek located about one-half mile upstream

from the mouth of the river. Another marker was placed about three miles to the east of the mouth and serves to delineate the upstream closed water area.

## SALMON - YAKATAGA DISTRICT

The Yakataga District, including the Kaliakh River, opened initially on June 21. As in 1988, this opening was in response to fishermen's requests that the Yakataga District be opened for sockeye fishing. The Tsiu River remained closed until coho season to protect the relatively small sockeye population in that system, but all other Yakataga systems were open throughout the sockeye season. A very small amount of sockeye were taken from Seal River. No other Yakataga systems were fished for sockeye. The coho catches on both the Tsiu and Kaliakh Rivers were well above average. The total production for the Yakataga District was 83,877 coho, 47% of the total Yakutat area catch. The Kiklukh and Tashalich Rivers were fished this season, and added small numbers of coho to the Yakataga District total. The catch of 83,877 was the second highest catch for the District on record, and was exceeded only by the 1985 catch of 87,242.

Both major rivers in the Yakataga district experienced a major decrease in effort compared to the past several years. The price for coho at the dock in Yakutat was almost twice the price paid on the grounds at the Tsiu. Many permit holders that may otherwise have fished the Yakataga District preferred to fish nearer to town to take advantage of the higher prices. Those who did decide to fish the Yakataga District had to depend on volume to make up for the difference in price. Also, no Prince William Sound permits fished the Yakataga District in 1989. This may be due to a monetary settlement reached between these permit holders and Exxon over the loss of fishing time in Prince William Sound caused by the oil spill.

### *Kaliakh River*

The Kaliakh was fished initially on August 21, when the Tsiu River opened. The coho catch of 16,858 was 52% above the previous 10-year average (Table 14). A peak weekly count of 11 permit holders fished the Kaliakh during the first week of September. Only four permit holders fished the Kaliakh exclusively, the rest fished the Tsiu, then switched to the Kaliakh during the closed periods on the Tsiu.

With reduced effort and signs of a strong coho run in the Yakataga District, the Kaliakh remained on extended fishing time for all but the second and the final weeks of the season. Catches were strong through the middle of September, but trailed off sharply from that point on, and the river was not fished during the final two weeks of the season.

Escapement surveys were limited due to the remoteness of the spawning tributaries and the fact that fish do not usually appear in the spawning areas until after the fishery closes. A flight on September 29 revealed 1,000 coho in tributaries of the Kaliakh. This count was below average for the system, but this survey was hindered by turbid water.

Enforcement continues to be the main concern on the Kaliakh, as it has been in recent years. The use of 'bingo' nets is common, and there is little that can be done about it without a skiff on the river. We recommend strongly that a skiff be made available on the Kaliakh for the 1990 season.

#### *Tsiu River*

The Tsiu River coho catch of 62,939 was 64% above the recent 10-year average (Table 15). It was the second highest catch for the river during that period. Before 1978, catches were not broken down between the various rivers in the Yakataga District, and historical comparisons for individual rivers are unavailable. The Tsiu accounted for 75% of the Yakataga District coho catch in 1989. The river was closed to commercial fishing during the sockeye season to protect the small sockeye population. For the tenth time in the past twelve, the Tsiu was the major coho producing river in the Yakutat area.

Major physical changes took place in the Tsiu during the winter of 1988-89. The river broke through the spit in the vicinity of the old ADF&G regulatory markers, thus forming a new channel exiting into the Gulf about two miles to the west of the old mouth. The old channel went completely dry except for a small land-locked pond located in the vicinity of the old mouth. Heavy rains in September caused the Tsivat River, the main spawning tributary for the Tsiu system, to cut its own channel across the flats. This channel joined the old, dry Tsiu channel and exited to the Gulf in the vicinity of the old mouth of the Tsiu. The two rivers, at their closest, are no more than two or three hundred yards apart, though the mouths are almost two miles apart. Both streams were fished successfully for coho during the third week of September. It is doubtful that this condition will persist. The new Tsivat may well cease to exist with drier weather as both Tsiu Lagoon and Tsivat River levels decline. It is also possible the two rivers will join to form, one way or another, a common mouth.

The Tsiu opened on August 21 and was fished four days during the first two weeks. The escapement remained ahead of schedule from this point on, and fishing time was extended for the rest of the season. A peak weekly count of 24 permit holders fished the Tsiu during the first week of the season.

The third week of the season, Stat Week 36, opened with the normal Monday-Tuesday 24-hour period, followed by a 24-hour closure. The river was reopened on Wednesday morning at 9:00 AM. Heavy fog prohibited flying, and Sitka Sound Seafoods, the only buyer in the Yakataga area, decided not to buy fish. The fog persisted throughout the week and fishing time was extended one day at a time in one-day increments. Excluding a one hour period on Friday, September 14, SSS did not buy fish during this period. Fishing time was extended from 9:00 AM Saturday to 9:00 AM Sunday to make up for lost fishing time. The escapement early in the week warranted three days (72 hours) of fishing. Actual fishing through 9:00 AM Saturday was 25 hours.

The Saturday-Sunday opening should not have occurred as it conflicted with the new subsistence regulation for the Yakutat area. This regulation provides for a 12 hour subsistence period on Saturday in any week during which more than two days commercial fishing time is allowed. The regulation applies to all rivers from the Doame to the Tsiu. While the subsistence regulation works well with all other systems, it does come into conflict with the commercial fishing regulation that sets the split season for the Tsiu River, 9:00 AM Monday to 9:00 AM Tuesday and 9:00 AM Wednesday to 9:00 AM Thursday. When escapement counts show a third period is justified, that period is from 9:00 AM Friday to 9:00 AM Saturday, thus giving a commercial and a subsistence period on the same day.

For the present, the conflict between the two regulations can only be resolved by Emergency Order. Most of the time the decision whether or not to extend the commercial fishery by a day is made in the middle of any given week. Regardless of that decision, the Department must be prepared for a third opening. The only way to do this is to E.O. a Sunday to Monday and a Tuesday to Wednesday opening each and every week. This would allow the chance of a Thursday to Friday opening that would not conflict with a Saturday subsistence period. The long term option may be to change the subsistence period for the Tsiu to Sunday.

The normal Monday and Wednesday openings were in place for Stat Week 37. A 12 hour third period, 6:00 AM to 6:00 PM, was set up for Friday to avoid the subsistence conflict. All subsequent weekly periods opened on Sunday by E.O., and this allowed a full 72 hours of commercial fishing time.

As mentioned, SSS was the only buyer in the area during the coho season. SSS buys both Tsiu and Kaliakh coho at a buying station on the Tsiu and flies them to Cape Yakataga in small planes. The fish

are then flown to the Yakutat plant in DC-3 aircraft. Four to six permit holders banded together to contract with the owner of a Cessna 206 to fly their catch directly to Yakutat. On several occasions these fishermen were able to fish and move their fish when SSS was not buying.

The escapement for the Tsiu/Tsivat system was good to excellent throughout the season. The final count of 38,000 coho was above average. Of the 38,000, 10,000 were seen in the smaller tributaries, 16,000 were observed in the lake, and 12,000 were seen in the main Tsivat tributary.

#### *Tashalich, Kiklukh and Seal Rivers*

The Tashalich River was seriously fished for the second year in a row. It is a small system and probably can only support a small population. On a September 20 survey 800 coho were seen in the river. In Stat Week 38, ending September 23, 790 coho were harvested (Table 16). A survey on September 29, with good visibility, revealed no fish in the Tashalich. It is possible that fish holding in the Tashalich Lagoon were missed in surveys. Most of the lagoon is a dark color and fish cannot be seen easily except in shallow water at the lagoon's perimeter. In the future management needs to watch this and other small systems more closely.

The Kiklukh River coho harvest of 3,015 was above average (Table 16). The Kiklukh, colloquially referred to as 8 Mile River, has been fished sporadically in the past several year, but only in the last three years have catches been recorded. A peak escapement count of 1,000 fish occurred on September 20.

The Seal River, located between the Tsiu River and the Tashalich River, was prospected for sockeye salmon in 1989 and a small harvest occurred (Table 16). Problems with logistics continue to hamper the development of this fishery.

## YAKUTAT AREA SUBSISTENCE AND PERSONAL USE - 1989

A total of 104 subsistence permits and 33 personal use permits were issued for the Yakutat area in 1989 (Tables 17, 18, and 19). The extrapolated subsistence catch (Table 18) of 363 chinook was above average. Approximately 54% of the chinook harvest came from Yakutat Bay. The Situk, Akwe, Alsek and East rivers accounted for the rest of the catch. The extrapolated subsistence catch of 4,429 sockeye was the highest on record and 78% above average. Most of the sockeye were harvested in the Situk-Ahrnklin estuary. The coho harvest of 1,206 was average.

The personal use fishery harvested a total of approximately 259 salmon (Table 19). Most of the harvest was sockeye salmon with a catch of 221.

## YAKUTAT AREA SHELLFISH - 1989

### Dungeness Crab

Dungeness crab is the major shellfish species harvested in the Yakutat Area. The 1989 harvest of Dungeness crab in the Yakutat Area was about 1,700,000 lbs. A total of 198 landings were made by the 28 vessels (6 local, 22 non-local) participating in the fishery. The average carapace width was 7 1/4 inches. The average crab weighed 2.35 lbs., and the average price was about \$1.10/lb. Sitka Sound Seafoods and Giant Clam Seafoods both bought Dungeness crab in Yakutat. Effort concentrated in the Icy Bay area, and Yakutat forelands. Softshell appeared in a few isolated areas but was never a problem.

### Tanner Crab

A total of five boats (3 local, 2 non-local) fished Tanner crab in 1989. Twenty three landings harvested 155,486 lbs. The average weight was about 2.1 lbs. and the average price was about \$2.35/lb.

## King Crab

No commercial fishing for king crab was recorded in 1989.

## Shrimp

A total of 13 landings were made by six boats that fished shrimp in 1989. The 1989 harvest of 2,937 lbs. consisted of 77% spots and 23% coonstripes. Landings were made in January, May, June, July, August, November and December.

## Scallops

As fewer than four vessels fished scallops in 1989, all catch information is confidential.

## 1989 HALIBUT

The 1989 halibut season consisted of four, 24-hour periods (noon to noon): May 15-16, June 20-21, September 7-8 and October 3-4. For the second year in a row, weather was not much of a factor for the openings. The total catch of 756,601 lbs. was 18% below the 1988 harvest of 925,000 lbs. An average price of \$1.47/lb resulted in an ex-vessel value of \$1,112,203, which was slightly higher than 1988.

## 1989 BLACKCOD (SABLEFISH)

The Eastern Gulf of Alaska regulatory area for blackcod includes the Southeast, East Yakutat, and West Yakutat management areas, and extends roughly from Dixon Entrance to Valdez. Yakutat is located between the East and West Yakutat management areas. All three areas opened on April 1. Weather was not a factor, but one boat did sink while moored in the small boat harbor. Blackcod deliveries in Yakutat totalled 2,949,940 lbs., down from last year's record delivery of 4,785,000 lbs. The total ex-vessel value was about \$4,719,904, with an average price for dressed 3-5 lb. fish of \$1.60/lb. Four processors bought blackcod in 1989: shore-based Sitka Sound Seafoods, Icicle Seafoods (floating processor "Bering Star" anchored in Monti Bay), Excursion Inlet Seafoods (M/V "Portage Cove"), and Ward Fisheries (M/V "Alaskan I").

Table 1. Alesek River Commercial Salmon Catch and Escapement.

Ending WK Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
24 6/17	172	1,635				1,807	1.0
25 6/24	51	2,292				2,343	2.0
26 7/01	10	2,641				2,651	2.0
27 7/08	4	2,612				2,616	2.0
28 7/15	1	974			1	976	2.0
29 7/22	1	1,764		1		1,766	2.0
30 7/29		1,006	3	1	2	1,012	2.0
31 8/05	1	372			3	376	1.0
32 8/12		139				139	1.0
33 8/19		5			2	7	1.0
34 8/26		42	79		5	126	3.0
35 9/02		12	144		5	161	2.0
36 9/09		9	852		43	904	3.0
37 9/16		8	1,793		193	1,994	3.0
38 9/23		2	1,410		264	1,676	3.0
39 9/30			1,018		361	1,379	4.0
40 10/7			673		152	825	3.0
<b>Total:</b>	<b>240</b>	<b>13,513</b>	<b>5,972</b>	<b>2</b>	<b>1,031</b>	<b>20,758</b>	<b>38.0</b>

7-Year Comparison

1983	77	19,131	5,661	7	299	25,175	40.0
1984	60	14,409	7,854	23	1,354	23,677	33.0
1985	212	5,603	5,674	8	423	11,920	33.0
1986	476	24,164	1,331	13	537	26,521	34.0
1987	345	11,299	2,537	0	1,922	16,102	38.5
1988	223	6,286	4,986	7	907	12,409	34.0
1989	240	13,513	5,833	3	1,029	20,618	38.0

-Continued-

Table 1. (p.2 of 2)

Alsek Escapement					
Area	Chinook	Sockeye	Coho	Remarks	
7/21 Tanis #1	0	0	0		
7/21 Tanis #2	0	0	0		
7/27 Tanis #1		150			
7/27 Tanis #2		0			
7/27 Basin Creek		50			
7/27 Gines Creek		0			
8/15 Basin Creek		320			
8/15 Tanis #1		210			
8/15 Tanis #2		470			
10/22 Cabin Creek			410		
10/22 Emile Creek			30		
10/22 Split Creek			100		
10/22 Gines Creek			0		
10/22 Tanis #1			700		
10/22 Tanis #2			750		

Klukshu Weir				
	Chinook	1/ Sockeye	2/ Coho	3/ Total
10/16	2,456	23,542	2,219	28,217

- 1/ Klukshu subsistence harvest of 167 and sport harvest of 272 deducted from weir count of 2,456 leaves a count of 2,017 chinook spawners.
- 2/ Klukshu subsistence harvest of 1,906 and sport harvest of 272 deducted from weir count of 23,542 leaves a count of 21,317 sockeye spawners.
- 3/ Klukshu sport harvest of 227 deducted from weir count of 2,219 leaves a count of 1,992 coho spawners.

Table 2. East River Commercial Salmon Catch and Escapement.

Ending WK Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
26 7/01	10	238				248	1.0
27 7/08	5	522		2		529	1.0
28 7/15	6	6,062		24		6,092	2.0
29 7/22	15	15,630	56	93	2	15,796	3.0
30 7/29	2	24,694	5	118	23	24,842	3.0
31 8/05	1	36,908	3	176	68	37,156	4.0
32 8/12	2	40,071	86	198	474	40,831	4.0
33 8/19	1	12,280	94	56	696	13,127	4.0
34 8/26		5,653	405	8	1,506	7,572	3.0
35 9/02		2,549	749	3	4,331	7,632	3.0
36 9/09		583	2,131		3,154	5,868	3.0
37 9/16		259	2,609		3,084	5,952	3.0
38 9/23		23	531		188	742	3.0
39 9/30		44	618		198	860	3.0
40 10/7	open - not fished						3.0
Total:	42	145,516	7,287	678	13,724	167,247	43.0

7-Year Comparison

1983	30	82,204	4,891	273	9,566	96,964	29.5
1984	22	39,023	10,875	851	22,419	73,190	27.5
1985	67	185,851	8,148	801	10,576	206,143	42.0
1986	109	76,355	2,769	332	14,285	93,850	28.0
1987	98	133,723	5,134	113	10,525	149,593	50.2
1988	40	61,483	20,148	2,628	24,453	108,752	39.0
1989	43	145,516	7,287	678	13,724	167,248	43.0

-Continued-

Table 2. (p. 2 of 2)

East River Escapement				
Date	Sockeye	Chinook	Chum	Remarks
6/11	36			
6/13	600			
6/17	300			
6/21	350			
6/25	400			
6/27	600			
6/28	850			50 below markers.
7/02	800			
7/05	900			
7/07	1,400			200 below markers
7/09	2,300			500 " "
7/12	1,800			
7/18	9,130			130 below markers
7/20	6,000			
7/21	10,600			1,100 below markers
7/23	12,500			5,000 " "
7/27	18,500			3,500 " "
7/29	21,500			3,500 " "
8/08	25,000			
8/13	24,000			1,000 below markers
8/17	25,000			
8/22	21,500			
8/28	28,800		900	300 R, 400 Ch below mks
9/05	30,000		1,000	
9/11	30,000	1,000	7,000	
10/22	18,000	600		
Doame River Escapement				
6/11	0			
7/09	0			
7/27	500			
10/2			0	
10/22		1,000		

Table 3. East River Return Per Spawner, 1975 to 1989.

Year	Total Return	Parent Year Escapement	Return Per Spawner	Rank
1976	79,816	10,000	7.98	1
1982	177,785	25,000	7.11	2
1985	245,851	35,000	7.02	3
1983	147,204	30,000	4.91	4
1977	61,309	15,000	4.08	5
1984	68,023	18,000	3.78	6
1975	44,530	12,000	3.71	7
1979	81,262	22,000	3.69	8
1988	99,483	29,000	3.43	9
1989	175,516	60,000	2.93	10
1987	167,723	65,000	2.58	11
1981	82,365	40,000	2.06	12
1978	56,003	35,000	1.60	13
1986	120,355	80,000	1.50	14
1980	66,530	50,000	1.33	15
Average return per spawner since 1975 = 3.85				

Table 4.

East River Sockeye Salmon Catch Comparison,  
In-River, Surf & Ocean.

Ending WK-Date	Area	Sockeye Catch	% Sockeye Catch
28-7/15	In-river	4,430	(73.1)
	Surf	1,632	(26.9)
	Ocean	NOT FISHED	
29-7/22	In-river	6,283	(40.2)
	Surf	5,223	(33.4)
	Ocean	4,124	(26.4)
30-7/29	In-river	8,545	(34.6)
	Surf	6,533	(26.5)
	Ocean	9,616	(38.9)
31-8/05	In-river	19,981	(54.1)
	Surf	2,539	(34.0)
	Ocean	4,388	(11.9)
32-8/12	In-river	23,557	(58.8)
	Surf	10,690	(26.7)
	Ocean	5,824	(14.5)
33-8/19	In-river	7,003	(57.0)
	Surf	4,449	(36.2)
	Ocean	828	( 6.8)
34-8/26	In-river	4,696	(83.1)
	Surf	957	(16.9)
	Ocean	NOT FISHED	
Totals	In-river	74,495	(52.7)
	Surf	42,023	(29.7)
	Ocean	24,780	(17.6)

Table 5. Akwe River Commercial Salmon Catch and Escapement.

Ending WK-Dates	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
26 7/01	110	2,686			2	2,798	1.5
27 7/08	56	2,433	1	8	7	2,505	1.5
28 7/15	21	2,376		54	23	2,474	1.5
29 7/22	3	896	1	194	53	1,147	1.5
30 7/29	2	152		142	45	341	0.5
31 8/05	open - not fished						0.5
32 8/12		19		7	25	51	1.0
33 8/19		35	15	32	80	162	2.0
34 8/26		4	20	5	15	44	2.0
35 9/02		18	229	48	25	320	2.0
36 9/09		3	738		2	743	3.0
37 9/16		31	4,159	1	30	4,221	3.0
38 9/23			2,566		4	2,570	3.0
39 9/30			1,415 <sup>1/</sup>		2	1,417	2.0
40 10/7			995			995	2.0
<b>Total:</b>	<b>192</b>	<b>8,653</b>	<b>10,139</b>	<b>491</b>	<b>313</b>	<b>19,788</b>	<b>27.0</b>

7-Year Comparison

1983	93	5,687	5,282	151	73	11,286	30.0
1984	143	17,706	8,837	1,027	662	28,375	23.2
1985	135	4,938	4,044	19	45	9,181	21.0
1986	337	9,497	8,635	41	99	19,609	32.5
1987	190	12,133	7,945	32	513	20,813	38.0
1988	100	12,476	13,705	1,686	2,288	30,255	39.0
1989	192	8,653	10,278	491	314	19,928	27.0

Akwe Escapement

	Chinook	Sockeye	Coho	Remarks
6/17				
6/21				
7/21		250		
8/15		40		At Swanson Creek
8/15		200		
8/22		250		
9/19			40	
10/22			10	

<sup>1/</sup> Includes confiscated fish.

Table 6. Italo River Commercial Salmon Catch and Escapement.

Ending WK-Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days	
36 9/09	open - not fished (New Italo)						1.0	
37 9/16	closed							
38 9/23	closed							
39 9/30	99 (Old Italo)						99	2.0
40 10/7	open, - not fished (Old Italo)							2.0
Total:						99	5.0	

7-Year Comparison

1983	0	1,346	4,747	455	574	7,130	29.0
1984	1	8,210	9,315	1,364	5,614	24,504	38.0
1985	4	1,146	9,496	356	478	11,480	34.0
1986	18	3,976	1,873	0	903	6,770	35.5
1987	2	778	1,331	3	649	2,763	33.0
1988	0	5	3,051	6	15	3,077	22.0
1989			99			99	5.0

-Continued-

Table 6. (p. 2 of 2)

Italio Escapement				
Area	Sockeye	Coho	Chum	Remarks
6/17	NEW ITALIO	0		
6/21	NEW ITALIO	150		Intertidal
6/25	NEW ITALIO	100		"
6/27	NEW ITALIO	260		200 Intertidal
6/28	NEW ITALIO	0		
7/02	NEW ITALIO	0		
7/05	NEW ITALIO	0		
7/07	ITALIO LAKE	200		
7/07	NEW ITALIO	425		400 Intertidal
7/09	NEW ITALIO	350		50 "
7/12	NEW ITALIO	300		
7/18	ITALIO LAKE	60		
7/18	NEW ITALIO	1,750		1,200 Intertidal
7/21	NEW ITALIO	750		700 "
7/27	NEW ITALIO	500		200 "
7/29	NEW ITALIO	420		300 "
8/15	NEW ITALIO	200		
8/28	NEW ITALIO		600	
8/30	NEW ITALIO		700	
9/04	NEW ITALIO		2	
9/11	MIDDLE ITALIO		50	
9/11	NEW ITALIO		0	
9/15	NEW ITALIO		75	
9/15	MIDDLE ITALIO		600	
9/15	OLD ITALIO		750	
9/19	OLD ITALIO		1,000	
9/19	MIDDLE ITALIO		390	
9/19	NEW ITALIO		20	
9/27	OLD ITALIO		3,000	
9/27	MIDDLE ITALIO		150	
9/27	NEW ITALIO		0	
10/3	MIDDLE ITALIO		1,200	
10/3	OLD ITALIO		1,000	
10/22	OLD ITALIO		65	
10/22	MIDDLE ITALIO		20	
10/22	NEW ITALIO		570	20 in the lake

Table 7. Dangerous River Commercial Salmon Catch and Escapement.

Ending WK-Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
24-27	open - not fished						10.0
28 7/15		31				31	2.5
29 7/22		136		2		138	2.5
30 7/29		148				148	2.5
31 8/05		219				219	2.5
32 8/12		260				260	3.0
33 8/19		242				242	3.0
34 8/26		85				85	3.0
35 9/02	open - not fished						3.0
36 9/09	" "						3.0
37 9/16		1	202		1	204	3.0
38 9/23			202		1	203	3.0
39 9/30			17			17	3.0
40 10/7	open - not fished						3.0
Total:		1,122	421	2	2	1,547	47.0

4-Year Comparison 1/

1986	10	2,811	202	23	7	3,104	42.0
1987	4	2,454				2,458	43.5
1988		1,305				1,305	41.5
1989		1,122	421	2	2	1,547	47.0

Dangerous River Escapement

7/07 0

1/ Data for Dangerous River was not recorded before 1986.

Table 8. Situk River Economics.  
(Dollar Value of Salmon Setnet Harvest) 1/

	Chinook (20LB)	Sockeye (6LB)	Coho (9LB)	Pink (3LB)	Chum (9LB)	Total
1975	\$7,000	\$128,000	\$114,560	\$7,000	\$4	\$256,760
1976	24,000	345,300	108,000	8,300	80	485,680
1977	21,000	588,560	255,530	25,230	310	890,630
1978	10,000	333,150	417,270	7,140	126	767,690
1979	29,560	430,350	223,950	31,200	220	715,280
1980	22,540	155,130	218,190	23,100	106	419,070
1981	25,000	237,710	308,270	40,440	625	612,050
1982	5,610	170,940	191,240	3,800	410	372,000
1983	4,830	101,000	96,300	3,300	315	205,750
1984	12,310	50,740	498,530	10,640	2,400	575,120
1985	11,330	122,770	385,000	4,750	710	524,560
1986	3,276	59,771	116,648	688	294	180,677
1987	23,908	755,662*	454,035	9,682	5,394	1,248,984
1988	10,350	1,018,060	1,522,176	40,223	10,632	2,601,441
1989	no sale	899,505	283,090	58,445**	3,748	1,244,788

	Total Yakutat Area Dollar Value; Salmon Setnet Harvest	Percent Value Of Situk To Yakutat Area Setnet
1975	\$ 713,860	36%
1976	1,214,550	40%
1977	2,065,055	43% (high)
1978	3,066,120	25%
1979	3,239,000	22%
1980	2,090,750	20%
1981	2,333,300	26%
1982	2,084,140	18%
1983	1,355,470	15%
1984	2,375,790	24%
1985	3,010,580	17%
1986	1,981,807	9% (low)
1987	5,077,589	25%
1988	8,944,228	29%
1989	4,174,510	30%
Average	2,915,112	25%

1/ (av.price/lb) x (av.lb/fish) x (ttl.fish delivered)

\* (7 lbs.) average

\*\* (4 lbs.) average

Table 9. Situk-Ahrnklin Rivers Commercial Salmon Catch and Escapement.

Ending WK Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25 6/24	1	9,970	1	2		9,974	4.5
26 7/01		12,949	3			12,952	4.5
27 7/08		19,869	2	98	8	19,977	5.5
28 7/15		19,157	5	1,097	11	20,270	6.75
29 7/22		13,709	25	8,783	57	22,574	7.0
30 7/29		17,457	92	19,326	213	37,088	7.0
31 8/05		2,550	39	6,241	45	8,875	7.0
32 8/12		2,887	252	5,242	118	8,499	5.5
33 8/19		907	696	1,982	121	3,706	3.0
34 8/26		246	1,749	183	66	2,244	3.0
35 9/02		146	6,554	7	99	6,806	3.0
36 9/09		20	9,382	7	36	9,445	3.0
37 9/16		53	11,508	3	47	11,611	4.0
38 9/23		3	5,634		8	5,645	4.0
39 9/30		1	2,761		2	2,764	3.0
40 10/7		21	618		2	641	3.0
<b>Total:</b>	<b>1</b>	<b>99,945</b>	<b>39,318</b>	<b>42,974</b>	<b>833</b>	<b>183,071</b>	<b>73.75</b>

7-Year Comparison

1983	345	19,426	15,047	6,314	100	41,232	37.5
1984	513	7,438	47,479	12,162	714	68,306	34.5
1985	472	18,887	54,992	9,054	158	83,563	45.0
1986	182	7,663	14,401	1,530	109	23,885	16.5
1987	759	63,501	30,269	10,758	899	106,186	58.0
1988	300	52,128	61,689	15,323	886	130,326	53.5
1989	1	99,945	39,318	42,974	883	183,071	73.75

-Continued-

Table 9. (p. 2 of 2)

Situk Weir Escapement					
Chinook <sup>2/</sup>	Sockeye	Coho <sup>3/</sup>	Pink	Chum	Total
1,769	84,383	113	288,246	157	374,667

Situk-Ahrnklin Escapement Surveys  
(Non-main Stem Situk River)

Date	Area	Chinook	Sockeye	Coho	Pink	Remarks
6/11	Ahrnklin		0			aerial
6/18	Ahrnklin		0			aerial
6/23	Ahrnklin		3,000			boat
6/28	West Fork		1,500			foot, at confluence
6/29	Old Situk		2,000			boat, at confluence
7/13	West Fork		0			foot
7/16	West Fork		170 (+20 carcasses)			foot
7/19	Old Situk		700			boat
7/26	Situk Lake		250			aerial
7/29	Sockeye Creek		1,450 (+50 carcasses)			foot
8/25	West Fork		50			foot
8/25	Redfield Lake		0 (1 carcass)			boat
9/09	Situk Lake		240 (+600 carcasses)			foot
9/14	Antlen			3,500		boat

Situk Float Counts

Date	Sockeye	Coho	Pink	Remarks
9/08		3,900	50,000	FH10-Landing
9/09	4,000 (+1000 carcasses)			Situk Lk-FH10
9/13		3,200		FH10-Landing (flooded)
10/13	12	148		Old Situk

Mountain Stream & Lake Surveys

AREA	Chinook	Sockeye	Remarks
7/7 Mtn. Stream		400	aerial-all at mouth of stream
7/26 Mtn. Stream		4,650	aerial
7/26 Mtn. Lake		150	aerial
8/15 Mtn. Stream		100	aerial
8/15 Mtn. Lake		0	aerial
9/09 Mtn. Stream		200	boat (+100 carcasses)
9/15 Mtn. Lake		380	aerial

1/ Includes confiscated fish.

2/ (652 large, 1,217 small)

3/ Weir removed at beginning of coho run.

Table 10. Lost River Commercial Salmon Catch and Escapement.

Ending WK-Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25 6/24	3	526			1	530	4.5
26 7/01	2	170		1		173	4.5
27 7/08	4	847		5	2	858	5.5
28 7/15	3	260		24		287	5.5
29 7/22	1	854		552	3	1,410	2.5
30 7/29	1	178		37		216	2.5
31 8/05		17		7		24	2.5
32 8/12		96	5	165	1	267	3.0
33 8/19	1	82	30	24	2	139	3.0
34 8/26		15	57	1		73	3.0
35 9/02		39	595		3	637	3.0
36 9/09		6	1,506		3	1,515	3.0
37 9/16			1,845		2	1,847	4.0
38 9/23			1,173		2	1,175	4.0
39 9/30			418		1	419	3.0
40 10/7			108			108	3.0
<b>Total:</b>	<b>15</b>	<b>3,090</b>	<b>5,737</b>	<b>816</b>	<b>20</b>	<b>9,678</b>	<b>56.5</b>
7-Year Comparison							
1983	3	2,459	5,340	1,376	3	9,181	37.5
1984	22	726	10,688	1,792	71	13,299	34.5
1985	6	1,272	9,129	315	13	10,736	40.5
1986	6	498	2,495	80	3	3,082	29.0
1987	33	1,976	3,646	113	37	5,805	41.0
1988	22	2,316	5,905	478	41	8,762	48.0
1989	15	3,090	5,737	816	20	9,678	56.5

-Continued-

Table 10. (p. 2 of 2)

Lost River Escapement				
	Area	Sockeye	Coho	Remarks
6/27	Tawah	0		aerial
6/27	Lost	0		aerial
7/18	Ophir	30		aerial
7/18	Tawah	110		aerial
7/26	Tawah	650		aerial
7/26	Coast Guard Lake	100		aerial
7/26	Ophir	80		aerial
8/01	Coast Guard Lake	600		aerial
8/01	Ophir	0		aerial
8/01	Tawah	100		aerial
8/15	Tawah	250		aerial
9/07	Tawah	80	1,300	boat
9/15	Coast Guard/Tawah	4,500	1,490	aerial
9/15	Lost		700	aerial
10/22	Coast Guard Lake		750	aerial
10/22	Tawah		500	aerial

Table 11. Yakutat Bay Commercial Salmon Catch and Escapement.

Ending WK Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
24 6/17	68	1,229	26	2	50	1,375	2.5
25 6/24	47	2,525	27	5	30	2,634	4.5
26 7/01	40	1,280	50	9	43	1,422	4.5
27 7/08	19	2,527	55	34	21	2,656	5.5
28 7/15	52	811	464	75	17	1,419	5.5
29 7/22	56	11,623	331	4,902	53	16,965	5.5
30 7/29	9	3,858	189	2,639	39	6,734	3.5
31 8/05		131	1	2,906	4	3,042	4.5 <sup>1/</sup>
32 8/12	1	314	35	3,576	21	3,947	5.0
33 8/19		21	25	123	1	170	5.0
34 8/26		158	209	24	20	411	3.0
35 9/02		25	515	1	6	547	3.0
36 9/09		10	547		3	560	3.0
37 9/16		16	1,171	3	1	1,191	4.0
38 9/23			829			829	4.0
39 9/30			101			101	3.0
40 10/7	5		137			142	3.0
<b>Total:</b>	<b>297</b>	<b>24,528</b>	<b>4,712</b>	<b>14,229</b>	<b>309</b>	<b>44,145</b>	<b>69.0</b>

7-Year Comparison

1983	239	17,603	3,634	14,900	363	36,739	40.0
1984	125	9,134	2,913	2,159	996	15,327	29.0
1985	237	10,992	3,204	5,479	694	20,606	45.5
1986	202	21,826	3,056	5,162	687	30,933	36.0
1987	319	24,943	2,520	1,671	196	29,649	46.0
1988	196	14,239	3,164	99,965	651	118,215	64.5
1989	297	24,528	4,712	14,299	309	44,145	69.0

Yakutat Bay Escapement

Area	Sockeye	Coho	Pink	Remarks
7/26 Humpy Creek			6,000	aerial-ocean
8/01 Humpy Creek			15,000	aerial-intertidal
8/02 Humpy Creek			1,000	foot(+50 carcasses)
8/08 Humpy Creek			9,000	aerial-intertidal
8/15 Humpy Creek			7,000	aerial-ocean
8/15 Sawmill Cove			5,000	aerial-ocean
8/24 Humpy Creek			15,000	foot(+800 carcasses)
8/24 Humpy Creek			15,000	aerial-intertidal
8/24 Redfield Cove			10,000	aerial-intertidal
9/15 Ankau	300	3,600		aerial

<sup>1/</sup> Humpy Creek portion was extended 2 days for three weeks; remainder of Yakutat Bay was a normal period.

Table 12. Manby Fisheries Commercial Salmon Catch and Escapement.

Combined Catch							
Ending WK Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25 6/24	20	8,057	3	7	2	8,089	4.5
26 7/01		3,657	1			3,658	3.5
27 7/08		2,807				2,807	4.5
28 7/15	3	16,019	4	15		16,041	4.5
29 7/22		1,735				1,735	4.5
30 7/29		711				711	2.5
31 8/05		71				71	2.5
32 8/12	open - not	fished				0	3.0
33 8/19	" "	"				0	3.0
34 8/26		6	790			796	3.0
35 9/02		10	866	25		901	3.0
36 9/09		3	1,572		3	1,578	3.0
37 9/16		1	1,031			1,032	3.0
38 9/23		1	1,838			1,839	3.0
39 9/30			1,045		1	1,046	3.0
40 10/7	open - not	fished				0	3.0
<b>Total:</b>	<b>23</b>	<b>33,078</b>	<b>7,150</b>	<b>47</b>	<b>6</b>	<b>40,304</b>	<b>53.5</b>
7-Year Comparison							
1983	25	7,689	5,457	139	13	13,323	22.0
1984	44	5,116	18,661	2	8	23,831	28.0
1985	5	6,662	16,366	33	12	23,078	34.5
1986	0	4,879	3,978	0	3	8,860	43.5
1987	15	8,067	7,552	0	1	15,635	47.5
1988	13	11,923	20,844	106	1	32,887	52.5
1989	33	33,078	7,150	47	6	40,304	51.5
Manby Shore Commercial Salmon Catch							
5 6/24	20	8,057	3	7	2	8,089	4.5
26 7/01		3,287	1			3,288	3.5
27 7/08		2,212				2,212	4.5
28 7/15	3	15,431	4	15		15,453	4.5
29 7/22		1,383				1,383	4.5
30-35	open - not	fished					17.0
36 9/09			252			252	3.0
37-40	open - not	fished					12.0
<b>Total:</b>	<b>23</b>	<b>30,370</b>	<b>260</b>	<b>22</b>	<b>2</b>	<b>30,677</b>	<b>53.5</b>

-Continued-

Table 12. (p. 2 of 3)

Manby Stream Commercial Salmon Catch							
Ending WK Date	Sockeye	Coho	Pink	Chum	Total	Days	
26-29	open - not fished						13.0
30 7/29	711				711	2.5	
31-33	open - not fished						8.5
34 9/26	6	790			796	3.0	
35 9/02	1	651	25		677	3.0	
36 9/09		710		3	713	3.0	
37 9/16	1	273			274	3.0	
38 9/23		32			32	3.0	
39 9/30		171			171	2.0	
40 10/7	open - not fished						2.0
<b>Total:</b>	719	2,627	25	3	3,374	43.0	

Spoon River Commercial Salmon Catch							
26-35	open - not fished						30.0
36 9/09	3	453			456	3.0	
37 9/16	open - not fished						3.0
38 9/23	1	836			837	3.0	
39 9/30		30			30	2.0	
40 10/7	open -not fished						2.0
<b>Total:</b>	4	1,319			1,323	43.0	

Sudden Stream-Grand Wash Commercial Salmon Catch							
26 7/01	370				370	3.5	
27 7/08	595				595	3.5	
28 7/15	588				588	3.5	
29 7/22	352				352	2.5	
30 7/29	open - not fished						2.5
31 8/05	71				71	2.5	
32-40	open - not fished						25.0
<b>Total:</b>	1,976				1,976	43.0	

Table 12. (p.3 of 3)

Esker Creek Commercial Salmon Catch					
26-34		open - not fished			27.0
35	9/02	9	215	224	3.0
36	9/09		157	157	3.0
37	9/16		758	758	3.0
38	9/23		970	970	3.0
39	9/30		844	845	2.0
40	10/7	open - not fished			2.0
Total:		9	2,944	1	2,954 43.0

Manby Streams Escapement				
Date	Area	Sockeye	Coho	Remarks
6/26	Manby Stream	0		aerial
6/26	Sudden Stream	0		aerial
9/29	Manby Stream		1,200	aerial
9/30	Esker Creek		50	aerial
9/30	Spoon River	5	60	aerial
9/30	Sudden Stream		110	aerial
10/14	Esker Creek		0	aerial
10/14	Spoon River		0	aerial
10/14	Manby Stream		650	aerial

Table 13. Yahtse and Yana Rivers Commercial Salmon Catch and Escapement.

Yahtse River Commercial Salmon Catch							
Ending WK Date	Sockeye	Coho	Pink	Chum	Total	Days	
33 8/19	open - not fished						3.0
34 8/26		364	3		367	3.0	
35 9/02		1,229			1,229	2.0	
36 9/09	6	2,641	1		2,648	2.0	
37 9/16	2	4,512			4,514	3.0	
38 9/23		1,971			1,971	3.0	
39 9/30		45			45	3.0	
40 10/7	open - not fished						3.0
<b>Total:</b>	8	10,762	4		10,774	22.0	

7-Year Comparison

1983		6,799			6,799	18.0
1984		1,526			1,526	19.0
1985		3,871			3,871	20.0
1986		18,278			18,278	16.0
1987	4	12,873		2	12,879	19.0
1988	1	3,142		2	3,145	24.0
1989	8	10,762		4	10,774	22.0

Yana River Commercial Salmon Catch

Ending WK Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
33-36	open - not fished						12.0
37 9/16		1	402			403	3.0
38 9/23			712			712	3.0
39 9/30			209			209	3.0
40 10/7			50			50	3.0
<b>Total:</b>		1	1,373			1,374	24.0

-Continued-

Table 13. (p. 2 of 2)

Yahtse/Yana River Escapement - Including Icy Bay			
Date	Area	Coho	Remarks
8/24	Yahtse	0	aerial
9/04	Yahtse	0	aerial
9/04	Jetty Creek	15	aerial
9/04	Caenti River	0	aerial
9/04	Lg.River near Caenti	0	aerial
9/04	Riou Creek	0	aerial
9/17	Priest River	500	aerial
9/17	Jetty Creek	500	aerial
9/29	Priest River	1,000	aerial
9/29	Jetty Creek	6,000	aerial
9/29	Yana	500	aerial
9/29	Yahtse	800	aerial
10/14	Yahtse	40	aerial
10/14	Jetty Creek	4,000	aerial
10/14	Priest River	400	aerial

Table 14. Kaliakh River Commercial Salmon Catch and Escapement.

Ending WK Date	Chinook	Sockeye	Coho	Pink	Chum	Total	Days
25-33	open - not fished						23.5
34 8/26			907			907	4.0
35 9/02			3,099			3,099	3.0
36 9/09			7,075			7,075	4.0
37 9/16			5,494			5,494	4.35
38 9/23			283			283	4.0
39-40	open - not fished						6.0
<b>Total:</b>			16,858			16,858	48.85

7-Year Comparison

1983			4,433			4,433	10.0
1984			13,082			13,082	21.0
1985			22,641			22,641	20.0
1986			10,775			10,775	23.0
1987			15,709			15,709	16.0
1988		2	8,867			8,869	27.0
1989			16,858			16,858	25.35 <sub>1/</sub>

Kaliakh River Escapement

Date	Coho	Remarks
9/29	1,000	aerial

1/ Days are for coho season only.

Table 15. Tsiu River Commercial Salmon Catch & Escapement.

Ending WK Date	Sockeye	Coho	Pink Chum	Total	Days
34 8/26	23	9,349		9,372	2.0
35 9/02	9	14,697	1	14,707	2.0
36 9/09	8	14,097		14,105	3.0
37 9/16	1	15,090		15,091	2.75
38 9/23		8,627	1	8,628	3.0
39 9/30		347		347	3.0
40 10/7		732		732	3.0
<b>Total:</b>	<b>41</b>	<b>62,939</b>	<b>2</b>	<b>62,982</b>	<b>18.75</b>

7-Year Comparison

1983		19,687			19,687	10.0
1984		50,875			50,875	21.0
1985		64,601			64,601	20.0
1986		19,251			19,251	17.0
1987		35,685			35,685	11.0
1988	24	56,116	3	3	56,146	20.0
1989	41	62,939	2		62,982	18.75

Tsiu River Escapement

	Coho	Remarks
8/08 Tsiu	1,700	
8/15 Tsiu	400	2,200 below markers
8/25 Tsiu	750	250 " "
8/27 Tsiu	3,200	4,500 " "
9/01 Tsiu		2,500 " "
9/04 Tsiu	3,000	
9/16 Tsiu	14,000	1,500 below markers
9/29 Tsiu	26,000	
9/29 Tsivat	12,000	

Table 16. Tashalich/Kiklukh/Seal Rivers Commercial Salmon Catch and Escapement.

Tashalich River Commercial Salmon Catch				
Ending WK	Date	Coho	Total	Days
25-36		open - not fished		32.5
37	9/16	275	275	3.0
38	9/23	790	790	3.0
39-40		open - not fished		6.0
Total:		1,065	1,065	44.5

2-Year Comparison				
1988		1,080	1,080	16.0
1989		1,065	1,065	15.0 <u>1/</u>

Kiklukh River Commercial Salmon Catch				
Ending WK	Date	Coho	Total	Days
25-35		open - not fished		29.5
36	9/09	272	272	3.0
37	9/16	819	819	3.0
38	9/23	964	964	3.0
39	9/30	960	960	3.0
40	10/7	open - not fished		3.0
Total:		3,015	3,015	44.50

3-Year Comparison				
1987		902	902	8.0
1988		3,169	3,169	20.0
1989		3,015	3,015	15.0 <u>1/</u>

Tashalich/Kiklukh Rivers Escapement		
Date	Coho	Remarks
9/20 Tashalich	800	aerial
9/20 Kiklukh	1,000	aerial
9/29 Tashalich	0	aerial
9/29 Kiklukh	80	aerial

1/ Number of days for coho season only.  
-Continued-

Table 16. (p. 2 of 2)

Seal River Commercial Salmon Catch					
Ending WK Date	Sockeye	Coho	Pinks	Total	Days
25-29	open - not fished				12.5
30 7/29	68		4	72	2.5
31-40	open - not fished				29.5
Total:	68		4	72	44.5

Table 17.

1989 Yakutat Subsistence Salmon Harvest. 1/

Location <sup>2/</sup>	Chinook	Sockeye	Coho	Pink	Chum	Total
ALSEK (3)	10	97	54			161
EAST (5)	5	101	34		45	185
AKWE (7)	48	377	141			566
ITALIO (1)			20			20
YAK BAY (22)	174	620	37			831
SITUK (54)	86	2,637	439	220	4	3,386
TSIU (1)			20			20
ANKAU (4)		75	113			188
LOST (2)			45			45
DANGEROUS (2)		35				35
YAHTZE (1)			10			10
<b>TOTAL</b>	<b>323</b>	<b>3,942</b>	<b>913</b>	<b>220</b>	<b>49</b>	<b>5,447</b>

NUMBER OF PERMITS ISSUED	104	
NUMBER OF PERMITS RETURNED	93	(89%)
Number of PERMITS RETURNED, FISHED	74	
NUMBER OF PERMITS RETURNED, NOT FISHED	19	

1/ Preliminary data (2/13/90).

2/ Number in parenthesis shows number of permits reporting harvest from that area. Some permits reported catch from more than one area.

Table 18. Yakutat Recent Historical Subsistence Harvest. 1/

Year	Sockeye			Chinook			Coho		
	<u>A2/</u>	<u>B3/</u>	<u>C4/</u>	A	B	C	A	B	C
1980	961	(?)	(?)	284	(?)	(?)	982	(?)	(?)
1981	952	(?)	(?)	167	(?)	(?)	1701	(?)	(?)
1982	1645	(?)	(?)	198	(?)	(?)	2180	(?)	(?)
1983	1175	(?)	(?)	188	(?)	(?)	360	(?)	(?)
1984	890 (56%)	(1598)		233 (56%)	(416)		572 (56%)	(1021)	
1985	1003 (52%)	(1929)		230 (52%)	(442)		59 (7%)	(843)	
1986	2357 (88%)	(2678)		301 (88%)	(342)		586 (89%)	(658)	92 PINKS
1987	3598 (92%)	(3911)		372 (92%)	(404)		883 (80%)	(1104)	
1988	2119 (90%)	(2354)		196 (90%)	(218)		1293 (92%)	(1405)	99 PINKS 64 CHUMS
1989	3942 (89%)	(4429)		323 (89%)	(363)		913 (89%)	(1026)	220 PINKS 49 CHUMS

1/ Data available only for years starting in 1980  
2/ A = Actual recorded harvest  
3/ B = Percent of permits returned  
4/ C = Extrapolated total harvest estimate, i.e.,  
C = A divided by B

Table 19. 1989 Yakutat Personal Use Salmon Harvest. 1/

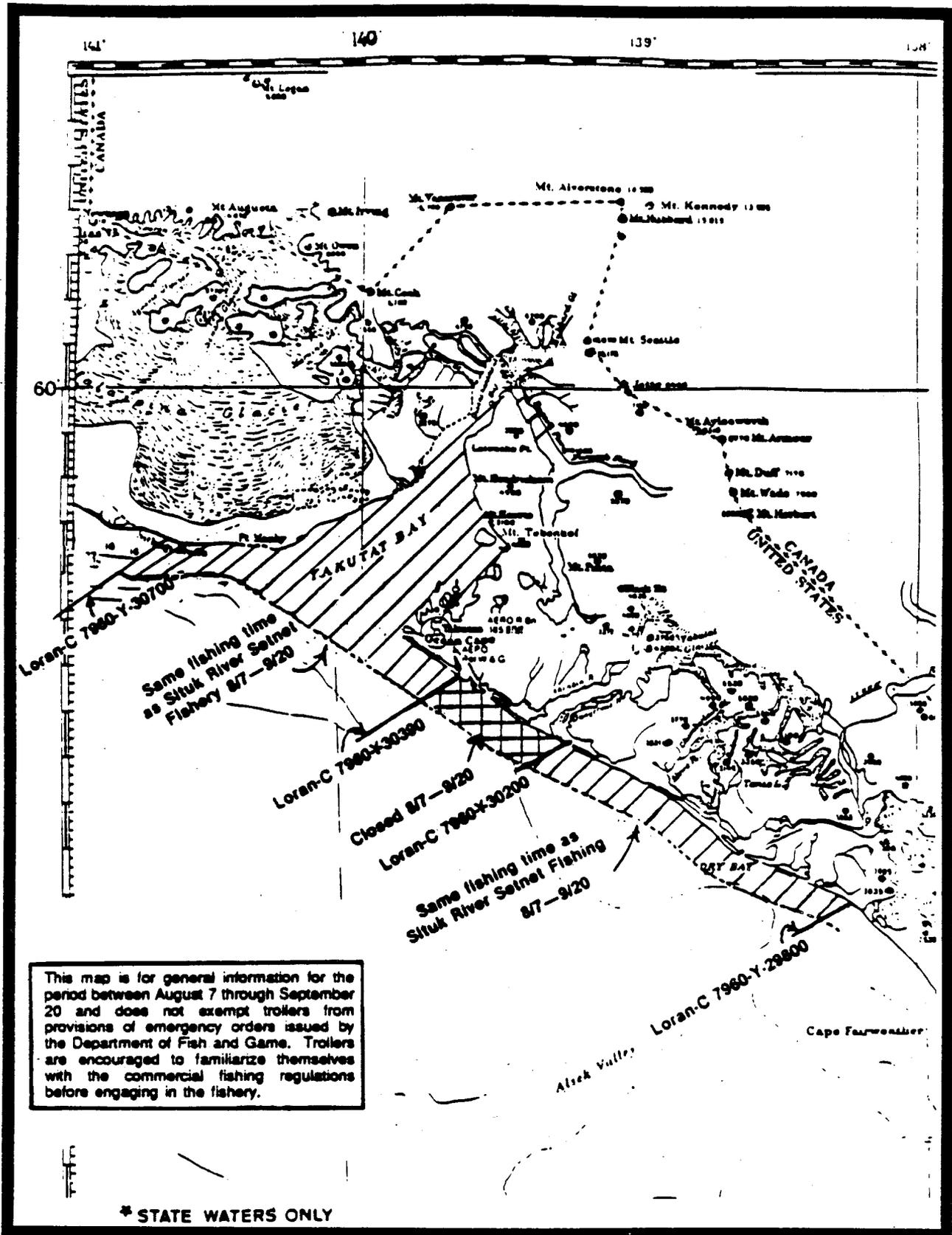
Location <sup>2/</sup>	Chinook	Sockeye	Coho	Pink	Chum	Total
EAST (6)	3	106	2	1	2	114
AKWE (2)	1	24				25
SITUK (2)		12	15			27
TOTAL	4	142	17	1	2	166
EXPANDED TOTAL HARVEST (TOTAL/.64)	7	245	29	2	3	286
NUMBER OF PERMITS ISSUED				33		
NUMBER OF PERMITS RETURNED				21 (64%)		
NUMBER OF PERMITS RETURNED, FISHED				10		
NUMBER OF PERMITS RETURNED, NOT FISHED				11		

1/ Preliminary data.

2/ Number in parenthesis shows number of permits reporting harvest from that area.

Figure 1.

# 1990 Yakutat Area Troll Closures



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