M E M O R A N D U M

TO: Council, SSC, and AP members

FROM: Jim H. Branson
Executive Director

DATE: November 30, 1982

SUBJECT: Salmon FMP

ACTION REQUIRED

(1) Report on Status of FMP and 1982 Regulations
(2) Report on U.S.-Canada talks
(3) Final approval of Natural Chinook Stock Management Policy
(4) Guidance to PDT

BACKGROUND

Status of FMP and 1982 Regulations

The FMP for High Seas Salmon off the Coast of Alaska East of 175°E longitude has been amended twice (1980, 1981). In 1982 the management program was adjusted within the confines of the FMP (i.e. the OY range of 243,000-272,000 chinooks) and no amendment was necessary. The total Southeast Alaska chinook fishery was managed to not exceed 255,500 fish. The pre-season troll target was 235,500 with 20,000 as the anticipated total for the net fisheries. The troll total was approximately 243,000, roughly 3% over the target, less than 2% below 1981. The net (and trap) fisheries harvested approximately 43,000 chinooks, an overrun of more than 100%, bringing the 1982 total harvest to 287,000. Thus the total Southeast chinook harvest was about 12% over the management goal and 7% over 1981. If the net catch had not increased so drastically the total harvest would have been very close to the target.

The Board and Council banned the use of treble hooks in 1980. This restriction is still in effect.

Natural Chinook Stock Management Policy

At the September meeting in Sitka the Council tentatively approved a natural chinook stock management policy statement. The statement was originally drafted by the Pacific Council as a natural salmon policy; the North Pacific Council modified this to address chinook salmon only.

The Council should take final action on this statement at this meeting.

> "It is the policy of the North Pacific Fishery Management Council to restore or maintain important natural spawning stocks of chinook salmon to optimal levels as presently included or to be set forth in the goals, objectives, strategies, and definitions of its salmon management plan."

The Pacific Council adopted an identical policy statement at their September meeting.

PDT Report and Policy Questions

The Salmon Plan Development Team (PDT or Team) has compiled the most current information on natural chinook stocks of the Pacific Northwest, British Columbia, and Southeast Alaska. The Team's full report dated November 3, 1982 was sent to the Council, AP, and SSC in the November 24th mailing. This is the first step in preparing for management of the fisheries in 1983. The Team has noted the status of important north-migrating stocks originating north of the Elk River on the Oregon coast; the distribution in the various fisheries and the conservation needs of those stocks which are not meeting escapement goals are also presented. The Team's conclusion is that most natural chinook stocks are being overharvested and that harvest levels should be reduced. The degree of reduction in a particular fishery should be dependent on which stocks predominate in that fishery and the conservation needs of those stocks.

The Team has analyzed the management techniques available to protect depressed stocks in general and those techniques which can address the needs of specific stocks. The Team recommends that harvest levels be geared to achieving escapement goals. Moderate harvest reductions are necessary just to stop the current decline in escapements; more stringent reductions will be required if rebuilding is to occur.

The Team recommends that harvest ceilings or quotas, which are defined and discussed in the report, should be established for all ocean troll fisheries which harvest depressed chinook stocks. Time-area closures should be the primary tool used to implement those ceilings. The measure of success of management measures should be increases in escapement counts.

The Team has not yet recommended specific harvest ceilings or area management measures for 1983. The Council and the PDT will have to address several major policy questions and analyze the outcome of the U.S.-Canada negotiations before proposals can be prepared. At their next meeting the PDT will begin discussing the more pressing of these questions, and any guidance the Council, AP, and SSC can provide would be appreciated.

The PDT has provided the following preliminary list of specific and general policy questions. This list will be modified over the next year and probably within the next month.

1. Should harvest ceilings and OY apply to the total catch by all fisheries in the management area or just the troll fisheries? That is, should the troll OY/harvest guideline be reduced if the incidental catch in the net fisheries is greater than anticipated?

2. Should harvest ceilings be inflexibile or flexible enough to make up for shortfalls and overruns the next year?

3. How high a priority should be given to avoiding coho-only fishing periods or other single-species fishing periods?

4. Should the PDT begin to develop criteria or guidelines for determining maximum allowable harvest rates or harvest levels for chinook stocks?

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5. Should management proposals for the troll fishery be based on conservation standards similar to those applied to inside (terminal) net fisheries?

6. How should the PDT approach the question of sharing the conservation burdens between northern and southern U.S. fisheries?

7. What role should allocation between northern and southern U.S. fisheries play? How should the allocation question be addressed?

8. The draft PDT report discusses the role of hatchery production to maintain OY or lessen the need for harvest ceiling reductions. The PDT would like the Council to consider the role of hatchery production in establishing 1983 regulations.

9. The 1983 Southeast Alaska chinook management program hinges to a large degree on the outcome of the U.S.-Canada salmon interception negotiations. The PDT requests guidance on the types of proposals to be prepared in response to this outcome.

The general recommendations in the PDT report focus on the need to reduce chinook harvests and mechanisms to achieve these reductions. The Team feels that hatchery production and other enhancement techniques should be analyzed as a means of "diluting" natural stocks in mixed-stock areas. Enhancement may be a practical means of reducing exploitation rates without reducing harvest ceilings; without enhancement, harvest ceilings must certainly be reduced to afford the same degree of protection.

D-1 Supplemental
December 1982

JOHN SPELLMAN
Governor

ROLAND A. SCHMITTEN
Director

STATE OF WASHINGTON

DEPARTMENT OF FISHERIES

115 General Administration Building • Olympia, Washington 98504 • (206) 753-6600 • (SCAN) 234-6600

December 3, 1982

Mr. Clem Tillion, Chairman
North Pacific Fishery Management Council
P.O. Box 3136-DT
Anchorage, Alaska 99510

Dear Clem:

I am taking this opportunity to request your assistance in having the following four policy issues addressed by the Salmon Plan Team prior to the January meeting of the North Pacific Fishery Management Council (NPFMC). I will appreciate your assistance in assuring that the team is asked to address these issues at the December meeting. The issues are as follows:

1) Mixed Stock Fishing Criteria. The Pacific Fishery Management Council (PFMC) has directed its Salmon Plan Team to begin developing mixed-stock fishing criteria for the 1983 fishing season. Additionally, the PFMC has directed its Salmon Plan Team to initiate discussions with the NPFMC Salmon Team so that a consistent criteria may be developed for both management areas. I am hopeful that the NPFMC will rapidly move forward in this area.

2) Selected Species Troll Fisheries. The PFMC has begun to develop criteria which defines when selected species troll fisheries should be allowed. In order to avoid reoccurrence of the 1982 full-fleet coho-only fishery which took place in Alaska, I would like to see the NPFMC develop criteria for this type of fishery.

3) Harvest Ceilings vs. Quotas. I believe it would be helpful to discuss the concept of a harvest ceiling versus a quota particularly as it relates to hatchery production. This could also include how harvest ceilings are related to the weakest viable stock in a fishery and their use in achieving user group allocations. On a similar subject, I would appreciate discussion on whether harvest in excess of optimum sustained yield in 1982 should be subtracted from the 1983 OSY.

4) Internal vs. Allocation Issues. Within conservation and legal constraints, the decision of how to divide the available harvest between United States fishermen is a socio-economic issue of great importance. To this end, I would appreciate it if the NPFMC would adopt 1983 allocation percentages consistent with national standards as described in the Magnuson Fisheries Conservation and Management Act.

My staff will be more than happy to present specific examples on each issue in order to clarify this request.

I apologize for not having contacted you earlier on this most important subject; however, I felt it inappropriate to offer a request until completion of the U.S.-Canada discussions.

Thank you for your assistance.

Sincerely,

Rolland A. Schmitten
Director

RAS:ag

cc: Alverson, Bob
Branson
Burgner
Glock

AGENDA D-1 SUPPLEMENT
DECEMBER 1982

REPORT TO THE BOARD OF FISHERIES

1982 SOUTHEAST ALASKA SALMON TROLL FISHERY

By:

Region I Staff

Southeast Region
Alaska Department of Fish and Game
Commercial Fisheries Division
November 1982

TABLE OF CONTENTS

INTRODUCTION

The salmon troll fishery in Southeast Alaska occurs in State and Federal waters from Cape Suckling southeast to Dixon Entrance (Figure 1). Target species are primarily chinook and coho salmon although in recent years catches of pink salmon have increased. Catches of chinook for the period 1971-1981 have averaged 297,000 annually (Figure 2). The 1982 season chinook salmon troll catch was 241,000 calculated from October 1, 1981 through September 30, 1982. The troll coho catch was 1.3 million fish. Catches of other species by troll gear in 1982 included 534,000 pinks, 6,700 chums and 4,900 sockeyes. Annual salmon catches by the troll fishery since 1970 are shown in Table 1. Fishing periods for the 1982 season are shown in Table 2. Eighteen percent of the chinook catch and 6% of the coho catch was reported taken in Federal waters (FCZ).

The Alaska Commercial Fisheries Limited Entry Commission currently issues 939 permanent power troll permits and 2,150 hand troll permits. In 1982, preliminary estimates indicate that 840 power troll gear units and 970 hand troll gear units were acutally fished. Hand troll gear permit holders accounted for about 15% of the chinook troll catch and 21% of the coho troll catch.

In recent years several changes have occurred in the troll fishery that have affected management decisions and consequently the conduct of the fishery. First, chinook production from all Southeast Alaska river systems has been depressed since the 1950's. In spite of restriction of the terminal area net fisheries, recreational

fisheries bag limits, and inside troll fishery restrictions through the late 1970's escapements did not improve. In 1981 the Board of Fisheries adopted a fifteen year rebuilding program for Southeast Alaska's chinook salmon stocks. This has resulted in closures of the troll fishery at the start of the season, when the availability of mature Alaskan spawning run fish is high. For 1981 and 1982, the entire troll fishery was closed from April 15 through May 14 and in 1982 an additional month of closure through June 14 was implemented in portions of District 1. This was complemented by an accompanying reduction in 1981 in the overall level of harvest from 320,000 to 268,000 so that saving made early in the season would not be made up out of immature fish later in the season. As a result of those efforts escapements to rivers in Southeast Alaska have been increasing over previous years, although they are still below optimum.

Second, escapements for many of the non-Alaskan chinook systems that contribute to the Southeast Alaska troll fisheries are also currently below optimum levels. The exact contribution that these depressed stocks make to the Alaskan troll fishery is not known, but it is significant. In cooperation with coastwide management of these stocks the Board adopted a reduced guideline harvest level of 255,500 fish for the 1982 season, a reduction of 13,000 fish from the 1981 level. In making this reduction, the Board of Fisheries particularly stated that they wanted to see the conservation actions of the Alaskan fishery matched by the Canadian fisheries before they decided if any further action on the Alaskan fisheries was

warranted. The Board also wanted to see some resolution to the interdam losses in the Columbia River as a major step toward solving the conservation problems in that river.

Third, increased fishing effort in outer coastal and offshore fishing areas is increasing the mixed stock nature of the coho salmon fishery. This has resulted in more of the harvest occurring before run strength can be assessed and effective inseason management measures implemented. Additionally, the Board has recognized that the increase in landings from the coastal and offshore fishing areas is affecting the allocation of coho salmon to inside user groups.

CHINOOK SALMON FISHERY

At a joint meeting in March 1982, the Alaska Board of Fisheries and the North Pacific Fisheries Management Council established a 1982 season chinook salmon catch limit of 255,500 for all commercial fisneries in the Southeast Alaska region. (This limit did not include an estimated 1,500 fish produced by Southeast Alaska hatcheries.) The 1982 season catch limit was adjusted downward from the 1981 catch limit range of 272-288,000 in response to continuing coastwide chinook salmon conservation problems.

In addition to the overall catch limit established for all commercial fisheries, two region-wide closures were established by the Board and Council for the troll fishery during the 1982 chinook salmon season:

- A one-month spring closure April 15 - May 14
  (This closure was also in effect during the 1981 season)
- A 10-day closure in early June (implemented June 7-16)

Troll Fishery Winter Season

The 1982 winter season extended from October 1, 1982 through April 14, 1982. Beginning and ending dates were the same as for the 1981 season. Fishing during the winter season is restricted to those areas of Southeast Alaska lying inside (east of) the surfline. All outer-coastal areas including the FCZ are closed during the winter fishery.

As shown in Table 2, approximately 12,600 chinook salmon were harvested by the troll fishery during the 1982 winter season with 4,800 (38%) being landed prior to January 1, 1982 and 7,800 (62%) after January 1. The 1982 winter season catch increased over that of 1981 by about 3,000 fish or 31 percent as a result of increased catches during the late fall-early winter period from October 1 through December 31. For comparison, troll fishery winter season chinook salmon catches since 1970 are shown in Figure 3.

Troll Fishery Summer Season

The pre-season management plan for the 1982 summer season included a target harvest of 224,500 chinook salmon. This target was determined by subtracting a winter catch of 12,500 and a pre-season

estimated net fisheries catch of 20,000 from 257,000 (255,500 plus an estimated 1,500 fish harvest from Southeast Alaska hatcheries).

The Southeast Alaska troll fishery began the summer season as scheduled on May 15. Following a 23-day fishing period, the fishery was closed for 10 days from June 7 through June 16. The primary purpose of the closure, which was designed in part to compliment a June 10-23 closure of the Canadian troll fishery in northern British Columbia waters (north of Cape Caution), was to help increase coastwide spawning escapements of depressed natural chinook salmon stocks.

Following the 10-day closure, June 7-16, the fishery reopened on June 17 and continued for 42 days through July 28 when the fishery was again closed. This closure was announced when in-season catch projection information indicated that the chinook salmon catch limit would be achieved by approximately July 28.

As shown in Table 1, the most current estimate of the troll summer season chinook catch to the closure beginning July 29 is approximately 228,700 fish. This includes an estimated 84,200 fish harvested during the 23-day period from May 15 through June 6 and an estimated 144,500 during the 42-day period from June 17 through July 28. For comparison, weekly cumulative chinook salmon catches beginning mid-May for the years 1978-82 are shown graphically in Figure 4.

Preliminary data indicates that approximately 198,000 or 82 percent of the 1982 season troll chinook salmon catch was taken in State waters with about 42,500 or 18 percent being reported from the Federal Fishery Conservation Zone (FCZ).

Total Commercial Chinook Salmon Catches by All Gear

Preliminary in-season data indicates a total commercial chinook salmon harvest by all fisheries of approximately 285,800 fish. This includes a total season (winter plus summer) troll fishery harvest of 241,300 and an incidental net fishery harvest of 44,500, approximately 26,000 (58%) of which occurred after closure of the troll fishery to the taking of chinook salmon on July 28 (Figure 5). Comparative troll and total all gear chinook catches since 1960 were shown in Figure 2.

The large late season incidental net catch occurred as a result of an apparent increase in chinook abundance and/or availability coupled with large middle and late pink salmon returns which necessitated extensive purse seine fishing to harvest these runs. The incidental purse seine harvest of approximately 28,500 fish accounted for about 66 percent of the total incidental net harvest and represented an all time record catch (Figure 6). The previous high catch was 24,000 in 1945. Comparative net catches since 1970 are shown in Table 3.

The major part of the seine chinook salmon catch occurred in the District 4 - Noyes Island fishery where approximately 20,000 or two-

thirds of the total seine catch of chinook salmon occurred. Catches of pink, chum, sockeye and coho salmon by the seine fishery in District 4 totaled about 4.9 million fish. Thus, chinook salmon represented about 0.4 percent of the all species weekly salmon catches by species for this fishery in 1982 as shown in Table 4 and Figure 7.

Chinook Salmon Escapements to Southeast Alaska Systems

Data on 1982 chinook salmon spawning escapements in Southeast Alaska systems indicates that although total escapements were slightly below those of 1981, they remained well above average escapements during 1975-1980 (Table 5). The major weakness in 1982 occurred in the Taku River system where index escapement counts were about half of those in 1981. Although reduced returns to the Taku River had been anticipated as a result of a slide which occurred in that drainage in 1978, the magnitude of the impact was not known. Some weakness is expected to continue throughout 1983 and 1984 returns.

Chinook salmon escapements in 1982 to the Behm Canal systems near Ketchikan showed strong improvement over 1981 with increases ranging from 21 to 127% in the four index systems. An additional one month closure from May 15 - June 14 was implemented in 1982 in a portion of District 1 through which these stocks are thought to migrate because of the lack of increased escapements in 1981 in response to the one month region-wide closure.

Based on regulations originally proposed for the 1981 season to implement an intensified stock rebuilding plan, it was estimated that 3 cycles or about 15 years would be required to rebuild stocks to the level where current management escapement goals would be achieved. Final regulations adopted for the 1981 season by the Alaska Board of Fisheries and the North Pacific Fisheries Management Council were actually more restrictive than those initially proposed, with the result that the rebuilding period now appears to be substantially shorter than the 15 years originally projected.

As seen in Figure 8, estimated total escapements for both 1981 and 1982 were actually above the level which would have been expected in the second cycle of a 3-cycle rebuilding plan beginning at average 1975-80 escapement levels and building to current escapement goals. In fact, current management goals were achieved in 1982 for three of the nine index systems - the Stikine, Keta and King Salmon Rivers.

These projections apply to <u>average</u> escapements for all systems and it is expected that either yearly and/or trend escapements to some individual systems will be weaker or stronger than the average. Refinement of current regulations may be required to provide additional protection for stocks not responding as expected due to poor survival conditions and/or differential harvest rates by one or more fisheries.

COHO SALMON FISHERY

The troll coho salmon season occurs from June 15 through September

20 although a major portion of the catch normally occurs from mid-July through early September with outer coastal troll catches peaking near mid-August. Southeast Alaska coho salmon fisheries are not managed under a pre-season catch limit as used for the chinook salmon fisheries. Instead coho salmon run strength is assessed in-season and fisheries regulated accordingly to achieve Board established allocation policies and conservation objectives.

The staff was directed to implement a 10-day closure during the early part of the coho season to move more coho into inshore and terminal areas unless the coho run was above the recent 10-year average and adequate numbers of fish are moving into inshore and terminal areas. The primary purpose of this closure is to allow coho to segregate into more distinct stock units to facilitate run strength assessment and to reverse trends in decreasing percentage harvest by inside fisheries (Figure 9).

Preliminary catch data indicates that approximately 525,000 coho salmon were harvested by the troll fishery from June 17 through the beginning of the 10-day closure on July 29. Data available through July 23 when the Department announced the July 29 troll fishery closure because the chinook catch limit was being reached, indicated that a 10-day coho salmon closure was also needed. To facilitate orderly landing and processing of chinook and coho salmon, the 10-day coho season closure was moved forward from the August 10-19 closing dates announced in the 1982 Troll Fishery Management Plan.

Following reopening of the troll fishery on August 8 to all species except chinook salmon, an estimated 814,500 coho salmon were harvested through September 20 for a total season harvest of approximately 1.3 million coho salmon. Combined with an estimated harvest of 714,200 coho salmon by the net fisheries, the 1982 season yielded a total commercial harvest of approximately 2.1 million coho salmon by all gear types in Southeast Alaska. This represents the largest coho salmon harvest since 1951 when 3.3 million coho were harvested; approximately 1.7 million fish were harvested in 1978 and almost 1.8 million in 1954.

Preliminary data indicates that approximately 1,258,500 or 94 percent of the 1982 season troll coho salmon catch was taken in State waters with about 84,000 or 6 percent being reported from the Federal Fishery Conservation Zone.

SPECIAL PROBLEMS

Hook and Release of Chinook Salmon from August 8 through September 20

With the reopening of trolling August 8 to the taking of all species of salmon except chinook, fishermen were required to return to the water all chinook caught incidentally. Fishermen were encouraged by ADF&G and Alaska Trollers Association biologists to avoid areas of chinook abundance and to carefully release chinook hooked while fishing for other species. In an attempt to document the incidence of occurrence of hook and release of chinook as well as to collect

data concerning the feasibility of avoiding chinook while fishing for coho salmon, the Department arranged for biologists to observe onboard fishing vessels between August 28 and September 20. However, due to short notice, only three onboard trips were completed for a total of 8 fishing days during this time period. Observers were instructed to record numbers of chinook hooked and released, estimate size of chinook and make an assessment of hooking injury.

Additionally, samplers at cold storages interviewed fishermen to determine numbers of chinook hooked and released. Results of these observations indicate that catch and release of chinook was greatest for the first week following the reopening of trolling on August 8. Onboard observers indicated catches up to 40 per day. However, some fishermen reported very low incidence of chinook catches; 1-3 per day, which is what would normally be expected for the period August-September.

Preliminary analysis indicates that numbers of chinook hooked were unrelated by area, depth, gear or other factors. Immediate chinook mortality incurred as a result of hook and release appears to have been low (2-3%). However, the value of these fish as potential spawners as well as the value lost to the commercial fishing industry (approximately $50-60/fish) increases the significance of this mortality and raises doubts about the advisability of selective single species closures for troll gear. It should be noted that the small numbers of onboard observation precludes conclusive evaluations of a single species fishery from the data gathered.

Incidence of Scarred Chinook and Coho Salmon

For the past several years the Department has observed that a small percentage of chinook and coho caught by troll gear bore external scars of various types. In 1981 the Department began documentation of the incidence of these sars and the various types of scars observed. In 1982 the Department expanded the sampling effort to obtain a more detailed analysis of the incidence of these scars. A special report was prepared on these studies; results are summarized below.

During the 1982 season approximately 54,000 chinook and 165,000 coho salmon were randomly selected from Southeast Alaska troll fishery landings and examined for scars and marks. These samples represented 23 and 13 percent respectively of the summer troll chinook and coho salmon catches.

Scars and marks of the six categories established for this study were recorded for 2.03 percent of the chinook and 1.50 of the coho salmon sampled. Approximately 0.71 and 0.76 percent respectively of the chinook and coho salmon sampled were recorded with marks in Categories 1-3 considered representative of marks possibly inflicted by encounters with different types of fishing gear. An estimated 1,600 chinook salmon and 9,900 coho salmon in the 1982 summer troll fishery had marks of this type.

The scope to the 1982 study does not allow determination of the

causes of the fishing gear type marks observed on salmon harvested in the Southeast Alaska troll fishery. Potential sources are thought to include domestic net fisheries in Southeast and other areas and northern British Columbia and foreign and/or domestic ocean fisheries operating in the Gulf of Alaska.

Sampling the Winter Troll Fishery for Incidence of Coded-Wire Tags

During last year's Board of Fisheries meeting some question was raised regarding the level of troll fishery sampling for coded-wire tags during the winter portion of the fishery. Sampling is normally conducted primarily during the summer fishery, May 15-September 20, when the majority of the catch occurs because of budget limitations. The Department expanded sampling of the winter fishery using permanent staff as available and seasonal employees as fishery effort increased during the spring of 1982.

Of the 7,800 chinook reported caught during the period January 1 to April 14, Department personnel sampled 3,601 or 46%. This sample rate was made possible through excellent cooperation from fishermen and processors who notified the Department when landings were made or when salmon were being airfreighted out of the region. Twenty-five to thirty percent of the samples were taken at airports in Southeast Alaska.

During the period January 1-April 14, 1982, 262 landings were sampled from which 104 adipose clipped salmon were recovered. These samples produced 81 readable tags. Expansion of tag recoveries to

compute contribution estimates by tag code/agency is expected to be completed in February 1983.

The Department plans to continue sampling the winter troll fishery during 1982-83 season as budgetary limitations allow.

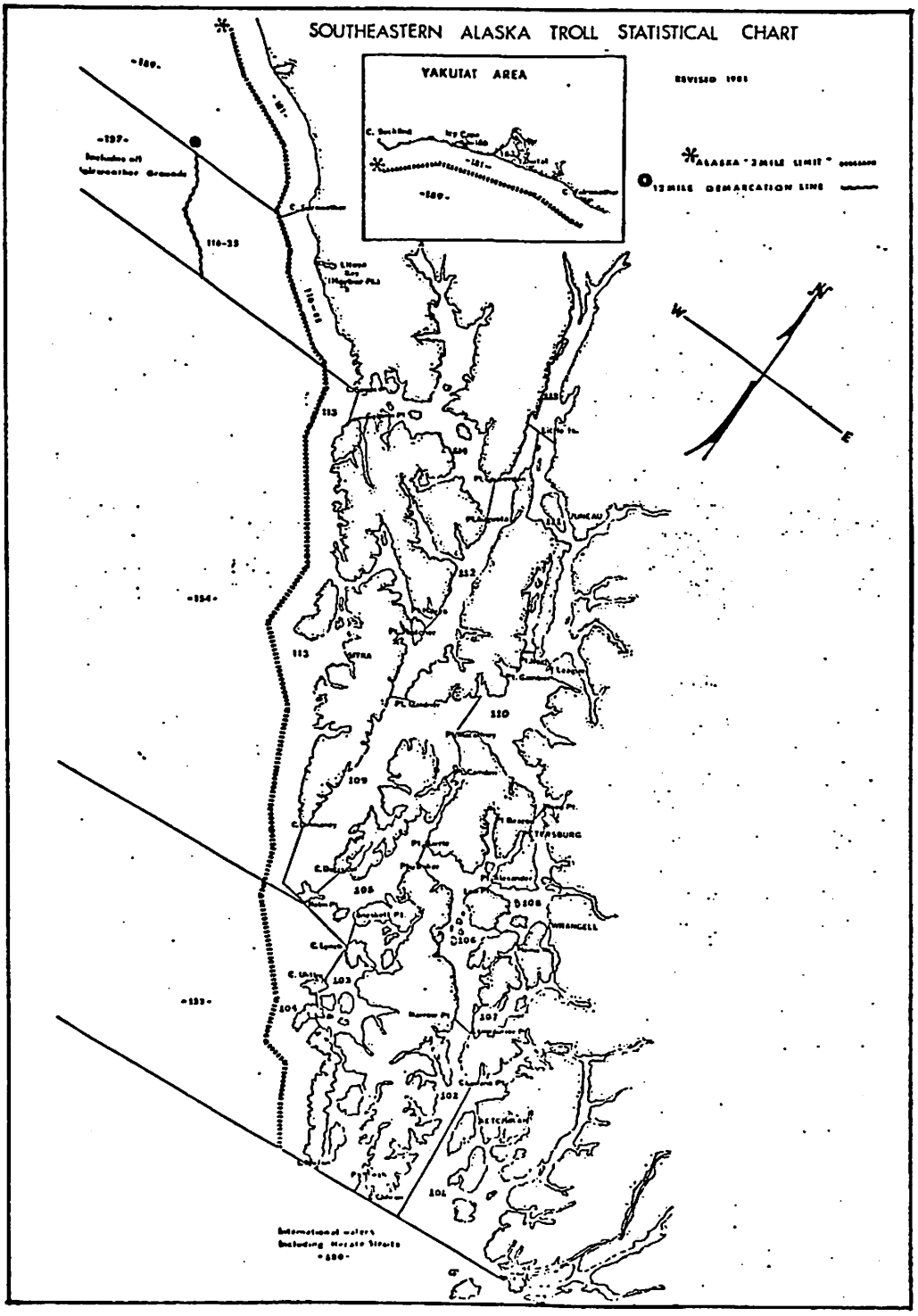

Figure 1, Southeast Alaska Commercial Fishing Statistical Areas

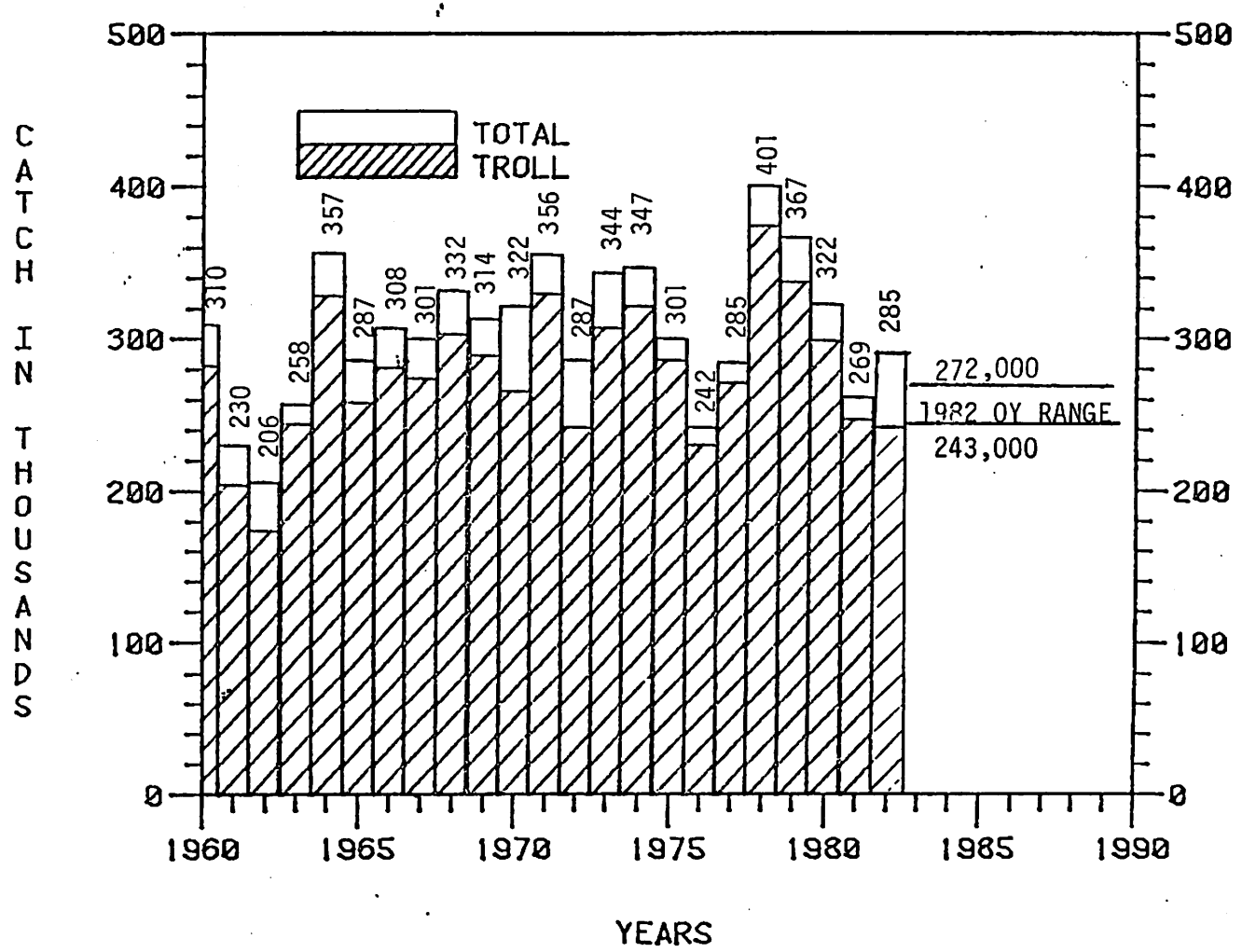

FIGURE 2 . SOUTHEAST ALASKA COMMERCIAL CHINOOK SALMON CATCHES, 1960-82. (ADF&G 9/82)

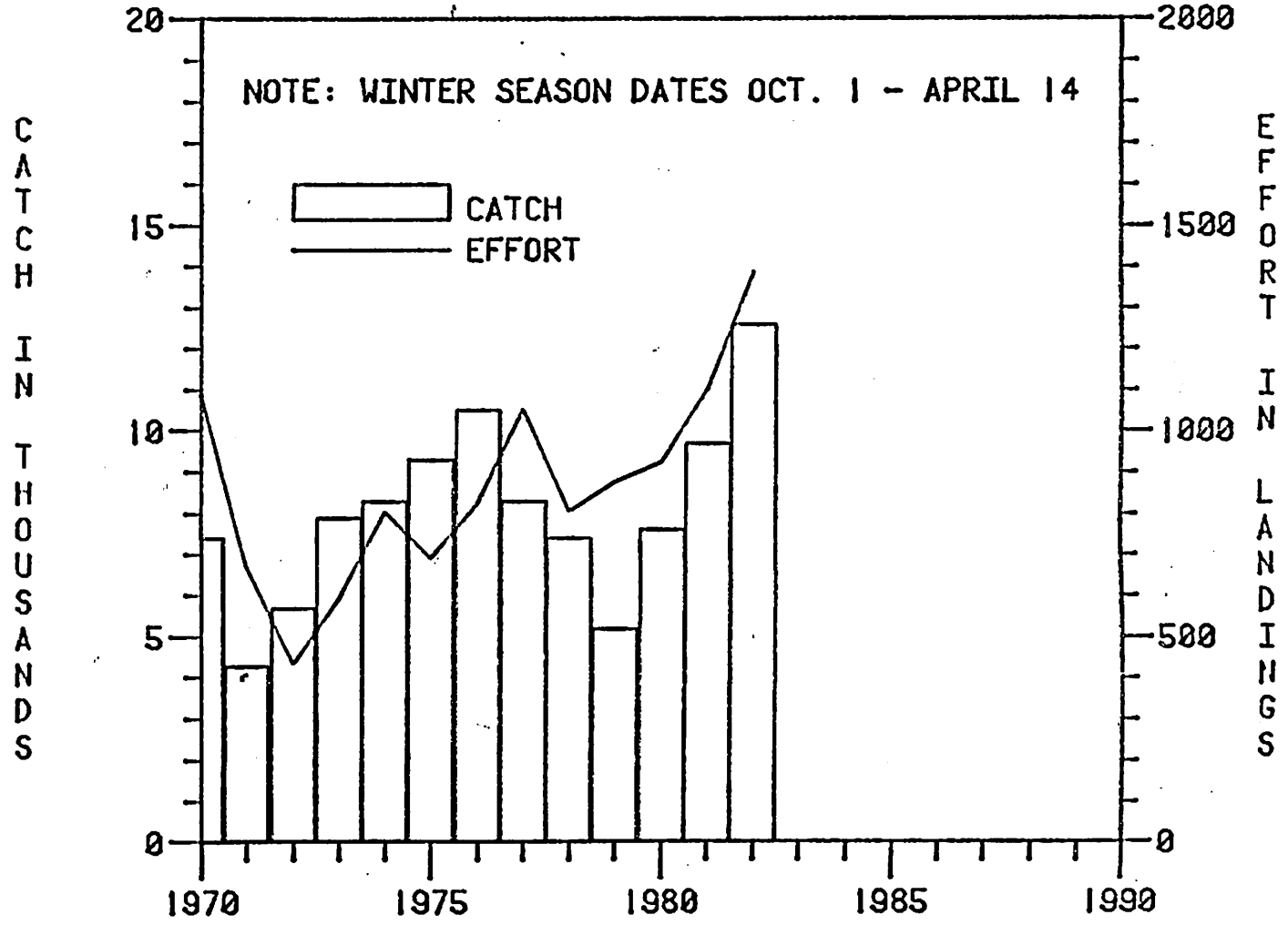

FIGURE 3 . SOUTHEAST ALASKA REGION WINTER TROLL FISHERY ANNUAL CHINOOK SALMON CATCHES AND EFFORT, 1970-82. (ADF&G 11/82)

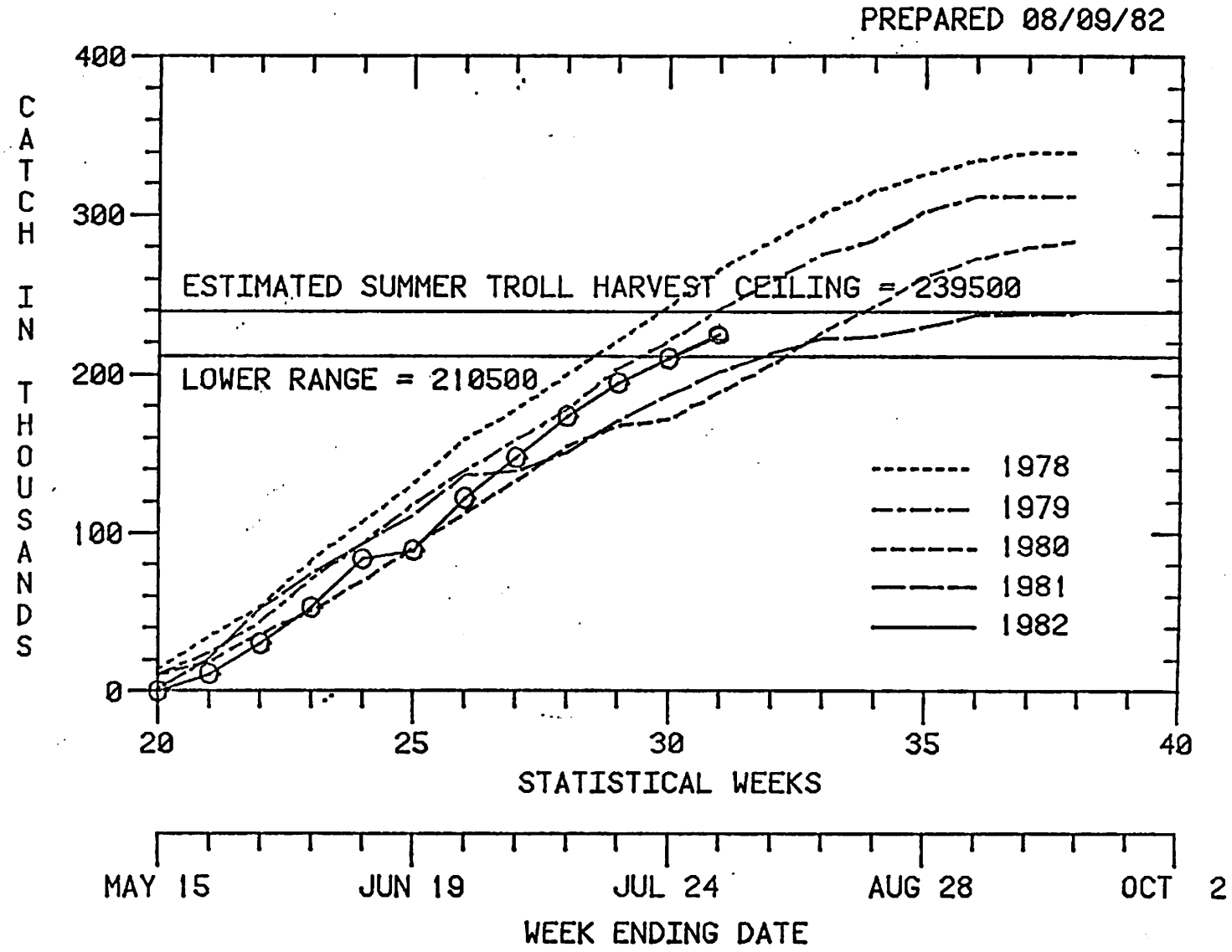

FIGURE 4 . SOUTHEAST ALASKA TROLL FISHERY CUMULATIVE CHINOOK SALMON HARVEST BY WEEK BEGINNING MID-MAY, 1978-82 (ADF&G). (1982 DATA PRELIMINARY)

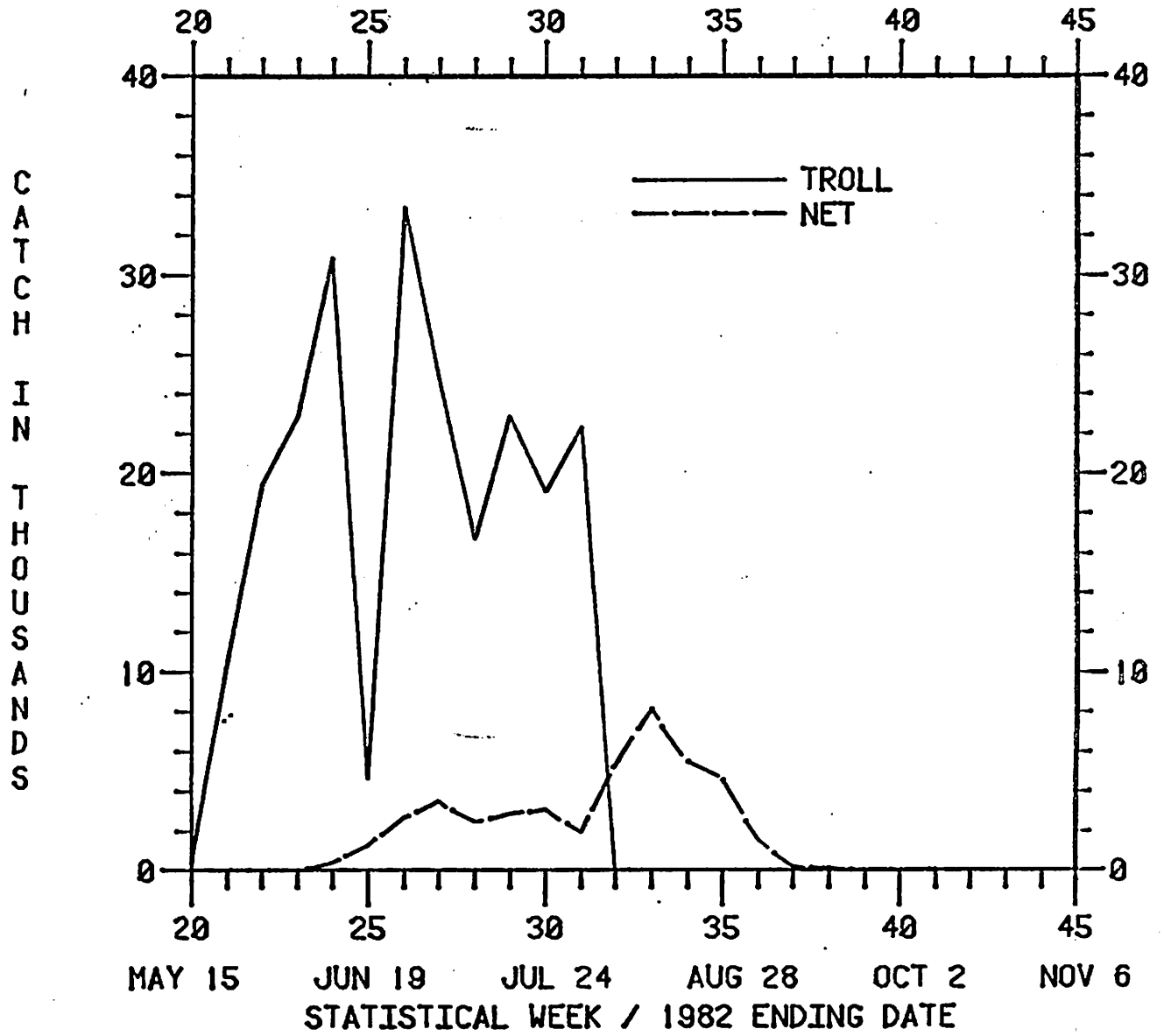

FIGURE 5 . COMPARATIVE WEEKLY CHINOOK SALMON CATCHES IN 1982 BY SOUTHEAST ALASKA TROLL AND NET FISHERIES. (ADF&G 11/82)

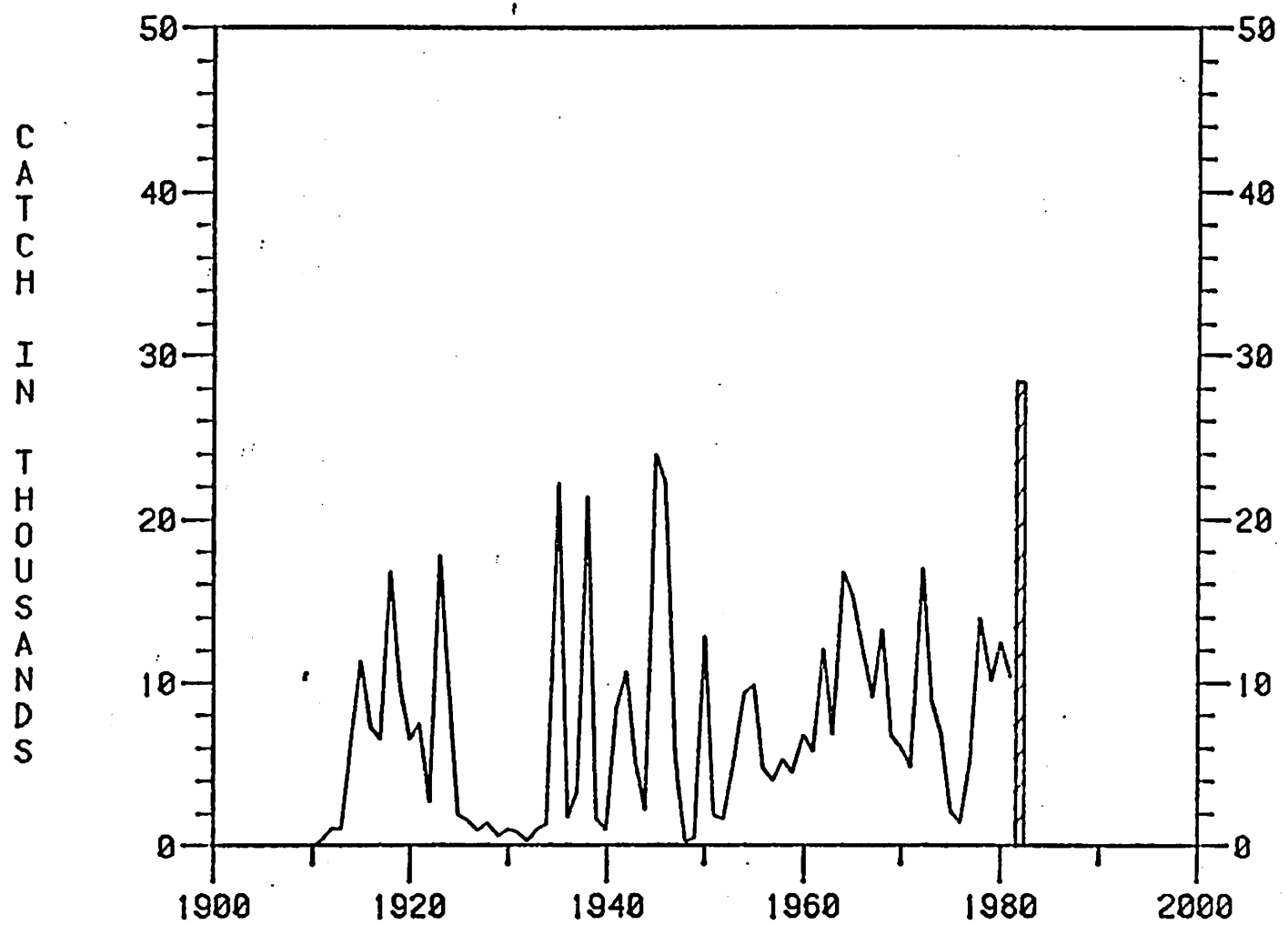

FIGURE 6 . HISTORICAL CHINOOK SALMON CATCHES BY THE SOUTHEAST ALASKA PURSE SEINE FISHERY, 1910-PRESENT. (ADF&G 11/82)

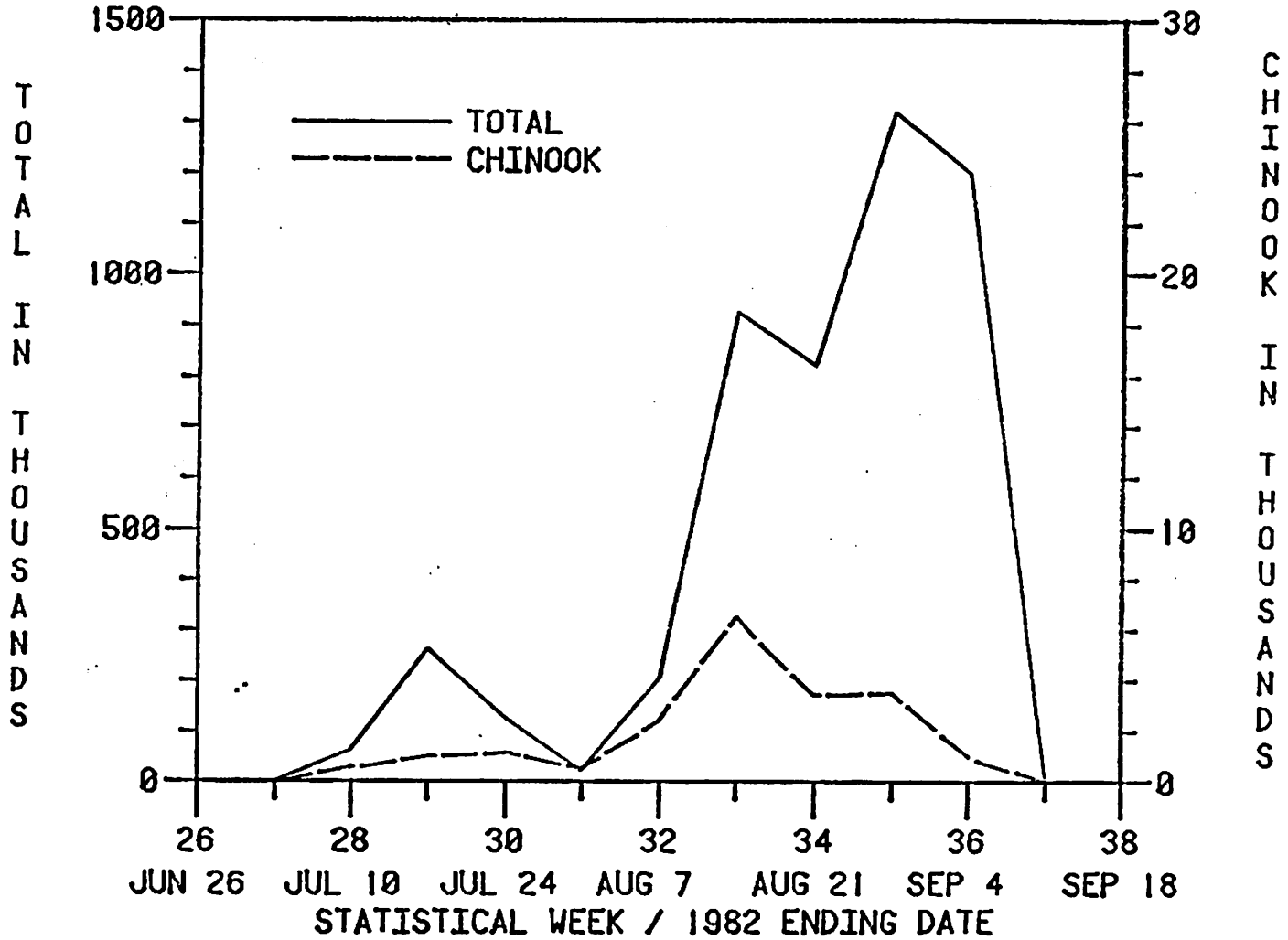

FIGURE 7 . COMPARATIVE WEEKLY TOTAL SPECIES AND CHINOOK SALMON CATCHES IN 1982 BY SOUTHEAST ALASKA NOYES ISLAND (DIST. 4) SEINE FISHERY (NOTE DIFFERENT SCALES FOR TOTAL SPECIES AND CHINOOK SALMON CATCHES!)

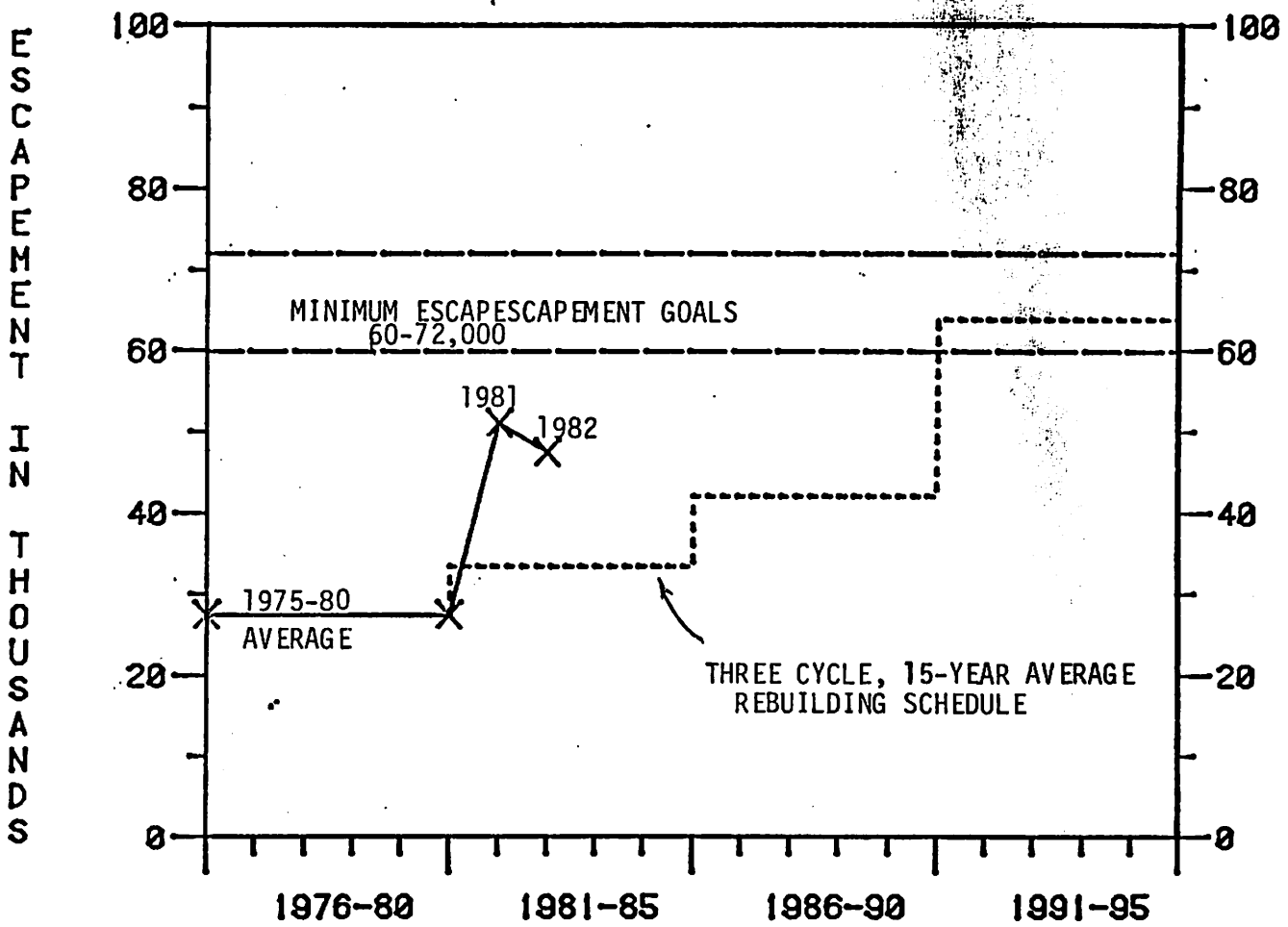

FIGURE 8. CURRENT STATUS OF SOUTHEAST ALASKA NATURAL CHINOOK SALMON ESCAPEMENTS COMPARED TO 15-YEAR REBUILDING SCHEDULE. (ADF&G 10/82)

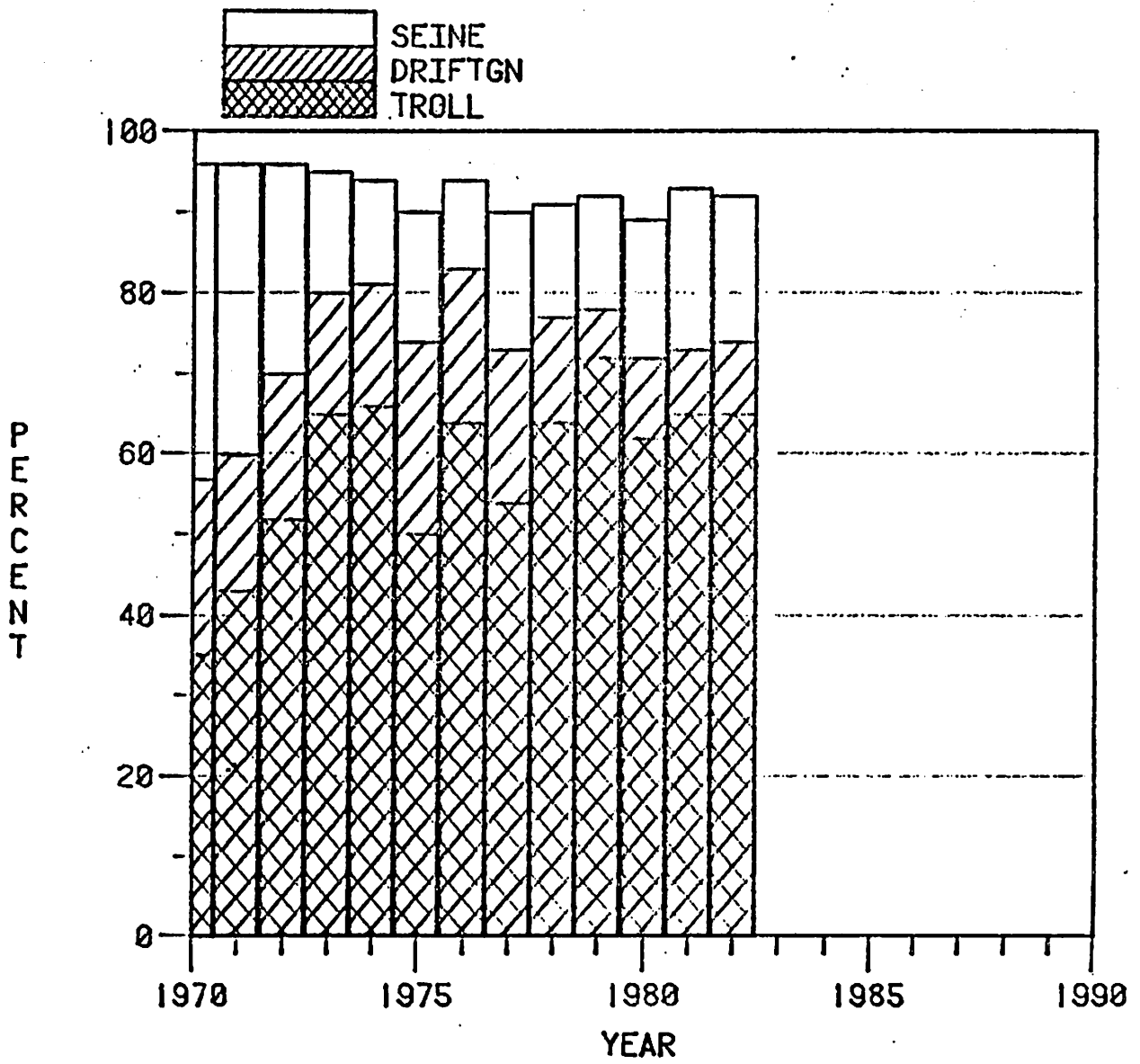

FIGURE 9 . PERCENT OF TOTAL SOUTHEAST ALASKA REGION COMMERCIAL COHO SALMON HARVEST TAKEN BY PURSE SEINE, DRIFT GILLNET AND TROLL GEAR, 1970-82. (ADF&G 11/82)

Table 1 . Southeast Alaska Region Annual Troll Fishery Salmon Catches in Number of Fish by Species, 1970-Present. (ADF&G 11/82)

Year	Chinook	Coho	Sockeye	Pink	Chum	Total
1970	305431	267763	477	70076	2804	646551
1971	333738	391569	936	104633	7672	838548
1972	242095	791668	1068	166853	11680	1213364
1973	307815	540104	1222	134585	10466	994192
1974	322208	846620	2606	263603	13819	1448856
1975	287348	214254	1103	77207	2825	582737
1976	231282	524992	1274	193777	4635	955960
1977	271777	506927	5701	281286	11617	1077308
1978	375624	1102066	2804	617817	26211	2124522
1979	338219	918596	6455	629192	24703	1917165
1980	299930	706521	2902	267465	12213	1289031
1981	252,425	862,208	7,551	579,412	9,028	1,710,624
1982 (PRELIM.)	242,000	1,343,000	4,900	534,000	6,700	2,130,600

Footnotes: (1) Most recent years data should be considered preliminary.

Table 2 Preliminary 1982 Chinook and Coho Salmon Catches by the Southeast Alaska Troll and Net Fisheries. (ADF&G 11/82)

1982 Fishing Periods	Chinook	Coho
Troll Fishery		
Winter Season		
Oct. 1-Dec. 31, 1981	4,800	
Jan. 1-April 14, 1982	7,800	
Winter Season Subtotal	12,600	
Summer Season		
May 15-June 6 (23 days)	84,200	--
June 17-July 28 (42 days)	144,500	528,000
August 8-Sept. 20*	*	814,500
Summer Season Subtotal	228,700	1,342,500
Troll Fishery Subtotal	241,300	1,342,500
Net Fisheries		
Gillnet	15,400	343,100
Seine	28,500	366,500
Trap	600	4,600
Net Fisheries Subtotal	44,500	714,200
All Gear Season Total	285,800**	2,056,700

* Troll fishery closed to chinook salmon fishing July 29-Sept. 30

** Note this total includes troll fishery chinook salmon catches from October 1, 1981 through September 30, 1982.

Table 3 Annual Chinook Salmon Catches by Southeast Alaska Net Fisheries, 1970-82 (ADF&G 11/82)

	Gear Type					
		Gillnet				
Year	Purse Seine	Drift Gillnet	Set Gillnet	Gillnet Subtotal	Trap & Misc.	Total Net
1970	5,957	9,460	2,299	11,759	55	17,771
1971	4,800	15,734	2,041	17,775	12	22,587
1972	16,997	25,142	2,467	27,609	135	44,741
1973	8,751	24,471	2,733	27,204	72	36,027
1974	6,759	15,481	2,214	17,695	17	24,471
1975	2,056	9,076	2,224	11,300	3	13,359
1976	1,426	7,222	1,831	9,053	45	10,524
1977	5,243	5,600	2,549	8,149	51	13,443
1978	13,998	8,304	3,057	11,361	410	25,769
1979	10,080	13,846	4,299	18,145	260	28,485
1980	12,508	5,638	2,800	8,438	643	21,589
Average 1970 to present	8,052	12,725	2,592	15,317	155	23,524
1981	10,268	7,074	2,069	9,143	442	19,853
1982	28,480	13,956	1,424	15,380	555	44,415

Note: Data for last two years should be considered preliminary.

Table 4 . Preliminary 1982 weekly salmon catches by the purse seine fishery in District 4 (Noyes Island), Southeast Alaska. (ADF&G 11/82)

Gear - Seine

Report Date 11/13/82
Statistical Week 46

District	week	ending date	Catch - Weekly to date in this district Chinook	Sockeye	Coho	Pink	Chum	Total
(4)	18	May 1	0	0	0	0	0	0
(4)	19	May 8	0	0	0	0	0	0
(4)	20	May 15	0	0	0	0	0	0
(4)	21	May 22	0	0	0	0	0	0
(4)	22	May 29	0	0	0	0	0	0
(4)	23	Jun 5	0	0	0	0	0	0
(4)	24	Jun 12	0	0	0	0	0	0
(4)	25	Jun 19	0	0	0	0	0	0
(4)	26	Jun 26	0	0	0	0	0	0
(4)	27	Jul 3	0	0	0	0	0	0
(4)	28	Jul 10	637	28951	9061	18105	4787	61541
(4)	29	Jul 17	1022	118084	26314	75565	40322	261307
(4)	30	Jul 24	1075	51274	10084	45194	16062	123689
(4)	31	Jul 31	489	5448	2374	8215	3392	19938
(4)	32	Aug 7	2421	12754	10788	165668	14007	205638
(4)	33	Aug 14	6539	24880	31291	815933	48627	927270
(4)	34	Aug 21	3365	11462	13402	741212	52048	821489
(4)	35	Aug 28	3508	7317	14373	1232700	62053	1319951
(4)	36	Sep 4	957	2990	12666	1111717	69869	1198199
Totals			20013	263160	130373	4214309	311167	4939022

Cautionary note: In season catch data shown above should be considered VERY PRELIMINARY. Changes may occur daily as data is edited and updated. Data is computed in this form primarily for in-season management use and general catch monitoring.

Table 5. Preliminary estimates of 1982 chinook salmon escapements to selected Southeast Alaska index systems. (ADF&G 9/82)

Note: Thirty-three known chinook salmon producing systems exist in Southeast Alaska. However, due to poor surveying conditions in many systems only those included below are currently surveyed in a consistent manner each year to provide a relative measure or index of total chinook salmon escapements to Southeast Alaska systems.

Systems - Tributaries	Type of Survey[1]	Escapements				Percent change in 1982 compared to		Minimum Escapement Goals[2]	1981-82 ave. Escapement as Percent of Goal
		Ave. 1975-80	1980	1981	1982	Ave. 1975-80	1981		
Major Systems (3 total)									
Alsek - Kluckshu	(2)	2,890	2,640	2,110	2,360	-18	+11%	3,200	69%
Taku - Nakina	(1)	2,810	4,500	5,100	2,530	-10	-50	9,000	42
Nahlin	(1)	780	1,530	2,940	1,250	+60	-57	2,500	84
Taku Subtotal		3,590	6,030	8,040	3,780	+ 5	-53	11,500	51
Stikine - Little Tahltan	(1)	970	2,140	3,330	2,830	+192	-15	2,100	147
Major Systems Subtotals		7,450	10,810	13,480	8,970	+20	-34	16,800	67
Medium Systems (8 total)									
Situk	(2)	1,490	1,120	810	510	-66	-37	2,100[3]	31
Behm Canal Systems									
Unuk	(1)	800	1,050	730	1,350	+69	+85	1,800	58
Chickamin	(1)	220	260	280	340	+55	+21	900	34
Blossum	(1)	100	90	160	340	+240	+112	800	31
Keta	(1)	250	190	330	750	+200	+127	500	108
Behm Canal Subtotals		1,370	1,590	1,500	2,780	+103	+65	4,000	54
Medium Systems Subtotals		2,860	2,710	2,310	3,290	+15	+30	6,100	46
Minor Systems (22 total)									
King Salmon River	(1)	80	70	100	260	+225	+159	200	90
All Index Systems Totals		10,040	13,590	15,890	12,520	+25	-21	23,100	61

-Continued-

Table 5 . Preliminary estimates of 1982 chinook salmon escapements to selected Southeast Alaska index systems. (ADF&G 9/82) - continued.

[1] Type of Survey Codes (1) - Helicopter peak spawning count (primary method).
(2) - Weir total count.

[2] These minimum escapement goals, established in 1980, represent maximum escapements observed since the 1950's (except for the Situk) when Southeast Alaska chinook stocks were seriously depressed. Revision of goals for some systems is expected pending further data analysis.

[3] The escapement goal for the Situk River has been revised downward from the previous goal of 5,100 established in 1981 to 2,100 on the basis of escapement-return analysis, maximum observed escapements since the early 1950's and general assessment by management biologists familiar with characteristics of the system.

Data Sources: 1975-81: Kissner, Paul D., Jr. 1982. A Study of Chinook Salmon in Southeastern Alaska. Alaska Dept. of Fish and Game. Completion Report 1981-82, Project AFS-41.

1982: Alaska Department of Fish and Game management records.

Canadian Department of Fisheries management records. (Kluckshu weir count.)