M E M O R A N D U M

TO: Council, SSC and AP members

FROM: Jim H. Branson
Executive Director

DATE: May 13, 1983

SUBJECT: Salmon FMP

ACTION REQUIRED

No action required; review status of fishery; proposed U.S./ Canada treaty.

BACKGROUND

The winter troll catch from October 1 - April 14, 1983, exceeded 30,000 kings. This large catch means the summer season will be shortened so that the total catch does not exceed 255,500 kings. The projected season is as follows:

May 15 - June 8	open, all species but coho
June 9 - June 30	CLOSED
July 1 - Aug. 14	open, all species
August 15-24	CLOSED, all species (for coho mgt.)
Aug. 25 - Sept. 20	open, all species

If the catch rate remains high, additional closures of either the entire fishery or specific areas are anticipated. The 1983 Alaska troll management plan and regulatory guide by ADF&G are provided as D-1(a) and (b).

The proposed salmon treaty with Canada has been discussed by State Department, Canadian, and Alaskan officials to determine if it can be salvaged. We don't expect the issues to be resolved prior to the Council meeting. An oral update will be presented.

1983 SOUTHEAST ALASKA-YAKUTAT TROLL FISHERIES

MANAGEMENT PLAN

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

This plan provides an overview of the approach that will be employed to manage the 1983 Southeast Alaska commercial troll salmon fishery. The management approach may need to be refined during the season as information becomes available, however, the current plan should prove valuable for pre-season planning by fishermen and processors.

Management System

The commercial troll fishery in Southeast Alaska occurs in waters under both State and Federal jurisdictions, east of the longitude of Cape Suckling. All other waters of Alaska including the Fisheries Conservation Zone (FCZ) west of Cape Suckling are closed to commercial trolling.

The same stocks of salmon are often harvested in both State and Federal waters. Often times an individual troller will fish in both areas on the same day. A cooperative approach is essential for good management of the Alaska troll fishery.

The Alaska Board of Fisheries promulgates State fishing regulations while the Secretary of Commerce is the Federal counterpart for regulating fishing activities in the FCZ.

The Board of Fisheries and the North Pacific Fishery Management Council meet jointly to insure that compatible management measures are employed to the greatest extent possible.

Management of all of Alaska's commercial fisheries is based on policies and regulations promulgated by the Board of Fisheries. The authority to issue in-season emergency orders to adjust fishing seasons and areas is delegated through the Commissioner of the Alaska Department of Fish and Game (ADF&G) to Department fisheries management biologists. This provides the necessary flexibility to regulate fisheries in response to resource availability. A similar approach exists

in the Federal management system and the National Marine Fisheries Service has the authority to institute in-season regulatory changes.

The wide spread and complicated nature of the troll fishery necessitates a closely coordinated management program. Management of the troll fishery is accomplished through a team approach led by the Southeast Regional Finfish Coordinator; and including a Region Troll Fishery Management Biologist, five Area Management Biologists and a Regional Biometrician. The names and work locations of people to contact concerning commercial troll fishery management are listed at the end of this management plan.

Salmon Stocks

The commercial troll fishery harvests primarily chinook and coho salmon stocks. Other species of salmon harvested by trollers are normally considered incidental to the taking of the two primary target species and will not be addressed in this plan. The troll fishery normally accounts for over 90% of the chinook salmon and 50-75% of the coho salmon taken in the Southeast Alaska commercial fisheries.

Native chinook and coho salmon stocks occur throughout Southeast Alaska. Chinook salmon stocks spawn primarily in the large mainland rivers and their tributaries, the most important of which are the Alsek, Taku, Stikine, Unuk and Chickamin Rivers. Approximately 28 other rivers in Southeast Alaska are known to produce runs of chinook salmon. The stocks are all "spring type" in that they enter the spawning streams during the spring and early summer months.

Current information indicates that a majority of the chinook harvested in the Alaska troll fishery are produced from spawning streams and hatcheries in Canada and the Pacific Northwest. Several age classes of mature spawners and immature chinook salmon are harvested by trollers during any one fishing season.

Coho salmon occur in most of the 2,000 streams in Southeast Alaska which host anadromous fish, and spawn during the fall and early winter months. Most of the coho harvested by trollers are of Alaskan origin, are mostly of a single age class, and are caught in the year of spawning.

Southeast Alaska chinook and coho salmon stocks are depressed from historical production levels. Chinook salmon stocks are, additionally, depressed coastwide. Annual commercial

catches in recent years by all Southeast Alaska gear types have often exceeded 300,000 chinook and 1,000,000 coho salmon. These harvests, though substantial, are considerably lower than levels produced between 1930 and 1950.

Chinook Salmon Management

The rebuilding of Southeast Alaska chinook and coho salmon stocks or even maintaining current production levels will require new management and regulatory approaches. The long term management approach for Southeast Alaska chinook salmon includes a 15 stock year rebuilding program. The long term approach is being taken to lessen the immediate socio-economic impact on the trolling industry.

While annual chinook spawning escapements to the Southeast Alaskan systems have generally remained below minimum desired levels, significant improvements have occured in the Taku, Stikine River and Behm Canal drainages since 1980 largely as a result of spring trolling closures and extensive terminal area, troll, net and sport fishery restrictions.

Spring Trolling Closure

The major management measure to benefit local natural chinook salmon stocks will be the continuation of the overall spring trolling closure from April 15 to May 14 and terminal area closures in effect during the 1982 season. In addition to these closures the opening of the summer troll season in section 14-C (eastern Icy Strait) and the adjoining waters of District 12, south of the latitude of Point Couverden and north of the latitude of Point Hepburn will be delayed until June 1.

These closures correspond to the time period when a majority of the mature chinook spawners of local origin would be available to the troll fishery. Therefore, the closures should allow increased numbers of mature chinook to move into spawning streams or inside terminal areas where current fishing regulations provide a high degree of protection.

The delayed opening for section 14-C and adjacent waters of District 12 is designed to provide additional protection for mature spawning run chinook salmon returning to the Taku River drainage. Returns to this system are expected to be reduced from the 1981 and 1982 levels as indicated by the low numbers of jack salmon that were observed on the spawning grounds in 1981 and 1982. The decrease in Taku River chinook salmon abundance expected for the 1983 season is result of increased freshwater mortalities experienced by the 1977 and

1978 broods which were adversely affected by a landslide which blocked one of the major tributaries of the Taku River in the winter of 1978-79.

Guideline Harvest Level

The Alaska Board of Fisheries has authorized a chinook salmon guideline harvest level of 255,500 fish for the 1983 season. The guideline harvest level includes the harvest of chinook salmon by all commercial gear types. As specified by the Alaska Board of Fisheries the established 1983 guideline harvest range will include those chinook salmon harvested since the opening of the winter trolling season (October 1, 1982) through the scheduled closure of the summer trolling season in September 20, 1983. When adopting the 255,500 guideline harvest level for chinook salmon, the Board incorporated the following wording into the Southeastern Alaska-Yakutat Chinook and Coho Salmon Troll Fisheries Management Plan (5AAC 33.365.(b)(8):

> Upon agreement between the United States and Canada on a provisional salmon management plan that embodies the concerns and management philosophies contained in the Treaty Between the Government of Canada and the Government of the United States of America Concerning Pacific Salmon (Negotiator's Draft of December 1982) or any amendments to that treaty and implementation of that plan by all fisheries management agencies affected by the treaty, to limit the total commercial king salmon harvest by all gear types in the Southeastern Alaska and Yakutat areas to a guideline harvest range of 243,000 to 272,000 with a management objective of 255,500 fish.

Troll Fishery Chinook Salmon Allowable Harvest

Chinook salmon catches by Southeast Alaska net fisheries are nearly all taken incidental to the harvest of other target species. A majority of this incidental catch of chinook salmon occurs during July and August. For the purposes of developing this management plan a 20,000 net catch will be used as a pre-season estimate, this being the approximate 1975-81 average catch. Estimate of the net fishery chinook catch will be updated in-season based on actual observed catch rates.

Assuming an all commercial gear chinook salmon catch ceiling of 255,500 fish and allowing for an expected incidental net catch of approximately 20,000 fish, a pre-season target ceiling of 235,500 chinook salmon would be available for the troll fishery.

Summer Troll Fishing Season Harvest

For the purposes of developing this management plan, an additional allowance must be made for the catch of chinook salmon during the winter troll fishing period from October 1, 1982 through April 14, 1983 to arrive at an estimate for the allowable catch for the summer trolling season. Chinook salmon landings during the winter troll season are expected to be above average. An initial estimate of 25,000 chinook salmon will be used, an updated estimate will be available prior to the opening of the summer trolling season. By subtracting this from the estimated troll harvest ceiling of 235,500 fish a summer troll harvest of 210,500 fish would be available for the 1983 season. At the time of preparation of this management plan it is apparent that the landings of chinook salmon in the winter troll fishery will exceed 25,000 fish by an unknown amount (possibly as high as 10,000 fish). Any adjustments needed to account for the final winter troll catch will be accomplished during the July to September time period.

In-Season Management of the Chinook Salmon Summer Troll Fishery

The troll fishery targets almost exclusively on chinook salmon during the winter and summer fishing seasons until approximately July and both coho and chinook salmon during July, August and September. The relative degree to which fishermen target on coho and/or chinook salmon during this period depends on the relative abundance and price of the two species, factors which vary within a season and from year to year.

A major management objective for the Southeast Alaska troll fishery is to prevent the need for chinook salmon only closures during the major portion of the coho salmon fishery (July through early September). Chinook salmon only closures result in undesirable hook and release mortalities of mature chinook salmon, hooked incidentally by the fleet while targeting on coho salmon.

Pre-season chinook salmon harvest expectations are that a open troll fishery during the entire summer season would result in a harvest significantly in excess of the

established guideline harvest level of 255,500 chinook salmon by all commercial gear types. To avoid chinook salmon only closures during the 1983 coho salmon trolling season some adjustments of the troll fishery season will need to be accomplished prior to July, when coho salmon become the dominant target species for many trollers.

Early Summer Season Chinook Salmon Closure

The extent of any needed closure during the targeted early summer chinook salmon trolling season (May 15 to early July) will be based on the anticipated chinook salmon catch needed for July, August and early September, to prevent chinook salmon only closures during the period coho salmon dominate the summer salmon troll fishery. From 1970 to 1980, a period for which no chinook salmon only closures were in place, the troll catch of chinook salmon averaged approximately 142,000 fish for the period July 1 through September 20. By allowing for a catch of approximately 20,000 chinook salmon to account for the anticipated mid coho season troll closure (discussed later) the estimated 1983 catch of chinook salmon for the period July to September 20 is 122,000 fish. This would allow for an estimated early summer season troll catch of approximately 88,500 fish of the total summer season troll catch ceiling of 210,500 fish.

The average daily catch rate for chinook salmon during the initial open periods of the 1981 (May 15 - June 25) and 1982 (May 15 - June 6) summer trolling season was approximately 3,520 fish per day. By using this average daily catch rate as a pre-season estimate of the 1983 chinook salmon catch rates it would take approximately 25 open fishing days to obtain a catch of 88,500 chinook salmon.

Based on the above average catch trends the initial open summer trolling period would be from May 15 through June 8. Following the closure on June 9, the actual period catch would be tabulated and combined with the realized winter season chinook salmon catch to determine the catch remaining for the continuation of the summer trolling season through September 20. The observed chinook salmon catch rates would be used to determine the reopening date which is anticipated to be approximately July 1. A outline of the information upon which this management approach is based is presented in Table 1.

Chinook Salmon Management During Coho Salmon Troll Season

The Board directed the Department to take appropriate actions during the 1983 season to minimize - and insofar as possible

prevent - chinook only closures during the main part of the coho salmon fishery. During a chinook salmon only closure in 1982 from August 8 through September 20, a large number of fishermen reported substantial hooking and release of chinook salmon while fishing for other species of salmon, primarily coho. Fishermen also reported observing some injuries and mortalities of released chinook salmon.

Chinook salmon catches by all commercial fisheries will be monitored during July and August to determine if additional adjustments to chinook salmon fisheries will be required to prevent chinook salmon only closures during the main coho salmon fishery and to maintain chinook catches at target levels. Primary options to respond to larger than expected catch rates would be closures of certain outer coastal areas to all troll fishing after mid-August, closure of selected inside areas known to produce significant chinook catches but whose closure would not significantly hinder coho salmon fisheries and early closure of the summer season prior to September 20. While it is the intention to minimize the duration of any chinook salmon only closures, as a final measure such closures would be implemented regionwide as required to maintain the catch within established limits.

Coho Salmon Management

One of the major problems complicating the effective management of the coho fishery is the recent shift of fishing effort from the inside districts to the outer coastal fishing grounds. This has increased the mixed stock nature of the coho fishery. Managment problems have resulted because a major portion of the coho catch is occuring in the coastal and outer coastal fishing areas prior to the time that the coho return enters the inside fishing districts where run strength can be assessed. The shift of fishing effort has also changed the historical allocation balance of coho salmon between user groups.

Managment of the coho salmon troll fishery will be based upon inseason assessment of run strength as determined from troll fishery performance in relation to previous seasons. The coho salmon fishing success of terminal area drift gillnet fisheries will be used to provide important information concerning escapement rates of coho salmon through the troll fishing areas and may be used as a general indicator of escapements to the mainland spawning streams.

Ten Day Troll Closure

For the 1983 season a ten day closure of the troll fishery can be expected during mid-August, the most likely time period for the closure would be from August 15 through August 24. Because coho returns to inside water districts have only been average or below during the relatively good overall coho runs in recent years, this closure can be expected to occur unless unusual conditions reduce the effectiveness of the troll fleet in outside water fishing areas. The closure will apply to trolling for all species of salmon. The dates of this closure may vary depending on coho salmon run strength or the need to coordinate this closure with any chinook salmon closures during this time period resulting from early achievement of the chinook salmon guideline harvest level.

Regulations

A complete listing of commercial trolling regulations is available in the 1983 Finfish Regulation Booklet. Troll fishermen are cautioned that some new regulations approved by the Alaska Board of Fisheries at their March 1983 meeting will be in effect for the 1983 season that will differ from those published in the regulation booklet. A special summary of commercial troll regulations entitled "1983 Alaska Salmon Troll Regulation Guide" has been developed for the 1983 season and includes the new regulations. This guide and copies of the 1983 Finfish Regulation Booklet are available at local Fish and Game Offices.

In addition to the new regulations that were discussed under the chinook salmon management section the following new regulations will be in effect for the 1983 trolling season:

1. Troll vessels may use multiple barbed hooks.

2. The portion of section 6-B north of Point Nesbitt (Snow Pass) will open to trolling during the summer season on June 15 instead of July 15.

3. That portion of District 16 east of a line from the tip of Cape Fairweather to the tip of Lituya Bay Point to the tip of Icy Point to the southernmost tip of Cape Spencer will be open chinook salmon fishing during the winter trolling season (October 1 - April 14).

4. Troll vessel registration requirements are modified to allow a vessel to change designation between hand and power troll by applying in writing to the

Department and specifies that registration is valid for the entire calendar year.

5. The State waters of the Yakutat area east of 139 39' 30" west longitude (1 mile west of the Lost River) and west of 138 15' 00' west longitude, are closed to trolling from August 1 through September 20.

6. In the State waters of the Yakutat area west of 139 39' 30 west longitude (1 mile west of the Lost River) and east of 140' 40' west longitude (Sitagi Bluffs), the weekly fishing periods for trolling are the same as for set gillnetting in the Situk River from August 1 through September 20.

Table 1. Methodologies for Pre-Season Estimation of Targeted Troll Fishery Harvest of Chinook Salmon for the Period May 15 - June 30, 1983.

Chinook Salmon Catch Component	Numbers of Chinook Salmon
All commercial gear 1983 guideline harvest level.....	255,500 1/
less estimated 1983 incidental net catch.....	20,000 2/
Estimated 1983 all troll gear allowable catch.....	235,500
less estimated 1982-83 winter troll season catch.....	25,000 3/
Estimated 1983 all troll gear allowable summer season catch (May 15-Sept.20).....	210,500
less estimated catch during coho salmon fishery (July-Sept. 20)	122,000 4/
Estimated 1983 all troll gear allowable early summer season (May 15-June 30) catch.....	88,500 5/

1/ Established by the Alaska Board of Fisheries to include the all year harvest of chinook salmon in the Yakutat and Southeast Alaska commercial fishing areas.

2/ Based on the approximate average seasonal net fishery harvest for the years 1975-1981.

3/ The established season is from October 1, 1982 through September 20, 1983.

4/ Based on the average catch of chinook salmon for the period July 1 to September 20 for the years 1970-80 with downward adjustment for a pending 10 day troll closure during mid-August.

5/ Based upon an average daily catch rate 3,520 chinook salmon (As experienced during the periods May 15 - June 25, 1981 and May 15 - June 6, 1982, initial summer troll fishing periods during these years) it would take an estimated 25 open trolling day to achieve a harvest of approximately 88,500 chinook salmon during the early portion of the 1983 summer trolling season.

Table 2. Anticipated open and closed troll salmon fishing periods for the 1983 season.

October 1, 1982 - April 14, 1983: open winter trolling season.

April 15, 1983 - May 14, 1983: spring troll fishery closure.

May 15, 1983 - June 8, 1983: open early summer season troll fishery.

June 9 - 30, 1983: closed trolling period.

Approximately July 1, 1983 - August 14, 1983: open trolling period dependent on coho salmon run stength.

August 15 - 24: closed trolling period.

August 25 - September 20: open trolling period dependent coho salmon run strength and chinook salmon all gear catch relative to established guideline harvest range.

October 1, 1983 - April 14, 1984: open winter trolling season.

Department of Fish and Game Contacts

The following are Commercial Fisheries Division contacts regarding this management plan:

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