North Pacific Fishery Management Council

Clement V. Tillion, Chairman
Jim H. Branson, Executive Director

Suite 32, 333 West 4th Avenue
Post Office Mall Building

Mailing Address: P.O. Box 3136DT
Anchorage, Alaska 99510

Telephone: (907) 274-4563
FTS 271-4064

Certified By: [signature]
Date: 1/19/82

MINUTES

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
Scientific and Statistical Committee
January 4-5, 1982
Juneau, Alaska

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met in Juneau on January 4-5, 1982. Members present were:

Donald Rosenberg, Chairman
Richard Marasco, Vice-Chairman
Al Millikan
William Aron
Bud Burgner
John Burns
John Clark
Larry Hreha
Steve Langdon

B-3 Alternates

The SSC believes that SSC members which represent primary agencies should by the nature of their involvement be allowed to have alternates. Therefore the SSC recommends that in accordance with past procedures that Dr. Clark be allowed to appoint an alternate.

B-3 Salmon PDT Membership

The SSC reviewed a letter of December 17, 1981 from the Alaska Trollers Association regarding the Salmon PDT membership. The SSC would like to restate its position on team membership. The SSC recommends that team membership remain small and be composed of scientists from management agencies. The SSC therefore does not recommend any increase in the PDT membership.

The SSC did review the resume of the individual which has been nominated by the Alaska Trollers Association. The individual nominated appears to be suitable as a team member.

E-1 Salmon FMP

The SSC received and discussed various reports on the status of stocks which contribute to the Alaska troll fishery. Additionally, the SSC received a verbal report from the PMT on their proposed alternatives for changes to the FMP. The SSC used these reports to develop the following recommendations.

Optimum Yield and Season

With regard to the Southeast Alaska chinook stocks, the SSC finds that the conservation issue which was identified last year seems to be addressed by the current management regime. Preliminary escapement data for the major Southeast streams indicates that escapement levels have increased. The total increase is estimated to be between 10,000 and 15,000 fish. The 15 year rebuilding plan proposed last year provides for an estimated average increase in escapement of 7,500 fish annually during the first 5 years. The SSC concludes that with regard to the Southeast Alaska chinook stocks that the 1981 management measures are satisfactorily meeting the needs of these stocks and the rebuilding plan. These management measures are an optimum yield of 243,000 to 272,000 fish with the outer coastal and FCZ chinook season from May 15 to September 20, with additional in-season closures as required to prevent exceeding OY. It was noted that the Alaska Department of Fish and Game has proposed specific management measures within state waters designed to specifically address areas where the escapement levels did not indictate any rebuilding.

With regard to the Columbia River "bright" chinook stocks, the SSC finds that there is a conservation issue with regard to the natural stock escapement levels as compared to the minimum escapement goals as established by Washington Department of Fisheries. This minimum escapement goal is 40,000 fish. The SSC noted that the escapement has been below this goal for the past 8 years. Last year it was projected that the escapement goal would be met but the actual escapement was only 21,000 fish, 48% below the minimum goal.

The SSC feels that this conservation issue should be addressed in a manner similar to that being used for the Southeast Alaska chinook resources. A plan for rebuilding the stocks to an identified escapement goal should be developed and adopted. This plan should be based upon a time frame taking into consideration the social and economic requirement of all of the resource users. The plan should be jointly adopted by all agencies having fishery resource or fishery management responsibilities for Columbia River bright chinook stocks. The plan should also be designed to insure that any time/area closures that occur, optimize the passage to the escapement while minimizing economic and social disruption to existing fisheries and dependent user groups.

The formulation of this rebuilding plan will require active and cooperative participation of all management and user groups.

The following courses of action were identified as being capable of leading to increased escapement for natural stocks at this time:

- Reduction of inter-dam loss
- Reduction of in-river harvest
- Reduction of Oregon/Washington Coastal harvest
- Reduction of British Columbia harvest
- Reduction of Alaskan harvest
- Increased survival of downstream migrants

In developing the rebuilding plan it should be recognized that a combination of these courses of action could be used to increase escapement. In selecting the combination of these actions, avoidance of major social and economic disruption should be the determining factor.

The SSC examined the effects of several of the above courses of action on the escapement of Columbia River "bright" chinook stocks. For example, a reduction of 25 chinook in the Alaska harvest would provide 1 fish to the escapement. Likewise, a 50 chinook reduction in the British Columbia harvest would provide 1 fish to the escapement. The alternative of 1 fish reduction in the inter-dam loss provides 1 fish to the escapement.

Given the available Columbia River "bright's" in the Alaska fishery, the maximum transfer of spawners to the escapement resulting from the complete closure of the Alaska troller fishing is 9,600 fish. It should be noted that the transfer of this number of fish is not predicted to provide for achievement of the escapement goal in 1982. Similar of the maximum transfer predicted by complete closure of the British Columbia troll fishery of about 16,000 fish. It should be noted that the inter-dam loss is approximately 32,000 fish, all of which could transfer to the escapement if that problem were solved. It can therefore be included that neither the North Pacific Council or the Alaska Board of Fisheries, either singly nor in combination has the ability to completely resolve this conservation issue at this time and that without the cooperative support of other agencies including and not limited to the Canadian Government, Pacific Fishery Management Council, Washington Department of Fisheries, enforcement officials in Washington State, Oregon Department of Fisheries, Bonneville Power Authority, Corp of Engineers, the treaty tribes and others, the escapement requirements for Columbia River brights will not be achieved.

The economic impact of the various courses of action must be evaluated in determining what combination of these courses of action would best provide the needed increase in the escapement. With the data and analysis available at this time, the SSC recommends that OY for 1982 remain at the 1981 level (243,000 to 272,000). Further, the SSC recommends that the Council take an active role in the development of the proposed rebuilding plan.

The SSC notes that there is going to be a need in the near future to address the harvest of Alaskan producted hatchery chinooks. The SSC recommends that the PMT/PDT be directed to develop an amendment which will allow OY to be adjusted annually to account for Southeast Alaskan hatchery stock production. This should be done before the 1983 season.

Area

The SSC recommends that with regard to Board proposal 133 by the Ketchikan Advisory Committee regarding the definition of areas, that the team make sure that the FMP is clear regarding which waters are covered by the plan.

The SSC believes that Board proposal 128 is primarily an allocation issue and therefore has no recommendation.

Size Limit

The SSC supports the Alaska Department of Fish and Game proposal to allow the retention of under 28 inch chinook salmon which have a tag attached or a fully healed, clipped adipose fin. This is with the understanding that these salmon may not be sold.

Allocation

The SSC has no comment.

In-Season Management

With regard to Board proposal 112 "specific areas shall be closed during the coho season, rather than closing the entire management zone," the SSC believes that the Regional Director already has this authority and therefore no plan amendment is required.

The SSC finds that Board proposal 113 "There shall be no in-season closures during the troll season" is contrary to the requirements of the rebuilding plan adopted last year.

Gear

The SSC has not been provided any new information or data on effects of gear changes. The SSC therefore recommends the Status Quo on all gear proposals.

Landing

The SSC understands that the current plan does allow for a single species fishery within the FCZ. Therefore the SSC believes that a plan amendment is not necessary.

Foreign Fisheries

With regard to the trawl time and area closures when high concentration of salmon are observed the SSC recommend that the PDT for the groundfish plan be directed to consider this issue during the rewrite of the groundfish plan.

E-2 Bering/Chukchi Sea Herring FMP

The SSC reviewed the proposed revisions to the Bering/Chukchi Sea Herring FMP and the response by the PMT to the questions submitted by the SSC in December. The SSC has the following comments and recommendations regarding the proposed changes.

Subsistence Stocks

Originally the PDT had proposed that stocks used primarily for subsistence purposes not be included in the biomass estimates or the exploitation rate calculations. The team has reconsidered its proposal and now recommends that these stocks be included in biomass estimates as originally stated in the FMP which was submitted to the Secretary. The SSC concurs with this decision.

Spawning Biomass Estimates

The PMT has identified the need for alternative procedures to estimate biomass if aerial survey data are not available. They have proposed several general alternatives. The SSC believes that a specific quantitative procedure is necessary to manage the Bering Sea herring stocks.

In the event that aerial survey estimates are not available, the SSC recommends that a preliminary biomass estimate be calculated by applying standard virtual population analysis techniques using the previous year's aerial survey estimate as a base.

This preliminary estimate should be revised in-season as more definitive data on stock size, recruitment, age composition, and so forth, become available. The team has agreed that such a procedure could be written into the plan.

Maximum Exploitation Rate

The original FMP did not establish an upper limit to the herring exploitation rate. The PMT recognized this deficiency and proposed an upper limit of 39%, derived from a yield per recruit analysis.

The SSC believes that a 39% maximum exploitation rate is too high in light of the uncertainty in biomass estimates, natural fluctuations, forage needs and other consideration. We recommend a maximum exploitation rate of 20%, which is similar to the maximum exploitation rates permitted in other coastal states for herring.

Allowable Incidental Catch (AIC)

The current AIC maximum proposed by the PMT is 3,000 mt per year. This AIC level assures a low level of incidental herring catches but also incorporates a degree of subjectivity in setting annual levels below the maximum. Further, it does not accommodate any necessary adjustments or flexibility should an AIC above 3,000 mt be found to be necessary.

The SSC recommends that the AIC be set by the formula:

$$AIC = \overline{IR}_{79\text{-}81} \times \text{Groundfish Allocations}$$

Incidental rates from 1979 to 1981 include periods of low, moderate and high herring abundance. Further, these incidental rates reflect true incidental catches with little or no directed herring fishing during the 1979-81 period. Finally the formula is simple and direct and does not contain implicit but undocumented assumptions about relationships of the incidental catch rates to the abundance of herring.

The SSC is concerned, however, that on a long-term basis this formula may need revision to provide additional flexibility for management. We recommend that the team begin to consider modifications which could improve the AIC formula. Improvements can be incorporated later as a plan amendment.

Recommendation

The SSC has discussed each of the above recommendations with the PDT. The SSC recommendations can easily be incorporated into the plan. The SSC subject to the incorporation of their recommendations into the plan recommend that the Council resubmit the plan to the Secretary. In summary these recommendations are:

1. Subsistence Stocks - as per the current team recommendation.
2. Spawning Biomass Estimates - that when a biomass estimate is not available from an aerial survey that the biomass be calculated by applying standard virtual population analysis techniques using the previous year's aerial survey estimate as a basis.
3. Maximum Exploitation Rate - that the maximum exploitation rate be set at 20%.
4. Allowable Incidental Catch - that the Allowable Incidental Catch be calculated by the following formula:

$$AIC = \overline{IR}_{79\text{-}81} \times \text{Groundfish Allocations}$$

Other

With regard to the SSC question to the team regarding the concerned express about the "use it or lose it" aspects of the plan the SSC has the following statement:

> The SSC recognizes that management measures could affect the competitive relationship that exists between fishermen and processors. It is not clear at this point in time how management measures proposed for the herring fishery will affect this relationship. When information is provided on this matter, that SSC will re-examine the issue.

E-5 Gulf of Alaska Groundfish FMP

The SSC received the status of the various reports and data which support the various alternatives in Amendment #11 to the Gulf of Alaska Groundfish FMP. The SSC did receive at this meeting the final report from the National Marine Fisheries Service entitled "A Bioeconomic Simulation Model for Sablefish in the Gulf of Alaska" by Joseph Terry and James Balsiger. SSC members have been directed to submit any questions they have on this report to the authors through Dr. Marasco. Answers to all questions will be compiled into one response and made available to the SSC prior to our March meeting.

F-1 Contracts and RFP's

Study Proposals

King and Tanner Crab Observer Program

The SSC reviewed the study proposal entitled "Determination of the Feasibility of a Crab Observer Program in Providing Specific Data Needs for the Management of the King and Tanner Crab Fisheries." The SSC finds that the data which will be collected under this proposal program will be helpful in developing future management procedures and therefore recommends that the Council proceed with the necessary steps to acquire funding and to implement the study.

This proposed study is an expansion of the already existing Alaska Department of Fish and Game dockside sampling program and therefore should be sole sourced to that agency.

Development of Fisheries Economics Data

The SSC reviewed a study proposal entitled "The Development of Fisheries Economics Data" which has been proposed by Dr. Fredrick Smith of Oregon State University. The SSC feels that the information being developed by such a study could be of use by the Council in the development or analysis of future management plans or amendments.

Therefore the SSC recommends in accordance with the Council policy that this study proposal be sent out for agency review. The SSC does recommend that changes be made in the budget format to indicate that the total project cost was $35,000, that the NPFMC contribution would be approximately $8,500, and that all additional budget detail be deleted. The SSC feels that should this proposal receive priority in our consideration of FY83 programmatic funding, that the proposed study should be handled through an RFP.

The SSC has requested the Council staff notify Dr. Smith of this determination.

Joint Venture Study

The SSC reviewed the request of the Advisory Panel and the Council at the last meeting for a study to evaluate joint ventures in Alaska. The SSC understands that the proposed study would evaluate how the joint venture process has helped achieve the objective of greater participation in the groundfish fishery by domestic fishermen and to evaluate the future role of joint ventures.

The SSC has requested that our subcommittee on Social and Economic Data Needs assist the Council staff in the development of a study proposal for FY83 programmatic research funding consideration.

Contracts

Contract 80-4 "To Expand and Enhance the Domestic Commercial Fisheries Catch Data Reporting System Off Alaska." The SSC contract review group visited the ADF&G offices to review the operation of the Data Reporting System which has

been developed under this contract. Test runs could not be observed during the review because the system was down. Based on a review of the documentation available and review of printouts of actual runs on the system however, the SSC feels that the contractor has satisfactorily fulfilled the requirements of contract 80-4 and recommends approval of that contract by the Council.

RFP's

The SSC has undertaken the development of RFP's for study programs which were identified as high priority in the Council's FY82 Programmatic Funding request. The status of these RFP's is as follows:

The Feasibility of Using Scale Pattern Analysis to Identify Bering Sea Herring Stocks

The SSC has received a draft of this RFP. The SSC has recommended only minor modifications and recommends that the Council release the request as modified as soon as funding for the project is received.

High Seas Tagging of Salmon

The SSC has received a draft of this RFP. The SSC was concerned about the direction of the proposed study and has recommended that a second draft be developed. The SSC will review the new draft at our next meeting.

Analysis of Southeastern Salmon Scale Patterns

The SSC was notified that the Alaska Department of Fish and Game has undertaken this study. The SSC therefore recommends that the RFP not be developed. The SSC will request reports from ADF&G on the status and results of their study.