North Pacific Fishery Management Council

Richard B. Lauber, Chairman
Clarence G. Pautzke, Executive Director

605 West 4th Avenue
Anchorage, Alaska 99501

Mailing Address: P.O. Box 103136
Anchorage, Alaska 99510

Telephone: (907) 271-2809
FAX: (907) 271-2817

Certified: Saul Peelis
Date: 9/10/92

MINUTES
Scientific Statistical Committee
August 3, 1992
Juneau, Alaska

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met August 3, 1992 at the Baranof Hotel. All members except Don Rosenberg, John Burns, Gordon Kruse and Marc Miller were present, namely:

Bill Clark, Chair	Terry Quinn, Vice Chair
Larry Hreha	Dan Huppert
Richard Marasco	Bill Aron
Jack Tagart	Doug Eggers

INSHORE/OFFSHORE

In addition to reviewing the July 9, 1992 Draft Supplementary Analysis of the Proposed Amendment 18 (Inshore/Offshore Allocation of Pollock in the Bering Sea/Aleutian Islands), the SSC received a report from staff describing changes made since the June 16th version of the document was reviewed, and took public testimony.

During the June meeting the SSC requested that in revising the document the analytical team should: (1) discuss more fully the two approaches used to account for labor costs in the calculation of net benefits, (2) modify the distribution of values of product prices and costs used in the risk analysis to be centered on the best estimates of these parameters, (3) re-examine the specified ranges (variances) for the probability distributions, (4) link the analysis of the CVOA with the net benefits analysis, (5) develop historical estimates of pollock removals inside and outside the CVOA, and (6) discuss the impact of the CVOA on marine mammals and birds. All of these issues were addressed in the revision.

A large volume of written comment, including technical criticism of the team analysis and other analyses of the alternatives, was submitted to the SSC at the start of its meeting. Because the Committee had to complete its discussions in one day, there was no possibility to read or consider any of the written comments. Oral testimony was heard from the following individuals: Jeff Davis for Baader North America, Joe Plesha and Professor Arnold Harberger for PSPA, and Gary Brown and Paul MacGregor for AFTA.

The SSC critically reviewed a number of difficult and controversial elements of the cost/benefit analysis, economic impact analysis, CVOA analysis, and social impact assessment, with the aim of providing the Council the Committee's best judgment on the consequences of the alternatives under consideration.

1. Treatment of Labor Costs

As noted in previous SSC comments, we think that, absent good evidence to the contrary, the best available estimate of opportunity costs of labor is the actual labor payments (crew share or wages). Hence, we recommend disregarding the "crew rent" from the estimated net national benefits in the benefit-cost analysis.

2. Product Recovery Rates and Prices

The revised report incorporates a vast amount of information, but there remains some uncertainty concerning both the accuracy of the estimates and the stability of the rates over time. In particular, the offshore roe price was over/stated by some 15% due to errors in the reporting system; and there are undoubtedly other inaccuracies that need to be ferreted out. An additional source of uncertainty in the cost/benefit analysis is that current prices may not be an accurate forecast of prices in 1993 through 1995; changes in markets for pollock products could alter relative prices and change the estimates of costs and benefits.

3. Risk analysis

The "risk analysis" displays the range of net national benefits (or losses) associated with the inshore/offshore allocation options. The analytical team did modify the risk analysis, as requested, to center the probability distributions for prices and costs about the expected values. However the variation associated with model inputs remains uncertain, which implies that the probability of positive net national benefits associated with any alternative may not be accurately estimated. We also note that with deletion of crew rents from the net national benefit estimate, the average net loss associated with Alternative 2 or 3 would be smaller. Further, we recognize that the data for the analysis are drawn from a single year's experience in a rapidly evolving industry. The model may therefore not accurately depict the distribution of benefits likely to occur in future years.

4. Estimation of inshore and offshore costs

We examined the significance of using average cost per pound of product for the onshore sector and marginal cost for the offshore sector. We determined that, while the use of two distinct approaches for the two sectors is inconsistent, the quantitative significance was small. This is because the constant (intercept) in the regression equation for the offshore sector was small compared to the average annual cost per firm, and changes in product mix were not considered.

5. Foreign ownership and leakage

The cost/benefit analysis properly attributes income and rents earned by U.S. residents to the net national benefit account. With the exception of taxes paid in the U.S., benefits accruing to foreign owners should not be counted as net national benefits. The analytical team assumed that the net benefits accruing to foreign interests equals the proportion of foreign ownership in each sector times rent or net benefits in that sector. This procedure understates the domestic benefit to the extent that foreign firms pay U.S. income taxes.

In the economic impact analysis the income earned by foreign owners is assumed to be repatriated; i.e., "leaked" out of the U.S. economy. Since the onshore sector has greater foreign ownership, the impact model attributes lower secondary income and employment impacts per dollar of sales to the onshore processor than to the offshore processors. While it is unclear that actual foreign leakage of income is accurately predicted by the foreign ownership proportion, this seems to be the best procedure available to the analytical team. Again, the fraction of the income to foreign owners retained in the U.S. as income tax is not properly accounted for in the analysis. To correct this, would require substantially more detailed tax and accounting information than was available.

6. <u>CVOA Analysis</u>

The document contains substantial information about harvests, catch rates, and by-catch rates by various classes of fishing vessels inside and outside the proposed CVOA. No attempt was made in the Supplementary Analysis to quantify either the cost or benefits of implementing the CVOA. Lacking this information the SSC is unable to say whether a CVOA would benefit the inshore fleet or harm the offshore fleet.

As the CVOA is currently designed, the offshore harvest that will be allowed there is unspecified. If the offshore sector is excluded from the area, harvests in the CVOA could range from 380,280 mt to 570,420 mt depending upon the allocation percentage selected by the Council. Both of these quantities are below the average catch for 1986-1991. Although there is no conclusive evidence linking pollock removals and the strength of the sea lion population, limiting removals from the CVOA might benefit sea lions using the area. However, displacing effort from one area to another, which would result from excluding the offshore fleet from the CVOA, could put additional pressure on pollock, mammal and bird population in the new area.

7. <u>Social Impact Assessment</u>

The social development and community stability supposed to follow from an inshore allocation are not well supported by information contained in the document. We heard some testimony suggesting that communities may expand in ways that conflict with usual notions of close-knit community development. Further clarification of concepts and measurements of community stability are needed.

We repeat the comments that we provided in June 1991 that "comments in the document about social stability are speculative and do not provide a basis for choosing among the alternatives."

The SSC had no time to read and evaluate extensive documents from the State of Alaska, American Factory Trawlers Association, and a compendium of comments provided by Council staff. Those documents may provide more information on social impacts.

<u>Conclusion</u>

In summary, the SSC believes that the analytical team used the best available data in the preparation of the analysis of the alternative allocations. These data referred to conditions in 1991. The SSC agrees that these data indicate that net benefits associated with Alternatives 2 and 3 are likely to be negative, and the impact of each of these alternatives on aggregate income and employment are likely to also be negative.