North Pacific Fishery Management Council

James O. Campbell, Chairman Jim H. Branson, Executive Director

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Certified Millus, Phil Mundy, Chairman

Date 5/8/87

Scientific and Statistical Committee
March 16-17, 1987
Anchorage, Alaska

The Scientific and Statistical Committee met March 16-17, 1987 at the Hilton Hotel, Anchorage, Alaska. Members present were:

Phil Mundy, Chairman Rich Marasco, Vice Chairman John Burns Terry Quinn Larry Hreha Don Rosenberg Don Bevan Bill Clark Gordon Kruse(alternate) Bill Aron Robert Burgner

Pollock apportionments to DAP, JVP and TALFF for 1987

The SSC declined to consider the matter of Gulf of Alaska pollock apportionments among DAP, JVP and TALFF, as the issues did not include matters of science.

Groundfish Plans

The SSC recommends the development of an amendment to combine the two groundfish plans for the next cycle.

To accomplish this the SSC requests that a special team be appointed (members from the existing teams) to identify the areas of inconsistence between the two plans and to develop recommendations for resolving them. This special team should provide a report to the SSC and to the Council at the next meeting, including a schedule for the development of a plan amendment for the next cycle. The SSC consulted with the plan team and much of this is already finished.

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The SSC still supports this position and recommends analysis and conclusions based on this CPUE model be removed from the RIR. Proper analysis of the CPUE effects of the proposed closure requires estimation of catch/effort equations for the DAP and JVP catcher boat segments of the fishing fleet. It must be pointed out that the limited nature of the data will make it difficult to state definitely how CPUE will be affected by the proposed action.

As is true for DAP fisheries, determination of how non-DAP fisheries would be affected by the 100 mile closure requires knowledge of how the catch and effort are related. The dynamics of these fisheries may require development of catch/effort relationships that are time and area specific. As was noted in the case of DAP fisheries it will be very difficult to make definitive statements about how CPUEs of joint venture operations will be affected by this measure. The RIR indicates that the proposed closure has the potential for significantly reducing gross revenues accruing to the joint venture fleet.

Data presented in the request indicate that the cost associated with adoption of the proposed action could be substantial. The SSC feels that there is considerable uncertainty associated with benefits that might accrue from the proposed action. If any benefits accrue they would stem mostly from CPUE modifications. Evidence is currently lacking that clearly demonstrates that exclusion of JVP vessels from the proposed area would improve DAP vessel CPUEs.

The SSC notes that information contained in the RIR contributes to the understanding of the issue. The usefulness of this document would be increased by elimination of the CPUE analyses, inclusion of detailed information indicating the spatial and temporal distribution of catches, and by making several editorial corrections. The SSC supports sending the document out for public review once the modifications are made.

- Revise the Definition of a Prohibited Species (also BS/AI Amendment 11)

The SSC recommends that this be sent out for public review.

- Improve Catch Recording Requirements (also BS/AI Amendment 11)

The SSC received a presentation from the NMFS region staff on the proposed amendment to improve the catch reporting requirements. The SSC notes that the original reason for the amendment was to allow the verification of the amount of groundfish being caught by catcher/processors and mothership/processors. The amendment, as presented, goes beyond what is required to correct the current reporting problem, expanding into the areas of collecting effort and discard data from all DAP vessels.

The SSC supports the collection of information that is required for fisheries management and research, but feels that it is premature to use this amendment to initiate and define a DAP report system. Reporting requirements for the DAP fisheries beyond the existing fish ticket system need careful definition and justification. The first step should be to itemize data needs and specify the uses (analyses) of those data for assessment and management. Then the specific reporting requirements should be developed and prepared for public review.

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The Gulf plan team leader informed the SSC that some members were unable to support the expansion of this amendment into this broader area of collecting effort and discard data, since certain types of information in the fishing log could only be verified by onboard observers.

The SSC finds that the amendment as now presented fails to provide the reader with sufficient information on the types of information to be collected under the "Fishing Logbook." It was not until the SSC reviewed the draft data collection forms that the full extent of the reporting requirement became clear. The SSC recommends that if the Council wishes to send the full amendment out for public review, the description of this section needs to be greatly improved.

For example, Alternative 2 would apply this totally new reporting requirement to all DAP fishing and processing vessels. The discussion of this alternative needs to include information on how this alternative fits the existing reporting requirements. Does it replace fish tickets or is it supplemental to the fish ticket system?

The SSC also found that the amendment needs extensive editing. For example, a single section of the "Fishing Logbook" is called by three different names: Daily Cumulative Product Log, Cumulative Product Log, and Daily Accumulative Product Log. In the presentation to the SSC, this section was referred to by an additional title, "Production Log."

In order to insure that the original reporting problem is addressed by this amendment, the SSC recommends that a fourth alternative be added. That alternative would read as follows:

Alternative 4: Apply the "Cumulative Product Log" and the "Transfer Logbook" recording requirements to catcher/processor and mothership/processor vessels.

The SSC would also like to point out that care must be taken in the final editions of these amendment packages when they apply to both the Bering Sea and Gulf Plans. For example, within this amendment under social and economic impacts, the number of vessels and catcher processors used in the analysis is the total number off Alaska, not just the Gulf. The text needs to make it clear that the analysis represents total effort off Alaska.

With the additional alternative and clarification, the SSC recommends this for public review.

- Fishing season framework (GOA only)

The SSC recommends sending out for review this fishing season framework which allows the annual setting of seasons using a more efficient notice procedure. Several points which needed clarification were identified by the SSC, and Council staff agreed to make the necessary changes, including dropping the term "risks" on page 17, and deleting the phrase referring to risks in that section of the EA/RIR/IRFA.

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D-2 Gulf of Alaska Groundfish Fishery Management Plan Amendment 16

- Establish a Minimum Size Limit for Sablefish (also BS/AI Amendment 11)

At the last meeting the SSC recommended that this amendment be assigned a high priority but for consideration during the next cycle. The reason for that recommendation was to allow sufficient data to be obtained and evaluated with regard to a minimum size limit. The SSC was concerned that time and personnel were insufficient between January and this meeting for the team to gather, document and fully analyze this information. The SSC would like to commend the team on the effort expended in accomplishing this difficult task in the short time available. The SSC only received this analysis and a supporting document at the beginning of this meeting and therefore, our review has been limited.

The SSC points out that the analysis provided in the draft amendment indicates that a size limit would not increase the total yield from the stock in view of the current low fishing mortality. While the analysis indicates that there is a possibility of some economic gain to be realized by applying a size limit to the catches of longliners, it must be understood that these gains will be rapidly dissipated if constraints are not placed on the level of effort deployed in the fishery. Given these conclusions, the SSC suggests that if the Council wishes to implement a size limit for the longline fishery, serious consideration must be given to simultaneous implementation of a program to limit effort. The SSC questions the advisability of continuing public review of the amendment without addressing limitation of effort.

- DAP Priority within 100 miles of Unalaska Island (also BS/AI Amendment 11)

Critical to the examination of the benefits and costs of this proposal is knowledge of how both DAP and non-DAP fishermen will be affected by the proposed action.

Individuals supporting the closure claim that excluding JVP and foreign fishing fleets will increase CPUE experienced by DAP vessels. In the RIR a catch/effort equation was used to examine this issue. The equation, which was taken from the Bering Sea and Aleutian Islands Amendment #6 RIR (NPFMC July 1983, p. 23), was developed from data for the 1979-81 Japanese trawl fishery. After its initial examination of the equation in question the SSC concluded in 1983 that:

"While monthly Japanese catch data for 1979, 80 and 81 were used to statistically estimate the relationship between catch and effort, it is not clear that the results provided information about the relationship. During the course of any given year, there are any number of factors that could mask the relationship between catch and effort. Seasonality is an example of one such variable. Given the data used in the analysis, seasonality could be an important explanatory variable. Failure to account for its influence could lead to erroneous conclusions concerning the effect on catch rates of changes in the level of foreign fishing effort. That is, it might be concluded that, as the result of incomplete analysis of the data, effort reductions by the foreign fleet would increase catch rates when in reality no such increases would occur." (SSC minutes July 1983, p. 4)

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D-2 Gulf of Hesks Groundfish Fishery Management Plan Ameriment lo

- Establish a Minimum Size bisit for Sabletish (size bS/A) Amendment [1]

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- Expand the existing halibut PSC framework to include all traditional "prohibited species" of halibut, salmon, and king and Tanner crabs. (GOA only)

The SSC recommends sending out for review this measure which is necessary to provide additional regulatory flexibility. Steve Davis agreed to make several changes for the sake of clarification, including answering the question of the regulatory action needed when the PSC limit is attained.

- Overall FMP revision (GOA only)

The SSC recommends sending this out for review. The SSC is concerned that the revision proceed with sufficient attention to the need for consistency with the Bering Sea Groundfish Fishery Management Plan.

- D-3 Bering Sea/Aleutian Islands Groundfish Fishery Management Plan Amendment 11
- Establish a minimum size limit for sablefish.

Not recommended. Same reasoning as for GOA groundfish Amendment 16.

- DAP Priority access within 100 miles of Unalaska.

Recommended for review. See GOA groundfish Amendment 16.

- Revise prohibited species definition.

Recommended for review. See GOA groundfish Amendment 16.

- Catch recording for at product sea transfers.

Recommended for review. See GOA groundfish Amendment 16.

- Revise definition of acceptable biological catch.

Recommended to be sent out for review. The SSC further recommends that the plan team add the following definition of threshold to follow the last paragraph in section 6.2.1 (p. 61) agenda D-3(a);

The threshold is defined as the minimum size of a stock that allows sufficient recruitment so that the stock can eventually reach a level that produces MSY.

Implicit in this definition are rebuilding schedules. They have not been explicitly specified since the selection of a schedule is a part of the OY determination process.

- Increase Upper Value of Optimum Yield (OY) Range

The SSC suggested to the team a number of editorial changes to the draft amendment that we feel are of some importance. The SSC recommends the revised amendment be sent out for public review.

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Expand the existing halflot PSC transport to inclose all traditional prohibited species of halfbut, salmon, and king and enner crabs. (GOA only)

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- Prohibited Pollock Roe-Stripping

After	reviewin	g this	section	of	the	Amendment	package,	the	SSC	suggests	that
it go	out for p	public	comment.								

.....End Amendment Proposal Recommendations.....

Arctic Research and Policy Act

The SSC received a report on the Arctic Research and Policy Act (federal). The research initiative provided by the Act makes a research proposal on arctic marine ecosystems with an emphasis on fisheries most timely. The SSC endorsed the concept of subarctic fisheries ecosystem study described below, however the actual text was not seen by the entire SSC until after the Council meeting.

Subarctic Fisheries Ecosystem Study (SAFE)

The rapid expansion of domestic fisheries in high latitudes has clearly pointed out serious gaps in our fundamental understanding of the Subarctic ecosystem. During the past decades populations of some species (seals, sea lions, king crab, Tanner crab, greenland halibut) have undergone significant declines that cannot be directly ascribed to exploitation, while others (pollock, cod, yellowfin sole, arrowtooth flounder) have undergone large increases, and the interactions of these species with their environment and each other is at best poorly understood.

Environmental shifts, entanglement in derelict fishing gear, predation and disease have been suggested as reasons for the population changes. None of these speculations, however, is sufficiently well based to provide predictive capability, and none is sufficiently documented to allow sound long term management decisions. The growing capital investment in subarctic fisheries and the reasonable expectation that they will support a multi-billion dollar industry virtually demands a development of the capacity to understand the causes behind these variations.

To close our knowledge gap and provide for the kinds of information needed a five-year study of the subarctic fisheries ecosystem (SAFE) is proposed. The work would be accomplished as a new initiative involving scientists from academic, private industry and state and federal agencies. The work would supplement critical ongoing studies and bring together a wide spectrum of oceanographers, metrologists, biological scientists, social scientists and modelers in an attempt to synthesize existing knowledge with newly collected information to develop a predictive model of the Subarctic system which would benefit fisheries management decisions. A \$19.5 million budget is proposed: lst year, \$1.5; 2nd year, \$3; 3rd year, 4th, and 5th, \$5.

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Procedures and Personnel

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The SSC met in closed session to consider several matters; (1) the annual Council meeting schedule, (2) the procedures for preparing SSC minutes, (3) the memorandum on SSC operational policies and procedures of December 8, 1980, and (4) SSC membership with respect to disciplinary representation.

The SSC endorses Mr. Branson's recommendation to retain the January meeting for initial proposal screening, while moving the next two meetings to late April and late June to avoid rushing preparation of proposal evaluation. A Council Policy and Planning Group will meet prior to May to prepare recommendations on both the meeting schedule and the amendment schedule. The SSC also supports the concept of having both one— and two—year amendment cycles. More difficult issues need to be placed in a two—year cycle in order to provide time for proper evaluation and consideration.

The SSC agreed to rotate note keeping among duets of members on each issue. Duets will be chosen and assigned by the chair for each agenda item. A duet would document the position of the SSC and submit a written copy of the opinion to the chair before departing the meeting.

To more adequately document SSC procedings, a number of lap top and/or portable computers and a single printer are needed. As an interim measure, copying facilities on the site of the meeting will be needed in order to share a written draft among the members of the SSC. The SSC is now an inefficient paper mill compared to similar organizations elsewhere on the west coast.

The majority of SSC members supports the concept of seeking an economist to replace Don Rosenberg at such time as he may retire. The actual choice may not necessarily be an economist, since willingness to serve and availability are important considerations. Members will seek recruits and forward names to Rich Marasco who will report at the next meeting.

The memorandum on operations and policy of December 8, 1980 is out of date, although it contains many worthy concepts. Don Rosenberg will prepare a working revision to reflect the current situation, and mail it to the SSC 15 days before the next meeting.

Terms and Definitions: Overfishing.

The SSC of the North Pacific Fishery Management Council and the Pacific Council have agreed on a set of definitions for Allowable Biological Catch (ABC), Threshold, Overfishing, Annual Surplus Production (ASP), Equilibrium Yield (EY), Total Allowable Catch (TAC), Allocate, and Optimum Yield (OY).

Since the time these definitions were presented to the Council last September, a minor revision in the definition of overfishing has been requested by the Pacific Council. The two revised versions of the definition of overfishing accepted by your SSC are:

Overfishing is a level of fishing mortality that jeopardizes the capacity of stock(s) to maintain or recover to a level at which it can produce maximum biological yield on a long-term basis under prevailing biological

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and environmental conditions. (NOTE: This definition differs slightly from that found in the <u>Guidelines for Fishery Management</u>, 50 CFR Part 602, p. 27228.)

Overfishing is the application of exploitation rates that drive the stock below its threshold. Exceeding acceptable biological catch need not result in overfishing, unless the excess is taken over sufficient time to reduce the population below the threshold.

We recommend the Council adopt the definitions and direct the Plan Teams to use them in future plan amendments.

The SSC meeting ended at 5:30 p.m. March 17, 1987.

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The SEC meeting ended at 5:30 p.m. March 17, 1987.