

North Pacific Fishery Management Council

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September 28, 2000

DRAFT AGENDA
146th Plenary Session
North Pacific Fishery Management Council
October 4-9, 2000
Centennial Building
Sitka, Alaska

The North Pacific Fishery Management Council will meet October 4-10, 2000, at the Centennial Building in Sitka, Alaska. Other meetings to be held during the week are:

<u>Committee/Panel</u>	<u>Beginning</u>
Advisory Panel	8:00 am, Mon., October 2 (Maksoutoff Rm)
Halibut Charter IFQ Committee	1:00 pm, Mon., October 2 (Auditorium)
Scientific and Statistical Committee	1:00 pm, Tue., October 3 (Rousseau)
Socioeconomic Data Committee	6:00 pm, Tue., October 3 (Location TBA)
GOA Co-op Committee	6:00 pm, Thurs., October 5 (Rousseau)

All meetings will be held at the Centennial Building unless otherwise noted. All meetings are open to the public, except executive sessions of the Council. Other committee and workgroup meetings may be scheduled on short notice during the week, and will be posted at the hotel.

INFORMATION FOR PERSONS WISHING TO PROVIDE PUBLIC COMMENTS

Sign-up sheets are available at the registration table for those wishing to provide public comments on a specific agenda item. Sign-up must be completed **before** public comment begins on that agenda item. Additional names are generally not accepted **after** public comment has begun.

Submission of Written Comments. Any written comments and materials to be included in Council meeting materials must be received at the Council office **by 5:00 p.m. (Alaska Time) on Tuesday, Sept. 26, 2000.** Please note this is one day earlier than normal in order to ship materials to the meeting site. Written and oral comments should include a statement of the source and date of information provided as well as a brief description of the background and interests of the person(s) submitting the statement. Comments can be sent by mail or fax--please **do not** submit comments by e-mail. **Material received after the deadline will not be included in notebooks for this meeting. It is the submitter's responsibility to provide an adequate number of copies of comments after the deadline.** Materials provided **during** the meeting for distribution to Council members should be provided to the Council secretary. A minimum of 18 copies is needed to ensure that Council members, the executive director, NOAA General Counsel and the official meeting record each receive a copy. If copies are to be made available for the Advisory Panel (23), Scientific and Statistical Committee (13), staff (10) or the public (50) after the pre-meeting deadline, they must also be provided by the submitter.

FOR THOSE WISHING TO TESTIFY BEFORE THE ADVISORY PANEL

The Advisory Panel has revised its operating guidelines to incorporate a strict time management approach to its meetings. Rules for testimony before the Advisory Panel have been developed which are similar to those used by the Council. Members of the public wishing to testify before the AP **must** sign up on the list for each topic listed on the agenda. Sign-up sheets are provided in a special notebook located at the back of the room. The deadline for registering to testify is when the agenda topic comes before the AP. The time available for individual and group testimony will be based on the number registered and determined by the AP Chairman. **The AP may not take public testimony on items for which they will not be making recommendations to the Council.**

FOR THOSE WISHING TO TESTIFY BEFORE THE SCIENTIFIC AND STATISTICAL COMMITTEE

The usual practice is for the SSC to call for public comment immediately following the staff presentation on each agenda item. In addition, the SSC will designate a time, normally at the beginning of the afternoon session on the first day of the SSC meeting, when members of the public will have the opportunity to present testimony on any agenda item. The Committee will discourage testimony that does not directly address the technical issues of concern to the SSC, and **presentations lasting more than ten minutes will require prior approval from the Chair.**

COMMONLY USED ACRONYMS

ABC	Acceptable Biological Catch	MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
AP	Advisory Panel	MMPA	Marine Mammal Protection Act
ADF&G	Alaska Dept. of Fish and Game	MRB	Maximum Retainable Bycatch
BSAI	Bering Sea and Aleutian Islands	MSY	Maximum Sustainable Yield
CDQ	Community Development Quota	mt	Metric tons
CRP	Comprehensive Rationalization Program	NMFS	National Marine Fisheries Service
CVOA	Catcher Vessel Operational Area	NOAA	National Oceanic & Atmospheric Adm.
EA/RIR	Environmental Assessment/Regulatory Impact Review	NPFMC	North Pacific Fishery Management Council
EEZ	Exclusive Economic Zone	OY	Optimum Yield
EFH	Essential Fish Habitat	POP	Pacific ocean perch
FMP	Fishery Management Plan	PSC	Prohibited Species Catch
GHL	Guideline Harvest Level	SAFE	Stock Assessment and Fishery Evaluation Document
GOA	Gulf of Alaska	SSC	Scientific and Statistical Committee
HAPC	Habitat Areas of Particular Concern	TAC	Total Allowable Catch
IBQ	Individual Bycatch Quota	VBA	Vessel Bycatch Accounting
IFQ	Individual Fishing Quota	VIP	Vessel Incentive Program
IPHC	International Pacific Halibut Commission		
IRFA	Initial Regulatory Flexibility Analysis		
IRIU	Improved Retention/Improved Utilization		
ITAC	Initial Total Allowable Catch		
LAMP	Local Area Management Plan		
LLP	License Limitation Program		

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Estimated Hours

- | | |
|--|-------------------------|
| A. CALL MEETING TO ORDER | |
| (a) Approval of Agenda | • |
| (b) Approval of Minutes of Previous Meetings | • |
| B. REPORTS | |
| B-1 Executive Director's Report | • |
| B-2 State Fisheries Report by ADF&G | • |
| B-3 NMFS Management Report | • |
| B-4 Enforcement and Surveillance Reports | • |
| | (4 hours for A/B items) |
| C. NEW OR CONTINUING BUSINESS | |
| C-1 <u>Pacific Cod/Steller Sea Lions</u> | (2 hours) |
| Status report on analyses and direction as appropriate. | |
| C-2 <u>American Fisheries Act</u> | (10 hours) |
| (a) Update on EIS/rulemaking: consider emergency rule for 2001 implementation. | |
| (b) Final action on groundfish processing sideboards and BSAI pollock processing excessive share caps. | |
| (c) Report from industry on Pacific cod sideboard issues. | |
| (d) Review proposals from September meeting; action as appropriate. | |
| C-3 <u>Halibut Subsistence Regulations</u> | (8 hours) |
| Final action. | |
| C-4 <u>Halibut Charter IFO Program</u> | (2 hours) |
| (a) Preliminary review/progress report. | |
| (b) Discuss Gulf of Alaska Coastal Community Coalition proposal. | |

- C-5 CDQ Program
 - (a) Proposed revisions to CDQ administrative regulations: initial review. (3 hours)
 - (b) Review State of Alaska recommendations on CDQ allocations.

D. FISHERY MANAGEMENT PLANS

- D-1 Groundfish Management (5 hours)
 - (a) Recommend interim & preliminary specifications for 2001 for the Bering Sea/Aleutian Islands and the Gulf of Alaska.
 - (b) BSAI Pacific cod pot gear split (CP/CV): initial review.
 - (c) Progress report on GOA rationalization.
- D-2 Crab Management (2 hours)
 - (a) SAFE reports.
 - (b) Progress report on co-op development and buyback.
- D-3 Staff Tasking (3 hours)
 - (a) Review progress and current tasking.
 - (b) Direction to staff.

E. PUBLIC COMMENTS

F. CHAIRMAN'S REMARKS AND ADJOURNMENT

Total Agenda Hours: 41

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Certified: Shu Bender
Date: 9/28/00

MINUTES Scientific Statistical Committee September 6-8, 2000

The Scientific Statistical Committee met September 6-8, 2000 at the Sheraton Hotel in Anchorage, Alaska. All members were present except Steve Hare, Doug Larson, and Seth Macinko:

Rich Marasco, Chair
Doug Eggers
Dan Kimura
Steve Berkley

Jack Tagart, Vice Chair
Jeff Hartman
Terrance Quinn II

Keith Criddle
Sue Hills
Al Tyler

C-2 STELLER SEA LION/PACIFIC COD

The SSC listened to staff presentations by Mike Payne, Shane Capron, Ben Muse and Dave Ackley (NMFS-AKR), Lowell Fritz and Lew Queirola (NMFS-AFSC), Kristin Maybry (ADF&G), and Jim Richardson (ResourceEcon, Inc). In addition public comment was provided by Dr. John Burns (Aleut Enterprise Corp.), Thorn Smith (North Pacific Longline Association), Clem Tillion (Aleut Enterprise Corp.), Dave Fraser (Highseas Catcher Boats), Dr. Vidar Westpestad (Aleut Enterprise Corp.), Dr. Ed Richardson (Pollock Conservation Cooperative), Donna Parker (Arctic Storm), Bob Storrs (Unalaska Fisheries Association), Ken Stump (Greenpeace), Phil Klein (American Oceans Campaign), Beth Stewart (Aleutians East Borough), John Gauvin (Groundfish Forum), Chris Blackburn (Alaska Groundfish Databank), Steve Hughes (Natural Resource Consultants and United Catcher Boats), and Paul MacGregor (At-Sea Processors Association).

Preamble

Fishery management policy should be promulgated with (1) a clear statement of problems, goals, and objectives; (2) a rational set of alternatives; and (3) a science-based process predicated on the best available information and analysis for choosing among the alternatives. When uncertainties create doubt about the best course of action, a cautious and precautionary approach is warranted, with actions designed to reduce the uncertainties and to increase understanding of the situation creating the problem.

In the context of the Steller sea lion decline, the above policy attributes have rarely been evident due to conflicting mandates of the MSFCMA, NEPA, and the ESA, the lack of knowledge and understanding of factors affecting Steller sea lions, and the absence of a proactive research and management plan for resolving this issue.

This EA/RIR and previous BiOps address potential interactions of groundfish fisheries and Steller sea lions because the major Federal action subject to NEPA is the groundfish fishery. This does not necessarily imply that the fishery is a major cause of the decline and/or that it is responsible for the lack of recovery of Steller sea lions.

No one would object to the adoption of reasonable measures to arrest the decline of Steller sea lions if there was some assurance that those measures would lead to some improvement. However, the premise upon which the proposed alternatives are based is so tenuous that adoption of the alternatives seems imprudent. If there is a connection between current fisheries and Steller sea lion declines and no action is taken, the Council would be derelict in its responsibility to conserve resources under its domain. If other factors are responsible and the Council imposes draconian measures, then the Council actions would needlessly deprive individuals and even communities of their livelihoods.

The only way out of this morass is to design a research and management plan that tests hypotheses related to the Steller sea lion decline and increases the understanding of the potential interactions between groundfish fisheries and Steller sea lions. The draft research plan attached to Tom Loughlin's memo of July 27, 2000 is a good first step in this direction. What is sorely needed is a comprehensive management plan that addresses holistically the Steller sea lion/ fishery interaction issues to complement the research plan, along with a set of specific studies and timetable. In particular, a solid understanding of spatial and temporal distributions of fish and sea lions by size and age is a prerequisite for science-based management measures. These management measures necessarily must be adaptive in character and based on a formal experimental design. This would permit learning about the system and allow the change of management measures as we find out what works and what doesn't.

Examples of adaptive management measures for Steller sea lions have already been proposed. One way to evaluate the effect of critical habitat restrictions on cod fisheries would be to open some rookeries to controlled fishing in connection with observation on the foraging of Steller sea lions in the area. Another example is the controlled experiments near Kodiak Island.

EA/RIR

The SSC appreciates the variety and extent of information and thought provided in the document (subject to comments and criticisms detailed below). In particular, extensive graphical and tabular summaries of catches, biomass and exploitation rates are provided in space and time, and an innovative study of fishery CPUE in the winter offers an important complement to summer survey biomass distributions. A study of depletion in the SCA is a potentially useful activity, although we consider the results of such a study in this analysis to be flawed. Qualifications of belief or opinion by NMFS are frequently identified, although there are some statements of belief not properly labeled. Attempts are made to estimate social and economic impacts of the alternatives.

The SSC recommends the following changes to the document before it is released for public review:

1. Improvements to the analysis and discussion of local depletion are warranted. First of all, the document needs to explicitly define local depletion and how it is estimated. A natural mortality term could be added to the regression equation. Truncation of data after the directed fishery occurs will prevent possibly erroneous conclusions of significant depletion due to cod dispersion or catchability changes. (Querying fishery participants might be useful to determine potential truncation points.) Plots of data and fitted regression lines would be useful to understand the magnitude of declines and the variability of the results. Fine spatial-scale analyses would be necessary to demonstrate local depletion. Hypothesis tests comparing depletion coefficients to the overall exploitation rate would be

useful to see if differential rates of depletion (one possible approach to assessing local depletion) are occurring for particular spatial or temporal components. In the study a significant regression is not evidence of local depletion, but could instead be due to natural mortality, expected exploitation declines, catchability changes, or dispersal. Therefore, the SSC disagrees with the statement on page 49 that asserts "local depletions, resulting from fishing, are likely to be occurring." A statement in the same paragraph reads: "From the information currently available, it does not appear that there is a massive migration of the species." The SSC notes that this statement is contradicted by a published article on cod migration (Shimada and Kimura, 1994), cited in the references, that is based on a 10 year series of tagging data.

Additional issues that should be addressed in the revised EA/RIR include:

- (a) Analysis of the economic impact on various industry sectors should differentiate between pollock catcher-processors and catcher-processors that target a suite of species.
 - (b) An important difference between the pollock fishery and the cod fishery is that the cooperative organization of the pollock fishery may provide options for accommodating RPA's that are unavailable in the cod fishery. Consequently, the economic impact of RPA's on the cod fishery may be more pronounced than might be assumed from simple extrapolation of the outcome in the case of pollock. The utility of expanding the cooperative structure to Pacific cod should be examined.
 - (c) The comment on page 72 implicates bottom trawling in the decline of spectacled eiders. Because trawling has not taken place in regions identified as critical habitat for spectacled eiders the comment seems unjustified and should be eliminated.
 - (d) The extremely low goodness-of-fit R^2 reported for the localized depletion analysis suggest that significant explanatory variables were omitted from the model. The omission of significant explanatory variables leads to biased and inconsistent estimates of model parameters and invalidates conclusions with respect to the direction or magnitude of those estimates.
 - (e) Analysis of the GOA fisheries and interactions with Steller sea lions could use ADF&G statistical areas rather than the coarse-scale federal statistical areas.
 - (f) The lack of detailed information hampers the analysis and has led to many unsupportable or weak assumptions. RPAs that improve the scientific basis for these assumptions could be explored in the EA/RIR. Additional investigations could include more frequent surveys or use of tracking devices on sea lions and fishing vessels.
 - (g) Page 87 of the Pacific cod EA/RIR presents language that concludes that "action undertaken to maintain and enhance western Steller sea lion resource results by definition, in a benefit stream to the Nation." We note that the societal benefits of preserving a species may be high (because society has decided to "preserve" the species), but it cannot be inferred that the economic benefits of RPA's exceed the economic costs. Consequently, it should not be surprising if adoption of RPA's fails the net benefit test.
2. Exploitation rates of Pacific cod have been in the range of 5-20% in the recent past. Furthermore, the Pacific cod population has been relatively abundant since the regime shift in the 1970's. Even allowing for potentially higher exploitation rates in critical habitat, there remains a large amount of Pacific cod available for Steller sea lions. The document should discuss this information in relation to the

hypotheses in the document that food limitation is the most likely explanation of Steller sea lion declines and that the cod fishery contributes to this limitation.

3. The fishery CPUE analysis necessarily uses observer-sampled trips to identify location. Efforts should be made to determine if non-observed trips have similar distribution patterns by examining vessel logbooks or fish tickets if available. Furthermore, it would be useful to know the amount of catch from observed and unobserved trips by vessel class to see if unobserved catch is an appreciable portion of the total.
4. The EA should put the food-limitation hypothesis in context of the suite of hypothesis regarding factors that may impede for the recovery of Steller sea lions. Specifically, how important is potential food limitation due to competition with cod fisheries relative to, for example, killer whale predation or an environmental regime shift? This discussion is necessary so that the efficacy of the alternatives on Steller sea lions recovery is adequately addressed in the document.
5. Under the null hypothesis of food competition, evaluation of the potential for fishery/sea lion interaction should initially attempt to determine the probability of simultaneous pursuit of prey by sea lions and the fishery. This evaluation should focus at the population level and can be illustrated by the joint probability of Steller sea lions and fisheries occupying the same space, in pursuit of prey of the same size. See appendix A for an example of this approach. RPA's should then be constructed to reduce the likelihood of such interactions.
6. The reliance on correlation between short time series of fishery removals and Steller sea lion counts is subject to several flaws. First, because Steller sea lions do not prey on fish that have been removed by the fishery, the relevant time series for comparison is the abundance of prey in areas frequented by Steller sea lions not the quantity of fish harvested from those areas. This distinction is important because the spatial distribution of catches is strongly influenced by management restrictions on fishing areas and bycatch, and harvesting costs and cannot be assumed to closely mirror the distribution of stock abundance. Second, it is important to remember that correlation is not causation. [That is, the demonstration of significant correlation between data series A and data series B is consistent with the hypothesis that A causes B or the hypothesis that B causes A or with the hypothesis that some other process C causes both A and B.] Focusing on time series that coincidentally correspond with the period following a known regime shift creates the strong possibility that the series are only correlated with each other through their shared correlation with the regime shift. Third, the short time series usually used to examine contemporaneous correlations that are unrelated to Steller sea lions biology. Longer time series would allow examination of lagged correlations that offer more plausible mechanisms for food availability affecting Steller sea lion population trends.

While resolution of these issues is constrained by the extremely abbreviated data series on Steller sea lion abundance, the data series on Pacific cod and other fish species are more extensive and convey important understanding about the long-period dynamic variability of the marine ecosystem. For example, the time series of cod biomass estimates extends into the 1950's and evidences that abundance was low during the 1950's, 60's, and 70's. Similarly, Pacific cod catch data series are available or can be constructed extending back into the 1800's. Examination of the catch data suggest that cod abundance has varied through time with periods of high and low abundance that may differ by one or more orders of magnitude. While Steller sea lion population counts are only available for recent years, it is possible that traditional knowledge could be used to extend the time series of population indices. At a minimum, the revised EA/RIR should more fully reflect the available data on cod stock abundance and catches.

7. The SSC is concerned that the EA/RIR fails to clearly differentiate between conjectures and facts. Examples - p.22, first 2 sentences. A period should be placed after spring or identify the rest as a hypothesis. Other hypotheses could also explain the data. Also p.21 (bottom) "areas critical to the foraging success of Steller sea lions." should be changed to "designated Critical habitat."
8. The EA/RIR should clearly state that the effects of the proposed alternatives on Steller sea lion abundance are unknown and, without a well-crafted experimental design, the outcomes of adopting the alternatives will also be unknown. That is, if one or more of these alternatives is adopted and the Steller sea lion population increases (decreases), it will be impossible to know which if any of the alternative contributed to or impeded stock recovery unless an orthogonal control (a region that is not subject to the alternative) is established. While the establishment of control and treatment regions presents an ethical dilemma, similar dilemmas are often encountered in medical research where it has been widely recognized that without controls, the efficacy of treatments cannot be determined. Because treatments are costly and may be detrimental, the concept of controlled experimentation has been accepted as necessary even in cases that may include significant risk.
9. Caution should be exercised in consideration of the projected economic impacts. The impacts are expressed in terms of gross revenue losses (gains) and do not estimate associated changes in costs. The impact to net revenues (profits) will be less than the impact to gross revenues. In addition, it is likely that some of the catches foregone in the areas closed under the various alternatives could be taken outside the closed areas, albeit at higher variable costs. Because the proposed alternatives could lead to temporal and spatial shifts in fishing effort, they will affect the catch of prohibited species and the potential for interaction with short-tailed albatross. Bycatch caps could prevent the fishery from meeting seasonal and spatially apportioned TACs increasing losses to the fishery.
10. The Purpose and Need statement on page 8 of the P-Cod EARIR defines the working objective for the entire analysis.

"The purpose of this action is to develop and implement management measures that reduce or eliminate competition between the Pacific cod fisheries and Steller sea lions by precluding fisheries around rookeries and major haulouts and by dispersing the fishery over time and space to minimize the likelihood of locally depleting prey resources to foraging sea lions that might lead to adverse modification of habitat."

We are concerned that the Purpose and Need statement draws specific conclusions that are not consistent with other statements under 2.2.2 (Management Framework Specific to Formulating the Alternatives for this Federal Action). For example, page 19 states that there is a "potential" for competition. The Purpose and Need statement states that competition between P-Cod fishing and Steller sea lions exists and must be eliminated or reduced. The Purpose and Need Statement also does not allow for alternatives that would enhance our understanding about predator/prey relationships, and learning from research or adaptive management. In addition the Purpose and Need Statement is constraining to other possible alternatives that might consider tools other than precluding fisheries and dispersing the fishery.

To correct these misspecifications in the Purpose and Need statement we suggest that the Council consider recommending alternative formulations that reflect a more holistic and science-based approach to management of Pacific cod and recovery of Steller sea lions.
11. The document should include additional information about Steller sea lion biology, distribution, and dynamics, which can be extracted from previous Biological Opinions . What evidence supports the

hypothesis that Steller sea lions are food-limited? Are there actual estimates of juvenile survival standard errors? Which areas have shown the largest declines and have these been correlated to other variables? Were the alternatives developed with particular life history stages (e.g. juveniles)? Should alternatives be considered that focus on juvenile distribution and diet?

12. Where possible, all estimates should be reported with standard errors, confidence intervals, or credibility intervals.

Appendix A. Probabilistic Approach to Interaction Between Steller Sea Lions and the P. Cod Fishery

The objective here is to present a conceptual model for quantifying the potential interactions front between Steller sea lions and the fishery. The size of this front could be a useful criterion for classification of jeopardy to recovery of Steller sea lions due to fishery management practices. Moreover, it could also serve to index changes in the front resulting from proposed alternatives. The mechanism relies on estimation of the probability that sea lions and the commercial fishery simultaneously pursue the same prey.

We recognize that parameter values for the various levels discussed in this framework are subject to qualifications, and that there are limited data upon which to estimate these values. We also acknowledge that other levels of interaction may need to be incorporated into the conceptual model. Regardless, a quantitative approach of this type is necessary to generate a perspective on the relative significance of potential interactions. At a minimum, a Delphi-type process involving fishery and marine mammal scientists could be invoked to identify the approximate range of parameter values.

A simple example with five levels of interactions (3 spatial, 1 temporal and 1 trophic) can be used to illustrate the approach.

Spatial

1. Total fraction of the sea lion population that exists within 20 nautical miles of significant fishing locations. Use the proportion of sea lions counted at rookeries and haulouts during the most recent annual census. (For illustration, it will be assumed that somewhat less than 80% of the Steller sea lion population is to be found within 20 nautical miles of these haulouts and rookeries.)
2. Fraction of sea lions in the vicinity of active P. cod fisheries that transpire more than 10 nautical miles away from rookeries and haulouts. (For illustration, we will assume that sea lions are distributed log-normally with respect to their distance from land and; that 50% of sea lion foraging on any given day takes place at least 10 nautical miles away from rookeries and haulouts.)
3. Fraction of the sea lion foraging dives that reach depths greater than 60 meters. (For illustration, it will be assumed that 30% of the foraging dives exceed this depth.)

Temporal

1. Fraction of the total sea lion foraging days that overlaps with the period of time when P. cod are being fished. (For illustration, assume that the fishery is open for 180 days (90 in the winter and, 90 in the fall), i.e., 50% of possible sea lion foraging days.)

Trophic

1. Fraction of the size distribution selected by the fishery that overlaps the preferred size of prey sought by sea lions. (For illustration, there is assumed to be a 30% prey overlap.)

In this example, the probability of an interaction with the fishery is the simple product of the individual probabilities. That is the joint probability of a sea lion and P. cod fisher affecting the availability of the same

prey. Given the probabilities assumed above, the probability of interaction is $0.8*0.5*0.5*0.3*0.3=0.018$. That is, the probability of simultaneous competition for the same prey would be less than 2%. Seasonal probabilities could easily differ from these presumptive rates, and the potential for interaction may be different among seasons accordingly. For example, during the active P. cod fishery the fraction of sea lion foraging days that overlaps fishing days is 100% and the resultant probability of interaction during those days rises to 6% all else being equal in the above scenario. This type of approach to gaining some perspective on the potential interaction should be evaluated. Other approaches that meet this conceptual model may be appropriate and we encourage their development.

Note, that after having established an estimate of the probability of interaction, it would still need to be determined whether the potential adverse interaction is likely to represent a realistic impediment to Steller sea lion population recovery, or more to the point, the degree to which reasonable and prudent alternatives to current management practices reduce the probability of adverse interactions and improve the likelihood of Steller sea lion population recovery.

C-1 MRAG - INDEPENDENT OBSERVER PROGRAM REVIEW

Dr. Graeme Parkes presented an independent program review of the North Pacific Groundfish Observer Program (NPGOP). Dr. Dan Ito and Martin Loefflad presented the Observer Program Office (OPO) response to the MRAG report. Public testimony was provided by Trevor McCabe (At-Sea Processors), Ron Dearborn (Sea Grant, University of Alaska), and John Gauvin (Groundfish Forum).

The purpose of the MRAG report is to provide an independent review of the NPGOP, and provide recommendation for its improvement. As a review and report, MRAG has clearly described the program and the critical issues and problems surrounding it. Although, the issues surrounding NPGOP are generally well known among stakeholders, MRAG's experience in evaluating observer programs internationally suggests that their recommendations for change should be thoughtfully considered. Dan Ito, Program Leader of the OPO concurred with most recommendations. Key recommendations are:

1. Revise program goals and objectives.
2. Develop a service delivery model (SDM) with NMFS as the client.
3. Develop more equitable sharing of program costs.
4. Place observers to insure random sampling when there is less than 100% coverage.
5. Develop a less confrontational evaluation and better support of observers.

The OPO has made the revision of program goals and objectives a top priority. The SSC notes that the core goals and objectives of the observer program are to provide catch, bycatch, and biological data necessary to support in-season monitoring and stock assessment and should not be compromised by other competing goals and objectives.

There appears to be a growing interest in defining the level of observer coverage. The SSC recommends that observer coverage levels and alternatives for achieving them consider both benefits and cost of the options. To accomplish this, a mechanism should be devised to obtain improved observer cost data from the six observer contracting companies.

The OPO plans to explore alternative SDM by contracting out the AFA catch/processor mothership fishery as an observer module. This approach appears to be of interest to the fishing industry. However, public testimony indicated that another module, quite different from the catcher/processor module should be included

in the pilot program. This would provide contrast and a more realistic evaluation of the feasibility of this OPO contracting approach.

The SSC noted a need to better attract and retain observers. Although the rate of observer turnover appears no greater than similar programs, better retention could significantly improve program efficiency. Giving observers more professional responsibility through the OPO might help. Also, changing observer qualification criteria to accept individuals who lack a bachelor degree, but have other relevant experience could result in a larger hiring base with greater observer retention.

Concerning observer coverage, the SSC has several times noted that when observer coverage is less than 100%, observer placement must be random over available vessels. The SSC concurs with MRAG that NMFS should control the placement of observers on vessels.

In its December 1995 minutes, the SSC noted that the observer program should:

1. Have statistically sound levels of coverage.
2. Be flexible enough to provide representative data from all fisheries.
3. Provide "arms length" relationship between observers and recipients.

These are echoed in the current MRAG report.

In fact, the last 5 years, the SSC has examined aspects of the observer program and total catch measurement in September 1995, December 1995, January 1996, April 1996, June 1997, February 1998, June 1998, October 1998, February 2000 and April 2000. The SSC attempts to review some aspect of this program at its February meeting when staff is available.

C-5 (b) SOCIAL AND ECONOMIC DATA COMMITTEE REPORT

The SSC received a report from Chuck Hamel (NPFMC) on the August 15 meeting of the Social and Economic Data committee. This meeting, requested by the Council and suggested in the June 2000 SSC minutes, discussed current problems with the Alaska Fishery Science Center (AFSC) groundfish survey of costs, earnings and other economic variables. This survey was characterized by the committee as an initial step in developing a database for the analysis of some net social benefits and costs of Federal fishery management actions. It was also recognized that the Council itself may have additional data needs, and these should be considered in future meetings of the committee. The primary difficulty with the survey based pilot project is that some industry sectors have strongly objected to providing individual firm level data. Consequently, the survey response rate has been very low.

Participants from the Factory trawling sector and inshore pollock sector have suggested as an alternative that industry might be willing to provide aggregate reports for NMFS using an industry generated and controlled data set. Social and Economic Data Committee agreed that a working group should be formed to evaluate and report on the feasibility of such an effort.

While the SSC regards this working group as a potential starting point for negotiation leading to enhanced data collection, we see a need for Council to set some specific timelines for progress. The quality of economic information for the regulatory process has not kept pace with other management information. As a consequence, the quality of analysis that can be conducted may have difficulty withstanding legal challenge

under, for example, the Regulatory Flexibility Act. We believe that the level of urgency for progress is high. In addition to a need for time certain results from this cooperative effort, we are also concerned that there may not be sufficient industry participation in the work group. For example, there were no representatives from the catcher vessel sector during the August 15, 2000 meeting and those industry members who were present were not empowered to commit their company's participation, let alone that of other members in their sector. We need active participation from all sectors to avoid collapse of data collection efforts.

The social and economic data committee will hold further meetings to discuss an array of approaches to develop a comprehensive data collection system for the needs of the North Pacific Fishery Management Council.

C-5(c) HABITAT AREA PARTICULAR CONCERN (HAPC)

The SSC heard a report from Dave Witherell regarding process on HAPC initiatives. The SSC commends Dave Witherell and Cathy Coon for publication of a paper on protection of Gorgonian Corals off Alaska.

MISCELLANEOUS

The SSC reviewed two Plan Team nominations. The first, Mr. Herman Savikko for membership on the Bering Sea/Aleutian Islands Crab Plan Team and the Scallop Plan Team, submitted by the State of Alaska, Department of Fish & Game. The second was nomination of Ms. Kathy Kuletz by the United State Department of the Interior, Fish & Wildlife Services. The SSC recommends approval of these nominations.

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ADVISORY PANEL MINUTES Sheraton Hotel, Anchorage, Alaska September 6-9, 2000

Advisory Panel members in attendance:

Alstrom, Ragnar	Jones, Spike
Benson, Dave	Jordan, Melody
Bruce, John (Chair)	Kandianis, Teressa
Boisseau, Dave	Madsen, Stephanie (Vice-Chair)
Burch, Alvin	Nelson, Hazel
Cross, Craig	Ogden, Doug
Falvey, Dan	Ridgway, Michelle
Fanning, Kris	Steele, Jeff
Fuglvog, Arne	Stephan, Jeff
Fraser, Dave	Yeck, Lyle

B-1 (b) October Agenda

The AP requests the Council direct staff to include the following problem statements as items for consideration in the context of the staff tasking agenda item in October.

Action to allow inshore coops to contract with non-member inshore AFA CVs to harvest coop allocation.

1. Problem Statement: NMFS' current Emergency Rule implementing AFA and its proposed Final Rule allow only those CVs that are members of an inshore coop to harvest and deliver pollock allocated to that coop. It is not permissible under current NMFS regulations for a CV that is a member of a coop to assign its right to harvest its coop shares to another inshore AFA vessel that is not also a member of the same coop, nor is it possible for a coop to contract with non-member AFA CVs to assist in harvesting its coop allocation.

The following are some of the adverse results under status quo:

A. If a coop CV is unable to harvest its coop shares, the universe of available CVs to take its place is very limited under existing regulation and as a practical matter may make it very difficult or impossible for the CV owner to make reasonable arrangements for the harvest of its coop shares. In some coops there may only be processor-owned vessels available that have enough capacity to harvest the member's share which will place the independent catcher vessel owner at a substantial disadvantage. In addition, in some coops, the remaining member vessels simply may not have the capacity to harvest the coop shares of the member vessel that is not able to harvest its own share for the season in question.

B. In some cases it may not just be that it is impossible for a coop catcher vessel to harvest its share, but it may be very inefficient for it to do so. Some CVs have a relatively small amount of pollock quota and for

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them to travel to the Bering Sea from the Gulf or west coast to fish in every season, for example, in a Summer/Fall season where the price is low, is extremely inefficient. It would be beneficial to the catcher vessel owner to have the maximum flexibility to allow other CVs already on the grounds to harvest their quota. This would also be consistent with reducing gear and effort on the grounds.

C. Small CVs are particularly at a disadvantage with the SCA now closed even to CVs under 99 feet. For these vessels to now be forced outside the SCA to harvest their own coop shares will increase safety risks. In addition, there may be times that safety could be improved for CVs that are not included within the 99 foot rule. For example, during certain seasons or times of the year, safety could possibly be improved in situations where midsize vessels could have additional flexibility to allow other larger CVs to harvest their shares. This flexibility is not always available within the coop under the existing regulation.

D. Independent CVs that are unable to make reasonable arrangements for other coop members' CVs to harvest their shares are essentially permanently damaged because of the lack of flexibility in being able to switch to coops where more harvest flexibility may exist. This is because the Council decided under Dooley-Hall that CVs may not switch coops without first fishing open access for a year. As a result, there is no practical solution for a CV to find another harvesting solution for its vessel except within the captive market of its own coop.

Action to allow an inshore coop to contract with another processor in the event its processor is unable to process.

2. Problem statement: Pursuant to the AFA, once an inshore coop is formed, it enters into a contract with the eligible shoreside processor whereby the processor agrees to process the pollock to which the coop is entitled. Thereafter the coop is required, by the terms of the AFA, to deliver at least 90% of the coops allocation to that inshore processor.

No provision is made, within the AFA or elsewhere within regulation, to take into consideration the situation whereby the processor may, for a variety of reasons, be unable during one or more pollock seasons to process at least 90% of the coops' pollock allocation. These circumstances could include temporary or permanent financial inability to continue as a processor for one or more seasons. The processor could incur a partial or total casualty which could impair its ability for one or more seasons. In addition, natural elements could prevent processing to the degree required by such events such as lack of water or other essentials for processing.

If the coop's processor is unable, for any reason, to process at least 90% of the coop's pollock in any season, the coop members would suffer irreparable harm for the reason that there are no alternatives provided for allowing the coop to continue operating and deliver this pollock elsewhere. It is in the best interest of both the AFA inshore processors and the AFA inshore CVs to make immediate provision for resolution of this issue to avoid the risk of a coop suffering economic disaster.

Motion passed unanimously 20-0.

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C-3 AFA Crab Processing Sideboards

The AP recommends the Council exercise its authority under section 213 of the AFA to lift the crab processing caps contained in Section 211 of the AFA. The AP understands this would be by emergency action in order to be in place for the 2001 opilio season.

Motion passed 10-8-2.

C-2 Steller sea Lion P-Cod interactions

The AP concurs with the SSC that the premise upon which Council action is based is so tenuous that the AP's adoption of the alternatives is imprudent and may deprive individuals and communities of their livelihoods without justification. However, because this is the initial review we feel compelled to add additional options and information sources for review and analysis in the event that NMFS chooses to proceed with this action. The following alternatives are recommended for inclusion in NMFS's environmental analysis.

Motion passed 17-0.

Alternative for the GOA:

- A. Divide fishery into two seasons. ("A" & "B")
 - 1. Season A: January 1 - April 30
 - 2. Season B: May 1 - December 31

- B. Phase in implementation of seasonal and critical habitat TAC limits.
 - A. B season CH limit to be frameworked and based annually on biomass distribution in summer survey.
 - B. No B season limit in CH. (*Motion passed 15-0*).
 - 1. 2001 "A" Season: No more than 80 % of TAC and no more than 60% in critical habitat.
 - 2. 2002 "A" Season: No more than 70% of TAC and no more than 50% in critical habitat.

Note: The phase in would be superceded when winter survey data on biomass distribution is available

- C. Keep federal waters open under current regulations around rookeries and haulouts open to all gear types.

 - D. During the federal fishery within State waters, (zero to three miles), the fishery will start on January 1 and fishing may occur within currently open rookeries and haul out areas. The fishery is limited to pot and jig vessels with the following restrictions:
 - 1. Pot Limits
 - a. 60
 - b. 75
 - c. 100
- (Motion passed 13-1)*

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2. A 5 mechanical jigging machine limit for vessels using jig gear.
3. Retain inside trawl exemptions provided by Board of Fisheries in Shumagins
(*Motion passed 13-2*)

E. Remainder of seasonal and critical habitat limits in federal waters is allocated to catcher vessels, catcher processors and pot fisheries by gear type based on historic catch and percent within critical habitat.

Alternative for the Bering Sea

The AP recommends that an additional alternative be added to the EA/RIR for the Bering Sea. The elements of this option are:

A. Management measures

1. Two seasons, A and B

Rationale: This part of the mechanism we propose to spread harvest across the year in CH (CH as identified in this alternative NOT as defined by NMFS that includes haulouts. *Motion passed 15-1-1*) waters of the Bering Sea

2. A season start/end dates

	<u>Trawl</u>	<u>Fixed Gear</u>
A season start	January 20	January 1
A season end	May 31	May 31?
B season start	June 1	June 1
B season end	November 15	December 31

Rationale: This A season start provides to fixed gear fleet the advantage of access to their traditional fishing grounds and reduces the potential for high catch rates at the outset of the season by delaying the start of the trawl fishery until January 20. The B season start for the fixed gear sector should balance catch objectives with potential for significant rollovers and bycatch considerations. The end date for B season for trawl is the date used for the Atka mackerel trawl fishery.

3. Critical Habitat limit on P. cod removals in the A season:

A season TAC=60% of annual TAC and 60% of the A season TAC can be taken in CH in A season

Note: This season split should be used to determine the A season harvest limit for CH. This alternative does not limit the amount of cod that can be harvested outside of CH.

Rationale: This is a mechanism to ensure a balanced harvest of cod in CH throughout the year, while still preserving some element of the basic nature of the fishery which is that cod are best fished for when they are aggregated during the first part of the year.

The actual winter distribution of P. cod is currently not obtainable from available data, but distribution of cod fishing effort in the Bering Sea suggests that cod are mostly found in the Bering Sea CH for at least the first two to three months of the year. When a winter survey is conducted, the proportion of P. cod in CH can be substituted for the above CH fishing limit.

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4. No A or B season limit outside CH

Rationale: The objective is to spread fishing over the year to reduce potential for competition with Steller sea lion foraging. Given that increased fishing outside of CH has little or no impact on sea lion CH and serves to reduce overall CH removals to below the "A" season CH limit, then fishing outside of CH should not be limited. This could also help the industry reduce the economic impacts of modifications to the cod fishery by increasing opportunity to harvest the entire TAC in an area that is less important to sea lion foraging, as per the designation of CH.

5. No "B" season CH limit

Rationale: Cod are not primarily located in CH during the second portion of the year and little fishing occurs in CH for that reason. The creation of a "B" season limit could actually trigger a small "race for fish" inside CH.

6. CH cod catch in the "Residual CH" area do not count against CH catch limit

Rationale: The "crescent" shaped area on the eastern edge of sea lion CH (also referred to in the analysis as "residual SCA") is **not** CH. This means that in designating CH, the area once sufficiently distant from areas in the feeding range of sea lions to mean it was not included in the CH designation. The argument in the analysis that "edge effects" could occur could be said of any area adjacent to CH, regardless of how far that line is placed.

7. Attainment of CH "A" season limit closes CH to directed cod fishing only. Bycatch in non-cod target fisheries should be deducted from individual gear and sector catch limits, based on historical usage. Attainment of the CH limit should trigger MRB (bycatch-only) status for cod in CH, not closure of area to non-cod target fisheries

Rationale: Flatfish and other non-pollock fisheries that occur during the proposed "A" season period do not generally take large quantities of cod as bycatch. Evidence of this is apparent when catch per week of cod is evaluated in weeks where P. cod is closed to directed fishing or in weeks when little or no cod effort is occurring. There is no reason to hamstring vessels targeting other species that need to fish in their traditional areas in order to maintain catches at economic levels and low bycatch rates.

8. Rookery "no-trawl" areas to be maintained according to current regulations.

Rationale: Sea lions demonstrate no fidelity to haul outs and use of haul outs is variable (testimony of John Burns to AP on September 8, 2000). Existing measures restricting trawl fishing for non-pollock species to outside ten miles around sea lion rookeries (including the seasonal 20 mile closures at three specific sites) have not been tested for efficacy. Until this research is done, there is no evidence to suggest that extension of the rookery closures will benefit sea lions.

9. Fixed gear can continue to be fished in rookery "no trawl" zones (note: fishing with any gear is not restricted in haulouts)

Catch rates of cod per week by the portion of fixed gear vessels fishing in Bering Sea CH are relatively low. To force these vessels to fish outside of rookeries could impact their ability to fish (in the case of smaller vessels) and will create needless grounds conflicts and possibly gear conflicts.

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B. Proposed distribution of allowed CH fishing between different gear sectors

The “pain sharing” formula will use historical dependence on fishing during the first half of the year and historical dependence on fishing to determine fishing limits in CH in the first half year per gear and sub-sector.

The principle for compensation for pain sharing, as we envision it, would be that in the event of a significant rollover of cod from trawl to fixed gear, the trawl sector would work with the fixed gear sector to maximize the ability of the fixed gear sector to harvest the fish that are rolled over. A formula for rolling over cod earlier in the year so that the rollover works for the fixed gear sector should also be developed.

Motion passed 15-1-1.

Additionally, the AP recommends the Council delete Alternative 3.

Motion passed 15-0.

The AP further recommends the Council identify Alternative 1 as the preferred option for both the Gulf of Alaska and the Bering Sea and Aleutian Islands.

Motion passed 12-0-3.

Further, the AP requests the Council request NMFS prioritize an annual winter biomass surveys in the GOA, BSAI and that adaptive management research and surveys be allowed to continue in critical habitat.

Motion passed 15-0

The AP shares the concerns identified by the SSC regarding the EA/RIR. In addition to the changes recommended by the SSC, the AP recommends that the council make the following comments on the draft EA/RIR on Cod and Sea Lions:

The analysis needs to be enhanced with the following information to better evaluate the question of competition between the fishery and the sea lions. Therefore the AP recommends the following:

Where there is discussion in the text concerning elements of overlap (diet composition, fishing/diving depths, size composition, etc.) that the text avoid presenting information on the extreme ends of those ranges of data, without providing characterization about the distribution of the data that provides the reader with a clear understanding of the central tendency of the data.

The presentation of fishery depths and sizes on pages 37 & 38 is an example of an appropriate presentation.

Examples of inappropriate presentations:

- Page 53 Sea lions dive up to 250 meters (doesn't represent the avg or range)
- Page 57 Sea lion scats contain up to 62% cod (doesn't give avg or range)
- Page 57 Sea lions consume cod up to 80 cm (nothing in data to support-only one data point of 75)
- Page 28 Mackerel, herring, capelin, etc. can be less than 5% of cod diet in any given year (no average given per year).

Though the EA “tears” off the prior BiOps, the public would be better informed if important information regarding sea lions were recapped (and updated) in the EA.

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- Population data (both counts and population estimates by year and area, including pup counts and pup population estimates by year and area). This should update and expand upon Table 7 from the December 1998 BiOp.
- Telemetry data on sea lion dive depths should include and update figure 36 from the December 1998 BiOp. (Including similar data tables from the paper on diving behavior by Loughlin et al. 1998, as well as a review of information on ongoing research that may be available to the agency but not yet in press.)
- Expanded information on GIS analysis of foraging patterns (presented in such a way that the reader has an understanding of the central tendency of the data, as well as the extremes of the ranges.), including a review of information on ongoing research that may be available to the agency but not yet in press..
- Presentation of quantitative data on estimates human caused sea lion kills and an estimate of their contribution to the decline.
- Presentation of best available data on estimates of killer whale populations and their consumption of sea lions and the role they might play in impeding recovery.
- A review of the literature regarding the applicability of the “nutritional stress” hypothesis to the decade of the 1990s, with regard to data on condition factors of sea lions, including a review of information on ongoing research that may be available to the agency but not yet in press..
- A presentation of the case for “regime shift hypothesis.”

The EA should also include a quantitative analysis of the probabilities of overlap and competition as outlined in the SSC minutes. This should include quantification of the area of overlap in depth by category of animal (ie: juveniles, lactating females, etc.) and by fishery and area. It should also include a quantification of overlap in diet in both weight/biomass consumed by the fishery and by sea lions by age/size class of cod by area.

The analysis of total groundfish consumption by Stellers presented on page 55 is based on 1980's population estimates and provides little area specific information. This portion of the EA needs to be updated using current population levels by area, and broken down by key prey species to the extent possible. A review of the current literature should be undertaken (including a thesis by Winship in 2000) for more recent estimates.

The size analysis of cod in sea lion scat shown in Figure 31 on page 235 is a much smaller data set than Table 3 of the June 2000 discussion paper. Both sets of information should be included in the EA. Additionally, the review of stomach contents studies from the December 1998 BiOp should be included (Table 6 pages 147-157)

The preliminary CPUE analysis presented on page 34-37 and in figure 5 should be include only if the deficiencies noted by the SSC are incorporated. Additionally, the statement concerning interpretation of the Martin Smith analysis based on this work (page 49) should be deleted.

CPUE analysis should be undertaken to compare winter and summer CPUEs in CH as a potential index of

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abundance changes between seasons. However, any further CPUE work undertaken should avoid mixing CV and CP catches, as well as mixing target and non-target catches. Time series of CPUE data should clearly delineate the opening and closing of target fishing in the study areas, or sub-components thereof.

The EA should include a thorough review of the cumulative measures that constitute the current cod fishery management regime, together with the matrix of closures that apply to the cod trawl fishery, as well as a quantification of the reduction in fishing for pollock and mackerel in CH that has resulted from actions related to sea lion concerns.

The estimate of cod in the SCA based on the summer trawl survey should include the amount of cod estimated in the Southern Bering Sea portion of the AI survey.

The statement regarding bottom trawl and Spectacled Eiders on page 72 should be deleted.

Expand the tropic analysis relative to P.cod diet.

Include information on how rookeries and haulouts were identified, particularly the haulouts.

Discussion on page 41 regarding edge effects should be deleted from the document as the crescent is not designated as CH and edge effects, by definition, would occur anywhere the edge is replaced.

An expanded discussion on the ramifications of the state water fishery relative to the federal fishery.

Motion passed 16-0.

Also, the AP recommends that the Council send a letter to Congress requesting that the \$7 million line item in the Department of Commerce's budget for Steller sea lion research be earmarked for immediate use by NMFS RACE division to launch winter biomass surveys in sea lion critical habitat and the 3 aquatic foraging habitat areas this year. This letter should emphasize that at a minimum this level of funding is needed on an annual basis to provide essential data for managing fisheries. We further recommend that NMFS utilize commercial fishing vessels, crews and expertise, as well as collaborate with the State of Alaska to the extent possible to most efficiently use these limited funds to conduct stock assessment and management efficacy studies.

Motion passed 16-0.