

North Pacific Fishery Management Council

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**148th Plenary Session
January 12, 2001
Doubletree Hotel-Seattle Airport
Seattle, Washington**

The North Pacific Fishery Management Council convened a special meeting to consider the following issues:

- (a) Consult with NMFS on emergency rule, and specifications, for first half of 2001.
- (b) Discuss measures related to second half of 2001.
- (c) Discuss schedule for protective measures for 2002 and beyond (including role and timing of Council Committee).
- (d) Develop schedule and proposal for independent scientific review of BiOp and underlying hypotheses.

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ADVISORY PANEL MINUTES January 11, 2001 Doubletree Hotel - Seattle Airport Seattle, Washington

Certified by

Date

04/13/01

Advisory Panel members in attendance:

Alstrom, Ragnar
Benson, Dave
Boisseau, Dave
Bruce, John (Chair)
Burch, Al
Cross, Craig
Ellis, Ben
Fields, Duncan
Fraser, David

Fuglvog, Arne
Henderschedt, John
Jones, Spike
Madsen, Stephanie (Vice Chair)
Norosz, Kris
Ridgway, Michelle
Steele, Jeff
Ward, Robert

Steller Sea Lion-related Management Issues

(a) Specifications

The AP recommended Tables 13 - 15 be corrected to reflect the 60/40 Pacific cod split for catcher processors and AFA catcher vessel sideboards. *Motion passed 17-0*

(b) Measures Related to Second Half of 2001

The AP recommends that the Council advise NMFS against making a commitment to the long-term experimental design at its present stage of development. We encourage NMFS to refine the experimental design and fishery management measures with the input of the myriad review teams and objective application of SSL conservation and research goals. Further, the AP recommends that NMFS dedicate staff and funding to initiate smaller-scale experiments and research designed to maximize the opportunity to address key unknowns about sea lion biology, fishery impacts, and ecosystem interactions.
Motion passed 17-0

(d) Schedule/Proposal for Independent Scientific Review of BiOp

The AP, after receiving information regarding the timeline proposed by the NAS, recommends the Council conduct the scientific review in consultation with NAS in developing parameters of the review and identifying qualified individuals to ensure the review is completed in time for the Council's related tasks.

MEMORANDUM

TO: Council and AP
FROM: Chris Oliver *Chris*
Acting Executive Director
DATE: January 10, 2001
SUBJECT: Steller sea lion related management measures

ACTION REQUIRED

- (a) Consult with NMFS on emergency rule, and specifications, for first half of 2001.
- (b) Discuss measures related to second half of 2001.
- (c) Discuss schedule for protective measures for 2002 and beyond (including role and timing of Council Committee).
- (d) Develop schedule and proposal for independent scientific review of BiOp and underlying hypotheses.

BACKGROUND

In December the Council reviewed the Biological Opinion (BiOp) and associated RPAs, and adopted the motion attached as Item (a). For reference, Council staff have summarized the basic elements of those RPAs in Item (b). Since the December meeting, a Congressional rider was attached to the appropriations bill which attempted to address Council and industry concerns regarding the BiOp and implementation of those RPAs. That language is attached as Item (c). Working with the Administration, NMFS has interpreted the provisions of that Congressional rider and will summarize the emergency rule which they intend to implement for the first half of this year, pursuant to that Congressional direction.

That emergency rule will be in effect for 180 days, at which time it could be rolled over as is for the latter half of 2001 (which could likely be done at the June meeting), or could be adjusted in certain areas by the Council (which would have to be done at the April meeting, or at a special May meeting). NMFS will provide further detail on the areas for possible adjustment and the criteria involved in those adjustments. Item (d) is the letter from NMFS describing this process, along with the proposed specifications for this year.

A formidable issue remains what to do for 2002 and beyond. Part B of the Council's motion from December involves review and analysis of the proposed RPAs compared to previous RPAs, as well as options in the 2000 draft Pacific cod EA/RIR/IRFA (and those proposed for analysis by the Council at the September 2000 meeting). This seems to feed directly into the overall amendment package which will be required for appropriate measures for 2002, without which the fishery would revert to the RPAs contained in the BiOp, according to the interpretation of the rider language. It seems that this analytical process has to begin concurrent with other initiatives and have a Council final decision by October to be in place for 2002, as it is apparent that a separate, additional consultation will have to occur on that amendment package. That process needs to be considered in the context of the parallel independent review in terms of its relationship and timing, as well as the work of the Council's RPA Committee (to be established after this meeting).

Item (e) is a draft summary of timelines of these different vectors for your reference and discussion. This is a very skeletal outline which does not detail all of the analytical and process related steps involved, but provides a general picture of the major vectors. In February we expect to provide you with more detail on these steps and a more definitive game plan for how to get all this done.

A key component of this overall picture is the independent review requested by the Council, the Congressional rider's language regarding the involvement of the National Academy of Science (NAS) in that review, and the \$2 million which is being provided directly to the Council to accommodate that review and other Steller sea lion related Council actions. The Council' Steering Committee has discussed this issue, particularly the involvement of the NAS and the timing of the completion of that review relative to other timelines. I have also discussed these issues directly with Susan Roberts of the NAS earlier this week. She, along with Elizabeth Clark from NMFS, will be here to discuss the NAS involvement with the Council this afternoon, and be available Saturday morning for additional discussions if necessary. Chairman Benton and I will also be in DC later this month for a Council budget meeting and have arranged, tentatively, for additional meetings with NAS as necessary. I have also discussed the availability of the \$2 million with appropriate NMFS personnel, and it appears it will not be a problem getting these funds available in time to facilitate the independent review.

Recall also that our SSC is conducting its review of the BiOp and will have detailed comments in February for Council consideration, which would likely be forwarded for consideration in the independent review. For your reference, Item (f) is a summary of the major questions raised by the SSC in previous meetings. We also have available for reference the complete SSC, AP, and Council minutes in this regard. The greatest dilemma at this points appears to be in the timing. A draft workplan from the NAS (Item (g)) proposes a brief, interim report seven months after receipt of funding, with a full in-depth report in 24 months. Obviously this will not fit the Council's schedule of events and we will need to discuss potential adjustments to this schedule, or an alternative approach to the NAS involvement in the independent review. Even with an expedited schedule, it may be unrealistic to expect the independent review to be completed in time to provide information to the Council for its action in April/May regarding the second half of 2001; however, we would certainly need that review to be completed in time to provide information for the more permanent action regarding 2002 and beyond.

Item (h) is a memo summarizing current recommendations from the Alaska Steller Sea Lion Restoration Team. Also for reference (Item (i)) is a matrix summarizing the sequence of RPA recommendations by the Council (and RPAs actually implemented by NMFS) since 1999. Additional materials, including letters received in our offices and full reports from the Restoration Team, are also in your packet.

Final Council Motion on SSL at 9:35 am - 12/9/00

- A. That the Council not adopt the conclusions of the BiOp of 11/30/2000 with regard to Steller sea lions or the RPAs contained therein.
- B. Call for a Council review and analysis of the proposed RPAs in the current biological opinion compared to the 1999 pollock and Atka mackerel RPAs, and RPA options in the 2000 draft EA for Pacific cod, to determine the potential benefits to recovery of SSLs versus the costs to the groundfish fishing industry.
- C. Move that the Council conduct an independent peer review of the BiOp and experimental design and to evaluate other possible explanations for the decline of Steller sea lions and the ability of Steller sea lions to recover. The peer review should include independent scientists and a subset of SSC members.
- D. Establish a committee to develop a proposal for RPAs and an experimental design that satisfies ESA mandates and is consistent, to the extent possible, with Magnuson-Stevens Act standards.

The Committee should be of a workable size, and include representatives for the Agency, the State, the SSC, Council industry & conservation community.

In developing the experimental design, we task the committee with testing the fisheries impacts hypothesis, and the differential impacts of various gear types.

The Committee should begin work ASAP, bringing an initial report back to the Council in April and thereafter as needed, with final recommendations to be presented to the Council (family) no later than December 2001.

- E. The Council announces its commitment to disregard 2001 catch history in any future rationalization plan, and
- F. The Council requests NMFS to:
 - 1. clarify coordinates of closed areas; and
 - 2. allow vessels to participate in State Pacific cod fishery without surrendering Federal groundfish permits.

Elements of the Reasonable and Prudent Alternative (RPA)
Contained in the November 2000 Biological Opinion
A Summary of Measures, Impacts, and Concerns

Background

The NMFS Hypothesis: "At present, the leading hypothesis to explain the *continued* decline of the western population of Steller sea lions is primarily the nutritional stress of juveniles and to a lesser extent adult females (Merrick et al. 1987, Pitcher et al. 1998, Rosen et al. 2000a, Alaska Sea Grant 1993). Such nutritional stress indicates decreased foraging success, potentially as a consequence of environmentally-driven changes in prey availability, but also as a consequence of competition with the BSAI and GOA commercial groundfish fisheries. As described earlier in this chapter, the groundfish fisheries reduce prey availability on several scales, resulting in range-wide, regional, and local depletion of prey. Fishing activity may also preclude some sea lions from certain important foraging areas simply by disturbance, or the presence of fishing vessels, gear, and activity. Since sea lions and the fisheries may well target the same aggregations of prey, such interference may reduce foraging success even in when local prey are relatively abundant." p. 251.

Endangered Species Act Requirements: "Section 7(a)(2) of the ESA requires that each Federal agency shall insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat of such species." The term "jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers or distribution of that species". The term "destruction or adverse modification" means "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical". p. 13.

Biological Opinion Conclusion: "After analyzing the cumulative, direct and indirect effects of the Alaska groundfish fisheries on listed species, NMFS concludes that the fisheries do not jeopardize any listed species other than Steller sea lions. The biological opinion concludes that the fisheries do jeopardize Steller sea lions and adversely modify their critical habitat due to competition for prey and modification of their prey field. The three main species with which Steller sea lions compete for prey are pollock, Pacific cod, and Atka mackerel. The biological opinion provides an reasonable and prudent alternative to modify the fisheries in a way that avoids jeopardy and adverse modification." p. 12.

Approach of the RPA: "As noted earlier, the approach recommended in this Biological Opinion is reasonably designed to avoid jeopardy and adverse modification of critical habitat. The overall approach of the RPA involves the following strategy: (1) protect a substantial number of the rookeries and haulouts used by Steller sea lions and the marine environment immediately offshore of these areas from disturbance associated with commercial fishing for the three primary prey species (i.e., pollock, Atka mackerel, and Pacific cod), (2) protect a substantial portion of critical habitat from the effects of commercial fishing on the three primary prey species, (3) ensure that adequate forage resources are available to support a sustained population of Steller sea lions in excess of 34,600 animals, and (4) in areas where fishing is allowed, ensure that fishing does not create areas where Steller sea lions are not able to successfully forage." p. 293.

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Acronyms and Definitions

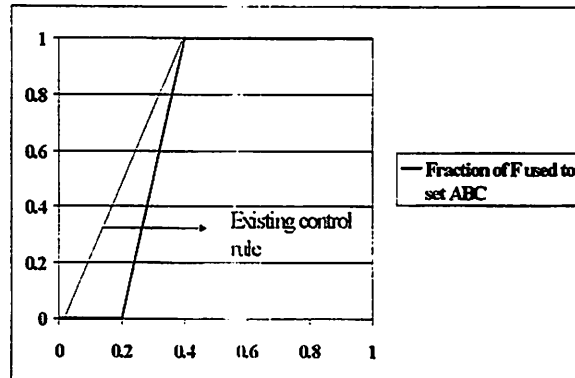
ABC	= acceptable biological catch
AI	= Aleutian Islands
BiOp	= Biological Opinion
BSAI	= Bering Sea and Aleutian Islands
BS	= Bering Sea
CH	= critical habitat
EBS	= Eastern Bering Sea
EEZ	= exclusive economic zone
ESA	= Endangered Species Act
F	= instantaneous fishing mortality rate
FMP	= fishery management plan
GOA	= Gulf of Alaska
MSY	= maximum sustainable yield
mt	= metric tons
NMFS	= National Marine Fisheries Service
RFRPA	= Revised Final RPAs (10/15/99)
RPA	= Reasonable and Prudent Alternative
SCAA	= Sea Lion Conservation Area
SSC	= Scientific and Statistical Committee
TAC	= total allowable catch

Global Control Rule

Objective: The objective is to reduce exploitation rates when prey (pollock, cod, mackerel) is in low abundance.

RPA Description: The current control rule used to determine the allowable biological catch (ABC) for pollock, Pacific cod, and Atka mackerel in the BSAI and GOA will be revised to take into account the prey requirements of Steller sea lions. This will result in a more conservative catch amount (i.e., reduced fishing mortality rate) when the spawning biomass is estimated to be less than 40% of the projected unfished biomass. There would be no directed fishing for a species when the spawning biomass is estimated to be less than 20% of the projected unfished biomass. This measure changes current practice by adjusting the $F_{40\%}$ and F_{OFL} rates if the spawning biomass (B) is projected to be below 40% of the unfished biomass ($B_{40\%}$) in the following year. It would apply to stocks in this range in Tier 3b. Currently, adjustments to $F_{40\%}$ and F_{OFL} rates for stocks in Tier 3b are made using the following equations, where $\alpha=0.05$: $F_{OFL} = F_{30\%} \times (B/B_{40\%} - \alpha)/(1-\alpha)$; $F_{40\%}(\text{adjusted}) = F_{40\%} \times (B/B_{40\%} - \alpha)/(1-\alpha)$.

Under this current control rule, the reduction in F below $F_{40\%}$ is linear depending on how far the stock is below $B_{40\%}$. Using an $\alpha=0.05$ means that fishing mortality rates are 0, i.e., no fishing, when the stock reaches 5% of $B_{40\%}$, or 2% of its equilibrium unfished level. Under the control rule contained in the RPA, α will be increased from 0.05 to 0.5 for the pollock, Atka mackerel, and Pacific cod fisheries in the EBS, GOA, and AI. When the spawning biomass falls below 40% of the unfished biomass ($B < B_{40\%}$) for any of these stocks, F will decline faster under this control rule than under the existing management regime to buffer the effects of natural variability in stock abundance. Furthermore, directed fishing for pollock, Pacific cod and Atka mackerel would cease if their spawning biomass fell to 20% or below of equilibrium unfished levels, or 50% of $B_{40\%}$.



RPA Impacts: The effect of using the global control rule is increased likelihood that the stock is maintained at or above the target stock size by reducing the exploitation rate at low stock sizes thereby insuring a more stable source of available prey for Steller sea lions. In 2001, three stocks are projected to be below $B_{40\%}$ in 2001: GOA pollock, BSAI Pacific cod, and AI Atka mackerel. The GOA pollock ABC using the current tier 3B adjustment would have been 105,810 mt, but using the global control rule reduces the maximum ABC by almost 19,000 mt to 86,922 mt. Similarly, the maximum BSAI Pacific cod ABC using the current tier 3B adjustment would have been 213,800 mt but using the global control rule reduces the maximum ABC by about 9,200 mt. The BSAI Plan Team, however, recommended a further reduction to 188,000 mt to account for uncertainty. The BSAI Atka mackerel maximum ABC would have been 99,165 mt, but the global control rule reduces the maximum ABC to 97,250 mt. The BSAI Plan Team further reduced this amount to 59,000 mt to account for uncertainty. The remaining stocks (EBS pollock, AI pollock and GOA Pacific cod) are all projected to be above $B_{40\%}$ in 2001 and would thus require no F adjustment under the global control rule. Consequently, using the global control rule will, on average, maintain larger populations of pollock, Atka mackerel, and Pacific cod in the ecosystem as Steller sea lion prey.

Industry and Scientific Concerns: The existing control rule is already conservative in that it provides for reduced exploitation rates at low stock sizes. Applying an ad hoc adjustment to three species is inconsistent with current overfishing definitions. "The SSC strongly believes that NMFS should not alter the definition of ABCs contained in the FMPs, as it has proposed in its modified control rule. The Councils ABCs are based on solid scientific information and theory and provide a scientifically defensible and credible baseline from which alternative strategies can be evaluated. Rather, the NMFS adjustment should be viewed as a TAC adjustment to account for uncertainty about Steller sea lions and social concerns about the ecosystem. If and when a solid scientific basis can be found for adjusting catch levels to provide ecosystem protections, then the adjustment can be made at the ABC level." (SSC minutes 12/00)

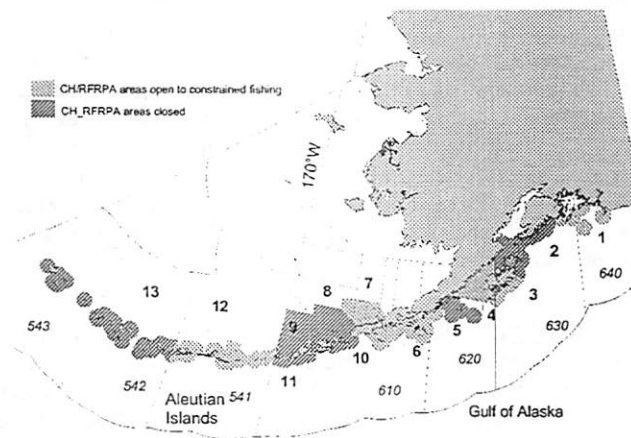
Effects of Senator Stevens rider: The global control rule, as discussed in the RPA, was to take effect immediately in the fisheries (subsection (c)(5)). However, paragraph 5 modifies the global control rule during 2001 to limit any reduction to not more than ten percent of the TAC of any fisheries. Based on this, the GOA pollock TAC will be 95,319 mt.

Closure Areas

Objective: The objective of closure areas is to eliminate the possibility for competition within these areas.

RPA Description: Closed areas can be divided into three types. The first form of closure areas will be a continuation of the current 3 nm no-entry zones around rookeries specified as critical habitat in 50 CFR part 223. The second form of closures will be comprised of 3 nm no fishing zones around major haulouts identified as critical habitat in 50 CFR part 226 or identified as important to the foraging needs of Steller sea lions in the 1998 Biological Opinion for the BSAI and GOA and in the RFRPAs for the pollock fishery (closures applicable to all federally permitted groundfish fishery vessels). The areas identified as important to the foraging needs of Steller Sea lions were determined from information gathered during surveys since 1979 and included the following criteria: (1) summer haulouts with more than 200 sea lions in a summer survey, and less than 75 sea lions in winter surveys (Summer haulouts); (2) winter haulouts with less than 200 sea lions in summer surveys, and greater than 75 sea lions in a winter survey (Winter haulouts); and (3) year-round haulouts with more than 200 sea lions in a summer survey, and 75 sea lions in a winter survey. These two forms of closure areas are provided with the greatest protection, consistent with the hierarchy of protection established in this, as well as previous, biological opinions, and the importance of areas around rookeries and haulouts to the foraging needs of Steller sea lions.

The third form of closure is a system of closed CH-RFRPA zones which eliminates the possibility for competition between pollock, Pacific cod, and Atka mackerel fisheries and Steller sea lions within those areas. These include : 1) Areas around all rookeries and haulouts sites out to 20 nm that are listed in 50 CFR part 226 as critical habitat, 2) Areas around haulout sites out to 20 nm, as identified in the 1998 Biological Opinion for the BSAI and GOA pollock fishery, and 3) Critical habitat pelagic foraging areas of the Shelikof Strait in the GOA, Seguam Pass in the AI, and the Sea Lion Conservation Area (SCA). The SCA is located in the EBS and is an expansion of the Bogoslof Foraging Area to include specified areas outside of critical habitat specified at 50 CFR part 226. The inclusion of areas outside of designated critical habitat prevents the potential for edge-effect depletions caused by concentrated fishing in small open areas bounded by critical habitat.



The entire area included within the CH-RFRPA zone will then be subdivided into 13 management zones. Some of these zones will be closed to all fishing for pollock, Pacific cod, and Atka mackerel, while other areas will be open for fishing provided that additional temporal measures are implemented to minimize competition with Steller sea lions. In all, approximately 66% of the total area will be closed year-round to directed fishing for pollock, Pacific cod, and Atka mackerel. The closure areas encompass the locations where 74% of the pups and 56% of the non-pups are found.

Industry and Scientific Concerns: Industry has expressed two main concerns. First is that small vessels will need to travel further from shore to catch fish, thereby taking more risks in bad weather. The Coast Guard also raised these safety concerns. The second main concern is that the TACs will not be taken. The Atka mackerel catch will be reduced to only about 10% of its historic level due to the closure of the central and western AI. Pacific cod, being schooled up in the winter prior to spawning, cannot be caught economically during other times of the year. The pollock quotas in the GOA may go relatively unharvested, because fishermen were unable to find fish outside of CH during some seasons. As a consequence, fishermen and fishing communities will suffer. There has also been concern expressed about how the haulout areas were designated, in that in any survey since 1979, if a site met the criteria only once, it was designated.

Effects of Senator Stevens budget rider: This element may be implemented in 2002, and the Council (and NMFS) may consider implementing all or part of this element for 2001 fisheries.

Spatial Distribution

Objective: The objective is to disperse catch over a wider area so as to avoid localized depletion in critical habitat areas.

RPA Description: Seasonal harvest limits for pollock, Atka mackerel, and Pacific cod will be established for those areas of critical habitat open for fishing, based on the projected biomass in that geographic area by season. Any TAC amount available inside critical habitat can be taken outside of critical habitat during the concurrent season outside.

The annual TACs will be apportioned to NMFS management areas according to the status-quo method based on estimates of the seasonal distribution of biomass. Additionally, a harvest limit would be imposed on fishing in the combined CH-RFRPA area based on the proportion of biomass estimated to be in critical habitat open to fishing to the total biomass in the overall management area (NMFS 2000). This methodology ensures that the harvest rate in critical habitat will not be greater than the global rate as determined by the global control rule.

The determination of the fraction of biomass inside critical habitat should be based on the best available information for the distribution of pollock, Pacific cod, and Atka mackerel. The proportion of TAC to assign to the open portions of critical habitat was determined by using average (1998-99) catch in open areas as a percentage of all the combined zones (1-13) by species, season and management area (NMFS 2000). The catch distribution in 1998-99 was assumed to best reflect the biomass distribution. This method would be best replaced by a comprehensive survey program that performed surveys and estimated biomass in the winter as well as summer for all 3 species.

Further, a portion of the AI will be opened to pollock fishing that was previously closed under earlier biological opinions and the Pacific cod TAC will be split from a combined BSAI TAC to separate TACs for the EBS and the AI based on the distribution of the stock.

Industry and Scientific Concerns: The fleet will be forced to fish outside of critical habitat. This will cause added operating expenses, reduced safety, and possibly reduced catches if fish cannot be located in open areas. The industry has also expressed concerns that the RPA will result in higher bycatch, gear conflicts, and the undoing of many years of careful, scientifically based fishery management measures.

Effects of Senator Stevens budget rider: This element may be implemented in 2002, and the Council (and NMFS) may consider implementing all or part of this element for 2001 fisheries.

Temporal Distribution

Objective: The objective is to spread out harvest over time to prevent localized depletion of prey, particularly during the winter period.

RPA Description: Fishing for pollock, Pacific cod and Atka mackerel inside critical habitat will be prohibited from November 1 through January 20. Additionally, the current trawl closure from November 1 through January 20 will be continued for all areas. Outside of critical habitat, NMFS will establish 2 evenly spaced seasons for all 3 fisheries in the EBS, GOA, and AI. An amount of the annual TAC would be apportioned to each season based on the approach used in the 1998 Biological Opinion so that 40% of the annual TAC is available in the winter season (A/B seasons) and 60% would be available in the fall season (C/D seasons). Inside critical habitat, four seasons will be established for the open CH-RFRPA zones to ensure against high removal rates and possible localized depletions of prey in the most important area for Steller sea lions. This measure will evenly subdivide the combined winter allocation of 40% to the A and B seasons (20% each to the A and B season inside CH), and the combined fall allocation of 60% to the C and D seasons (30% each to the C and D season inside CH). This inside critical habitat percentage (critical habitat was used as a proxy for the entire CH-RFRPA area) would then be multiplied by the ratio of biomass inside to biomass outside of the critical habitat area to derive the seasonal apportionment.

RPA Impacts: The following table is a brief overview of the temporal fishing pattern required by the RPA. Season dates and percentage of the annual TAC apportioned to each season are fixed. However the catch limit in critical habitat will be a frameworked RPA so that the appropriate limits can be set based on the most recent survey biomass estimates.

Area	Seasons			
	A	B	C	D
EBS, AI, or GOA	Combined A/B season January 20 - June 10 40% of annual TAC		Combined C/D season June 11 - October 31 60% of annual TAC	
CH-RFRPA	A season Jan. 20 - Mar. 31 catch limit*	B season Apr. 1 - Jun. 10 catch limit*	C season Jun. 11 - Aug. 21 catch limit*	D season Aug. 22 - Oct. 31 catch limit*

The table on the next page lists the catch limits for each species based on Council's recommended 2001 specifications.

Industry and Scientific Concerns: Industry has expressed concern that Pacific cod, being schooled up in the winter prior to spawning, cannot be caught economically during other times of the year. There are also concerns about allocative issues, as well as causing the cost of the harvest to increase operationally while causing a high likelihood of decreasing its value.

Effects of Senator Stevens budget rider: This element may be implemented in 2002, and the Council (and NMFS) may consider implementing all or part of this element for 2001 fisheries.

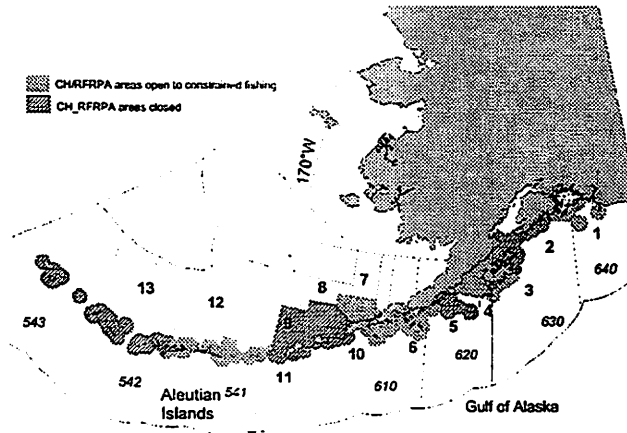
Table. Seasonal and area catch limit allocations (mt) for pollock, cod, and mackerel under the RPA, split among the combined A+B seasons and C+D seasons, and the amounts of that catch of which would be allowed within critical Steller sea lion habitat within each season, based on contingent TAC recommendations from the Council 12/00.

<u>Area</u>	<u>Species</u>	<u>Season dates</u>	<u>A</u> <u>Jan 20-Mar 31</u>	<u>B</u> <u>Apr 1-Jun 10</u>	<u>C</u> <u>Jun 11-Aug 21</u>	<u>D</u> <u>Aug 22-Oct 31</u>
<u>Bering Sea</u>						
EBS	Pollock	TAC split inside Area 7	102,200	560,000 64,400	12,600	840,000 19,600
EBS	Pacific cod	TAC split inside Area 7	11,415	66,176 2,151	4,136	99,264 9,926
<u>Gulf of Alaska</u>						
610	Pollock	TAC split inside CH-RFRPA	3,863	9,122 3,863	1,711	19,808 1,711
620	Pollock	TAC split inside CH-RFRPA	8,591	19,628 8,591	3,665	11,766 3,665
630	Pollock	TAC split inside CH-RFRPA	86	2,640 86	1,800	15,512 1,800
640	Pollock	TAC split inside CH-RFRPA	58	794 158	237	1,192 237
610	Pacific cod	TAC split inside CH-RFRPA	1,153	9,600 68	68	14,400 68
620/30	Pacific cod	TAC split inside CH-RFRPA	5,424	15,460 1,492	2,508	23,190 2,576
640	Pacific cod	TAC split inside CH-RFRPA	271	1,900 135	135	2,850 203
<u>Aleutian Islands</u>						
AI	Pollock	TAC split inside CH-RFRPA	108	4,800 120	216	7,200 204
AI	Pacific cod	TAC split inside CH-RFRPA	3,090	9,024 1,669	993	13,536 2,188
541/BS	Mackerel	TAC split inside CH-RFRPA	1,178	3,120 1,178	1,733	4,680 1,733
542	Mackerel	TAC split inside CH-RFRPA	0	13,440 0	0	20,160 0
543	Mackerel	TAC split inside CH-RFRPA	0	11,160 0	0	16,740 0

Monitoring Program

Objective: The goal of the monitoring project is to ascertain the extent to which the implemented conservation measures promote the recovery of sea lions (i.e. remove jeopardy and adverse modification).

RPA Description: The region was divided into three primary blocks, referred to as blocks I, II, and III. Each of these blocks was further subdivided into 13 areas of the expanded critical habitat areas referred to as the CH-RFRPA. The following objectives were used in defining the 13 areas: (1) at least 50% of critical habitat should be closed to fishing, (2) the area closed to fishing should protect approximately 50% of the non-pup population and 75% of the areas where pups are born, (3) the underlying trend in open and closed areas in each of the three blocks should be statistically equivalent to allow for independent evaluation of the efficacy of the RPA in the three blocks, and (4) after a period no-longer than six years of monitoring, there should be an acceptable likelihood of successfully detecting an improvement in the status of Steller sea lions in each of the three blocks. The following areas define each block: Block I (areas 1-6), Block II (areas 7-11), Block III (areas 12-13).



The RPA is designed to close adequate portions of critical habitat to commercial fishing for the three primary prey species of groundfish, while imposing restrictions on fishing operations in areas open to fishing to avoid local depletion of prey resources for Steller sea lions. This approach of creating areas open and closed to fishing operations forms the basis for the monitoring program designed to assess the efficacy of the RPA and any associated conservation measures.

RPA Impacts: To ascertain whether or not the RPA promoted the recovery of sea lions, the population trend of sea lions after implementation of the conservation measures will be compared to the population trend before implementation, both in closed and open areas. This information, in combination with other studies, will allow an investigation regarding whether the conservation measures are effective. The monitoring program is scheduled to last six years.

Industry and Scientific Concerns: Industry has expressed concerns that the monitoring program was ill-conceived, unnecessarily costly to the fishing industry, and from a practical standpoint would not provide reliable results. Essentially, industry believes that the areas opened or closed must be comparable, and the open areas must be subject to fishing at normal commercial levels in order to detect any possible effects.

"The SSC has commented strongly in the past on the need for a monitoring program (Experimental Design, Adaptive Management) to assess the efficacy of management actions taken regarding Steller sea lions. We are pleased that the BiOp contains such a monitoring program as an integral part of the RPAs and view it as a welcome starting place. Given that this program has had only limited peer review and no Council involvement, the SSC suggests that this program be thoroughly reviewed and possibly modified by the Council family and other review bodies (e.g., National Academy of Sciences, the new Steller Sea Lion Recovery Team, ADF&G) before it is put in place. An open process with thorough review and consideration of alternative designs will give this monitoring program a better chance for success.

Because of the lags inherent in the dynamics of slow growing species such as sea lions, it may take a long treatment period to detect differences among treatments. In addition, because there are numerous environmental or ecological factors that likely influence foraging success, fecundity, morbidity, and mortality, it may be difficult to differentiate between changes induced by the treatments, and those that result from changes in uncontrolled factors. This is particularly true because the mechanisms and dynamic timing of these effects are largely unknown or unobservable. Thus the choice of covariates to be monitored is critical. Because the monitoring program should be fairly long term (six years or more), it is particularly important to be sure the best possible design is used to ensure acceptance of the results by affected parties." (SSC minutes 12/00)

Effects of Senator Stevens budget rider: This element may be implemented in 2002, and the Council (and NMFS) may consider implementing all or part of this element for 2001 fisheries.

(5) regime shift, climate change, and other impacts associated with changing environmental conditions in the North Pacific and Bering Sea;

(6) disease;

(7) juvenile and pup survival rates;

(8) population counts;

(9) nutritional stress;

(10) foreign commercial harvest of sealions outside the exclusive economic zone;

(11) the residual impacts of former government-authorized Steller sea lion eradication bounty programs; and

(12) the residual impacts of intentional lethal takes of Steller sea lions. Within available funds the Secretary shall implement on a pilot basis innovative non-lethal measures to protect Steller sea lions from marine mammal predators including killer whales.

(e) **ECONOMIC DISASTER RELIEF.**—\$30,000,000 is hereby appropriated to the Secretary of Commerce to make available as a direct payment to the Southwest Alaska Municipal Conference to distribute to fishing communities, businesses, community development quota groups, individuals, and other entities to mitigate the economic losses caused by Steller sea lion protection measures heretofore incurred; provided that the President of such organization shall provide a written report to the Secretary and the House and Senate Appropriations Committee within six months of receipt of these funds.

DEPARTMENT OF STATE AND RELATED AGENCY

GENERAL PROVISIONS

SEC. 210. In addition to any amounts made available for "Educational and Cultural Exchange Programs within the Department of State", \$500,000 shall be made available only for the Irish Institute.

SEC. 211. In addition to amounts appropriated under the heading "International Broadcasting Operations, Broadcasting Board of Governors" in the Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 2001, \$10,000,000 to remain available until expended, for increased broadcasting to Russia and surrounding areas, and to China, by Radio Free Europe/Radio Liberty, Radio Free Asia, and the Voice of America: Provided, That any amount of such funds may be transferred to the "Broadcasting Capital Improvements" account to carry out such purposes.

RELATED AGENCIES

COMMISSION ON ONLINE CHILD PROTECTION

For necessary expenses of the Commission on Online Child Protection, \$750,000, to remain available until expended.

SMALL BUSINESS ADMINISTRATION

SALARIES AND EXPENSES

For an additional amount for "Salaries and Expenses", \$1,000,000 shall be available for a grant to the Electronic Commerce Resource Center in Scranton, Pennsylvania, to establish an electronic commerce technology distribution center.

GENERAL PROVISION

SEC. 212. For an additional amount for "Small Business Administration, Salaries and Expenses" \$1,000,000 shall be made available only for a grant to the National Museum of Jazz in New York, New York.

GENERAL PROVISION—THIS CHAPTER

SEC. 213. (a) The provisions of H.R. 5548 (as enacted into law by H.R. 4942 of the 106th Congress) are amended as follows:

(1) In title I, under the heading "Salaries and Expenses, United States Marshals Service", by striking "3,947" and inserting "4,034".

(2) In title I, by redesignating sections 114 through 119 as sections 113 through 118, respectively.

(b) In title II, under the heading "National Oceanic and Atmospheric Administration—Operations, Research, and Facilities", by striking "\$31,439,000" and inserting "\$32,054,000".

(c) In title II, under the heading "National Oceanic and Atmospheric Administration—Coastal and Ocean Activities"—

(A) by striking "non-contiguous States except Hawaii" and inserting "Alaska";

(B) by striking "Inc." and inserting "Inc.,";

(C) by striking "scrub;" and inserting "scrub,;" and

(D) by striking "watershed for lower Rouge River restoration;" and inserting "watershed:".

(5) In title IV, by striking section 406 and by redesignating sections 407 and 408 as sections 406 and 407, respectively.

(6) In title VI, by striking sections 635 and 636.

(7) In title IX, in the first proviso of section 901, by striking "territory or an Indian Tribe" and inserting "or territory".

(b) The amendments made by this section shall take effect as if included in H.R. 4942 of the 106th Congress on the date of its enactment.

CHAPTER 3

DEPARTMENT OF DEFENSE

GENERAL PROVISIONS—THIS CHAPTER

SEC. 301. In the event that award of the full funding contract for low-rate initial production of the F-22 aircraft is delayed beyond December 31, 2000 because of inability to complete the requirements specified in section 8124 of the Department of Defense Appropriations Act, 2001 (Public Law 106-259), the Secretary of the Air Force may obligate up to \$353,000,000 of the funds appropriated in Title III of Public Law 106-259 to continue F-22 Lot 1 (10 aircraft) advance procurement to protect the supplier base and preserve program costs and schedule.

SEC. 302. (a) Consistent with Executive Order Number 1733, dated March 3, 1913, and notwithstanding section 303 of the Alaska National Interest Lands Conservation Act, Public Law 96-487, or any other law, the Department of the Air Force shall have primary jurisdiction, custody, and control over Shemya Island and its appurtenant waters (including submerged lands). In exercising such primary jurisdiction, custody, and control, the Secretary of the Air Force may utilize and apply such authorities as are generally applicable to a military installation, base, camp, post, or station. Shemya Island and its appurtenant waters (including submerged lands) shall continue to be included within the Alaska Maritime National Wildlife Refuge and the National Wildlife Refuge System and the Secretary of the Interior shall have jurisdiction secondary to that of the Department of the Air Force. Nothing in this section shall prohibit the transfer of jurisdiction, custody, and control over Shemya Island by the Department of the Air Force to another military department. In the event the military department exercising such primary jurisdiction, custody, and control no longer has a need to exercise such primary jurisdiction, custody, and control of Shemya Island and its appurtenant waters (including submerged lands), such jurisdiction, custody, and control shall terminate and the Secretary of the Interior shall then exercise sole jurisdiction, custody, and control over Shemya Island and its appurtenant waters (including submerged lands) as part of the Alaska Maritime National Wildlife Refuge.

(b) Any environmental contamination of Shemya Island caused by a military department shall be the responsibility of that military department and not the responsibility of the Department of the Interior. Any money rentals received by a military department from outgrants on Shemya Island will be applied to the environmental restoration of the island in accordance with 10 U.S.C. 2667.

(c) This section shall not be construed as altering any existing property rights of the State of Alaska or any private person.

(d) The military department exercising primary jurisdiction, custody, and control over Shemya Island shall, consistent with the accomplishment of the military mission and subject to section 21 of the Internal Security Act of 1950,

Public Law 81-831 (50 U.S.C. 797) (also known as the Subversive Activities Control Act of 1950)—

(1) work with the United States Fish and Wildlife Service to protect and conserve the wildlife and habitat on the island; and

(2) grant access to Shemya Island and its appurtenant waters to the United States Fish and Wildlife Service for the purpose of management of the Alaska Maritime National Wildlife Refuge.

SEC. 303. Within the funds appropriated for the Patriot PAC-3 program under Title III of the Department of Defense Appropriations Act, 2001 (Public Law 106-259), the Ballistic Missile Defense Organization shall procure not less than 40 PAC-3 missiles.

SEC. 304. Section 8133 of Public Law 106-259 (114 Stat. 703) is amended by striking "\$300,000,000" in the first proviso and inserting "\$550,000,000".

(TRANSFER OF FUNDS)

SEC. 305. Of the total amount appropriated by title II of the Department of Defense Appropriations Act, 2001 (Public Law 106-259) for operation and maintenance for the armed force or armed forces under the jurisdiction of the Secretary of a military department, the Secretary of that military department may transfer up to \$2,000,000 to the central fund established by the Secretary under section 2493(d) of title 10, United States Code, for funding Fisher Houses and Fisher Suites. Amounts so transferred shall be merged with other amounts in the central fund to which transferred and shall be available without fiscal year limitation for the purposes for which amounts in that fund are available.

SEC. 306. **FUNDING FOR CERTAIN COSTS OF VESSEL TRANSFERS.** There is hereby appropriated into the Defense Vessels Transfer Program Account such sums as may be necessary for the costs (as defined in section 502 of the Congressional Budget Act of 1974 (2 U.S.C. 661a)) of the lease-sale transfers authorized by the National Defense Authorization Act, 2001. Funds in that account are available only for the purpose of covering those costs.

SEC. 307. Of the total amount appropriated by title XV of the Department of Defense Appropriations Act, 2001 (Public Law 106-259) under the heading "Research, Development, Test and Evaluation, Defense-Wide", not less than \$5,000,000 shall be made available only for support of a Gulf War illness research program at the University of Texas Southwestern Medical Center.

(INCLUDING TRANSFER OF FUNDS)

SEC. 308. In addition to amounts appropriated for the Department of Defense in the Department of Defense Appropriations Act, 2001 (Public Law 106-259), \$150,000,000 is hereby appropriated for "Operation and Maintenance, Navy" and shall remain available until expended, only for costs associated with the repair of the U.S.S. COLE: Provided, That the Secretary of Defense may transfer these funds to appropriations accounts for procurement: Provided further, That the funds transferred shall be merged with and shall be available for the same purposes and for the same time period, as the appropriation to which transferred; Provided further, That the transfer authority provided in this section is in addition to any other transfer authority available to the Department of Defense: Provided further, That the welfare of the crew, and of the families of the crew, of the U.S.S. COLE shall be considered in the Navy's selection of the process and location for the repair of the U.S.S. COLE: Provided further, That the entire amount made available in this section is designated by the Congress as an emergency requirement pursuant to section 251(b)(2)(A) of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended.

SEC. 309. Notwithstanding any other provision of law, the Administrator of the General Services Administration may utilize funds available

order of enacting the thirteen annual appropriations bills, we have in recent years chosen to delay appropriations bills until it is too late to do anything other than to package them in a manner that causes such packages to be used as vehicles for all manner of non-appropriations issues. This has necessitated the adoption of late-year omnibus appropriations packages well after the start of the fiscal year, such as the one before the Senate today. This is a practice that should never have been started and which, if not discontinued, I fear will gravely diminish the Senate as an institution. Senators are being denied the right to debate and amend appropriations bills, all of which contain billions of taxpayer dollars, and literally thousands of funding issues affecting their constituents. Instead, we are being presented with unamendable omnibus appropriations packages, which contain many, many matters that have not had any Senate consideration at all. In the next Congress, the 107th Congress, we should strive mightily, on a bipartisan basis, to return to regular order in taking up each of the thirteen annual appropriations bills. The Appropriations Committee has marked up each of the thirteen appropriations bills in a timely manner every year under our distinguished Chairman, Senator STEVENS. He is indeed masterful in his handling of appropriations matters and he is very knowledgeable on the issues that come before the Appropriations Committee. He is also one who leads the Committee in a bipartisan manner at all times. He gives the same consideration to requests of Members of the Committee on both sides of the aisle, and I am honored to serve as Ranking Member of the Committee under his chairmanship. It has not been the fault of TED STEVENS that the appropriations bills have, too often, been lumped together into omnibus packages, such as the one before the Senate.

In an effort to facilitate a return to the regular order in the Senate's handling of the thirteen annual appropriations bills, I was pleased to have the support of both Leaders, Mr. DASCHLE and Mr. LOTT, in my amendment to the Commerce/Justice/State Appropriations bill for Fiscal Year 2001 to restore Senate Rule XXVIII, Paragraph 2. That provision makes it out of order for extraneous matters to be included in conference reports. Several years ago, in connection with the Senate's consideration of an FAA conference report, the Senate voted to overturn the Chair when it ruled that there was extraneous matter in that conference report. The effect of that vote to overturn the Chair was to negate Rule XXVIII, Paragraph 2. Consequently, it has not been out of order for any matter to be inserted in any conference report since that time. Upon enactment of the Commerce/Justice/State Appropriations bill, and as a result of my amendment thereto,

Rule XXVIII, Paragraph 2 will be restored. This will mean that in the 107th

Congress, it will not be in order for extraneous matters to be placed in a conference report. Upon a point of order's being made in that regard, if sustained, such a conference report will be rejected. I believe that restoration of this rule will go a long way toward eliminating these annual omnibus appropriations measures that the Senate has had to deal with in the past several years and is again being asked to adopt here today.

Having said that, Mr. President, I shall vote for the pending conference report. It contains the Fiscal Year 2001 appropriations bills for the Departments of Labor, Health and Human Services, and Education, for the Department of the Treasury and General Government, and for the Legislative Branch. By far, the largest of these appropriations bills is the Labor/HHS Appropriations bill.

In the agreement reached on the Labor/HHS bill, the funding totals some \$108.9 billion in budget authority for Fiscal Year 2001. This is an increase of almost \$12 billion from last year and represents the largest ever one-year increase for the Labor/HHS Appropriations bill. This amounts to more than a 12 percent increase above last year's level, and will enable funding levels for education to be increased by almost 15 percent, including an appropriation of more than \$1 billion for a new school renovation program. The Labor/HHS Appropriations bill also includes critical funding for many health programs such as the Ryan White AIDS program, NIH, child immunization, substance abuse prevention, and mental health programs. All of these programs are funded at levels substantially higher than last year. As Members are aware, the bill also funds the Head Start program, and the low income home energy assistance program, LIHEAP. I recognize that a number of Senators believe that we should have insisted upon even higher levels for the Labor/HHS bill. While I might agree with those Senators, and although a tentative agreement in October would have funded the Labor/HHS Appropriations bill at a level of over \$12 billion, that agreement fell through over a legislative rider involving ergonomics.

After weeks of haggling over the ergonomics issue, as well as other issues such as immigration, and overall funding levels, I feel that we have no other choice than to accept this compromise that is before the Senate today. As I say, it does not fully please any Senator. I am sure there are some who feel that the funding levels are too high; but the time has long since passed for us to complete our work and get this final appropriations package to the President's desk.

In addition to the Labor/HHS Appropriations bill, this package contains funding for the Legislative Branch, and the Department of the Treasury and General Government, which measure funds a number of programs for law enforcement, as well as the U.S. Customs

Service—the federal agency with responsibility for border patrol and enforcement of our immigration laws.

There is also a division of this omnibus package that includes a number of non-appropriations matters. Those matters were considered carefully by Chairman STEVENS, Chairman YOUNG, Mr. OBEY and myself, at the request of Members of the House and Senate. There were many more such matters that were considered, but were not included in this final package.

Finally, the package contains a division relating to tax matters, including the so-called Balanced Budget Act, BBA, Medicare fix. Those tax matters were inserted into the omnibus package by the Leadership, and they fall into the jurisdiction of the Ways and Means and Finance Committees. Accordingly, we Appropriations Members were not involved in that process.

In conclusion, Mr. President, I urge my colleagues to vote for this conference agreement. Despite its having all the flaws that we have seen in previous omnibus appropriations bills, the time has come to finish the work of the 106th Congress. In that way, we will have a clean slate for the new Congress, the 107th Congress, when it convenes on January 3rd, and for the new Administration, when our new President, George W. Bush, is sworn into office on January 20th.

While I recognize that there are those who predict a continuation of the gridlock that we have seen in the recent past, or perhaps greater gridlock in the next Congress, as it struggles to work with the Bush Administration; I hope and believe that there will be unprecedented opportunities for bipartisan efforts to prevail in solving the Nation's most pressing problems; to maintain a vital national defense, and to find solutions which ensure that our Medicare and Social Security programs can sustain the promised for our citizens over the coming century. I am optimistic that the new Congress will be prepared to work with the Bush Administration. I know that the overwhelming number of Members of the House and Senate, on a bipartisan basis, join me in pledging our best efforts to do so, and our good faith commitment to achieve results in these critical areas, on behalf of the American people.

Mr. STEVENS. Mr. President, after protracted negotiations, the Administration and I have reached an agreement that provides the necessary protections for the Steller sea lion while allowing for the needs of fishermen who depend on the robust and healthy groundfish stocks off Alaska. I believe the Senate knows my personal feelings, and the feelings of practically all those who are involved in the harvesting, processing, and subsequent marketing of the millions of tons of seafood that come from the North Pacific and Bering Sea, on this matter. While we recognize that the Steller sea lion deserves protection, we are not convinced

that the Commerce Department has proven, let alone adequately tested, its hypothesis that fishing contributes to the sea lions' decline. A few minutes spent skimming the biological opinion reveals the lack of science underlying the proposed actions it contains. For example, the Commerce Department states in its biological opinion that it does not know if fishing impacts sea lions, or that sea lions would likely continue to decline even if all fishing were halted.

Nonetheless, the lives of our fishermen will continue to be affected by this opinion. Our agreement provides a three-step phase-in process for fishery restrictions proposed to be implemented by the National Marine Fisheries Service (NMFS) in the Alaska groundfish fisheries under Endangered Species Act (ESA) requirements. This section is intended to lessen the negative economic consequences to the fishing community caused by the restrictions and to ensure that any Steller sea lion protective measures do not create negative consequences for the conservation of the fisheries and ecosystem. This is accomplished by requiring the Secretary to rely on the fishery management provisions in the Magnuson-Stevens Act, including the regional council processes, when implementing reasonable and prudent alternatives under the Endangered Species Act.

Unfortunately, work on this provision was not completed until shortly before the conference agreement was filed on the final day of this session. I ask unanimous consent that the section-by-section analysis of this provision be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

SECTION-BY-SECTION ANALYSIS

Subsection (a) includes findings by Congress concerning the decline of the Steller sea lion and need for scientists to study the relationship between commercial fisheries and sea lions. It also includes findings confirming that the authority to manage federal fisheries lies with the regional councils created under the Magnuson-Stevens Act. It clarifies that the Secretary is required to comply with, and use the procedures established under, the Magnuson-Stevens Act when implementing measures to comply with the Endangered Species Act. This finding recognizes that the Administration should not use the Endangered Species Act to implement fishery management measures without respect to the Magnuson-Stevens Act, particularly the processes by which the councils develop, review, and promulgate fishery management measures. The appropriate forum to develop fishery management measures, including those measures necessary to protect threatened and endangered species, are the regional councils.

Subsection (b) requires the North Pacific Fishery Management Council to conduct an independent scientific review of the November 30, 2000 biological opinion (hereafter the "Opinion") issued by NMFS for the Bering Sea/Aleutian Islands and Gulf of Alaska groundfish fisheries, drawing upon the expertise of the National Academy of Sciences. This subsection reflects the Congress's deep concerns over the validity and objectivity of

the science relied on in the biological opinion and the process by which the Commerce Department developed this opinion. It directs the Secretary of Commerce to cooperate with the North Pacific Council's scientific review, and requests the National Academy of Sciences to give the review its highest priority.

Subsection (c)(1) directs the Secretary to submit proposed Magnuson-Stevens Act fishery conservation and management measures to implement the reasonable and prudent alternatives (RPAs) to the North Pacific Council immediately or as soon as possible, and then tasks the Council with preparing a fishery management amendment or amendments under the Magnuson-Stevens Act to implement such conservation and management measures. While the amendments must implement the measures necessary to protect sea lions and, it is equally important that such measures provide for the conservation and safe conduct of the fisheries, as required in the Magnuson-Stevens Act. Congress remains concerned that the proposed closures would have forced small vessels to fish in dangerous waters during the winter storm season, a prospect specifically commented upon by our Coast Guard.

Subsection (c)(2) requires the RPAs, as developed by the North Pacific Council under subsection (c)(1), to become effective on January 1, 2002. To address Congress' concerns about the objectivity and validity of the scientific conclusions of this opinion the opinion must incorporate changes warranted by the scientific review required under subsection (b) or other new information that comes to the Secretary or Council's attention. The Council and Secretary are directed to jointly develop a schedule for the development of FMP amendment or amendments to implement the RPAs beginning in the 2002 fisheries. Subsection (c)(2) specifies that the RPAs shall not go into effect immediately, but shall be phased in according to subsection (c)(3) during the 2001 fisheries.

Subsection (c)(3) requires the 2001 Bering Sea/Aleutian Island and Gulf of Alaska groundfish fisheries to be managed in accordance with the regulations promulgated for the 2000 fisheries prior to the issuance of the July 19, 2000 court injunction in those fisheries (which has since been lifted). The 2000 regulations provide substantial protections for Steller sea lions, while maintaining the comprehensive and proven framework that has protected the marine resources of the North Pacific and been fine-tuned for more than two decades. These regulations for the first months of the 2001 fisheries are to be implemented by emergency rule so that the fisheries can begin by January 20, 2001.

Subsection (c)(4) requires the Secretary of Commerce to amend regulations based on the 2000 regulations, but which are consistent to the extent practicable with the RPA's, by January 20, 2001. The Secretary is to consult with the North Pacific Council in preparing these draft regulations, with the goal of incorporating some of the protective concepts in the RPAs for these regulations, in time for the fisheries to open no later than January 20, 2001. Under paragraph (7) of subsection (c), the draft regulations amended upon the recommendation of the North Pacific Council until March 15, 2001. As soon after March 15, 2001 as possible, the Secretary of Commerce will publish and implement the regulations, and these regulations shall then govern the Bering Sea/Aleutian Island and Gulf of Alaska fisheries for the remainder of 2001, consistent with all the requirements of the Magnuson-Stevens Act. It is our intent that the Secretary provide ample opportunity for the public to comment on these regulations before the regulations take effect.

Subsection (c)(5) requires that the "Global Control Rule" from the RPA's take effect immediately in the fisheries, this is particularly important during the period during the Spring and/or early summer of 2001 when the fisheries are being managed under the 2000 regulations. Paragraph (5) modifies the Global Control Rule during 2001 to limit any reduction to not more than ten percent of the total allowable catch in any of the fisheries.

Subsection (c)(6) provides the North Pacific Council with the authority to recommend, and the Secretary of Commerce with the authority to approve, modifications to the RPAs contained in the regulations that will take effect in the Spring or early-summer of the 2001 fisheries. These modifications may include the opening of additional designated Steller sea lion critical habitat for fishing by small boats, the postponement of seasonal catch levels inside critical habitat for small boats, or other measures to ensure that small boat fishermen and on-shore processors in Alaska are not adversely affected during 2001 as compared to the fisheries before the July 19, 2000 injunction. This was specifically agreed to by both the Congressional and Administration negotiators to allow coastal Alaskan fishermen to fish in the safer waters closer to shore.

Subsection (d) appropriates \$20 million to the Secretary of Commerce to develop and implement a comprehensive research and recovery program for the Steller sea lion, and to study the myriad of factors which may be causing the decline of the Steller sea lion. Subsection (d) specifically requires that the theories of nutritional stress, localized depletion, and food competition with the fisheries be tested to determine their validity. This subsection also directs the Secretary of Commerce to implement non-lethal measures on a pilot basis to protect Steller sea lions from marine mammal predation, including killer whales, and to determine the extent to which predation may be causing the decline or preventing recovery. The Secretary is strongly encouraged to cooperate with the Alaska SeaLife Center, the North Pacific Universities Marine Mammal Consortium, the University of Alaska, and the North Pacific Council in the development and use of these funds. The Alaska SeaLife Center should receive \$5,000,000 of these funds to continue their important work on Steller sea lion science.

Subsection (e) provides \$30 million as a direct payment to the Southwest Alaska Municipal Conference to distribute to the fishing communities, businesses, western Alaska community development quota program groups, individuals, and other entities that have been hurt by the economic losses already inflicted as a result of Steller sea lion restrictions. The President of SWAMC is required to submit a written report to the Secretary of Commerce and the U.S. Senate and House appropriations committees within six months after receiving the funds to indicate how they have been distributed.

~~Mr. BYRD. Mr. President, in these waning days and hours of the 106th Congress, the focus in Washington is naturally on what action is taking place to resolve the remaining fiscal year 2001 appropriations bills and concluding the business of this Congress. However, all around us, life goes on. Our constituents in the steel industry must be among the few in America who will not be happy to see the 106th Congress adjourn sine die. Our constituents in the steel industry will see Congress's adjournment as a thinning of the bucket brigade that has spent the last two years trying to bail out an~~



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE**

P.O. Box 21668
Juneau, Alaska 99802-1668

Item (d)

January 9, 2001

Mr. David Benton
Chairman, North Pacific
Fishery Management Council
605 West 4th Avenue
Anchorage, AK 99501-2252

Dear Dave,

The National Marine Fisheries Service (NMFS) is finalizing an emergency rule that we will implement by January 20, 2001. The purpose of the rule is to implement Steller sea lion protection measures consistent with the Endangered Species Act (ESA) and with section 209 of Public Law (P.L.) 106-554. The emergency rule also establishes 2001 harvest specifications for the Alaska groundfish fisheries.

A brief summary is attached describing NMFS's current strategy for a phased-in implementation of the Reasonable and Prudent Alternative (RPA) presented to the Council at its December 2000 meeting. For pollock and Atka mackerel, the 2000 regulations establishing SSL protection measures would be extended into 2001. Additional new measures for 2001 would include:

- (1) A prohibition on fishing in a directed fishery for groundfish by federally permitted groundfish vessels within 3 nautical miles of haulouts that are identified under the criteria developed in the 1998 biological opinion on the pollock fishery;
- (2) Establishment of two fishing seasons for Bering Sea/Aleutian Islands and Gulf of Alaska Pacific cod. The total allowable catch (TAC) would be divided 60/40 between the first and second season;
- (3) A ten percent reduction of the TAC for Gulf of Alaska pollock as required by P.L. 106-554;
- (4) Limitations on the amounts of pollock harvested in the Bering Sea Steller sea lion conservation area (SCA) so that 2001 harvest amounts in the SCA do not exceed the harvest amounts authorized for 2000 (in metric tons); and
- (5) Closure of critical habitat consistent with the closed areas identified in the RPA, effective June 10, 2001.

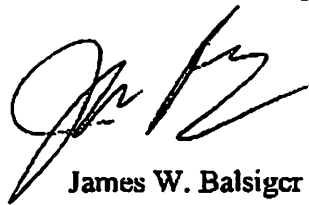


The delayed effective date of this last provision would provide the Council the opportunity to suggest modifications to the proposed closures for the remainder of 2001 that will meet the requirements of the biological opinion (e.g., close at least 50% of critical habitat to the three fisheries and maximize protection of Steller sea lion pups and juveniles). Extension of the emergency rule beyond mid-July through the end of 2001, including modification of the critical habitat closures, will require a separate emergency rule action. We note that closed critical habitat areas implemented in 2002 also must provide for the statistical design of a monitoring program to evaluate the effectiveness of protection measures.

In 2002, adequate tools will be needed to monitor and manage critical habitat harvest limits as required under the biological opinion, particularly for the unobserved segment of the fishing fleet. For this reason, NMFS will pursue immediately the development of an expanded vessel monitoring system (VMS) and electronic shoreside logbook reports for implementation later in 2001. Both of these tools will be necessary to prepare for effective monitoring and enforcement of critical habitat harvest limits in 2002.

NMFS staff will be available at the Council's special January 11-13, 2001, meeting to respond to questions.

Sincerely,



James W. Balsiger
Administrator, Alaska Region

Attachment

Attachment

Implementation of Steller Sea Lion Protection Measures for the 2001 Alaska Groundfish Fisheries and One-year Phase-in of the Reasonable and Prudent Alternative in the Comprehensive Biological Opinion

Existing protection measures

Steller sea lion protection measures that were established for BSAI and GOA pollock fisheries and Atka mackerel fisheries will be continued by emergency rule in 2001. While more detailed information on these measures is attached, they can be summarized as follows:

- No transit zones within 3 nm of 37 rookery sites.
- Closure within 10 or 20 nm of 37 rookeries to all trawling year-round.
- Closure to pollock fishing within 10 or 20 nm of 75 haulouts, seasonally or year-round based on use by sea lions.
- In the Bering Sea pollock fishery: (1) four seasons with harvest limits within sea lion critical habitat foraging areas; and (2) two seasons (40:60 % allocation) outside critical habitat.
- Continuation of Bering Sea fishery cooperatives established under the American Fisheries Act.
- Gulf of Alaska pollock fishery distributed over 4 seasons (30:15:30:25 % allocation).
- Closure of the Aleutian Islands to pollock fishing.
- Atka mackerel fishery measure includes a VMS requirement, continuation of two equal seasons, and restrictions on harvests in critical habitat.

Measure scheduled for implementation in 2001

Reduced 2001 critical habitat harvest limits for Atka mackerel in the Aleutian Islands are already established under existing regulations.

New measures to be implemented in 2001 based on the comprehensive biological opinion

The recent appropriations law requires publication of a rule by January 20, 2001. This emergency rule will contain new sea lion protection measures for the 2001 fishery. However, some measures would become effective later in the year, giving the Council an opportunity to make recommendations. Other new measures would be effective on January 20 in recognition of the fact that the pollock roe fisheries and the GOA Pacific cod fishery (all gears) and the BSAI trawl Pacific cod fishery typically conclude by mid March. An effective date after March 15 for measures intended to affect operations of these winter fisheries would severely undermine their intended effect in 2001.

The new measures proposed for implementation effective January 20, 2001 are as follows:

- Prohibit groundfish fishing by federally permitted vessels within 3 nm of more than 75 important haulout sites identified under established criteria.
- Establish two fishing seasons for Pacific cod, January 1 - June 10 (60% of the allocation) and June 11 - December 31 (40 %). This measure will reduce the harvest of Pacific cod in the directed trawl fisheries, which typically occur fully within the first 3 months of the year. A portion of the trawl harvest will likely be foregone or redistributed to nontrawl gear fisheries during the second half of the year.
- Reduce the allowable catch for Gulf of Alaska pollock from the Council's recommended 2001 level by 10 percent. This reduction is less than the 20 percent reduction calculated under the Global Control Rule developed under the biological opinion because it is limited by the new appropriations law (P.L. 106-554).
- Cap the 2001 Bering Sea pollock harvest in the Steller sea lion conservation area to no more than the amount authorized in the final 2000 harvest specifications. This precautionary measure would effectively require that the increase in 2001 pollock quota be harvested outside critical habitat. It caps the Bering Sea pollock harvest in critical habitat at the 2000 level until the biological opinion is fully implemented in 2002.

In addition, the emergency rule would implement the closed areas contained in the biological opinion as of June 10, 2001, for the pollock, Pacific cod, and Atka mackerel fisheries. The Council would have the opportunity to suggest modifications to these closures for the remainder of 2001 provided they meet the requirements of the biological opinion (e.g. close at least 50% of critical habitat to the

three fisheries and maximize protection of Steller sea lion pups and juveniles). Closed critical habitat areas implemented in 2002 also must provide for the statistical design of a monitoring program to evaluate the effectiveness of protection measures.

Finally, adequate tools are needed to monitor and manage critical habitat harvest limits as required under the biological opinion, particularly for the unobserved segment of the fishing fleet. For this reason, NMFS will pursue immediately the development and implementation of management measures, such as Vessel Monitoring Systems and electronic shoreside logbook reports, necessary to prepare for effective monitoring and enforcement of critical habitat harvest limits by 2002.

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**SYNOPSIS OF DRAFT 2001 HARVEST SPECIFICATIONS CONSISTENT WITH
STELLER SEA LION PROTECTION MEASURES**

NMFS Alaska Region

January 9, 2001

Bering Sea and Aleutian Islands Management Area Harvest
Specifications.

NMFS has approved the Council's ABC and TAC recommendations for BSAI groundfish except for "other red rockfish".

Other Red Rockfish

Through 2000, the "other red rockfish" complex was comprised of northern, sharpchin, roughey, and shortraker rockfish in the Bering Sea subarea. In the Aleutian Islands subarea, this complex was split out into two groups comprised of northern/sharpchin and roughey/shortraker rockfish. For 2001, the Council recommended species-specific BSAI OFLs and ABCs for each species in the "other red rockfish" complex to reduce the potential for one species to be fished disproportional to its abundance and resulting overfishing concerns.

For the non-CDQ fisheries, separate TACs were recommended for the Bering Sea and Aleutian Islands subareas for each of the four species in the other red rockfish complex. To further reduce the potential for differential harvesting, the Council recommended that these species be placed on bycatch only status in 2001. The Council also recommended that sharpchin rockfish, which were previously included in the "other red rockfish" complex, be moved into the other rockfish complex.

NMFS agrees with these recommendations, but will not be able to implement all of them in 2001 due to unanticipated monitoring constraints in the fixed gear fisheries. These species are reported by observers using group species codes, which, under current observer procedures, can not be separated into specific species and incorporated into routine observer reports prior to the 2001 fishing year. Thus NMFS is modifying the Council's recommendation and is establishing BSAI wide OFL and ABC amounts for sharpchin/northern and roughey/shortraker rockfish. The Bering Sea subarea now will be managed as the Aleutian Islands subarea has in the past, with two groups, sharpchin/northern rockfish and shortraker/roughey rockfish. Splitting the Bering Sea subarea "other red rockfish" complex into two groups addresses overfishing concern by decreasing the TAC amounts. To remain consistent with previous years' management, until species specific reporting is feasible, sharpchin rockfish will remain in a group with northern rockfish instead of being placed in the other rockfish group. The final ABCs as recommended by the Council and modified and approved by NMFS are listed in Table 3.

The Council recommended that the Bering Sea "other red rockfish" species category not be separated into individual species groups for the CDQ fisheries. The CDQ reserves for rockfish are 7.5 percent of the TAC. If CDQ reserves were specified for the new rockfish TAC categories, they would be 1.4 mt for Bering Sea sharpchin/northern and 8.7 mt for Bering Sea shortraker/rougheye. If these CDQ reserves were further divided among the six CDQ groups, the sharpchin/northern rockfish CDQ amounts available to each group would be between 100 kg and 325 kg. The Council recommended not splitting out the CDQ reserves to the individual species group because these small quotas could prevent the CDQ groups from harvesting much of their other groundfish CDQs. Therefore, consistent with Council intent to avoid premature closure of the CDQ fisheries, NMFS will continue to specify the CDQ reserve for the Bering Sea "other red rockfish" complex. The CDQ reserve for this complex will be calculated as the sum of an amount equal to 7.5 percent of the TAC for Bering Sea shortraker/rougheye plus 7.5 percent of the TAC for sharpchin/northern, or 10 mt. The Aleutian Islands rockfish TAC categories will remain the same as in 2000 for both the CDQ and non-CDQ fisheries.

Table 3 lists the 2001 OFL, ABC, TAC, ITAC and Community Development Quota (CDQ) reserve amounts, overfishing levels, and initial apportionments of groundfish in the BSAI. The apportionment of TAC amounts among fisheries and seasons is discussed below.

TABLE 3.—2001 ACCEPTABLE BIOLOGICAL CATCH (ABC), TOTAL ALLOWABLE CATCH (TAC), INITIAL TAC (ITAC), CDQ RESERVE ALLOCATION, AND OVERFISHING LEVELS OF GROUND FISH IN THE BERING SEA AND ALEUTIAN ISLANDS AREA (BSAI)¹
[All amounts are in metric tons]

Species	Area	Overfishing level	ABC	TAC	ITAC ²	CDQ reserve ³
Pollock ⁴	Bering Sea (BS)	3,536,000	1,842,000	1,400,000	1,209,600	140,000
	Aleutian Islands (AI)	31,700	23,800	2,000	1,800	200
	Bogoslof District	60,200	8,470	1,000	900	100
Pacific cod	BSAI	248,000	188,000	188,000	159,800	14,100
Sablefish ⁵	BS	1,910	1,560	1,560	663	215
	AI	3,070	2,500	2,500	531	422
Atka mackerel	Total	138,000	69,300	69,300	58,905	5,198
	Western AI	.....	27,900	27,900	23,715	2,093
	Central AI	.....	33,600	33,600	28,560	2,520
	Eastern AI/BS	.....	7,800	7,800	6,630	585
Yellowfin sole	BSAI	209,000	176,000	113,000	96,050	8,475
Rock sole	BSAI	271,000	228,000	75,000	63,750	5,625
Greenland turbot	Total	31,000	8,400	8,400	7,140	630
	BS	.....	5,628	5,628	4,784	422
	AI	.....	2,772	2,772	2,356	208
Arrowtooth flounder	BSAI	141,500	117,000	22,011	18,709	1,651
Flathead sole	BSAI	102,000	84,000	40,000	34,000	3,000
Other flatfish ⁶	BSAI	147,000	122,000	28,000	23,800	2,100
Pacific ocean perch	BS	2,040	1,730	1,730	1,471	130
	AI Total	11,800	10,200	10,200	8,670	765
	Western AI	.....	4,740	4,740	4,029	356
	Central AI	.....	2,560	2,560	2,176	192
	Eastern AI	.....	2,900	2,900	2,465	218
Sharpchin/Northern ⁷	BSAI	9,020	6,764	6,764	5,749	See 7
	BS			19	16	
	AI			6,745	5,733	506
Shortraker/Rougheye ⁷	BSAI	1,369	1,028	1,028	874	See 7
	BS			116	99	
	AI			912	775	68
Other rockfish ⁸	BS	482	361	361	307	27
	AI	901	676	676	575	51
Squid	BSAI	2,620	1,970	1,970	1,675	148
Other species ⁹	BSAI	69,000	33,600	26,500	22,525	1,988
TOTAL		4,836,812	2,927,359	2,000,000	1,717,494	185,400

¹ Amounts are in metric tons. These amounts apply to the entire Bering Sea (BS) and Aleutian Islands (AI) management area unless otherwise specified. With the exception of pollock, and for the purpose of these specifications, the Bering Sea subarea includes the Bogoslof District.

² Except for pollock and the portion of the sablefish TAC allocated to hook-and-line or pot gear, 15 percent of each TAC is put into a reserve. The ITAC for each species is the remainder of the TAC after the subtraction of the reserve.

³ Except for pollock and the hook-and-line or pot gear allocation of sablefish, one half of the amount of the TACs placed in reserve, or 7.5 percent of the TACs, is designated as a CDQ reserve for use by CDQ participants (see § 679.31).

⁴ The AFA requires that 10 percent of the annual pollock TAC be allocated as a directed fishing allowance for the CDQ sector. Then, NMFS is subtracting 4 percent of the remainder as an incidental catch allowance of pollock, which is not apportioned by season or area. The remainder is further allocated by sector as follows: inshore, 50 percent; catcher/processor, 40 percent; and motherships, 10 percent. NMFS, under regulations at § 679.24(b)(4), prohibits nonpelagic trawl gear to engage in directed fishing for non-CDQ pollock in the BSAI.

⁵ The ITAC for sablefish reflected in Table 3 is for trawl gear only. Regulations at § 679.20(b)(1) do not provide for the establishment of an ITAC for the hook-and-line or pot gear allocation for sablefish. Twenty percent of the sablefish TAC allocated to hook-and-line gear or pot gear and 7.5 percent of the sablefish TAC allocated to trawl gear is reserved for use by CDQ participants (see § 679.31(c)).

⁶ "Other flatfish" includes all flatfish species, except for Pacific halibut (a prohibited species), flathead sole, Greenland turbot, rock sole, yellowfin sole, and arrowtooth flounder.

⁷ The CDQ reserves for shortraker, roughey, sharpchin, and northern rockfish will continue to be managed as the "other red rockfish" complex for the BS. For 2001 the CDQ reserve is 10 mt.

⁸ "Other rockfish" includes all Sebastes and Sebastolobus species except for Pacific ocean perch, sharpchin, northern, shortraker, and roughey rockfish.

⁹ "Other species" includes sculpins, sharks, skates and octopus. Forage fish, as defined at § 679.2 are not included in the "other species" category.

Incidental Catch Allowance (ICA) for Pollock

Under section 206(b) of the AFA, NMFS allocates a pollock ICA of 4 percent of the pollock TAC after subtraction of the 10 percent CDQ reserve. This is a reduction from the 5 percent ICA specified for 2000. The 2001 allowance is based on an examination of the incidental catch of pollock in non-pollock target fisheries from 1997 through 2000. During this 4-year period, the incidental catch of pollock ranged from a low of 3 percent in 1998 to a high of about 6 percent in 1997, with a 4-year average of 4 percent. In 2000, the actual incidental catch was only 4 percent of the TAC instead of the 5 percent ICA withheld at the beginning of the year. As a result, 9,000 mt of pollock were reallocated to the DFA for non CDQ fisheries in the fall (65 FR 62646, October 19, 2000 here). Based on this experience NMFS believes that a 2001 ICA of 4 percent is sufficient, even if incidental catch of pollock in the Pacific cod fishery increases under SSL protection measures.

Pollock Allocations Under the AFA and SCA Harvest Limits

Table 5 lists the 2001 allocations of pollock TAC as described by the AFA. As described under the Steller sea lion protection measures implemented for 2001, this emergency rule establishes pollock harvest limits in the SCA at a level that do not exceed the harvest in metric tons authorized for the 2000 fishery. These amounts, by sector, are listed in Table 5.

TABLE 5.--ALLOCATIONS OF THE POLLOCK TAC AND DIRECTED FISHING ALLOWANCE TO THE INSHORE, CATCHER/PROCESSOR, MOTHERSHIP, AND CDQ COMPONENTS¹
[All amounts are in metric tons]

Area and Sector	2001 DFA	A/B Season ¹			C/D Season ^{1,2}		
		A/B DFA	A SCA limit ³	B SCA Limit ³	C/D DFA	C SCA Limit ³	D SCA Limit ³
Bering Sea subarea	1,400,000	560,000	166,751	55,497	840,000	48,210	80,142
CDQ	140,000	56,000	28,247	9,339	84,000	9,567	15,718
ICA ⁴	50,400						
AFA Inshore	604,800	241,920	81,802	27,267	362,880	39,440	65,734
AFA C/Ps ⁵	483,840	193,536	38,564	12,854	290,304	0	0
Catch by C/Ps	442,714	177,085			265,628		
Catch by CVs ⁵	41,126	16,451			24,676		
Restricted C/P cap ⁶	2,419	968			1,452		
AFA Motherships	120,960	48,384	14,607	4,869	72,576	0	0
Excessive shares cap ⁷	211,680						
Aleutian Islands							
ICA ⁸	2,000						
Bogoslof District							
ICA ⁸	1,000						

¹After subtraction for the CDQ reserve and the incidental catch allowance, the pollock TAC is allocated as follows: inshore component - 50 percent, catcher/processor component - 40 percent, and mothership component - 10 percent. Under paragraph 206(a) of the AFA, the CDQ reserve for pollock is 10 percent. NMFS, under regulations at § 679.24(b)(4), prohibits nonpelagic trawl gear to engage in directed fishing for non-CDQ pollock in the BSAI. The A/B season, January 20 - June 10, is allocated 40 percent and the C/D season, June 10 - October 31 is allocated 60 percent.

²This emergency interim rule expires on (insert date 180 days from date of filing with the OFR), 2001, before the B season will conclude. Therefore, the B season is not fully authorized unless the emergency interim rule is extended.

³The SCA limits are established as the amount, in metric tons, authorized for the 2000 pollock fishery (65 FR 3896, January 25, 2000).

⁴The pollock incidental catch allowance for the BS subarea is 4 percent of the TAC after subtraction of the CDQ reserve.

⁵Subsection 210(c) of the AFA requires that not less than 8.5 percent of the directed fishing allowance allocated to listed catcher/processors (C/Ps) shall be available for harvest only by eligible catcher vessels (CVs) delivering to listed catcher/processors.

⁶The AFA requires that vessels described in section 208(e)(21) be prohibited from exceeding a harvest amount of one-half of one percent of the directed fishing allowance allocated to vessels for processing by AFA catcher/processors.

⁷Paragraph 210(e)(1) of the AFA specifies that "No particular individual, corporation, or other entity may harvest, through a fishery cooperative or otherwise, a total of more than 17.5 percent of the pollock available to be harvested in the directed pollock fishery."

⁸Consistent with the RPAs, the Aleutian Islands subarea and the Bogoslof District are closed to directed fishing for pollock. The amounts specified are for incidental catch amounts only, and are not apportioned by season or sector.

Allocation of the Atka mackerel TAC

Table 6.—SEASONAL AND SPATIAL APPORTIONMENTS, GEAR SHARES, AND CDQ RESERVE OF THE BSAI ATKA MACKEREL TAC
[All amounts are in metric tons]

Subarea & Component	TAC	CDQ reserve	ITAC ¹	Seasonal apportionment ²			
				A Season ³		B Season ⁴	
				Total	CH Limit ⁵	Total	CH Limit ⁵
Western Aleutian District	27,900	2,093	25,808	12,904	6,194	12,904	6,194
Central Aleutian District	33,600	2,520	31,080	15,540	7,148	15,540	7,148
Eastern AI/BS subarea ⁶	7,800	585	7,215				
Jig (1%) ⁷			72				
Other gear(99%)			7,143	3,572		3,572	
Total	69,300	5,198	64,103	32,016		32,016	

¹ The reserves have been released for Atka mackerel see (Table 4).

² The seasonal apportionment of Atka mackerel is 50 percent in the A season and 50 percent in the B season.

³ The A season is January 1 through April 15.

⁴ The B season is September 1 through October 31.

⁵ Critical habitat (CH) allowance refers to the amount of each seasonal allowance that is available for fishing inside critical habitat (50 CFR part 679 Table 21). In 2001, the percentage of each seasonal allowance available for fishing inside critical habitat is 48 percent in the Western AI and 46 percent in the Central AI. When these critical habitat allowances are reached, critical habitat areas will be closed to trawling until NMFS closes Atka mackerel to directed fishing within the same district.

⁶ Eastern Aleutian District and Bering Sea subarea.

⁷ Regulations at § 679.20 (a)(8) require that up to 2 percent of the Eastern AI area ITAC be allocated to the jig gear fleet. The amount of this allocation is 1 percent and was determined by the Council based on anticipated harvest capacity of the jig gear fleet. The jig gear allocation is not apportioned by season.

Allocation of the Pacific Cod TAC

Under § 679.20(a) (7), 2 percent of the Pacific cod ITAC is allocated to vessels using jig gear, 51 percent to vessels using hook-and-line or pot gear, and 47 percent to vessels using trawl gear. Under § 679.20(a) (7) (B), the portion of the Pacific cod TAC allocated to trawl gear is further allocated 50 percent to catcher vessels and 50 percent to catcher/processors. Under regulations at § 679.20(a) (7) (i) (C) (1), a portion of the Pacific cod allocated to hook-and-line or pot gear is set aside as an ICA of Pacific cod in directed fisheries for groundfish using these gear types. Based on anticipated bycatch in these fisheries, the Council proposed an ICA of 500 mt. The remainder of Pacific cod is further allocated to vessels using hook-and-line or pot gear as the following directed fishing allowances: 80 percent to hook-and-line catcher processors, 0.3 percent to hook-and-line catcher vessels, 18.3 percent to pot gear vessels, and 1.4 percent to catcher vessels under 60 feet LOA using hook-and-line or pot gear.

Due to concerns about the potential impact of the Pacific cod fishery on Steller sea lions and their critical habitat, NMFS is implementing under this emergency rule temporal dispersion of fishing effort in the Pacific cod fisheries by apportioning the Pacific cod ITAC into two seasonal allowances. The first allowance, 60 percent of the ITAC, is made available for directed fishing from January 1 to June 10, and the

second seasonal allowance, 40 percent of the ITAC, is made available from June 10 to December 31. Table 7 lists the 2001 allocations and seasonal apportionments of the Pacific cod ITAC.

Table 7.- 2001 GEAR SHARES AND SEASONAL APPORTIONMENTS OF THE BSAI PACIFIC COD TAC

Gear Sector	Percent	Share (mt)	Seasonal apportionment ¹	
			Date	Amount (mt)
Jig	2	3,478	Jan 1- Jun 10	2,087
			Jun 10 - Dec 31	1,391
Total hook-and-line and pot gear allocation of Pacific cod TAC	51	88,689		
Hook-and-line Catcher Processors	80	70,551	Jan 1 - Jun 10	42,331
			Jun 10 - Dec 31	28,220
Hook-and-Line Catcher Vessels	0.3	265	Jan 1 - Jun 10	159
			Jun 10- Dec 31	106
Pot Gear Vessels	18.3	16,139	Jan 1 - Jun 10	9,683
			Jun 10 - Dec 31	6,455
Catcher Vessels < 60 feet LOA using Hook-and-line or Pot gear	1.4	1,235	Jan 1 - Jun 10	741
			Jun 10 - Dec 31	494
Hook-and-line and pot gear sub-total	100	88,189		
Hook-and-line and pot gear Incidental Catch Allowance		500		500
Trawl gear	47	81,733		
Catcher Vessel	50	40,867	Jan 1 - Jun 10	24,520
			Jun 10 - Dec 31	16,347
Catcher Processor	50	40,867	Jan 1 - Jun 10	24,520
			Jun 10 - Dec 31	16,347
Total		173,900		

¹The reserve have been released for Pacific cod see (Table 4).

² The first season is allocated 60 percent of the TAC and the second season is allocated 40 percent of the TAC. Any unused portion of the first seasonal Pacific cod allowance will be reapportioned to the second seasonal allowance.

Allocation of the Shortraker and Rougheye Rockfish TAC.

Under § 679.20(a)(9), the ITAC of shortraker rockfish and rougheye rockfish specified for the Aleutian Islands subarea is allocated 30 percent to vessels using non-trawl gear and 70 percent to vessels using trawl gear. Based on a 2001 ITAC of 843 mt, the trawl allocation is 590 mt and the non-trawl allocation is 253 mt.

Sablefish Gear Allocation

Regulations at § 679.20(a)(4)(iii) and (iv) require that sablefish TACs for the BSAI subareas be allocated between trawl and hook-and-line or pot gear. Gear allocations of TACs for the Bering Sea subarea are 50 percent for trawl gear and 50 percent for hook-and-line or pot gear and for the Aleutian Islands subarea are 25 percent for trawl gear and 75 percent for hook-and-line or pot gear. Regulations at § 679.20(b)(1)(iii)(B) require that 20 percent of the hook-and-line and pot gear allocation of sablefish be reserved as sablefish CDQ. Additionally, regulations at § 679.20(b)(1)(iii)(A) require that 7.5 percent of the trawl gear allocation of sablefish (one half of the reserve) be reserved as groundfish CDQ. Gear allocations of the sablefish TAC and CDQ reserve amounts are specified in Table 8.

Table 8.—GEAR SHARES AND CDQ RESERVE OF BSAI SABLEFISH TAC
[All amounts are in metric tons]

Subarea & Gear	Percent of TAC	Share of TAC	ITAC ¹	CDQ Reserve
Bering Sea				
Trawl ²	50	780	663	59
Hook-&-line/pot gear ³	50	780	N/A	156
Total	100	1,560	663	215
Aleutian Islands				
Trawl ²	25	625	531	47
Hook-&-line/pot gear ³	75	1,875	N/A	375
Total	100	2,500	531	422

¹ Except for the sablefish hook-and-line and pot gear allocation, 15 percent of TAC is apportioned to reserve. The ITAC is the remainder of the TAC after the subtraction of these reserves.

² For the portion of the sablefish TAC allocated to vessels using trawl gear, one half of the reserve (7.5 percent of the specified TAC) is reserved for the multi-species CDQ program.

³ For the portion of the sablefish TAC allocated to vessels using hook-and-line or pot gear, 20 percent of the allocated TAC is reserved for use by CDQ participants. Regulations in § 679.20(b)(1) do not provide for the establishment of an ITAC for sablefish allocated to hook-and-line or pot gear.

Allocation of Prohibited Species Catch (PSC) Limits for Halibut, Crab, Salmon, and Herring

NMFS recognizes that the Council did not have the opportunity in December, 2000, to evaluate the effects of SSL protection measures implemented by this emergency rule on PSC bycatch needs throughout the year. After consulting with the Council at its emergency January 2001 meeting. Pending Council recommendations for modifications to Table 9, NMFS will consider amending PSC seasonal apportionments and amounts listed.

Table 9.--PROHIBITED SPECIES BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES¹

[All amounts are in metric tons]

TRAWL FISHERIES	Prohibited Species and Zone					
	Halibut mortality (mt) BSAI	Herring (mt) BSAI	Red King Crab (animals) Zone 1	C. opilio (animals) COBLZ ²	C. bairdi (animals)	
					Zone 1	Zone 2
Yellowfin sole	911	139	11,664	2,876,981	253,894	1,246,502
January 20 - March 31	286	.....	.....	.....	.....	.....
April 1 - May 20	196	.....	.....	.....	.....	.....
May 21 - July 3	49	.....	.....	.....	.....	.....
July 1 - December 31	380	.....	.....	.....	.....	.....
Rocksole/oth.flat/flat sole ³	854	20	64,782	469,130	272,126	415,501
January 20 - March 31	498	.....	.....	.....	.....	.....
April 1 - July 3	179	.....	.....	.....	.....	.....
July 1 - December 31	177	.....	.....	.....	.....	.....
RKC savings subarea ³	.....	.....	22,674	.....	.....	.....
Turbot/sablefish/arrowtooth ⁴	.....	9	.....	40,238	.....	.....
Rockfish (July 1 - December 31) ⁵	69	7	.....	40,237	.....	7,658
Pacific cod	1,334	20	11,664	524,736	136,400	225,941
Pollock/Atka/other ⁶	232	146	1,615	72,428	12,830	19,148
Midwater trawl pollock	.....	1,184	.....	.....	.....	.....
TOTAL TRAWL PSC	3,400	1,526	89,725	4,023,750	675,250	1,914,750
NON-TRAWL FISHERIES						
Pacific cod - Total	755					
Jan. 1 - June 10 ⁷	300					
June 11 - July 31	0					
August 1 - Dec. 31	455					
Other non-trawl - Total	78					
May 1 - December 31	78					
Groundfish pot & jig	Exempt					
Sablefish hook-&-line	Exempt					
TOTAL NON-TRAWL	833					
PSQ RESERVE ⁸	342	.....	7,275	326,250	54,750	155,250
GRAND TOTAL	4,575	1,526	97,000	4,350,000	730,000	2,070,000

¹ Refer to § 679.2 for definitions of areas.

² *C. opilio* Bycatch Limitation Zone. Boundaries are defined at 50 CFR part 679, fig. 13..

³ The Council at its December 2000 meeting limited red king crab for trawl fisheries within the RKCSS to 35 percent of the total allocation to the rock sole, flathead sole, and other flatfish fishery category (§ 679.21(e)(3)(ii)(B)).

⁴ Greenland turbot, arrowtooth flounder, and sablefish fishery category.

⁵ The Council at its December 2000 meeting apportioned the rockfish PSC amounts from July 1 - December 31, to prevent fishing for rockfish before July 1, 2001.

⁶ Pollock other than pelagic trawl pollock, Atka mackerel, and "other species" fishery category.

⁷ Any unused halibut PSC from the first trimester may be rolled over into the third trimester.

⁸ With the exception of herring, 7.5 percent of each PSC limit is allocated to the multi-species CDQ program as PSQ reserve. The PSQ reserve is not allocated by fishery, gear or season.

TABLE 10.--ASSUMED PACIFIC HALIBUT MORTALITY RATES FOR THE BSAI FISHERIES

Fishery	Preseason Assumed mortality (percent)
Hook-and-line gear fisheries	
Rockfish	25
Pacific cod	12
Greenland turbot	18
Sablefish	22
Other Species	12
Trawl gear fisheries	
Midwater pollock	84
Non-pelagic pollock	76
Yellowfin sole	81
Rock sole	76
Flathead sole	67
Other flatfish	71
Rockfish	69
Pacific cod	67
Atka mackerel	75
Greenland turbot	70
Sablefish	50
Other species	67
Pot gear fisheries	
Pacific cod	8
Other species	8
CDQ Trawl fisheries	
Atka mackerel	82
Midwater pollock	90
Non-pelagic pollock	88
Rockfish	88
Yellowfin sole	83
CDQ Hook-and-line fisheries	
Pacific cod	10

BS Subarea Inshore Pollock Allocations

Under § 679.20(a)(5)(i)(C), NMFS must subdivide the inshore allocation into allocations for cooperatives and vessels not fishing in a cooperative (i.e., the open access sector). In addition, under § 679.22(a)(11)(iv), NMFS must establish harvest limits inside the Steller sea lion conservation area (SCA) and provide a set-aside so that catcher vessels less than or equal to 99 ft (30.2 m) LOA have the opportunity to operate entirely within the SCA during the A, B and D seasons. Accordingly, Table 11 lists the apportionment of the BS subarea inshore pollock allocation into allocations for vessels fishing in a cooperative and for vessels not participating in a cooperative and establishes a cooperative-sector SCA set-aside for AFA catcher vessels less than or equal to 99 ft (30.2 m) LOA. The SCA set-aside for sector catcher vessels less than or equal to 99 ft (30.2 m) LOA that are not participating in a cooperative will be established inseason based on actual participation levels and is not included in Table 11. These allocations may be revised based on any corrections to AFA vessels' catch history.

TABLE 11--BERING SEA SUBAREA POLLOCK ALLOCATIONS TO THE COOPERATIVE AND OPEN ACCESS SECTORS OF THE INSHORE POLLOCK FISHERY. AMOUNTS ARE EXPRESSED IN METRIC TONS

	A/B season TAC	A season inside SCA ¹	B season inside SCA	C/D season TAC	C season inside SCA ¹	D season inside SCA
Cooperative sector						
Vessels > 99 ft	n/a	70,890	23,630	n/a	n/a	56,966
Vessels ≤ 99 ft	n/a	10,593	3,531	n/a	n/a	8,512
Total	239,561	81,483	27,161	361,465	39,286	65,478
Open access sector	2,359	319²	106²	1,415	154	256²
Total inshore	241,920	81,802	27,267	362,880	39,440	65,734

¹Steller sea lion conservation area established at § 679.22(a)(11)(iv).

² SCA limitations for vessels less than or equal to 99 ft LOA that are not participating in a cooperative will be established on an inseason basis in accordance with § 679.22(a)(11)(iv)(D)(2) which specifies that "the Regional Administrator will prohibit directed fishing for pollock by vessels catching pollock for processing by the inshore component greater than 99 ft (30.2 m) LOA before reaching the inshore SCA harvest limit during the A, B and D seasons to accommodate fishing by vessels less than or equal to 99 ft (30.2 m) inside the SCA for the duration of the inshore seasonal opening."

Under § 679.4, NMFS set out procedures for AFA inshore catcher vessel pollock cooperatives to apply for and receive cooperative fishing permits and inshore pollock allocations. NMFS received applications from seven inshore catcher vessel cooperatives. Table 12 lists the pollock allocations to the seven inshore catcher vessel pollock cooperatives that have been approved and permitted by NMFS for the 2001 fishing year. Allocations for cooperatives and vessels not participating in cooperatives are not made for the AI subarea because the AI subarea has been closed to directed fishing for pollock. These allocations may be revised based on any corrections to AFA vessels' catch history.

TABLE 12. BERING SEA SUBAREA INSHORE COOPERATIVE ALLOCATIONS

Cooperative name and member vessels	Sum of member vessel's official catch histories ¹	Percentage of inshore sector allocation	Annual co-op allocation
<u>Akutan Catcher Vessel Association</u> ALDEBARAN, ARCTURUS, BLUE FOX, CAPE KIWANDA, COLUMBIA, DOMINATOR, DONA MARTITA, EXODUS, GLADIATOR, GOLDEN DAWN, GOLDEN PISCES, HAZEL LORRAINE, INTREPID EXPLORER, LESLIE LEE, LISA MELINDA, MAJESTY, MARCY J, MARGARET LYN, NORDIC EXPLORER, NORTHERN PATRIOT, NORTHWEST EXPLORER, PACIFIC RAM, PACIFIC VIKING, PEGASUS, PEGGIE JO, PERSEVERANCE, PREDATOR, RAVEN, ROYAL AMERICAN, SEEKER, SOVEREIGNTY, TRAVELER, VIKING EXPLORER	265,244	29.889%	180,769
<u>Arctic Enterprise Association</u> ARCTIC EXPLORER, BRISTOL EXPLORER, OCEAN EXPLORER, PACIFIC EXPLORER	50,008	5.635%	34,080
<u>Northern Victor Fleet Cooperative</u> ANITA J, NORDIC FURY, PACIFIC FURY, GOLDRUSH, EXCALIBUR II, HALF MOON BAY, SUNSET BAY, COMMODORE, STORM PETREL, POSEIDON, ROYAL ATLANTIC, MISS BERDIE	72,024	8.116%	49,086
<u>Peter Pan Fleet Cooperative</u> AMBER DAWN, AMERICAN BEAUTY, ELIZABETH F, OCEAN HOPE 1, OCEANIC, OCEAN LEADER, TOPAZ, WALTER N	15,309	1.725%	10,433
<u>Unalaska Cooperative</u> ALASKA ROSE, BERING ROSE, DESTINATION, GREAT PACIFIC, MESSIAH, MORNING STAR, MS AMY, PROGRESS, SEA WOLF, VANGUARD, WESTERN DAWN	106,714	12.025%	72,727
<u>UniSea Fleet Cooperative</u> ALSEA, AMERICAN EAGLE, ARGOSY, AURIGA, AURORA, DEFENDER, GUN-MAR, NORDIC STAR, PACIFIC MONARCH, SEADAWN, STARFISH, STARLITE, STARWARD	210,922	23.768%	143,749
<u>Westward Fleet Cooperative</u> A.J., ALASKAN COMMAND, ALYESKA, ARCTIC WIND, CAITLIN ANN, CHELSEA K, HICKORY WIND, FIERCE ALLEGIANCE, OCEAN HOPE 3, PACIFIC CHALLENGER, PACIFIC KNIGHT, PACIFIC PRINCE, VIKING, WESTWARD I	142,814	18.452%	111,598
Open access AFA vessels	24,399	0.390%	2,359
Total inshore allocation	887,435	100%	604,800

¹Under 679.62(e)(1) the individual catch history for each vessel is equal to the vessel's best 2 of 3 years inshore pollock landings from 1995 through 1997 and includes landings to catcher/processors for vessels that made 500 or more mt of landings to catcher/processors from 1995 through 1997.

2001 Unrestricted AFA Catcher/Processor Sideboards

The 2001 catcher/processor sideboards are set out in Table 13 below. All non-pollock groundfish that is harvested by unrestricted AFA catcher/processors, whether as targeted catch or bycatch, will be deducted from the harvest limits in Table 13. However, non-pollock groundfish that is delivered to listed catcher/processors by catcher vessels will not be deducted from the 2001 harvest limits for the listed catcher/processors.

TABLE 13--2001 UNRESTRICTED BSAI AFA CATCHER/PROCESSOR GROUND FISH SIDEBOARDS. AMOUNTS ARE EXPRESSED IN METRIC TONS

Target species	Area	1995 - 1997			2001 ITAC available to trawl C/Ps	2001 C/P sideboard amount
		Total catch	Available TAC	Ratio		
Pacific cod trawl	BSAI	13,547	51,450			
	Jan 20-Jun 10			0.263	16,347	4,299
	Jun 10-Dec 31			0.263	24,520	6,449
Sablefish trawl	BS	8	1,736	0.005	663	3
	AI	1	1,135	0.001	531	1
Atka mackerel	Western AI					
	A season ¹	n/a	n/a	0.200	12,904	2,581
	CH limit ²					1,239
	B season	n/a	n/a	0.200	12,904	2,581
	CH limit					1,239
	Central AI					
Yellowfin sole	A season ¹	n/a	n/a	0.115	15,540	1,787
	CH limit					882
	B season	n/a	n/a	0.115	15,540	1,787
	CH limit					882
Rock sole	BSAI	123,003	527,000	0.233	96,050	22,380
Greenland turbot	BSAI	14,753	202,107	0.073	63,750	4,654
	BS	168	16,911	0.010	5,206	52
Arrowtooth flounder	AI	31	6,839	0.005	2,564	13
	BSAI	788	36,873	0.021	18,709	393
Flathead sole	BSAI	3,030	87,975	0.034	34,000	1,156
Other flatfish	BSAI	12,145	92,428	0.131	23,800	3,118
	BS	58	5,760	0.010	1,471	15
Pacific ocean perch	Western AI	356	12,440	0.029	4,385	127
	Central AI	95	6,195	0.015	2,368	36
	Eastern AI	112	6,265	0.018	2,683	48
	BS			0.078	16	
Sharpchin/northern	AI	1,034	13,254	0.078	6,239	487
	BS			0.024	99	
Shortraker/rougheye	AI	68	2,827	0.024	843	20
	BS	39	1,026	0.038	307	12
Other rockfish	AI	95	1,924	0.049	575	28
	BSAI	7	3,670	0.002	1,675	3
Squid	BSAI					
Other species	BSAI	3,551	65,925	0.054	22,525	1,216

¹ The seasonal apportionment of Atka mackerel in the open access fishery is 50 percent in the A season and 50 percent in the B season. Unrestricted AFA catcher/processors are limited to harvesting no more than 20 and 11.5 percent of the available TAC in the Western and Central AI subareas respectively. Unrestricted AFA catcher/processors are prohibited from harvesting Atka mackerel in the Eastern Aleutian Islands District and Bering Sea subarea (paragraph 211(b)(2)(C)).

² Critical habitat (CH) allowance refers to the amount of each seasonal allowance that is available for fishing inside critical habitat (50 CFR part 679 Table 21). In 2001, the percentage of TAC available for fishing inside critical habitat area is 48 percent in the Western AI and 46 percent in the Central AI. When these critical habitat allowances are reached, critical habitat areas will be closed to trawling until NMFS closes Atka mackerel to directed fishing within the same district.

Regulations at § 679.63(a)(2) establish a formula for PSC sideboards for unrestricted AFA catcher/processors. These amounts are equivalent to the percentage of prohibited species bycatch limits harvested in the non-pollock groundfish fisheries by the AFA catcher/processors listed in subsection 208(e) and section 209 of the AFA from 1995 through 1997. Prohibited species amounts harvested by these catcher/processors in BSAI non-pollock groundfish fisheries from 1995 through 1997 are shown in Table 14. These data were used to calculate the relative amount of prohibited species catch limits harvested by pollock catcher/processors, which was then used to determine the prohibited species harvest limits for unrestricted AFA catcher/processors in the 2001 non-pollock groundfish fisheries.

PSC that is caught by unrestricted AFA catcher/processors participating in any non-pollock groundfish fishery listed in Table 13 shall accrue against the 2001 PSC limits for the listed catcher/processors. Regulations at § 679.21(e)(3)(v) provide authority to close directed fishing for non-pollock groundfish for unrestricted AFA catcher/processors once a 2001 PSC limitation listed in Table 14 is reached.

Crab or halibut PSC that is caught by unrestricted AFA catcher/processors while fishing for pollock will accrue against the bycatch allowances annually specified for either the midwater pollock or the pollock/Atka mackerel/other species fishery categories under § 679.21(e).

TABLE 14--2001 UNRESTRICTED BSAI AFA CATCHER/PROCESSOR PROHIBITED SPECIES SIDEBOARD AMOUNTS.

PSC species	1995 - 1997			2001 PSC available to trawl vessels	2001 C/P limit
	PSC catch	Total PSC	Ratio		
Halibut mortality	955	11,325	0.084	3,400	286 mt
Red king crab	3,098	473,750	0.007	89,725	628 crab
C. opilio	2,323,731	15,139,178	0.153	4,023,750	615,634 crab
C. bairdi					
Zone 1	385,978	2,750,000	0.140	675,250	94,535 crab
Zone 2	406,860	8,100,000	0.050	1,914,750	95,738 crab

2001 AFA Catcher Vessel Sideboards

The 2001 AFA catcher vessel sideboards amounts are shown in Tables 15 and 16. All harvests of groundfish sideboard species made by non-exempt AFA catcher vessels, whether as targeted catch or bycatch, will be deducted from the sideboard limits listed in Table 15.

TABLE 15--2001 BSAI AFA CATCHER VESSEL (CV) SIDEBOARDS. AMOUNTS ARE EXPRESSED IN METRIC TONS.

Species	Fishery by Area/Season/ Processor/ Gear	Ratio of 1995-1997 AFA CV catch to 1995-1997 TAC	2001 Initial TAC	2001 catcher vessel sideboard
Pacific cod	BSAI			
	jig gear			
	Jan 1 - Jun 10	0.0000	1,391	0
	Jun 10 - Dec 31	0.0000	2,087	0
	hook-and-line CV			
	Jan 1 - Jun 10	0.0006	106	0
	Jun 10 - Dec 31	0.0006	159	0
	Pot gear			
	Jan 1 - Jun 10	0.0006	6,455	4
	Jun 10 - Dec 31	0.0006	9,683	6
	CV < 60 feet LOA using hook-and-line or pot gear			
	Jan 1 - Jun 10	0.0006	494	0
	Jun 10 - Dec 31	0.0006	741	0
	trawl gear			
	catcher vessel			
Jan 1 - Jun 10	0.7703	16,347	12,592	
Jun 10 - Dec 31	0.7703	24,520	18,888	
catcher/processor				
Jan 1 - Jun 10	0.0000	16,347	0	
Jun 10 - Dec 31	0.0000	24,520	0	
Sablefish	BS trawl gear	0.0006	663	0
	AI trawl gear	0.0608	531	32
Atka mackerel	<u>Eastern AI/BS</u>			
	jig gear	0.0031	72	0
	other gear			
	Jan 1 - Apr 15	0.0031	3,572	11
	Sept 1 - Nov 1	0.0031	3,572	11
	<u>Central AI</u>			
	Jan - Apr 15	0.0001	15,540	2
	inside CH	0.0001	7,148	1
	Sept 1 - Nov 1	0.0001	15,540	2
	inside CH	0.0001	7,148	1
	<u>Western AI</u>			
	Jan - Apr 15	0.0000	12,904	0
	inside CH	0.0000	6,194	0
	Sept 1 - Nov 1	0.0000	12,904	0
	inside CH	0.0000	6,194	0
Yellowfin sole	BSAI	0.0712	96,050	6,839
Rock sole	BSAI	0.0255	63,750	1,626
Greenland Turbot	BS	0.0405	5,206	211
	AI	0.0021	2,564	5
Arrowtooth flounder	BSAI	0.0583	18,709	1,091
Other flatfish	BSAI	0.0558	23,800	1,328
POP	BS	0.1018	1,471	150
	Eastern AI	0.0048	2,683	13

Species	Fishery by Area/Season/ Processor/ Gear	Ratio of 1995-1997 AFA CV catch to 1995-1997 TAC	2001 Initial TAC	2001 catcher vessel sideboard
	Central AI	0.0011	2,368	3
	Western AI	0.0000	4,385	0
Sharpchin/Northern	BS	0.0280	16	0
	AI	0.0015	6,239	9
Shortraker/Rougheye	BS	0.0280	99	3
	AI	0.0011	843	1
Other rockfish	BS	0.0379	307	12
	AI	0.0031	575	2
Squid	BSAI	0.3885	1,675	651
Other species	BSAI	0.0283	22,525	637
Flathead Sole	BS trawl gear	0.0490	34,000	1,666

Regulations at § 679.63(b) establish a formula for PSC sideboards for AFA catcher vessels. These amounts are listed in Table 16. Halibut and crab PSC that is caught by AFA catcher vessels participating in any non-pollock groundfish fishery listed in Table 15 will accrue against the 2001 PSC limits for the AFA catcher vessels. PSC that is caught by AFA catcher vessels while fishing for pollock in the BSAI will accrue against either the midwater pollock or the pollock/Atka mackerel/other species fishery categories.

TABLE 16--2001 AFA CATCHER VESSEL (CV) PROHIBITED SPECIES CATCH (PSC) SIDEBOARD AMOUNTS¹ FOR THE BSAI.

PSC species	Target fishery category ² and season	Ratio of 1995-1997 AFA CV retained catch to total retained catch	2001 PSC Limit	2001 AFA catcher vessel PSC sideboard
Halibut	Pacific cod trawl	0.6183	1,334	825
	Pacific cod hook-and-line or pot	0.0022	755	2
	Yellowfin sole			
	Jan. 20 - Mar. 31	0.1144	286	33
	Apr. 1 - May 20	0.1144	196	22
	May 21 - July 3	0.1144	49	6
	July 1 - Dec. 31	0.1144	380	43
	Rock sole/Flathead sole/Oth. flat			
	Jan. 20 - Mar. 31	0.2841	498	141
	Apr. 1 - July 3	0.2841	179	51
	July 1 - Dec. 31	0.2841	177	50
	Turbot/Arrowtooth/Sablefish	0.2327	0	0
	Rockfish	0.0245	69	2
Pollock/Atka mackerel/Other sp.	0.0227	232	5	
Red King Crab Zone 1	Pacific cod	0.6183	11,664	7,212
	Yellowfin sole	0.1144	11,664	1,334
	Rock sole/Flathead sole/Oth. flat	0.2841	64,782	18,405
	Pollock/Atka mackerel/Other sp.	0.0227	1,615	37
<u>C. opilio</u> COBLZ ^{3,4}	Pacific cod	0.6183	524,736	324,444
	Yellowfin sole	0.1144	2,876,981	329,127
	Rock sole/Flathead sole/Oth. flat	0.2841	469,130	133,280
	Pollock/Atka mackerel/Other sp.	0.0227	72,428	1,644
	Rockfish ⁵	0.0245	40,237	986
	Turbot/Arrowtooth/Sablefish	0.2327	40,238	9,363
<u>C. bairdi</u> Zone 1	Pacific cod	0.6183	136,400	84,336
	Yellowfin sole	0.1144	253,894	29,045
	Rock sole/Flathead sole/Oth. flat	0.2841	272,126	77,311
	Pollock/Atka mackerel/Other sp.	0.0227	12,830	291
<u>C. bairdi</u> Zone 2	Pacific cod	0.6183	225,941	139,699
	Yellowfin sole	0.1144	1,246,502	142,600
	Rock sole/Flathead sole/Oth. flat	0.2841	415,501	118,044
	Pollock/Atka mackerel/Other sp.	0.0227	19,148	435
	Rockfish	0.0245	7,658	188

¹ Halibut amounts are in metric tons of halibut mortality. Crab amounts are in numbers of animals.

² Target fishery categories are defined in regulation at § 679.21(e)(3)(iv).

³ C. opilio Bycatch Limitation Zone. Boundaries are defined at Figure 13 of 50 CFR part 679.

⁴ The Council at its December 2000 meeting limited red king crab for trawl fisheries within the RKCSS to 35 percent of the total allocation to the rock sole, flathead sole, and other flatfish fishery category (§ 679.21(e)(3)(ii)(B)).

⁵ The Council at its December 2000 meeting apportioned the rockfish PSC amounts from July 1 - December 31 to prevent fishing for rockfish before July 1, 2001.

Gulf of Alaska 2001 Harvest Specifications

NMFS has approved the Council's recommended ABC and TAC recommendations except for pollock. Public Law 106-544, phases in the implementation of the RPA in 2001. Specifically section 209(c)(5) states that when the GCR applies in 2001 it "shall not cause a reduction in the total allowable catch of any fishery of more than ten percent." NMFS therefore is adjusting the Council's recommended TAC of pollock in the combined W/C/WYK area downward by 10 percent (9,935 mt) from 99,350 mt to 89,415 mt. This action is discussed in more detail below.

Under this emergency interim rule, the annual pollock TAC in the Western and Central GOA is divided into four seasonal apportionments. The annual pollock TAC in the combined Western and Central GOA of 87,080 mt is the result of the combined W/C/WYK annual TAC of 89,415 mt less the WYK annual TAC of 2,335 mt. Thirty percent of the annual TAC in the Western and Central Regulatory Areas in the GOA is apportioned to the A season (January 20 through March 1) in the Western GOA, Shelikof Strait, and Statistical Areas 620 and 630 (outside of Shelikof Strait) in the Central GOA (§ 679.20(a)(5)(ii)); 15 percent to the B season (March 15 through May 31) in the Western GOA, Shelikof Strait, and Statistical Areas 620 and 630 (outside of Shelikof Strait) in the Central GOA; 30 percent to the C season (August 20 through September 15) in the Western GOA and Statistical Areas 620 and 630 in the Central GOA; and 25 percent to the D season (October 1 through November 1) in the Western GOA and Statistical Areas 620 and 630 in the Central GOA (§ 679.23(d)(2)(i) through (iv)). The derivation of the seasonal apportionment amounts in the Western and Central GOA areas is discussed below.

The 2001 Pacific cod TAC is affected by the State's developing fishery for Pacific cod in State waters in the Central and Western GOA, as well as Prince William Sound (PWS). Accordingly the Council recommended that Pacific cod TAC be reduced from ABC levels to account for State GHLS in each regulatory area of the GOA so that the TAC for (1) the Eastern GOA be lower than the ABC by 1,190 mt, (2) the Central GOA be lower than the ABC by 8,400 mt, and (3) the Western GOA be lower than the ABC by 6,100 mt. These amounts reflect the sum of State's 2001 GHLS in these areas which are 25 percent, 21.75 percent, and 25 percent of the Eastern, Central, and Western GOA ABCs respectively. These percentages are unchanged from 2000.

NMFS is also establishing seasonal apportionments of the annual Pacific cod TAC in the Western and Central Regulatory Areas at 60 percent of the annual TAC to an A season from January 1 through June 10 and at 40 percent of the annual TAC to a B season from June 10 to December 31. These seasonal apportionments of the annual Pacific cod TAC are discussed in greater detail below.

Table 19 - 2001 ABCs, TACs, and Overfishing Levels of Groundfish for the Western/Central/West Yakutat (W/C/WYK), Western (W), Central (C), Shelikof Strait, Eastern (E) Regulatory Areas, and in the West Yakutat (WYK), Southeast Outside (SEO), and Gulf-Wide (GW) Districts of the Gulf of Alaska. [Values are in metric tons]

Species	Area ¹	ABC	TAC	Overfishing
Pollock²				
Shumagin	(610)	35,240	31,724	
Chirikof	(620)	14,260	12,841	
Kodiak	(630)	26,650	23,996	
Shelikof		20,680	18,619	
WYK	(640)	2,520	2,235	
Subtotal	W/C/WYK	99,350	89,415	117,750
SEO	(650)	6,460	6,460	8,610
Total		105,810	95,875	126,360
Pacific cod³				
	W	24,400	18,300	
	C	38,650	30,250	
	E	4,750	3,560	
Total		67,800	52,110	91,200
Flatfish⁴				
	W	280	280	
(deep-water)	C	2,710	2,710	
	WYK	1,240	1,240	
	SEO	1,070	1,070	
Total		5,300	5,300	6,980
Rex sole⁴				
	W	1,230	1,230	
	C	5,660	5,660	
	WYK	1,540	1,540	
	SEO	1,010	1,010	
Total		9,440	9,440	12,300
Flathead sole				
	W	8,490	2,000	
	C	15,720	5,000	
	WYK	1,440	1,440	
	SEO	620	620	
Total		26,270	9,060	34,210
Flatfish⁵				
	W	19,510	4,500	
(shallow-water)	C	16,400	12,950	
	WYK	790	790	
	SEO	1,160	1,160	
Total		37,860	19,400	45,330

Table 1. (continued)

Species	Area ¹	ABC	TAC	Overfishing
Arrowtooth flounder	W	16,480	8,000	
	C	99,590	25,000	
	WYK	24,220	2,500	
	SEO	7,860	2,500	
Total		148,150	38,000	173,550
Sablefish ⁶	W	2,010	2,010	
	C	5,410	5,410	
	WYK	2,060	2,060	
	SEO	3,360	3,360	
	Subtotal E	5,420	5,420	
Total		12,840	12,840	15,720
Pacific ⁷ ocean perch	W	1,280	1,280	1,520
	C	9,610	9,610	11,350
	WYK	870	870	
	SEO	1,750	1,750	
Subtotal E				3,090
Total		13,510	13,510	15,960
Short raker/ rougheye ⁸	W	210	210	
	C	930	930	
	E	590	590	
	Total		1,730	1,730	2,510
Other rockfish ^{9,10}	W	20	20	
	C	740	740	
	WYK	250	150	
	SEO	3,890	100	
Total		4,900	1,010	6,390
Northern Rockfish ^{10,12}	W	600	600	
	C	4,280	4,280	
	E	N/A	N/A	
Total		4,880	4,880	5,780
Pelagic shelf rockfish ¹³	W	550	550	
	C	4,080	4,080	
	WYK	580	580	
	SEO	770	770	
Total		5,980	5,980	9,040
Thornyhead rockfish	W	420	420	
	C	970	970	
	E	920	920	
Total		2,310	2,310	2,770

Table 1. (continued)

Species	Area ¹	ABC	TAC	Overfishing
Demersal shelf rockfish ¹¹	SEO	330	330	410
Atka mackerel	GW	600	600	6,200
Other ¹⁴ species	GW	N/A ¹⁵	13,619	N/A
TOTAL ¹⁶		447,710	285,994	554,710

1. Regulatory areas and districts are defined at § 679.2.
2. Pollock is apportioned in the Western/Central Regulatory areas to the Shelikof Strait conservation area (defined at §679.22(b)(2)(iii)(B)) in the A and B seasons only (§679.22(b)(2)(iii)(A)) in accordance with §679.22(b)(2)(iii)(C) and the remainder to the three statistical areas in the combined Western/Central Regulatory Area outside the Shelikof Strait based on the relative distribution of pollock biomass at 56 percent, 4 percent, and 40 percent in Regulatory areas 610, 620, and 630 respectively. During the C and D seasons pollock is apportioned based on the relative distribution of pollock biomass at 42 percent, 25 percent, and 33 percent in Regulatory Areas 610, 620, and 630 respectively. These seasonal apportionments are shown in Tables 21 and 22. In the West Yakutat and Southeast Outside Districts of the Eastern Regulatory Area, pollock is not divided into seasonal allowances.
3. The annual Pacific cod TAC is apportioned 60 percent to an A season and 40 percent to a B season in the Western and Central Regulatory Areas of the GOA. Pacific cod is allocated 90 percent for processing by the inshore component and 10 percent for processing by the offshore component. Seasonal apportionments and component allocations of TAC are shown in Table 23.
4. "Deep water flatfish" means Dover sole, Greenland turbot, and deepsea sole.
5. "Shallow water flatfish" means flatfish not including "deep water flatfish," flathead sole, rex sole, or arrowtooth flounder.
6. Sablefish is allocated to trawl and hook-and-line gears (Table 20).
7. "Pacific ocean perch" means Sebastes alutus.
8. "Shortraker/rougheye rockfish" means Sebastes borealis (shortraker) and S. aleutianus (rougheye).
9. "Other rockfish" in the Western and Central Regulatory Areas and in the West Yakutat District means slope rockfish and demersal shelf rockfish. The category "other rockfish" in the Southeast Outside District means Slope rockfish.
10. "Slope rockfish" means Sebastes aurora (aurora), S. melanostomus (blackgill), S. paucispinis (bocaccio), S. goodei (chilipepper), S. crameri (darkblotch), S. elongatus (greenstriped), S. variegatus (harlequin), S.

- wilsoni (pygmy), S. babcocki (redbanded), S. proriger (redstripe), S. zacentrus (sharpchin), S. jordani (shortbelly), S. brevispinis (silvergrey), S. diploproa (splitnose), S. saxicola (stripetail), S. miniatus (vermillion), and S. reedi (yellowmouth). In the Eastern GOA only, "slope rockfish" also includes northern rockfish, S. polyspinous.
11. "Demersal shelf rockfish" means Sebastes pinniger (canary), S. nebulosus (china), S. caurinus (copper), S. maliger (quillback), S. helvomaculatus (rosethorn), S. nigrocinctus (tiger), and S. ruberrimus (yelloweye).
 12. "Northern rockfish" means Sebastes polyspinis.
 13. "Pelagic shelf rockfish" means Sebastes ciliatus (dusky), S. entomelas (widow), and S. flavidus (yellowtail).
 14. "Other species" means sculpins, sharks, skates, squid, and octopus. The TAC for "other species" equals 5 percent of the TACs of assessed target species.
 15. N/A means not applicable.
 16. The total ABC is the sum of the ABCs for assessed target species.

Table 20 - 2001 Sablefish TAC specifications in the Gulf of Alaska and allocations thereof to hook-and-line and trawl gear. (Values are in metric tons)

Area/District	TAC	Hook-and-line apportionment	Trawl apportionment
Western	2,010	1,608	402
Central	5,410	4,328	1,082
West Yakutat	2,060	1,789	271
Southeast Outside	3,360	3,360	0
TOTAL	12,840	11,085	1,755

Apportionments of Pollock TAC Among Seasons and Regulatory Areas, and Allocations for Processing by Inshore and Offshore Components

In the GOA, pollock is apportioned by season and area, and is further allocated for processing by inshore and offshore components. Under this emergency interim rule extending the 2000 RFRPAs, the annual pollock TAC specified for the Western and Central Regulatory Areas of the GOA is apportioned into four seasonal allowances of 30, 15, 30, and 25 percent, respectively (§ 679.20(a)(5)(ii)(C)). As established by § 679.23(d)(2), the A, B, C, and D season allowances are available from January 20 through March 1, from March 15 through May 31, from August 20 through September 15, and from October 1 through November 1 respectively.

To prevent localized depletions of pollock outside the Shelikof Strait conservation area (defined at §679.22(b)(2)(iii)(B)), this emergency rule also extends seasonal TACs of pollock within Shelikof Strait during the A and B seasons. The derivation of these harvest limits are explained here and listed in Tables 19 and 22. The Shelikof area apportionments during the A and B seasons are derived from the most recent (2000) NMFS survey

estimate of pollock biomass of 334,900 mt in the critical habitat of the Shelikof Strait divided by the most recent (2000) estimate of total GOA pollock biomass of 705,900 mt (equals 0.4746) multiplied by the A and B seasonal apportionments of the combined W/C pollock TAC (87,180 mt), i.e., 30 percent of the annual TACs (26,154 mt) in the A season and 15 percent of the annual TACs in the B season (13,077 mt) in the GOA (§679.22(b)(2)(iii)(C)).

The remainder of the A and B seasonal allowances of pollock TAC in the Western and Central Regulatory Areas are apportioned among statistical area 610, and statistical areas 620 and 630 outside the Shelikof Strait conservation area in proportion to the distribution of pollock biomass as determined by the four most recent NMFS summer surveys. Pollock TACs in the Western and Central Regulatory Areas in the C and D seasons are apportioned among statistical areas 610, 620, and 630 in proportion to the distribution of pollock biomass as determined by the four most recent NMFS summer surveys. Within any fishing year, underage or overage of a seasonal allowance may be added to or subtracted from subsequent seasonal allowances in a manner to be determined by the Regional Administrator, Alaska Region, NMFS, provided that a revised seasonal allowance does not exceed 30 percent of the annual TAC apportionment (§ 679.20(a)(5)(ii)(C)). The WYK and SEO District pollock TACs of 2,235 mt and 6,460 mt, respectively, are not allocated seasonally.

The biomass distribution of pollock in the Western and Central GOA, area apportionments, and seasonal apportionments for the A and B seasons are summarized in Table 21 and for the C and D seasons in Table 22, except that amounts of pollock for processing by the inshore and offshore component are not shown.

Table 21 - Distribution of Pollock in the Western and Central Regulatory Areas of the Gulf of Alaska (W/C GOA); Biomass Distribution, Area Apportionments, and Seasonal Allowances of Annual TAC for the A and B Seasons in 2001.

Statistical area	Biomass percent	2001 Annual TAC		Seasonal Allowances Of Annual TAC	
		A	B	(30%)	(15%)
Shelikof	47.46	18,619	12,413	6,206	
Shumagin (610)	29.47	31,724	7,707	3,854	
Chirikof ¹ (620)	2.14	12,841	560	280	
Kodiak ¹ (630)	20.93	23,996	5,474	2,737	
TOTAL	100.00	87,180	26,154	13,077	

¹ A and B seasonal allowances in the Chirikof and Kodiak Districts are outside the Shelikof Strait defined at §679.22(b)(3)(iii)(B).

Table 22 - Distribution of Pollock in the Western and Central Regulatory Areas of the Gulf of Alaska (W/C GOA); Biomass Distribution, Area Apportionments, and Seasonal Allowances OF Annual TAC for the C and D Seasons in 2001.

Statistical area	Biomass percent	2001 Annual TAC	Seasonal Allowances Of Annual TAC ¹	
			C (30%)	D (25%)
Shelikof		18,619	Not Apportioned	
Shumagin (610)	42.05	31,724	10,998	9,165
Chirikof (620)	25.03	12,841	6,546	5,455
Kodiak (630)	32.92	23,996	8,610	7,175
TOTAL	100.00	7,180	26,154	21,975

¹These emergency interim regulations for pollock in the GOA which specify A and B season dates and harvest limitations, expires (insert date), 2001, before the C and D seasons are scheduled to begin. Therefore, the C and D seasons are not authorized unless either this emergency rule is extended, or proposed and final rulemaking is completed.

Seasonal Apportionments of Pacific Cod TAC and Allocations for Processing of Pacific Cod TAC Between Inshore and Offshore Components

As described in Part I above, Pacific cod fishing is divided into two seasons in the Western and Central Regulatory Areas. The A season begins on January 1, 2001 and ends on June 10, 2001, the B season begins on June 10, 2001 and ends on December 31, 2001. After subtraction of incidental catch, 60 percent and 40 percent will be available for harvest during the A and B seasons, respectively, and will be apportioned between the inshore and offshore processing components.

Table 23 - 2001 Seasonal Apportionments and Allocation of Pacific cod TAC Amounts in the Gulf of Alaska; Allocations for Processing by the Inshore and Offshore Components. (Values are in mt)

Regulatory area	TAC	Component Allocation	
		<u>Inshore</u> (90%)	<u>Offshore</u> (10%)
Western	18,300	16,470	1,830
A Season (60%)	10,980	9,882	1,098
B Season (40%)	7,320	6,588	732
Central	30,250	27,225	3,025
A Season (60%)	18,150	16,335	1,815
B Season (40%)	12,250	10,890	1,210
Eastern	3,560	3,204	356
TOTAL:	52,110	46,899	5,211

Pacific Halibut PSC Mortality Limits

In December 2000, the Council's AP recommended seasonal PSC limits and apportionments in order to maximize harvest among gear types, fisheries, and seasons while minimizing bycatch of PSC based upon the criteria above. NMFS is approving the PSC apportionments specified in Tables 24 and 25, below. However, NMFS recognizes that the Council did not have the opportunity in December 2000, to evaluate the effects of SSL protection measures implemented by this emergency rule on PSC bycatch needs throughout the year with respect to factors listed above. NMFS will consider amending PSC seasonal apportionments and amounts after consulting with the Council at its emergency January 2001 meeting and pending Council recommended changes to PSC apportionments listed in Table 24 and 25.

Table 24 - Final 2001 Pacific halibut PSC limits, allowances, and apportionments. The Pacific halibut PSC limit for hook-and-line gear is allocated to the demersal shelf rockfish (DSR) fishery and fisheries other than DSR. The hook-and-line sablefish fishery is exempt from halibut PSC limits. (Values are in mt)

<u>Trawl gear</u>		<u>Hook-and-line gear</u>			
<u>Dates</u>	<u>Amount</u>	<u>Other than DSR</u>		<u>DSR</u>	
		<u>Dates</u>	<u>Amount</u>	<u>Dates</u>	<u>Amount</u>
Jan 1-	450 (23%)	Jan 1-	175 (60%)	Jan 1-	10 (100%)
Apr 1		May 17		Dec 31	
Apr 1-	400 (20%)	May 17-	30 (10%)		
Jun 10					
Jun 10-	250 (12%)	Aug 31			
Jul 1		Aug 31-	85 (30%)		
Jul 1-	600 (30%)	Dec 31			
Oct 1					
Oct 1-	300 (15%)				
Dec 31					
Total:	2,000 (100%)		290 (100%)		10 (100%)

Table 25 - Final 2001 apportionment of Pacific halibut PSC trawl limits between the trawl gear deep-water species complex and the shallow-water species complex. (Values are in metric tons)

<u>Season</u>	<u>Shallow-water</u>	<u>Deep-water</u>	<u>Total</u>
Jan. 20-Apr. 1	350	100	450
Apr. 1-Jun. 10	100	300	400
Jun. 10-Jul. 1	250	0	250
Jul. 1-Oct. 1	<u>200</u>	<u>400</u>	<u>600</u>
Subtotal			
Jan. 20-Sep. 30	900	800	1,700
Oct. 1-Dec. 31	---	---	<u>300</u>
Total	---	---	2,000

No apportionment between shallow-water and deep-water fishery complexes during the 4th quarter

Halibut Discard Mortality Rates

The 2001 assumed DMRs are listed in Table 26.

Table 26 - 2001 Assumed Pacific Halibut Mortality Rates for Vessels Fishing in the Gulf of Alaska (Listed values are percent of halibut bycatch assumed to be dead)

Gear and Target	Mortality Rate
<u>HOOK-AND-LINE</u>	
Pacific cod	14
Rockfish	8
Other species	14
Sablefish	24
<u>TRAWL</u>	
Midwater pollock	72
Rockfish	69
Shallow-water flatfish	69
Pacific cod	61
Deep-water flatfish	60
Flathead sole	58
Rex sole	61
Bottom pollock	61
Arrowtooth Flounder	62
Atka mackerel	70
Sablefish	66
Other species	61
<u>POT</u>	
Pacific cod	14
Other species	14

Non-exempt American Fisheries Act (AFA) Catcher Vessel Groundfish Harvest and PSC Limitations

One of the provisions implemented by these AFA regulations was to place groundfish harvesting and processing limitations, also called sideboards, on AFA catcher/processors and catcher vessels in the GOA. The Council recommended that certain AFA catcher vessels in the GOA be exempt from groundfish harvest limitations. Exempted AFA catcher vessels in the GOA are those less than 125 ft (38.1 m) length overall whose annual BSAI pollock landings totaled less than 5100 mt and that made 40 or more GOA groundfish landings from 1995 through 1997 (§679.63(b)(1)(i)(B)). The amounts of the groundfish harvest limits in the GOA are based on the retained catch of non-exempt AFA catcher vessels of each sideboard species from 1995 through 1997 divided by the TAC for that species over the same period (§679.63(b)(1)(ii)(C)). These amounts are listed in Table 27. All harvests of sideboard species made by non-exempt AFA catcher vessels, whether as targeted catch or bycatch, will be deducted from the sideboard limits in Table 27.

Table 27 - Final 2001 GOA Non-Exempt AFA Catcher Vessel (CV)
Groundfish Harvest Limitations (Sideboards). (Values are in mt)

Species	Apportionments and Allocations by Area/Season/processor/Gear	Ratio of 1995-1997 Non-Exempt AFA CV Catch to 1995-1997 TAC	2001 TAC	2001 Non-Exempt AFA Catcher Vessel Sideboard
Pollock	<u>A Season (W/C areas only)</u> January 20 - March 1			
	Shelikof Strait	0.1672	12,431	2,075
	Shumagin (610)	0.6238	7,707	4,808
	Chirikof (620) (outside Shelikof)	0.1262	560	71
	Kodiak (630) (outside Shelikof)	0.1984	5,474	1,086
	<u>B Season (W/C areas only)</u> March 15 - May 31			
	Shelikof Strait	0.1672	6,206	1,038
	Shumagin (610)	0.6238	3,854	2,404
	Chirikof (620) (outside Shelikof)	0.1262	280	35
	Kodiak (630) (outside Shelikof)	0.1984	2,737	543
	<u>C Season (W/C areas only)</u> August 20 - September 15			
	Shumagin (610)	0.6238	10,998	6,861
	Chirikof (620)	0.1262	6,546	826
	Kodiak (630)	0.1984	8,610	1,708
	<u>D Season (W/C areas only)</u> October 1 - November 1			
	Shumagin (610)	0.6238	9,165	5,717
	Chirikof (620)	0.1262	5,465	688
Kodiak (630)	0.1984	7,175	1,424	
<u>Annual</u> WYK (640)	0.3642	2,235	814	
SEO (650)	0.3642	6,460	2,353	

Pacific cod	A Season (W/C areas only) January 1 - June 10			
	W inshore	0.1310	9,882	1,295
	offshore	0.1206	1,098	113
	C inshore	0.0542	16,335	885
	offshore	0.0721	1,815	131
	B Season (W/C areas only) June 10 - December 31			
	W inshore	0.1310	6,588	863
	offshore	0.1206	732	75
	C inshore	0.0542	10,980	596
	offshore	0.0721	1,210	87
Annual				
E inshore	0.0000	3,206	0	
offshore	0.0078	356	3	
Flatfish deep-water	W	0.0000	280	0
	C	0.0620	2,710	168
	E	0.0021	2,310	5
Rex sole	W	0.0043	1,230	5
	C	0.0117	5,660	66
	E	0.0026	2,550	7
Flathead sole	W	0.0129	2,000	26
	C	0.0097	5,000	49
	E	0.0008	2,060	2
Flatfish shallow- water	W	0.0260	4,500	117
	C	0.0420	12,950	544
	E	0.0106	1,950	21
Arrowtooth flounder	W	0.0047	8,000	38
	C	0.0206	25,000	515
	E	0.0016	5,000	8
Sablefish	W trawl gear	0.0023	402	1
	C trawl gear	0.0384	1,082	44
	E trawl gear	0.0236	271	7
Pacific Ocean perch	W	0.0051	1,280	7
	C	0.0692	9,610	655
	E	0.0255	2,620	59
Shortraker/ Rougheye	W	0.0000	210	0
	C	0.0145	930	13
	E	0.0105	590	6

Other rockfish	W	0.0000	20	0
	C	0.0410	740	3
	E	0.0000	250	0
Northern rockfish	W	0.0005	600	0
	C	0.0307	4,280	131
Pelagic shelf rockfish	W	0.0004	550	0
	C	0.0000	4,480	0
	E	0.0066	1,350	9
Thornyhead rockfish	W	0.0118	420	5
	C	0.0118	970	11
	E	0.0118	920	11
Demersal shelf rockfish	SEO	0.0000	330	0
Atka mackerel	Gulfwide	0.0443	600	27
Other species	Gulfwide	0.0067	13,619	91

PSC bycatch limits for non-exempt AFA catcher vessels in the GOA are based upon the ratio of aggregate retained groundfish catch by non-exempt AFA catcher vessels in each PSC target category from 1995 through 1997 relative to the retained catch of all vessels in that fishery from 1995 through 1997 (§679.63(b)(1)(iii)). These amounts are shown in Table 28.

Table 28 - Final 2001 Non-Exempt AFA Catcher Vessel Prohibited Species Catch (PSC) Limits for the GOA. (Values are in mt)

PSC Species	Target Fishery and Season	Ratio Of 1995-1997 Non-Exempt AFA CV Retained Catch to Total Retained Catch	2001 PSC Limit	2001 Non-Exempt AFA Catcher Vessel PSC Limit
Halibut (mortality in mt)	Trawl 1st Seasonal Allowance January 20 - April 1 shallow water targets deep water targets	0.340	350	119
		0.070	100	7
	Trawl 2nd Seasonal Allowance April 1- June 10 shallow water targets deep water targets	0.340	100	34
		0.070	300	21
	Trawl 3rd Seasonal Allowance June 10 - July 1 shallow water targets deep water targets	0.340	250	85
		0.070	0	0
	Trawl 4th Seasonal Allowance July 1 - October 1 shallow water targets deep water targets	0.340	200	68
		0.070	400	28
	Trawl 5th Seasonal Allowance October 1 - December 31 all targets	0.205	300	62

DRAFT Timeline of Events in 2001

	January	February	March	April	May	June	July	August	September	October	November	December	
Emergency Rule for 1st half of 2001	Council review	→											
Emergency Rule for 2nd half of 2001		Council Discuss	Council input in April or May					→					
Analysis of measures for 2002 (Item B, Council motion)	Council Discuss	Council Discuss	Establish Work Team					Initial Review		Final Action			
Independent peer review	Council Discuss	Council Discuss	→					Draft Report?		→			Final Report?
Council Committee on RPAs/ Experimental Design	Council Discuss	Council Direction	→		Initial Report	Interm Report		Interm Report		Final Report			
Analysis of prey availability	→			Feeds into Above									
SSC review of B-op	→		Report to Council (forward to NAS)										

Major Scientific Questions with regard to Steller Sea Lions and Interactions with Groundfish Fisheries

based on SSC minutes

What is the extent of competitive interactions with groundfish fisheries and sea lions? There is a lack of scientific evidence to provide a clear link between the groundfish fisheries and the Steller sea lion population. The ESA apparently shifts the burden of proof so that an effect is not ruled out unless available scientific information refutes that the effect is present. This encourages a jeopardy finding because there are many ways that fisheries could affect SSL's and we cannot at this time prove that fisheries do not constrain Steller sea lion recovery. The focus of the Biological Opinion is on potential interactions rather than proven interactions.

Groundfish fisheries may overlap with Steller sea lions but the extent of any competitive interaction is unresolved. Therefore, limitations on fisheries may increase local short-term availability of prey for Steller sea lions but may not result in recovery of the Steller sea lion population. The SSC noted "There is no guarantee that implementation of the RPAs will result in recovery of the Steller sea lion population because we do not know the cause of the decline or what presently prevents recovery." The RPAs address changes in the fisheries, not because fisheries have been shown certainly to be the culprit, but because this Section 7 consultation is about fisheries. Thus, the SSC continues to call for analyses of the relative importance of commercial fisheries among all the factors that may be contributing to the lack of recovery.

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. The SSC provided an example of this approach in their September 2000 minutes. In this example, plugging in some reasonable estimates, the probability of simultaneous competition for the same prey would be less than 2%. Is this level of potential adverse interaction likely to represent a realistic impediment to Steller sea lion population recovery?

How does the increase in biomass of pollock, cod, and mackerel in the 1990s relate to food limitation for sea lions? Populations of walleye pollock, Pacific cod, and Atka mackerel are currently at much higher biomass levels than in the 1960's when Steller sea lions were more abundant. So now there is much more prey per sea lion available. Even allowing for potentially higher exploitation rates in critical habitat, there remains a large amount of groundfish 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 groundfish fishery contributes to this limitation.

Is the monitoring program as designed under the RPA sufficient to test the hypothesis that fisheries are jeopardizing the recovery of Steller sea lions? The SSC has commented strongly in the past on the need for a monitoring program (Experimental Design, Adaptive Management) to assess the efficacy of management actions taken regarding Steller sea lions. We are pleased that the BiOp contains such a monitoring program as an integral part of the RPAs and view it as a welcome starting place. Given that this program has had only limited peer review and no Council involvement, the SSC suggests that this program be thoroughly reviewed and possibly modified by the Council family and other review bodies (e.g., National Academy of Sciences, the new Steller Sea Lion Recovery Team, ADF&G) before it is put in place. An open process with thorough review and consideration of alternative designs will give this monitoring program a better chance for success.

Because of the lags inherent in the dynamics of slow growing species such as sea lions, it may take a long treatment period to detect differences among treatments. In addition, because there are numerous environmental or ecological factors that likely influence foraging success, fecundity, morbidity, and

mortality, it may be difficult to differentiate between changes induced by the treatments, and those that result from changes in uncontrolled factors. This is particularly true because the mechanisms and dynamic timing of these effects are largely unknown or unobservable. Thus the choice of covariates to be monitored is critical. Because the monitoring program should be fairly long term (six years or more), it is particularly important to be sure the best possible design is used to ensure acceptance of the results by affected parties.

What are the economic impacts of implementing RPA elements? The analysis addresses 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 Alaska Groundfish Fishery and Steller Sea Lions

CONTEXT

Policy Context:

Steller sea lions are found throughout the North Pacific with about 70% living in Alaskan waters. The Alaskan populations have declined by roughly 80% from the mid-1970's to the present. In 1990, the Steller sea lion was listed as a threatened species and in 1997 reclassified as two distinct populations with the population west of 144 degrees W listed as an endangered species and the eastern population still listed as threatened. The causes of this decline are uncertain, although food quality and availability are often cited as likely contributing factors.

Under the Endangered Species Act (ESA), federal agencies are required to ensure that their actions, or actions authorized or funded by them, are not likely to jeopardize the survival or recovery of protected species or damage their critical habitat. Section 7 of the ESA requires that when an action may affect a marine listed species or its critical habitat, the federal agency conducting or authorizing that action must consult with the National Marine Fisheries Service (NMFS). As part of the authorization of the fishery management plans for the commercial groundfish fisheries in the Bering Sea and Aleutian Islands (BSAI) region and the Gulf of Alaska (GOA) region, NMFS summarized the consultation in a biological opinion as required under Section 7 of the ESA. The purpose of the biological opinion is to ascertain if the groundfish fisheries, as implemented under the fishery management plans, are likely to imperil the continued existence of Steller sea lions (and other listed species) or are likely to destroy or adversely modify critical habitat. In the opinion issued on December 22, 1998, NMFS concluded that the groundfish fisheries were unlikely to cause harm to listed species. This opinion was challenged in court and found to be arbitrary and capricious for failing to include a sufficiently comprehensive analysis of groundfish fisheries and their individual, combined, and cumulative effects. On this basis, the court found that NMFS was out of compliance with the ESA (*GreenPeace v. National Marine Fisheries Service*, 80 F. Supp. 2d 1137 WD. Wash. 2000). In the revised Biological Opinion issued on November 30, 2000, NMFS concluded that Steller sea lion populations are jeopardized by the Alaska groundfish fisheries due to competition for prey and modification of prey distribution in critical habitat.

At the heart of the recent Biological Opinion is the question of whether the groundfish fisheries compete with Steller sea lions for prey species. Answering this question requires evaluation of the dietary requirements, feeding behavior, and foraging success of the sea lions and analysis of commercial fishing practices at appropriate scales of time and space. Competition occurs if the fisheries reduce the availability of prey such that recovery of the population is compromised. Decreased sea lion condition, growth, reproduction, and survival are key indicators.

Technical Context:

There have been many factors proposed to explain the continuing steep decline in the western population of Steller sea lions. These include availability of prey species, predator/prey relationships, predation by other marine mammals, interactions between fisheries and Steller sea lions, including the localized depletion hypothesis, regime shift, climate change, and other impacts associated with changing environmental conditions in the North Pacific and Bering Sea, disease, juvenile and pup survival rates, nutritional stress, foreign commercial harvest of sea lions outside the exclusive economic zone, and residual effects of past programs allowing the intentional take of sea lions.

It is critical to understand the cause of the population decline in order to develop policies that are most likely to benefit Steller sea lions. The Ocean Studies Board has been asked to review the scientific basis of the Biological Opinion issued under Section 7 of the ESA to ensure that the best scientific information and analyses are being used in response to the endangered status of the western Steller sea lion population.

PLAN OF ACTION

Statement of Task:

This study will review the scientific basis for the November 2000 Biological Opinion on the Alaskan groundfish fishery, issued under the Endangered Species Act by the National Marine Fisheries Service (NMFS). In particular, the Biological Opinion examines the potential impacts of the management and operation of the fishery on the endangered western population of Steller sea lions (*Eumetopias jubatus*). Based on this examination, the Biological Opinion finds support for the localized depletion hypothesis, concluding that temporal and spatial concentration of fishing effort is likely to reduce the quality of habitat for foraging sea lions. The study will assess whether this and other hypotheses, conclusions reached, and reasonable and prudent alternatives presented in NMFS' Biological Opinion are consistent with the available data and the level of scientific uncertainty.

Preliminary Work Plan:

A committee of 10 experts will be appointed. The committee will meet five times, including two public sessions, one in Alaska and one in the Washington State. The committee will base its findings on: evaluation of the scientific basis for the Biological Opinion and supporting materials, input from the public meetings, other written materials submitted to the committee, and examination of other scientific literature as needed. The committee will issue a brief, interim report on the Biological Opinion seven months from receipt of funding. A full, in depth report will be produced 24 months after receipt of funding. The additional 4 months in the performance period will allow for final editing, layout, and production of the printed report, mailing to study participants and other interested parties, and briefings on the report by staff and committee.

Total Cost:

Approx. \$700,000

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

DEPARTMENT OF FISH AND GAME Division of Commercial Fisheries

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MEMORANDUM

TO: Kevin Duffy, Deputy Commissioner
Alaska Department of Fish and Game

 FROM: Gordon H. Kruse
Alaska Steller Sea Lion Restoration Team

DATE: January 9, 2001

SUBJECT: State Restoration Team Advice to NPFMC
on Steller Sea Lion RPA Implementation

Later this week, the North Pacific Fishery Management Council (Council) will convene a special meeting to discuss a schedule for implementing regulations associated with sea lion protective measures. Given the progress on these issues to date by the state's Alaska Steller Sea Lion Restoration Team, our team wishes to provide some advice to you for consideration at the Council meeting.

The Restoration Team has now met three times: November 20, December 15, and January 5. Minutes have been distributed from our first two meetings, and minutes from our last meeting are now being finalized. We are in the process of compiling an extensive written review of the Biological Opinion (BiOp) issued by the National Marine Fisheries Service (NMFS) on 30 November 2000. Based on our review of the sea lion situation, the team is preparing a second document with our advice on management measures that we feel represent a rational approach to promoting the recovery of the Steller Sea Lion populations while sustaining viable commercial fisheries in Alaska. Although our work on these products continues, the team felt that it would be prudent to pass along some preliminary advice on sea lion protective management measures given the urgent timeline for Council actions starting this week.

The Alaska Steller Sea Lion Restoration Team offers the following specific advice for consideration at the special Council meeting:

1. **Given our initial review, the Restoration Team feels that the Reasonable and Prudent Alternative (RPA) defined in the BiOp is not justified based on the data and analysis provided.** The BiOp identifies two types of sea lion foraging behaviors: (1) foraging around rookeries and haulouts by adult females with pups and by juveniles, and (2) foraging over much larger areas where these and other animals may range once they are no longer tied to rookeries and haulouts. Therefore, it may not be necessary to close all rookeries and major haulouts all year without regard to seasonal use of these areas. As a second example, the Rstoration Team feels that designation of Shelikof Strait as a critical foraging area should be analyzed more thoroughly. This designation is based largely on historical data from the roe-stripping fishery by foreign fleets. Contemporary data on present-day domestic fisheries should be considered in the analysis, along with any new data on sea lion distribution and foraging behavior in Shelikof Strait. An analysis of the rate of decline in this area versus other areas may also shed light on the importance of this designation. As a third example, the team feels that the experimental design within the monitoring plan creates overly restrictive management measures with inadequate contrast among treatments to provide a high probability of meaningful results.
2. **The Restoration Team recommends that NMFS should plan to develop a new BiOp that addresses subsequent reviews by the state's Restoration Team, National Academy of Sciences, and the Scientific and Statistical Committee and Council family.** The team feels that a new BiOp is warranted to fully address alternative hypotheses for the causes of the original decline (1970s and 1980s) versus the causes for the current decline and lack of recovery (1990s). Moreover, a new BiOp is necessary to consider new data not included in the recent BiOp, such as foraging data collected since 1993. New analyses of existing data are needed to evaluate fishing and other factors at relevant temporal and spatial scales associated with sea lion life history and population dynamics. Analyses are needed to evaluate potential roles of different factors responsible for the historical decline versus the more recent (1990-present) decline. For instance, the BiOp mentions some of the recent data that largely indicate the western population of Steller sea lions is not nutritionally stressed when compared to the eastern population, at least for adult females and pups up to 5 weeks old. However, these results must be considered when evaluating alternative mechanisms associated with the lack of recent recovery. As another example, all sources of mortality (predation, entanglements, bycatch, shooting, disease, etc.) should be analyzed comprehensively and cumulatively for their ability to explain recent sea lion population trends. The Restoration Team feels that a new RPA will result from a new BiOp that objectively considers these factors.
3. **Given the imminent reviews by several groups, the Restoration Team recommends that the Council put into place new regulations for fishing in 2001 with the realization that those regulations will not constitute the ultimate management regime associated with sea lion restoration.** The ultimate set of sea lion protective measures should take into account the relative vulnerability of Steller sea lions by age, sex, season, and area, and the relative risk imposed differentially by various fishing activities by season, area, distance from rookeries and haulouts, and size and species of fish harvested. The team envisions a different RPA more closely matched to spatial and temporal aspects of sea lion ecology in

which levels of conservatism correspond to levels of risk from specific fishery activities.

4. **The Restoration Team recommends delaying the implementation of an experimental management plan until after a better one has been developed.** Sea lions respond to the prey fields that they encounter. The team is concerned that the differences in fishery removals among "open" and "closed" in the BiOp provide inadequate contrast among treatments to have discernable differential effects on sea lion prey much less a population-dynamic response. A sound experimental design must consider all fishery removals of sea lion prey including those in state waters. Finally, the team feels that the inclusion of the entire Alaskan coastline in the experimental design commits NMFS to an unattainable monitoring program for each area, if covariates of response variables are monitored, as we feel is essential to discern true underlying mechanisms.
5. **The State should consider the need for complimentary actions in the state waters Pacific cod fishery.** As Pacific cod appear to be one population in the Gulf of Alaska, management of the state and federal waters cod fisheries needs to be coordinated.
6. **The Restoration Team is developing recommendations about specific research needs, but we wish to convey the following broad advice at this time:**
 - a. **Develop a research approach that is well coordinated among organizations and among disciplines, especially given major increases in funding for sea lion-related research.**
 - b. **New appropriations should be designed as multi-year expenditures to create a research program with a greater degree of stability.**
 - c. **Although, as indicated above, the Restoration Team advises against commitment to a long-term experimental design at its present stage of development, the team recommends initiating some intensive small-scale manipulative experiments designed to maximize opportunity to resolve key unknowns about sea lion biology and fishery and ecosystem interactions.**

The restoration team will continue to keep you apprised of our progress via meeting minutes. Drafts of our major written products, including our extensive review of the BiOp, will become available in late winter or early spring.

Summary of Reasonable and Prudent Alternatives

Principle: Protection of prey resources around rookeries and major haulouts.

Guideline: Required spatial separation of pollock trawl fishing and Steller sea lion foraging areas adjacent to rookeries and haulouts.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> ● Closure of Aleutian Islands. ----- ● Closure of 24 rookeries and haulouts in the EBS. In addition, NMFS closed Cape Sarichef to 10 nm. ----- ● Closure or partial closure of 45 rookeries and haulouts in the GOA, with 8 sites left open. 	<ul style="list-style-type: none"> ● Closure of Aleutian Islands. ----- ● Closure of 25 rookeries and haulouts in the EBS (includes Cape Sarichef to 20 nm). ----- ● Closure or partial closure of 44 rookeries and haulouts in the GOA, with nine sites open or partially closed. 	<ul style="list-style-type: none"> ● Closure of Aleutian Islands. ----- ● Closure of 25 rookeries and haulouts in the EBS (includes Cape Sarichef to 20 nm). ----- ● Close 48 rookeries and haulouts in the GOA, with five sites remaining open to limited fishing (two sites in waters of the State of Alaska, two sites where research on fishery effects will be conducted, and one site with alternative protective measures).

2000 FISHERIES

Summary of Reasonable and Prudent Alternatives

Gulf of Alaska - Protection around rookeries and haulouts

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
44 closed areas	44 closed areas	44 closed areas
Pt. Elrington, The Needles - open	Open Jan. 20 to May 1	Work with the State of Alaska
Rugged Island - open	Open Jan. 20 to May 1	Open Jun. 1 to Nov. 1
Cape Barnabas, Gull Point - open	Open	Open only as part of fishery experiment
Point Ikolik - open	Open	Open Jun. 1 to Nov. 1
Mitrofanina Island - open	Open Jan. 20 to Apr. 30, Sep. 1 to Nov. 1, with 60-ft. vessel limit	Closed
Spitz Island - closed	Open Jan. 20 to Apr. 30, Sep. 1 to Nov. 1, with 60-ft. vessel limit	Open Jan. 20 to Jun. 1
Sea Lion Rocks - open	Open with 60-ft. vessel limit	Open with 60-ft. vessel limit

Summary of Reasonable and Prudent Alternatives

Principle: *Protection of prey resources around rookeries and major haulouts.*

Guideline: **Established criteria for identification of sites to be protected:**

- Nov 1 to June 1 - at least 75 sea lions in a single count since 1979,
- June 1 to Nov 1 - at least 200 sea lions in a single count since 1979.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council's motion based on criteria established in the Biological Opinion 	<ul style="list-style-type: none"> • Council's motion based on criteria established in the Biological Opinion. 	<ul style="list-style-type: none"> • RFRPAs based on criteria established in the Biological Opinion.

Principle: *Protection of prey resources around rookeries and major haulouts.*

Guideline: **Established the size of protection zones around rookeries and haulouts:**

- 20 nm in the EBS,
- 10 nm in the GOA, and
- 10 nm in the Aleutian Islands.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council's motion based on criteria established in the Biological Opinion, plus the closure of the Aleutian Islands. 	<ul style="list-style-type: none"> • Council's motion based on criteria established in the Biological Opinion, plus the closure of the Aleutian Islands. 	<ul style="list-style-type: none"> • RFRPAs based on criteria established in the Biological Opinion, plus the closure of the Aleutian Islands.

Summary of Reasonable and Prudent Alternatives

Principle: Temporal dispersion

Guideline: Required prohibition of all pollock trawling fisheries in the period from November 1 through January 20 in the Bering Sea and Gulf of Alaska.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council's motion required closure of pollock trawl fisheries in the EBS and the GOA from November 1 to January 20. 	<ul style="list-style-type: none"> • Council's motion required closure of pollock trawl fisheries in the EBS and the GOA from November 1 to January 20. 	<ul style="list-style-type: none"> • RFRPAs required closure of pollock trawl fisheries in the EBS and the GOA from November 1 to January 20.

Principle: Temporal dispersion

Guideline: Distribute the pollock trawl harvest into at least four seasons (two in the period from January through May and two in the period from June through October).

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council motion established four seasons for the GOA, four seasons for catcher/processor and inshore sectors in the EBS, and two seasons for mothership and the Community Development Quota (CDQ) sectors in the EBS. 	<ul style="list-style-type: none"> • Council motion established four seasons for the GOA, four seasons for catcher/processor and inshore sectors in the EBS, and two seasons for mothership and the Community Development Quota (CDQ) sectors in the EBS. 	<ul style="list-style-type: none"> • NMFS establishes four seasons for the GOA, four seasons inside the critical habitat/catcher-vessel-operation-area (SCA) in the EBS, and two seasons outside the SCA in the EBS.

Summary of Reasonable and Prudent Alternatives

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999																														
<ul style="list-style-type: none"> ● <u>Bering Sea</u> <ul style="list-style-type: none"> - Quarterly system with seasons starting <ul style="list-style-type: none"> January 20 February 20 August 1 September 1 - 5-day stand-down A-B - Motherships - single A/B beginning Feb. 1, and single C/D beginning Sep. 1 - CDQ - single A/B season, and single C/D season ● <u>Gulf of Alaska</u> <ul style="list-style-type: none"> - Quarterly system with seasons starting <ul style="list-style-type: none"> January 20 June 1 September 1 No later than October 1, no sooner than 5 days after close of C season 	<ul style="list-style-type: none"> ● <u>Bering sea</u> <ul style="list-style-type: none"> <u>Inshore</u> <ul style="list-style-type: none"> A - Jan. 20 to Feb. 15 B - Feb. 22 to Apr. 17 C - Jun. 1 to TAC (coops) Aug. 1 to TAC (open) <u>Mothership</u> <ul style="list-style-type: none"> A/B - Feb. 1 to Apr. 15 C/D - Sep. 1 to Nov. 1 <u>C/P</u> <ul style="list-style-type: none"> A - Jan. 20 to Feb. 15 B - Feb. 22 to Apr. 17 C - Jul. 10 to Aug. 31 D - Sep. 1 to Nov. 1 <u>CDQ</u> <ul style="list-style-type: none"> A/B - Jan. 20 to Apr. 15 C/D - Apr. 15 to Nov. 1 ● <u>Gulf of Alaska</u> <table style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Season</th> <th style="text-align: left; border-bottom: 1px solid black;">Start</th> <th style="text-align: left; border-bottom: 1px solid black;">End</th> </tr> </thead> <tbody> <tr><td>A</td><td>Jan. 20</td><td>Mar. 1</td></tr> <tr><td>B</td><td>Mar. 15</td><td>May 31</td></tr> <tr><td>C</td><td>Aug. 20</td><td>Sep. 15</td></tr> <tr><td>D</td><td>Oct. 1</td><td>Nov. 1</td></tr> </tbody> </table> 	Season	Start	End	A	Jan. 20	Mar. 1	B	Mar. 15	May 31	C	Aug. 20	Sep. 15	D	Oct. 1	Nov. 1	<ul style="list-style-type: none"> ● <u>Bering Sea</u> <ul style="list-style-type: none"> <u>Inside SCA</u> <ul style="list-style-type: none"> A - Jan. 20 to Apr. 1 B - Apr. 1 to June 10 C - Jun. 10 to Aug. 20 D - Aug. 20 to Nov. 1 <u>Outside SCA</u> <ul style="list-style-type: none"> A/B - Jan. 20 to Jun. 10 C/D - Jun. 10 to Nov. 1 ● <u>Gulf of Alaska</u> <table style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Season</th> <th style="text-align: left; border-bottom: 1px solid black;">Start</th> <th style="text-align: left; border-bottom: 1px solid black;">End</th> </tr> </thead> <tbody> <tr><td>A</td><td>Jan. 20</td><td>Mar. 1</td></tr> <tr><td>B</td><td>Mar. 15</td><td>May 31</td></tr> <tr><td>C</td><td>Aug. 20</td><td>Sep. 15</td></tr> <tr><td>D</td><td>Oct. 1</td><td>Nov. 1</td></tr> </tbody> </table> 	Season	Start	End	A	Jan. 20	Mar. 1	B	Mar. 15	May 31	C	Aug. 20	Sep. 15	D	Oct. 1	Nov. 1
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Summary of Reasonable and Prudent Alternatives

Principle: Temporal dispersion

Guideline: Limit combined total allowable catch (TAC) in the winter and spring period to a maximum of 45% of the annual TAC.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council motion recommended reducing the portion of the annual TAC taken in the winter and spring period to 40%. 	<ul style="list-style-type: none"> • Council recommended reducing the portion of the annual TAC taken in the winter and spring period to 40%. 	<ul style="list-style-type: none"> • NMFS action reduces the portion of the annual TAC taken in the winter and spring period to 40%.

Principle: Temporal dispersion

Guideline: Allocate single-season TACs to be no more than 30% of the annual TAC.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council motion recommended limiting the portion of the annual TAC taken in each fishing season to no more than 30%. 	<ul style="list-style-type: none"> • Council motion recommended limiting the portion of the annual TAC taken in each fishing season to no more than 30%. 	<ul style="list-style-type: none"> • NMFS action uses the 30% cap each season in the GOA and inside the SCA in the EBS.

Summary of Reasonable and Prudent Alternatives

Principle: Temporal dispersion

Guideline: Prevent concentration of pollock catch at the end of one season and the beginning of the next season which, in effect, could result in a single pulse of fishing.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> ● Council motion recommended separation of fishing seasons based on brief stand-down periods in the EBS and relatively longer stand-down periods in the GOA. 	<ul style="list-style-type: none"> ● Council motion recommended separation of fishing seasons based on brief stand-down periods in the EBS and relatively longer stand-down periods in the GOA. 	<ul style="list-style-type: none"> ● NMFS action establishes evenly spaced seasons in the SCA of the EBS to ensure temporal dispersion in areas most important to sea lions, while allowing greater flexibility for industry in areas outside the SCA in areas of less importance to sea lions. NMFS action also adopts seasonal schedule for the GOA as recommended by Council.

Summary of Reasonable and Prudent Alternatives

Principle: Temporal dispersion

Guideline: Limit rollover of portions of seasonal TACs to situations only where necessary to account for premature fisheries closure resulting from inaccuracies associated with monitoring of seasonal catches.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council recommended allowance for rollovers as long as the seasonal caps and areal apportionments are observed. 	<ul style="list-style-type: none"> • Council recommended allowance for rollovers as long as the seasonal caps and areal apportionments are observed. 	<ul style="list-style-type: none"> • NMFS action allows for rollovers as long as seasonal caps and areal apportionments are observed.

Summary of Reasonable and Prudent Alternatives

Principle: Spatial dispersion

Guideline: Allocate percent TAC to areas defined by critical habitat (CH) and broad management districts based on the pollock biomass distribution.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> ● Information on distribution of pollock in A and B seasons in the EBS not considered sufficiently reliable to allocate TAC. Council motion did not make recommendation on caps for C and D seasons in the EBS. <p style="text-align: center;">-----</p> <ul style="list-style-type: none"> ● Motion recommended cap for amount of pollock that could be taken out of Shelikof Strait. 	<ul style="list-style-type: none"> ● Council motion recommended 25% and 35% caps in 1999 C and D seasons (respectively), and 15% and 25% caps in 2000 (and beyond) C and D seasons (respectively) in the EBS. <p style="text-align: center;">-----</p> <ul style="list-style-type: none"> ● Motion recommended creation of Shelikof Strait management area (with its own TAC) to utilize existing information on stock distribution in the GOA. 	<ul style="list-style-type: none"> ● NMFS action establishes 50% cap for combined A- and B-season pollock TACs from the SCA, and uses 50% figure to determine SCA caps for each season singly. Action also uses 15% and 25% figures to determine SCA caps in the C and D seasons (respectively) in the EBS. <p style="text-align: center;">-----</p> <ul style="list-style-type: none"> ● Action creates Shelikof Strait management area (with its own TAC) to utilize existing information on stock distribution in the GOA.

Summary of Reasonable and Prudent Alternatives

Principle: *Spatial dispersion*

Guideline: Absent good scientific estimates of pollock biomass distribution, place a maximum limit on the percent of TAC allocations from CH areas for each season.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • Council motion recommended a cap of 62.5% in the SCA during the 1999 A and B seasons in the EBS (when biomass distribution not known). 	<ul style="list-style-type: none"> • Council motion recommended a cap of 50% in the SCA during the 2000 (and beyond) A and B seasons in the EBS (when biomass distribution not known). 	<ul style="list-style-type: none"> • NMFS establishes a cap of 50% in the SCA during the A and B seasons in the EBS (when biomass distribution not known).

Principle: *Spatial dispersion*

Guideline: Allow for the possibility of further reduction of percent of TAC in specific critical habitat areas.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • No Council recommendation. 	<ul style="list-style-type: none"> • No Council recommendation. 	<ul style="list-style-type: none"> • The percentage of TAC is fixed inside and outside critical habitat to minimize competition between Steller sea lions and the pollock fisheries. Changes will only occur only if they allow at least equivalent protection.

Summary of Reasonable and Prudent Alternatives

Principle: Spatial dispersion

Guideline: Prevent redistribution of TAC from areas outside of critical habitat to areas inside of critical habitat.

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> • No Council recommendation. 	<ul style="list-style-type: none"> • No Council recommendation. 	<ul style="list-style-type: none"> • The percentage of TAC is fixed inside and outside critical habitat to minimize competition between Steller sea lions and the pollock fisheries. Changes will only occur only if they allow at least equivalent protection.

Summary of Reasonable and Prudent Alternatives

Principle: Spatial dispersion

Guideline: Base spatial distribution of the TAC on existing study or management areas. In addition, in the southeastern Bering Sea, the CVOA and southeastern Bering Sea foraging area should be combined to form one CVOA-CH complex (referred to here as the SCA [Sea Lion Conservation Area]).

Motion (with modification) December 1998	Motion June 1999	RFRPAs October 1999
<ul style="list-style-type: none"> ● Council motion recommended establishment of the SCA with spatial distribution of catch based on areas inside and outside the SCA in the EBS. Council motion did not include measures to disperse catch spatially outside of the SCA in the EBS. <p style="text-align: center;">-----</p> <ul style="list-style-type: none"> ● Motion also recommended use of existing management areas plus a new Shelikof Strait area in the GOA. 	<ul style="list-style-type: none"> ● Council motion recommended spatial distribution of catch based on areas inside and outside the SCA in the EBS. Council motion did not include measures to disperse catch spatially outside of the SCA in the EBS. <p style="text-align: center;">-----</p> <ul style="list-style-type: none"> ● Motion also recommended use of existing management areas plus a new Shelikof Strait area in the GOA. 	<ul style="list-style-type: none"> ● NMFS action disperses catch spatially inside and outside the SCA in the EBS. NMFS believes that spatial dispersion outside the SCA will occur as a function of general fishing practices as modified by the American Fisheries Act. <p style="text-align: center;">-----</p> <ul style="list-style-type: none"> ● NMFS action also uses existing management areas plus a new Shelikof Strait area in the GOA.

Draft:
Summary of Stakeholder Panel on Steller Sea Lions and Pacific Cod Fishing EARIR and
State Policy on ESA Actions

September 6, 2000.
Sheraton Hotel, Anchorage, Alaska

On September 6, 2000 the Alaska Department of Fish and Game (ADF&G) held a meeting of Alaskan Stakeholders in the Pacific Cod industry to solicit comments on the NMFS Draft EARIR regarding actions on stellar sea lions. This group of stakeholders consisted of members of the Pacific-Cod harvesting, processing, potentially impacted communities, and environmental interests. There were 12 named individuals in the panel, and a large audience. Kevin Duffy, Deputy Commissioner to ADF&G described the general purpose of the panel and the work products that had been requested from the Governor's Office. The Governor encouraged ADF&G to develop recommendations from the industry, communities, and local interest groups to provide input on how the State should respond to the immediate draft Pacific Cod/Stellar Sea Lion EARIR, Judge's injunction to halt trawling, and the forthcoming Section 7 biological opinion. The panel, set at the Council meeting, was considered to be the best approach to bring together the potentially effected interests in the short period of time available. Mr. Duffy also conveyed, subject to response from the panel members, that it would be helpful for the panel to continue to function beyond this immediate council meeting to advise the state on Pacific Cod management alternatives and state positions that could result from ESA.

The stakeholder panel represented a large range of interests and a number of views were expressed regarding the NMFS EARIR. They ranged from (1) lack of acceptance that the State of Alaska should cooperate in the implementation of any fishing adjustments in the Pacific Cod directed fisheries, (2) encouragement to the state to generate serious objections over the lack of a scientific basis for the present alternatives in the EARIR and entire notion that there is a compelling need to generate management amendments to Pacific Cod fisheries, and (3) to a general acceptance that compromises should be sought in the alternatives presented in the EARIR to avoid a jeopardy finding in the upcoming Biological Opinion.

While it is not possible to document all comments made by the panel, an effort is made here to highlight some of the key observations.

1. Stellar sea lions are not in Jeopardy, and the Pacific Cod fishery cannot be linked to contributing to food and feeding competition. The State should not accept any of the alternatives and it should encourage NMFS to start their analysis over with supportable assumptions.
2. There is a lack of any experimental design incorporated into the assumptions and conclusions that have been drawn in the present EARIR. There is a strong need to include further experimentation and monitoring with fishing regimes. We also need

to come up with reasonable alternatives, as there is a great risk in leaving the current EARIR unchanged.

3. Since the current EARIR is far too restrictive in relation to the scientific evidence, we should not assume that any of the alternatives in the analysis have any credibility. The state should work to keep fishery management out of the judicial system.
4. We need to accept the implications of the existing court actions, and not bury our heads in the sand. If the state totally disregards the need to generate some alternatives under the EARIR, the risk is that we may quickly end up with no fishery in 2001. It would be most appropriate to seek out reasonable alternatives. Included are a summary of possible alternatives and attachments to these minutes.
5. It is important to maintain a healthy industry after the Council has passed management actions and NMFS has published regulations that respond to stellar sea lion ESA actions.
6. As Pollock fisheries have just finished up for 2000, it is clear that the costs of the management actions for stellar sea lions have been very large. Some smaller operations chose to not participate in the fishery. We are poised to go through the same or more severe consequences in the Pacific Cod fisheries.
7. The Purpose and Need Statement developed in the EARIR by NMFS sounds like that agency wants to put fishermen out of business, and for those still choosing to fish in small vessels outside of critical habitat there are grave safety concerns.
8. With large scale impacts anticipated in Pacific Cod and already realized some Pollock trawl fisheries, the fallout to certain communities is generating great concern. In some communities, impacts on small Aleut populations in the region could be tantamount to an act of genocide.

It appeared that participants in the panel felt that the forum was a useful initial meeting, and requested that the State continue to keep them informed as State policies on stellar sea lions develop. Mr. Duffy offered to supply a summary of the discussions to the panel, and requested any specific ideas of alternatives that should be considered by the Council.

Stakeholder Panel:

Michele Ridgeway	AMCC for BSAI issues	Juneau
Tim Blott	Kodiak Processor Assoc.	Kodiak
Jay Stinson	P-Cod Trawler	Kodiak
Stosh Anderson	AMCC for GOA issues	Kodiak
Terry Schaff	Unisea (Processor)	Dutch Harbor
Corey Swansand	Factory Trawler/CDQ APICA	Kodiak
Chuck Thompson	Longliner	Kodiak
Dick Jacobson	Mayor of Sand Point	Sand Point
Frank Kelty	Mayor of Dutch Harbor	Dutch Harbor
Joe Plesha	Trident Seafoods	Seattle
Jerry Bongdon	Pot Cod fishermen	Kodiak
Fred/Lyle Yeck	independent c/v	Not present

This is a list of some possible EARIR alternatives provided to ADF&G by Stakeholders during and after the Stakeholder meeting. It is recognized that these concepts have not been filtered back through the Stakeholder panel yet, and may be ranked or altered in the future.

1. Expand winter survey work to determine the actual distribution of biomass during the winter.
2. Adjust percentage of the winter cod harvest within critical habitat based upon survey results.
3. Controlled reductions per year in the percent of the winter cod fishery that could be harvested within selected critical habitat. Within 5 years we will have survey results to give us an accurate determination of cod biomass distribution outside and inside of critical habitat.
4. Develop efficacy studies to determine whether stellar sea lion fishery management restrictions have positive, neutral, or adverse impact on the recovery of stellar sea lions.

Use local historical knowledge of stellar sea lion populations and fishing to gain insight into sea lion behavior and populations.

Summary of the Second meeting of the Stakeholder Panel on Steller Sea Lions and Pacific Cod Fishing EA/RIR and State Policy on ESA Actions.

**October 3, 2000
Sitka, Alaska**

Staff: Kevin Duffy & Earl Krygier

Stakeholders:

Fred Yeck

Joe Plesha

Terry Schaff

Jay Stinson <Al Birch sat as one time alternate>

Dick Jacobson

Michelle Ridgeway

Jerry Bongdon <Jeff Stephan sat as one time alternate>

Kevin Duffy outlined the roll of the Governor's Steller Sea Lion (SSL) Restoration Team: They would focus on (1) ways in which fisheries could occur within Critical Habitat and not impact SSL recovery; and (2) help define research that would help resolve the unanswered questions in this conflict (i.e. do some or all fisheries impact the ability of SSLs to recover?). The second meeting of the Stakeholder Panel reviewed and commented on the "Council Action on Steller Sea Lion/Pacific Cod Interactions" (September 11, 2000 Final Draft). This material was the final draft Council motion (AGENDA Item C-1(a) October 2000 NPFMC) that added additional alternatives to the proposed EA/RIR that analyzed alternatives to minimize possible competitive interactions between Pacific cod fisheries and SSLs. The following is a summary of that discussion.

Comments on P. 1. Alternatives for splitting the season P. cod TAC in the GOA

It was noted that longline gear has a 350 mt halibut bycatch cap. Longliners will be disadvantaged if their P. cod season is split. The reason is that if they fish the first season and then turn to other directed species where they will likely hit the halibut cap and thus be unable to prosecute their 2nd P. cod season.

(In Gulf only) Processors want product throughout the season. Two seasons pose problems for the CGOA. Cod are very spread out during the summer season. If cod cannot be taken when they are aggregated, vessels and processors lose financially. Trawl fisheries receive maximum economic benefit when vessels first trawl for pollock and then switch to P. cod when the milt is firm.

There is also a concern over the bycatch of pollock and salmon, the timing of which differ between the CGOA and the WGOA. With an "A-Season" split, bycatch of salmon would go up early in the season but decrease by May. In the WGOA no trawl cod are available in the fall, because by September the fish are spread out too much for a successful trawl fishery.

Clearly many variables dictate how the season proceeds. Some members thought there may be different ways to look at a split. For example, 2 shorter seasons within January 1 - May 15. But small TAC's can be extremely difficult from a management perspective.

Option C: 1 & 2

When considering alternatives under Option C, panel members felt that research needed to be conducted to validate the underlying assumptions and proposed alternatives. Since the scientific link between fishery/SSL impacts are not known, and distribution of fish stocks are defined by summer surveys, research plans must focus on these unknowns. Most panel members felt that the sooner we can get winter biomass surveys going, the better. Some questioned whether new federal dollars were available to expand the ADF&G Bottom Trawl Survey from the summer into a fall and winter surveys with the R/V Resolution. It was suggested that additional survey work with the Resolution should occur in October and during the peak fishing periods (end of February/early March). It was asked whether we wanted to look at critical habitat when cod aggregations are at their lowest or at their highest?

Under Option 2 it was suggested that pots should be included as a safe option within 0-3 nmi from rookeries.

It was noted that this federal action could have a dramatic impact inside of state waters. There are 62 extra vessels (from 60-120 ft) that qualify to fish under the LLP in the Western GOA parallel fishery. In addition, any of the Bering Sea pot vessels could fish State waters. It was suggested that the BOF may want to look at 60 pot limits so that localized depletions are not a result of LLP spill over in state waters. Others argue that a 60 pot limit for cod are not economical, even for smaller vessels. But that any state water pot limit must include any pots that are concurrently fished in federal waters, i.e. – any pots they control!

In reviewing the motion, members felt that the effect of rolling or not rolling over the annual TAC between seasonal apportionments was critical. The concept of no rollover of TAC from one season to another was discussed by Council. Panel members felt that NMFS should explain if Alternatives A & B include a rollover.

Some panel members felt that the 60' trawl vessel restriction should be put back in under Option 2. Other panel members stated that eliminating vessels > 80 ft would eliminate 80% of the cod and pollock production (compared to last year) within 20 miles.

Option 1: Alternatives for splitting the season P. cod TAC in the BSAI

It was noted that the Draft EA did an inadequate job of evaluating the impacts on the processing industry, particularly the shore-based facilities. Shoreside investments were made under the scenario that processing would occur at least at a scale that would keep plants in production. Some of the alternatives in both the BSAI and GOA would so reduce deliveries as to make it financially impossible to operate crews and plants at a profit. The plants are not likely to not stay open for small amounts of product, because the cost to “clean” (meet EPA/DEC standards) a plant is too high for pulse fisheries. This obviously impacts small coastal communities that rely on these operations for their livelihood. NMFS’ ESA approach lacks a useful socioeconomic study that evaluates such restrictive management impacts on Alaskan communities. It was questioned whether it is possible to show (before it happens) that “x” number of processors will likely go away as a result of such protective measures?

While it was noted that the rate of extraction of SSL food (pollock/P. cod) was the issue NMFS’ alternatives were trying to address, members noted that there were no clear scientific connection between cod fisheries and SSLs.

Page 4, items 6 & 7

There was concern with the quality of the SSL data used to develop fishery restrictions. It was noted that the most recent summer survey on SSLs occurred in June, where only 3 days of clear weather were available for accurate surveys.

Page 4 Option 2 (Bering Sea East of Seguam Pass). Suggested that in 3-10 nmi range that the Council consider 60-75-100 pots as alternate options. The point being that a restriction of 60 pots for large vessels may be similar to putting trawlers 20 miles offshore.

Page 5, Option B

Some members felt that more options were needed under this alternative. Such as a new Option 3: "may consider operational dependence within CH by gear type" and that the costs to the communities and the State must be considered. Some thought that the historical gear shares needed to be maintained.

It was suggested that as gear types move out of one area into another that NMFS should evaluate changing levels of bycatch of salmon, crab and halibut. Should the new proposed changes increase bycatch rates? What are the adverse impacts from such proposed changes?

C:/SSLissues/StakeholderMin2.doc

Minutes of the First Meeting of the Alaska Steller Sea Lion Restoration Team, November 20, 2000

Background

In a Press Release dated September 11, 2000, Governor Knowles announced the formation of a state Sea Lion Restoration Team of *“scientists and stakeholders to develop an alternative management strategy for protecting the Steller sea lions that allows sustainable fishing to continue.”* He outlined three elements of their mission: *“First, work to restore healthy, sustainable populations of Steller sea lions so they can be removed from the federal threatened species list; second, promote scientific research into the cause of sea lion population declines; and third, employ the principle of adaptive management.”*

Participants

The initial meeting of the Alaska Steller Sea Lion Restoration Team (ASSLRT) was held in Anchorage on November 20, 2000. All members of team were present and included: C. Morgen Crow – a representative (executive director) of the CDQ group, Coastal Villages Region Fund, Jay Stinson – a trawl fisherman from Kodiak, Michelle Ridgway – a marine ecological consultant and board member of the Alaska Marine Conservation Council, Kate Wynne – a marine mammal biologist with the University of Alaska Sea Grant Program, Gordon Kruse (chair) – a marine fishery scientist with the Alaska Department of Fish and Game (ADF&G), Bob Small – the marine mammals coordinator with ADF&G, Ken Pitcher – a marine mammal biologist with ADF&G, Lorrie Rea – a marine mammal biologist with ADF&G, Denby Lloyd – the westward regional supervisor with ADF&G, and Earl Krygier – the extended jurisdiction coordinator with ADF&G. Denby Lloyd chaired the first half of the meeting, and then passed the chair to Gordon Kruse.

Deliberations

Denby Lloyd chaired the morning session. A draft agenda was approved. For most of the morning, the team discussed the purpose and scope of the team’s charge. They reviewed the team’s knowledge of the issues surrounding the decline of Steller Sea Lions (SSL). The team discussed the possibility that nutritional limitation was responsible for the original decline through the 1980s, whereas other cumulative factors may have had increased influence on more recent population trends. The team discussed a predator pit hypothesis, junk food hypothesis, localized depletion, effects of vessel noise, entanglement, subsistence harvest, disease, pollutants, and other factors. The team discussed the idea that reduced juvenile survival in the western population was the major demographic factor responsible for the decline rather than decreased reproduction. Discussions included evidence for reduced SSL growth in the 1980s versus 1970s and contrasting research findings among SSL in Southeast Alaska (SE) versus the central and western Gulf of Alaska. The team discussed current priority research on nutritional

stress, and some potential needed areas of research were briefly discussed, such as the need to continue independent DNA studies for use in stock assessment and stock separation, nutritional limitation, and population dynamics and ecological studies.

Other questions raised by the team included: Do relationships exist between changes in SSL, forage fishes (capelin, herring, etc.), and species like pollock and cod? Have relative densities of fish and SSL changed, both pre and post-recent decline, and between the SE and Western Alaska stocks of SSL? Do we have any knowledge about how fish schools disperse under various fishing pressure and/or gear types or in response to vessel noise? What are the impacts of particular management schemes, and what are the ramifications of concentrated effort in state waters if fishing in federal waters is substantially restricted?

In the afternoon session, Denby passed the chair to Gordon Kruse. The team focused on the following activities: (1) drafting a ASSLRT mission statement; (2) developing a list of team activities; (3) planning a schedule for providing prompt review and comment to the ADF&G Commissioner on the BiOp; (4) preparing a list of documents for consideration by the team in advance of the next meeting; (5) identifying primary topics for the next meeting; and (6) scheduling of the next meeting.

The team drafted the following mission statement:

"The purpose of the Alaska Steller Sea Lion Restoration Team is to promote the recovery of SSL populations while sustaining viable commercial fisheries in Alaska. Specifically, we will (1) review the justification of fishery restrictions to protect and restore SSL, and (2) recommend research priorities and adaptive management strategies designed to identify those factors inhibiting the recovery of the endangered western stock of SSL and provide increased understanding of fishery and SSL interactions."

The team developed a list of future action items:

- Prepare a concise synopsis of SSL declines, including a chronology of potential causes/correlates during the earlier and most recent phases of the declines
- Review the soon-to-be-released NMFS Biological Opinion (BiOp) on SSL and fisheries, as well as associated recommendations by the North Pacific Fishery Management Council (NPFMC)
- Prepare an overview of ongoing research on SSL and associated fisheries interactions and unpublished findings from new research activities, especially imminent research that may not appear in the BiOp
- Identify and recommend new research priorities on SSL and fisheries interactions that are needed to evaluate the SSL issue and consider the funding levels associated with SSL-related research
- Identify potential opportunities for acquiring more comprehensive data sets on research needs via fishers, subsistence hunters, U.S. Coast Guard and others
- Develop management recommendations, primarily experimental and adaptive, for

- federal (NPFMC) and state (Board of Fisheries, BOF) consideration
- Review current definitions of SSL Critical Habitat (CH) including the history of development, data used for the determinations, and what is considered “critical” to SSL
- Review the SSL endangered and threatened species determinations within the context of the ESA and within the prospects of changes in carrying capacity

The team identified the following tasks to be of highest priority:

- 1) Review NMFS’ 11/30 BiOp and recent Council actions (all team members) – this would be the highest priority, and will be a major topic of the second ASSLRT meeting;
- 2) Review SSL CH definitions and designations. The team discussed that it will be necessary to review CH in conjunction with the BiOp review;
- 3) Draft a written synopsis of the decline and chronology of potential causes/correlates – to be prepared in advance of the second ASSLRT meeting (Ken);
- 4) Prepare a brief review of imminent research findings and current research that ADF&G, NMFS, the Marine Mammal Consortium, and Sea Life Center and others are working on or “in press” – to be prepared near the time of the second ASSLRT meeting (SSL – Ken and fish studies – Gordon); and
- 5) Subsequent priorities will be to recommend (1) future research priorities, and (2) potential experimental or adaptive management approaches.

The team developed a list of reference documents for consideration in future deliberations and identified a team member (in parentheses) who will make the documents available:

- Endangered Species Act (Gordon)
- State of Alaska fisheries summary report (Gordon)
- Final (1992) Recovery Plan for SSL (Ken provided)
- Panel recommendations from an experimental design workshop on testing the efficacy of SSL no-trawl fishery exclusion zones in Alaska (1998) (Lorrie provided)
- NMFS 11/30 BiOp (Pending, Gordon or Earl will make available)
- Experimental Management Advice (Bob)
- Wallace’s (1999) review of the SSL Recovery Program (Earl provided)
- GOA and BS/AI Groundfish FMP Summaries (Michelle; also available at NPFMC website: <http://www.fakr.noaa.gov/npfmc/>)
- Summary of the RFRPAs (1998) (NMFS website under reconstruction; new location to be provided soon)
- Ecosystem Chapter of the Council’s 2000 SAFE (Michelle; also available at NPFMC website: <http://www.fakr.noaa.gov/npfmc/>)
- Federal register – proposed and final rule of SSL critical habitats including rookeries, important haulouts, and critical foraging areas (Kate)

The team scheduled the next ASSLRT meeting for December 15 in Anchorage, where the team will focus on the BiOp and a review of SSL CH. In advance of the meeting, a synopsis of the SSL decline and associated factors will be prepared by Ken. Around the time of the meeting, Ken and Gordon will prepare a brief summary of ongoing research on SSL and fishery interactions. Team members are advised to purchase their tickets early (preferably non-refundable tickets if they are committed to attending) to help stretch the travel budget. Both Earl Krygier and Bob Small will be unavailable to participate in the next meeting. Jeff Hartman will be requested to participate in Earl's stead to recap recent NPFMC actions on SSL issues.

Post-meeting Note from the Chair

Meetings of the Alaska Steller Sea Lion Restoration Team are work sessions. All meeting minutes will be distributed to the public upon request, and comments are welcomed. In conjunction with routine NPFMC meetings, the state also convenes a Stakeholders Meeting as a primary venue to seek public dialogue on sea lion issues. Michelle Ridgway, Jay Stinson, and Earl Krygier participate on both the Stakeholder Panel and ASSLRT. In their dual capacities, they will distribute ASSLRT minutes to the Stakeholder Panel, and in turn they will disseminate Stakeholder Panel minutes and stakeholder input to ASSLRT.

Minutes of the Second Meeting of the Alaska Steller Sea Lion Restoration Team, December 15, 2000

Participants

The second meeting of the Alaska Steller Sea Lion Restoration Team (ASSLRT or Restoration Team) was held in Anchorage on December 15, 2000. The following members of team were present: C. Morgen Crow – a representative (executive director) of the CDQ group, Coastal Villages Region Fund, Jay Stinson – a trawl fisherman from Kodiak, Michelle Ridgway – a marine ecological consultant and board member of the Alaska Marine Conservation Council, Kate Wynne – a marine mammal biologist with the University of Alaska Sea Grant Program, Gordon Kruse (chair) – a marine fishery scientist with the Alaska Department of Fish and Game (ADF&G), Ken Pitcher – a marine mammal biologist with ADF&G, Lorrie Rea – a marine mammal biologist with ADF&G, and Denby Lloyd – the westward regional supervisor with ADF&G. Bob Small – the marine mammals coordinator with ADF&G and Earl Krygier – the extended jurisdiction coordinator with ADF&G were absent. Jeff Hartman – an economist with ADF&G participated for Earl by taking detailed meeting notes.

Preliminaries

Minutes from the first ASSLRT meeting were approved, and a draft agenda for the second meeting was adopted with one minor amendment. The meeting opened with a discussion of the status of the congressional rider that was passed on December 15th and whether the rider affected the team's mission. As the rider creates additional opportunities for review of the Biological Opinion (BiOp) through a deferred schedule for RPA implementation, the team resolved that their goals and tasks should remain as defined during the first ASSLRT meeting.

Public Involvement in ASSLRT Meetings

It was noted that the press has raised the level of public awareness of the restoration team. The Attorney General's office advised ADF&G to provide public notice for the ASSLRT meetings. ASSLRT meeting notices are posted with the Lieutenant Governor's web site at (<http://www.gov.state.ak.us/ltagov/>) under "Online Public Notice" for the Department of Fish and Game.

The Restoration Team established a set of guidelines to enhance public awareness of their actions and to clarify public involvement:

1. ASSLRT meetings are open to the public, although there is limited seating and services available.
2. As meetings of the Restoration Team are working sessions, no public comment will be taken during team meetings.

3. In conjunction with routine NPFMC meetings, the state convenes a Stakeholders Meeting as the primary venue to seek public dialogue on sea lion issues. Minutes of the ASSLRT meetings are provided at the Stakeholders Panel meetings. Michelle Ridgway, Jay Stinson, and Earl Krygier participate on both the Stakeholder Panel and ASSLRT, and they can answer questions and receive public feedback on ASSLRT activities. Meeting minutes of the Stakeholders Panel are distributed to Restoration Team members for their consideration.
4. Aside from Stakeholders Panel meetings, ASSLRT meeting minutes are available from restoration team members upon request, and team members are available at other times outside of team meetings to discuss ASSLRT activities and to receive public input.

Review of BiOp

General Impressions of the BiOp by Restoration Team Members

The Restoration Team began its review of the BiOp by hearing general impressions of the document from each team member individually. There was broad consensus of opinion about the BiOp. In overview, members agreed that the BiOp is a fairly comprehensive document on Steller sea lion biology and Alaska fisheries information. Yet, it is seriously deficient in a number of ways.

The BiOp lacks a fair treatment of alternative hypotheses for the decline of sea lions. The overall approach is biased in that individual alternative mechanisms are subjectively discounted on a one-by-one basis for their inability to *solely* account for *all* of the observed population declines; the synergistic effects of different mechanisms to collectively account for population trends are not considered.

Potential causes for population declines in the 1970s and 1980s are not distinguished from the potential causes for lack of recovery in the 1990s. In particular, the BiOp fails to account for recent research including investigations that indicate that the western population of sea lions is not nutritionally stressed with respect to the eastern population, at least for adult females and pups on which studies have focused to date.

The BiOp's conclusions of fishing effects are not the result of an objective scientific analysis, but rather a seemingly foregone conclusion largely rationalized by a series of speculative arguments. Scientific evidence was not presented to support the hypothesis that fisheries cause deleterious localized depletion of sea lion prey. Some of the scientific literature is incorrectly or selectively cited for information that is consistent, rather than contradictory, with the BiOp's conclusions.

Little new data are brought to bear on the causes of sea lion declines. A serious omission is the lack of analysis of existing data on the spatial, temporal, and size overlap of sea

lion foraging and fisheries that would have shed light on the prospects for competition from particular fisheries in particular times and places.

The BiOp identifies two types of sea lion foraging behaviors: (1) foraging around rookeries and haulouts by adult females with pups, pups, and juveniles, and (2) foraging over much larger areas while these and other animals are no longer tied to rookeries and haulouts. The BiOp does not adequately address the potential adverse effects of localized depletion under each of these two foraging patterns. Specifically, the spatial and temporal aspects of the two foraging strategies, fish (prey) distribution and abundance, and localized depletion need further discussion.

The Restoration Team acknowledges that fishing could have some adverse effects on sea lions and that it is simply impossible to prove otherwise. Therefore, precaution is warranted on behalf of the Steller sea lion. However, the team is not convinced that localized depletion by Pacific cod, Atka mackerel, and walleye pollock fisheries is the most likely mechanism for fishing effects. The team will discuss this issue further in subsequent meetings.

Rather than taking an ecosystem approach, the RPA modifies fishery management strategies without consideration for effects on other species of fish, invertebrates, birds and marine mammals through bycatch and/or modifications of their habitats. Although ASSLRT is encouraged by the inclusion of an experimental management strategy in the RPA, the team is concerned about low statistical power associated with lack of adequate contrast among treatments. A fatal flaw in the design is the failure to account for all removals of sea lion prey by fisheries including those in state waters.

In summary, the Restoration Team feels that the scientific integrity of the BiOp suffered from the lack of an objective analysis of alternative hypotheses and available relevant data. The team has many specific recommendations on how to improve the next Biological Opinion.

Consideration of Other BiOp Reviews and Related Activities

The Restoration Team reviewed the December meeting minutes of both the North Pacific Fishery Management Council's Advisory Panel and Scientific and Statistical Committee (SSC). Michele Ridgway and Jeff Hartman discussed the Final Council Motion that dealt with sea lion issues.

The team discussed the SSC's reluctance to modify the global control rule used to estimate acceptable biological catch (ABC) and the SSC's preference that catch reductions to accommodate sea lions are made to the total allowable catch (TAC) rather than to the ABC. The team noted that relegation of these adjustments to the TAC-setting process would neither mean that the adjustments would be formalized nor subject to analysis. Although there is considerable science in the ABC calculations, the team noted that the choice of control rules is somewhat subjective based on the management objective. For instance, control rules can be analyzed for the tradeoff between maximization of catch and minimization of variance in catch. Whereas objective scientific analyses can be conducted for different tradeoffs, the choice of weights of the

tradeoffs is subjective depending on particular management objectives. Some members of the team envisioned that heavier weighting could be given to minimize catch variance – a management objective that would promote higher standing stocks and lower catch rates of target fish species that are important prey items of endangered species, such as sea lions. Nevertheless, the team agreed to set this issue aside for future consideration.

Gordon reviewed some recent discussions with the Governor's office concerning potential actions by the State. The possibility of an interim fishery for state waters was being considered prior to the announcement of the rider. The Governor expressed the importance of the Stakeholders Panel and Restoration Team, and a strong desire to work through available mechanisms to set into place fishery management strategies that foremost foster the restoration of Steller sea lion populations while providing for fisheries that consider the needs of Alaska coastal communities and others participants. The State of Alaska has not eliminated the possibility of court action to achieve a sound BiOp with reasoned and fitting RPAs should other mechanisms prove unsuccessful.

Lorrie prepared and reviewed a list of recent and ongoing studies on Steller sea lions. The team noted that this new work is very relevant and, in general, was not analyzed in the BiOp. One recent paper (Swain and Calkins 1997) was mentioned on the bottom of page 90, but other new data, including some highly relevant unpublished information, should be brought forward in the BiOp. For instance, new diving studies suggest that the juveniles dive much deeper than previously thought. The team was very impressed with this new information and Lorrie was encouraged to complete her review of this ongoing work. Such information will be useful to develop an improved BiOp, new RPAs, and priority research recommendations. Similarly, Gordon will be providing information on current fishery interaction studies at another meeting.

ASSLRT Strategy for BiOp Review

Realizing that it would not be possible for the team to provide a detailed review of the entire BiOp during the course of this meeting, the team agreed to the following strategy. First, the team identified some non-scientific issues that warrant future consideration. Next, the team identified major issues of concern primarily in Chapters 4 and 5. Noting that the RPAs were not necessarily directly linked to cause and effect, the team then conducted a brief review of key demographic problems of sea lions, evidence for alternative mechanisms, and critical life history stages of sea lions. Finally, the team identified issues that should be considered in the development of an improved set of RPAs. As the Restoration Team's review of the BiOp is a work in progress, additional major issues will be identified at upcoming meetings and the team will also develop a detailed written list of all of their comments on the document.

Non-scientific Issues

The Restoration Team identified the following non-scientific issues that warrant future consideration:

- The eastern population of Steller sea lions is listed as threatened, while data suggest that the population is at or near all-time high levels of abundance. Should this population be de-listed?
- The BiOp was developed through a non-public process. The appropriateness of this approach should be investigated. Were appropriate procedural and legal requirements followed?
- The factual basis for many statements in the current BiOp are difficult to substantiate because the only evidence given were findings from previous BiOps and these findings may not have undergone scientific review. Is it not appropriate for the BiOp to provide substantiating evidence rather than citing opinions or information in previous BiOps?
- The purpose of the BiOp is to determine whether fisheries jeopardize Steller sea lions. What is jeopardy? How is uncertainty included in this determination? How do you assess matters of degree?
- How should BiOps balance biology, sociology, and economics?

Comments on Chapter 4

The Team offered the following major comments on Chapter 4:

- P. 3-4 in Appendix 3 cited in Chapter 4, and again on pages 183 to 188 in Chapter 5. These pages present the essence of the argument for competition between fisheries and sea lions for prey by the mechanism of localized depletion. On page 89, the BiOp states two feeding patterns: (1) foraging around rookeries and haulouts, and (2) foraging over larger areas. The BiOp fails to adequately specify the spatial and temporal scales of localized depletion such that a comparison with the foraging patterns would provide a better assessment of potential competition. For example, if localized depletion occurs in an area when sea lions are primarily foraging elsewhere, the effect of that localized depletion would likely be substantially reduced. These considerations have implications on the design of the RPA.
- P. 80-83 and elsewhere. The BiOp fails to fairly present pieces of evidence that don't support the nutritional limitation hypothesis. Data from the 1970s and 1980s are interwoven with data from the 1990s without recognizing that there are important contrasts between these decades. Some data from the 1970s and 1980s support the nutritional limitation hypothesis through effects on reproductive success, mortality of juveniles and/or older ages. However, data in the 1990s on adult females and pups do not support the nutritional limitation hypothesis, at least for these life stages. Failure to distinguish these decadal differences is the root of the problem evident in subsequent chapters where the BiOp fails to contrast evidence for *historical* fishing

practices and climate changes on the *historical* decline in sea lions from the evidence for *current* fishing practices and climate conditions on their *current* lack of recovery.

- Chapter 4 fails to indicate the month during which diet samples were collected. Rather than lumping all data, it would be preferable if data were disaggregated by season and region to the extent possible. By considering location and season, seasonal and spatial patterns in prey consumption may have emerged. Also, although biases in diet data collection methods were indicated on page 91, it would have been helpful if the diet data were interpreted in the context of these biases when summarized on pages 92-93. The team noted that there is at least 8 years of new data available on foraging behavior, and it is critical to use this information in the next BiOp. The team discussed foraging data collected by the University of British Columbia, NMFS and ADF&G, as well as recent juvenile dive and movement data.
- P. 95. A stronger case for the role of diet diversity in sea lion population trends may exist than presented. Merrick's work seems to suggest that at least two prey taxa need to be commonly available in sea lion diet for population success. Other evidence, including work conducted or cited by Andrew Trites in his publications, points to the importance of diet diversity. Pitcher (1981) found capelin in 61% of diets of sea lion stomachs in the Kodiak area in 1975-1978. Subsequent studies failed to find capelin in significant numbers in sea lion stomachs. Octopus ranked #2 in 1985-1986 in Kodiak. Sand lance occurred in 26% of sea lion stomachs in Gulf of Alaska in 1960s. While acknowledging that biases of different collection methods can explain some of these differences, how did such changes in sea lion consumption of these unfished or very lightly fished species affect sea lion population trends? A more thorough treatment of the potential role of diet diversity may have led to a different set of RPAs than the set based almost exclusively on the gadid portion of sea lion diets.
- P. 100. The potential for competition between sea lions and other species is presented in a very superficial and biased manner. The statement "To some extent, these potential competitors may partition the prey resources so that little direct competition exists" is implausible. Sea lions occupy a similar trophic level as Pacific cod. Herring, sand lance, smelt, squid, and other "forage" are heavily predated by many species. Changes in prey competition between sea lions and other members of the marine ecosystem could be facilitated by regime shifts. For example, abundance and availability of herring, capelin and sand lance could be regulated by piscivores, such as Pacific cod, arrowtooth flounder, Pacific halibut, and others whose abundance changed dramatically after the mid-1970s. The BiOp downplays the well-documented ecosystem shifts in species abundance and ignores the potential downstream impacts of these changes on sea lions through competition for limited prey.
- P. 104. The population viability analysis may be outdated. The team recommends a new viability analysis with recent sea lion population trend data. As the rate of decline in sea lion populations has moderated, how would recent population trend data affect the long-term population projections? Moreover, the team is aware of a

population viability analysis conducted by the University of Washington (Gerber's thesis) that concluded that Steller sea lions should not be classified as endangered. This work was not cited in the BiOp; this is one of many instances where literature is selectively cited. Whether the authors agree or disagree with those findings, the BiOp should objectively present all relevant data and scientific research.

- P. 128-130. The ecological bases for sea lion critical habitats have not been completely described. Future BiOps should consider the following features: (1) seasonality – winter and summer haulouts should be distinguished – some haulouts are used for a few months; (2) some haulouts support few animals – *current* sea lion data should be used to formulate new RPAs; (3) recent foraging data should be considered, for instance PTT data since 1992 should be incorporated into the analysis; (4) rather than consider arbitrary 10 nm or 20 nm distances around rookeries and haulouts, critical habitat should be designated based on the distribution of dive depths and distances from rookeries and haulouts.

Chapter 5

The Team offered the following major comments on Chapter 5:

- P. 131-137. Ecological changes, some of which were related to the regime shift, and their likely effects on SSL, are incompletely described and not evenly interpreted. Large recruitments increased the abundance of many groundfish in the early 1980s. Those with sharp increases in abundance included pollock, cod, Atka mackerel, arrowtooth flounders, other flatfish. Shrimps and some crab stocks declined. Anecdotal evidence indicates that capelin and other forage fish declined or shifted in geographical distribution. Changes in some species, such as herring and capelin, could have directly affected sea lion nutrition, whereas others, such as cod and arrowtooth flounder, could have had indirect effects through competition. Some important papers were not cited nor considered.
- The BiOp does not distinguish sea lion prey that are fished and unfished. For example, pollock, mackerel, cod, rockfish are fished, octopus and squid are very lightly fished in some areas only, herring are fished in certain areas only, and capelin, sand lance, other forage fish are unfished. All these prey are important to sea lions at particular times and places, and yet the BiOp does not consider their role in sea lion reproductive success and survival.
- P. 138 to 140. One alternative to the localized depletion hypothesis is predation by Killer whales (predator pit hypothesis). The BiOp includes a critical review of a report that estimated sea lion predation by killer whales. Also, the BiOp offers a second analysis of killer whale predation information. The critique misses the fact that both analyses are based on a minimum estimate of transient killer whale population size (125) and that predation rate would be higher if more killer whales do, in fact, exist. Survey efforts to estimate killer whale abundance from Kodiak

Island and west have been minimal compared to other areas. The derivation $N=125$ is not presented, and it is very likely that abundance of transient killer whales is higher than this estimate. ASSLRT feels strongly that more killer whale predation research is needed, including better information from the western Gulf of Alaska and Aleutian Islands. Moreover, research is needed into the prospects of sleeper and salmon shark predation on sea lions, especially on young sea lions. An increase in shark abundance in Alaska in the past decade, coupled to the documentation of shark predation on harbor seals, suggests that potential shark predation studies on sea lions may be worthy of study in the context of sea lion population declines. While it is uncertain that predation fully accounts for recent sea lion population trends, the Restoration Team feels that this source of mortality must be considered in concert with other mortality sources (e.g., entanglements, bycatch, shooting, disease) for their combined ability to explain the lack of recovery in the 1990s.

- P. 147. The section beginning on this page is titled “aggregate mortality,” but all sources of mortality are not considered in aggregate. Later in the BiOp other mortality sources (e.g., entanglement and intentional takes) are considered individually. Others, such as a recent paper by Alverson, have made a much better attempt to account for all sources of mortality in a cumulative manner. A major flaw of the BiOp is failure to aggregate all sources of mortality together and to compare those deaths with the current rate of sea lion population decline. The team suspects that a combination of mortality sources could, in fact, account for recent 4% annual declines in sea lion abundance. The lack of evidence for nutritional limitation among adult female sea lions and their pups in the 1990s is consistent with mortality-based hypotheses rather than a food-driven hypothesis involving competition with fisheries. The Restoration Team notes that adequate recent data on juveniles are lacking, so the possibility of competition cannot be completely ruled out. Comparable studies on juvenile sea lions are a high priority research needs.
- P. 150 to 152. The BiOp documents some historical cases of overfishing: e.g., foreign fisheries for pollock in Aleutian Basin, Pacific Ocean perch, yellowfin sole, and Pacific halibut. Although the BiOp is fairly thorough in describing these cases, this section does not analyze what role, if any, these may have played in the historical sea lion declines. In particular, could overfishing of pollock in Aleutian Basin in the 1970s and 1980s have depleted pollock as forage for sea lions in Western Aleutians? Could overfishing and prolonged reduced abundance of herring in the mid-20th Century have caused nutritional limitation in sea lions in the 1970s and 1980s? These are instances of historical failure to apply a global control rule on large-scale industrial fishing. As noted in Chapter 4, evidence for demographic problems in sea lion populations during decades of decline versus the recent decade of lack of recovery was not distinguished. Likewise, here in Chapter 5, historical cases of overfishing versus the conduct of current fisheries, and their potential differential implications on sea lions, are not distinguished. The Restoration Team feels that these distinctions are critical to objectively evaluate the likelihood of alternative hypotheses, associated risks, and the appropriateness of particular RPAs.

- P. 182. Pages of equivocal information on competition are presented. However, competition is not defined until much later on page 227. Organization of the document could be improved. A better treatment of the case for competition is warranted. Also, the localized depletion elements of the argument need to be reconciled. The absence of any spatio-temporal fishery data and catch size composition data is perplexing. It seems ironic that the hypothesis accepted by the authors of the BiOp is one for which no data are presented.

Review of Sea Lion Trends and Life History Relevant to the BiOp

Review of Sea Lion Demographic Problems

The Restoration Team put aside further review of the BiOp to consider the next agenda item: a review of the demographics of the original sea lion decline (1970s and 1980s) versus evidence for recent (1990s) problems. The team used an outline that Gordon prepared based largely on an unpublished white paper by Ken Pitcher.

The main demographics of the original decline (1970s and 1980s) of Steller sea lions include: (1) reduced growth rate, (2) high rates of reproductive failure, (3) disproportionate increase in juvenile mortality, and (4) higher mortality across all age groups. The BiOp noted evidence for high rates of reproductive failure. First, late-season pregnancy rate declined from 67% (1970s) to 55% (1980s); however, there was insufficient statistical power, due to small sample sizes, to determine if this difference was significant. Second, among lactating females, late season pregnancy rate was 63% (1970s) versus 30% (1980s), a statistically significant difference. Evidence for a disproportionate increase in juvenile mortality resulted from York's modeling study and low rates of pup re-sighting at Marmot Island in 1987-88. On the other hand, evidence for higher mortality across all ages resulted from ADF&G analyses of survival rates based on mark and re-sighted animals.

Mechanisms causing these demographic problems in the 1970s and 1980s fall into two groups of hypotheses. For nutritional stress, three hypotheses have been suggested: (1) climate-driven regime shift that resulted in declines in abundance of some sea lion prey (e.g., capelin, sand lance) and other species (e.g., shrimp, crabs) and increases in other sea lion prey (e.g., gadids, salmon) and other species (e.g., flatfishes); (2) competition with ongoing large-scale commercial fisheries; and (3) cascading (downstream) ecosystem effects of historical whaling and overfishing (e.g., Pacific herring, Pacific Ocean perch) in previous decades. For mortality, the following mechanisms have been identified: (1) Government eradication programs; (2) commercial harvest; (3) intentional killing by fishers and others; (4) incidental mortality in fisheries; (5) entanglements in lost fishing gear and other man-made debris; and (6) pup abandonment caused by mortality of adult females, disturbance, or other causes.

During the 1990s, different demographics have emerged. Comparative sea lion studies

have been conducted between the declining western population and the stable and/or increasing eastern population. These studies have yielded surprising results. Evidence that reproduction in the western population was *not* compromised in the 1990s include: (1) pup birth weights are highest in the western population; (2) pup growth rates are greatest in the western population; (3) pup size at age 1 month old is higher in the west than east; and (4) blood chemistry studies do not indicate that pups in western population are nutritionally stressed. The BiOp suggested that pups in the western population may be born earlier and that older age could account for the greater pup sizes in the western population. However, the Restoration Team noted the pups in the western population are actually born later, so western pups are truly heavier than eastern pups. The team is unaware of data that suggest that sea lion reproduction was compromised in the 1990s.

In the 1990s, the following findings from comparative studies of eastern and western populations of sea lions suggest that adult females did *not* exhibit nutritional stress: (1) foraging effort was higher in the east compared to the west; (2) females from eastern and western populations had similar milk energy content; (3) adult females from the western population weigh more than those from the eastern population; (4) western females appeared to have more fat than eastern females, although the evidence for this is somewhat uncertain, and (5) maternal attendance and energy budgets are normal for females in the western population. Evidence that females from the western population exhibited nutritional stress in the 1990s comes from a study that indicated that the blubber layer was thinner in western females than eastern females, but this evidence is somewhat uncertain. In conclusion, there is little evidence for nutritional stress for adult females and pups in the 1990s. However, data are lacking for juveniles older than 5 weeks old, the possibility of nutritional limitation can not be completely ruled out.

There are a number of potential mechanisms behind the lack of recovery of the western population of Steller sea lions in the 1990s: (1) nutritional limitation associated with fishery-induced localized depletion (assumes feeding problem with juveniles yet to be demonstrated in 1990s); (2) nutritional limitation associated with junk food hypothesis or changes in prey distribution and availability (assumes feeding problem with juveniles yet to be demonstrated in 1990s); (3) mortality from predator pit hypothesis (predators could include killer whales and sharks); (4) cumulative mortality from a number of sources (e.g., predators, illegal shooting, incidental mortality in fisheries, entanglement, disease); and (5) human disturbance of haulouts and rookeries.

Temporal/Spatial Considerations of Sea Lion Life History

Next, the team considered spatial and temporal aspects of sea lion life history. The team reviewed an outline prepared by Gordon based partly on biological information presented in the BiOp and a publication by Ken Pitcher.

The following critical life history events were identified for adults:

May – Adult males compete for rookery territory

Late May to early June – adult females arrive at rookeries

Mid-May to mid-July – birth

Late May to mid/late July – mating occurs

Late winter/spring (February to May) – particularly critical period for females

The following critical life history events were identified for pups:

Late May to early July – birth

Age 11 months (if mom gives birth to new pup) or 23 months (if mom does not give birth) – most juveniles are weaned

November to May – juveniles develop foraging skills

The temporal use of rookeries and haulouts is an important feature of sea lion life history strategies. Seasonality is also important to assessing the potential for interactions with fisheries. Rookeries are used mid-May to fall. However, some rookeries are used as winter haulouts. Others are abandoned in winter. Some haulouts are used year-round, and some in winter only. Some haulouts are occupied for very short-term use, such as in association with spring hooligan run. The Restoration Team noted that the 1998 RPAs distinguished seasonal (winter or summer) use of haulouts, but the BiOp, dated November 30, 2000, did not distinguish seasonality of use.

Sea Lion Foraging Depths

The BiOp presents the maximum recorded diving depths for sea lions as follows: adult females in summer, 100-250 m; adult females in winter, > 250 m; young-of-the-year in winter, <72 m; 2-year old male, 252 m; and 1-year old female, 150-250 m. The team noted that the BiOp really should consider the distribution of feeding depths, not just maximum feeding depth. It was noted that winter data are particularly lacking. It was also noted that previous understanding of juvenile diving depths is changing with recent data that show that they dive deeper than previously thought. The depths of diving and distance of foraging trips from rookeries and haulouts is an important consideration in the design of RPAs. Additionally, the two feeding patterns need to be considered seasonally: (1) foraging around rookeries (and haulouts) and (2) foraging over larger areas. For instance, summer fishery closures in critical habitat around winter-only haulouts are likely to be a very ineffective management measure.

Towards an Improved Set of RPAs

Finally, the team began a discussion of features that should be considered in the design of RPAs to reduce the likelihood that fisheries adversely affect sea lions. So far, the team identified the following RPA-relevant features:

- *Current* importance of haulouts. Protecting haulouts that have been vacated for years is not as critical as protecting haulouts currently used by hundreds of animals

- Seasonality of use of rookeries and haulouts
- Critical period for sea lions (late winter/spring – adults; spring – pups)
- Is it necessary to close critical foraging areas (e.g., Shelikof Strait) in winter? Are they necessary for the current domestic fishery as opposed to the foreign and joint venture fishery from which the data were used to make their original designation? ASSLRT recommends a reassessment of these foraging areas with current data
- Is the non-transit zone around abandoned rookeries justified in winter?
- Distance from rookery/haulout and geographic distribution of foraging trips
- The level of conservation could be linked to the level of risk. Maps of foraging trip distributions could be used to assess the fraction of the population at risk from certain activities in time and space.
- Given the information presented, ASSLRT is of the opinion that designation of 20-nm critical habitats around *all* haulouts and rookeries *all year* is too restrictive
- The global control rule is a management measure that bears additional investigation, if there is concern about the overall level of fishing with respect to the broad scale foraging behavior of sea lions (foraging pattern #2).
- The team did not spend much time discussing the experimental design yet, but ASSLRT wishes to make one comment at this time. That is, the experimental design should consider all removals including state fisheries. The state should have been consulted in developing the experimental design as the state manages hundreds of fisheries in Alaska especially in sea lion critical habitat.

Next Meeting of ASSLRT

The next Restoration Team meeting will be convened at 8:30 am to 5:00 pm on January 5, 2001, at the Rabbit Creek Rifle Range in Anchorage. Tentative topics for focus include: (1) further review of the BiOp (Chapters 6-11); (2) specific review of the experimental management plan; (3) additional focus on critical habitat definitions; (4) additional development of advice on issues for consideration by a new RPA; and (5) additional review of current research and development of research recommendations.

Commissioned Paper: A Statement by the Society for Conservation Biology

Independent Scientific Review in Natural Resource Management

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Introduction

Public policy issues involving natural resource management and conservation increasingly have become controversial and politicized. Protecting air and water quality, removing toxic wastes, recovering endangered species, and protecting old-growth forests and threatened biological communities are just some of the complex environmental policy issues that challenge us to devise scientifically appropriate and politically acceptable solutions. Making well-informed decisions regarding the use and protection of natural resources requires that we fully consider and employ the most reliable and accurate scientific information and judgment available. Calls for inclusion of "the best available science" and independent analyses or review of environmental policy and decision making repeatedly are heard from Congress, the Executive Branch, and other interests. We agree that such participation by the nation's scientific community in the form of independent scientific review can contribute to better-informed environmental policy and decision making. Toward the goal of improved integration of scientific information into environmental decision making, we address a series of questions that are critical to understanding the need for rigorous scientific review. We also suggest how such review might proceed expeditiously and economically.

Pertinent Questions

Why Is Independent Scientific Review Needed?

Independent scientific review (ISR) can help ensure that environmental decisions and policy making reflect the best scientific knowledge of the day. Most environmen-

tal issues are burdened with historical momentum, economic implications, and cultural values that may dominate decision making in the absence of scientific information. An ISR can help decision makers focus on the objective, scientific variables apart from economic, historical, or cultural factors and to interpret issues in the context of great ecological complexity and uncertainty. Also ISR can raise the level of public trust in the process, alleviating fears that industries, environmental protection organizations, or government agencies are simply promoting their own interests or moving ahead without benefit of relevant scientific information. But the main reason for an ISR is that without one any claim of objectivity and scientific validity may be suspect.

What Are the Goals of ISR?

An ISR can help ensure that (1) the best available scientific knowledge is brought into the decision- or policy-making process; (2) the influences of bias and special interests are minimized in environmentally relevant decisions or policy making; (3) science is separated clearly from nonscientific issues; (4) decisions or policies are achieved in an open and transparent manner; (5) all relevant information is considered and evaluated; (6) all conclusions drawn are consistent with the available scientific information, and assumptions are made explicit; and (7) the risks associated with different interpretations of data or alternative management decisions are articulated.

What Constitutes an Appropriate "Independent Reviewer?"

A qualified independent reviewer is one who (1) has little personal stake in the nature of the outcome of decisions

or policies, in terms of financial gain or loss, career advancement, or personal or professional relationships; (2) can perform the review tasks free of intimidation or forceful persuasion by others associated with the decision process; (3) has demonstrable competence in the subject as evidenced by formal training (e.g., an advanced degree in the appropriate discipline) or experience (e.g., research and publication within their field); (4) is willing to use his or her scientific expertise to reach objective conclusions that may be discordant with his or her value systems or personal biases; and (5) is willing and able to help identify internal and external costs and benefits—both social and ecological—of alternative decisions. Typically, such a person is associated with a recognized scientific society or is otherwise an established professional in a particular field as evidenced by *independent* scholarly achievement and the respect of peers.

Under What Circumstances Should ISR Be Conducted?

An effective ISR should ensure that high-quality scientific input informs government decision makers without creating another bureaucratic, expensive process that delays decisions and drains away limited resources from agencies. We recognize that overuse of ISR can delay or even destroy decision processes and needlessly use up limited staff time and funds. It is possible that unnecessary calls for ISR could be used to mire regulatory agencies in a host of new procedural requirements that would make the task of promulgating regulations even more difficult, sidetrack policy, or stall decisions. Thus, ISR should be employed principally when an agency decision rests, or is likely to rest, on scientific judgments or management actions that are controversial, seriously disputed, or arguably insufficient, especially in cases where the decision carries the risk of creating lasting negative effects on environmental quality, nature, the economy, or communities. An ISR should be employed in a flexible manner appropriate to each situation; a prescribed, centralized, "one-size-fits-all" approach is unlikely to improve good decision making and may in fact hinder it.

Among issues that might be appropriate for ISR are the following: habitat conservation plans; "no surprises" agreements proposed for the Endangered Species Act; some Endangered Species Act listings, delistings, and recovery plans; long-term or large-scale forest management plans; major restoration and remediation activities; biological assessments or impact studies of water projects such as dams or diversions; mining operations that might significantly impact federal land or resources; significant changes in federal rules or regulations bearing on natural resource management; regional ecosystem management planning involving multiple agencies; and other changes in land use and management that may have social or ecological costs not reflected in current market evaluations.

When in the Process Should ISR Be Conducted?

To be most effective and constructive, ISR should be built into processes of planning and decision making. In most cases, this could be done via a predictable sequence of steps toward obtaining early and appropriate input from independent scientists, before positions become set and considerable time and effort are invested in elaborating plans. Early review is especially critical when policies dictate consideration of diverse factors and when scientific rationale may be obscured in later drafts or final documents. Most environmental planning already occurs under a suite of laws designed to allow public access to information and input at particular stages of planning and implementation. Although our previous comments call for flexibility, we recommend inserting ISR into these existing processes at three distinct points: (1) informal or formal review of early ideas and initial (pre-release) draft plans; (2) formal written review once official draft plans or policies are released to the public; and (3) formal final review once final plans are released.

An ISR can result in decisions that are more scientifically defensible when it is employed at the beginning *as an integral part of planning, not as an afterthought*. It should periodically review progress and help inform decisions throughout planning or decision processes in an adaptive manner. Given that uncertainty exists in all environmental resource management decisions, emphasis should be placed on a flexible, adaptive approach in which new information can be used to improve decision making in both the short and long term.

Who Should Coordinate the ISR Process in Individual Cases?

Selecting scientists for ISR raises questions about criteria for suitable reviewers. We understand that limitations of money and time prohibit complete separation of ISR from the auspices of the organizations or individuals involved in the issue being reviewed. Indeed, there are many excellent, talented, and appropriate scientists working within governmental and other participating industrial and environmental organizations who can provide good ISR. Pragmatically not all ISR can be conducted under ideal conditions of absolute impartiality, and we cannot assure removal of all bias. The major criterion is to assure that all individuals conducting ISR truly are independent from the immediate issue. Thus, for example, if a program of the U.S. Forest Service or the U.S. Fish and Wildlife Service is being reviewed, it sometimes may be appropriate for individual scientists of those agencies to participate in the review. In such cases, however, we recommend that the following specific guidelines be developed regarding their involvement: (1) they do not constitute a majority of the ISR team; (2) they have particular and special expertise in the subject under review and are not selected simply for organizational representa-

tion; and (3) they have or have had no direct involvement in the particular actions under review and are independent of supervisors or colleagues with involvement in the actions under review. That is, scientists who are writing or who will carry out the plan should not be part of the ISR process—they are *de facto* not independent.

Given these limitations, we believe that coordination of individual ISRs can be done by any appropriate individuals or groups. The selection of reviewers might be managed by scientific organizations such as the Ecological Society of America, the Society for Conservation Biology, the American Institute of Biological Sciences, The Wildlife Society, the American Fisheries Society, the Society of American Foresters, or the National Academy of Sciences, or by governmental agencies—provided the individuals selected have not been involved in the issues being addressed, as defined above, and are unlikely to benefit directly by their participation.

What Is a Good Format for ISRs?

We offer no single recommended or standardized format for good ISR because circumstances vary greatly by issue; in fact, we strongly caution against a set format. The depth of review will differ among issues and at different stages of each issue. Possible formats range from informal "checks" with established authorities on particular points in question (which should be formally recorded as having occurred), to independent and formal commentary on proposals or other documents by reviewers, to major workshops that convene reviewers for interchange and debate.

We also note that scientific participation and oversight are not equivalent to ISR. Often, scientists are members of a team or task group responsible for planning. Such scientists cannot be expected to be as objective as those outside the process. Similarly, scientists who are brought in frequently to provide oversight may develop a sense of ownership in the process and should not be given the task of final ISR.

Should Reviewers Be Compensated?

It is important to recognize that ISR requires skill, experience, and, above all, time. Reviewing the work of others is widely acknowledged to be a critical component of the scientific process, and most scientists take it seriously. Some universities consider ISR to be a form of community service, and ISR is often performed gratis. But, the demands placed on busy, successful, and prestigious scientists can be overwhelming, and many scien-

tists must turn away many requests for comment and review. Consequently, monetary compensation is sometimes offered as an inducement, as it is for experts in most professional fields. There are benefits and disadvantages to such incentives, but their use may ensure timeliness and responsiveness from reviewers.

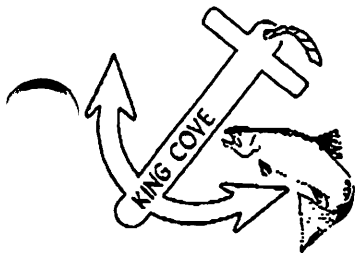
As the scientific and political complexity of environmental issues increases, the importance of quality ISR also will increase, but nongovernment scientists may not be able to accept ever-increasing ISR workloads without compensation. Therefore, we suggest that budgets for environmental projects should include funds for ISR. The costs would be marginal, particularly when considering the value gained for agencies by efficient and expert review, and they could prevent larger agency costs later in the process. At the same time, institutions that employ scientists—particularly universities and research institutes—should consider the performance of ISR to be worthy of greater weight in decisions about promotion and tenure, thereby encouraging their scientists to provide society with these critical services at little or no cost.

Conclusion

When calls go out for "the best," "credible," "rigorous," or "objective" science, the most appropriate response is virtually always an independent review of the work. If the science is found wanting, subsequent steps are usually obvious as a result of the review. Although it is true that calls for review can delay action, there are ways to ensure promptness and efficiency. In critical or controversial policy issues that can be informed by rigorous science, there is no substitute for a penetrating critique. Thus, the Society for Conservation Biology urges that governmental decisions and policy related to the environment be made in an independent manner with the best available science.

Acknowledgments

This paper was reviewed throughout its development and improved and clarified by the following individuals: R. Baker, M. Bean, D. Hosack, M. Hunter, F. James, R. Knight, T. Lovejoy, J. Lubchenco, L. Nielsen, G. Orians, K. Ralls, D. Schenborn, R. Sharitz, W. Snape, and D. Wilcove. Of course, not all of their diverse views on the subject are adequately represented here.

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RESOLUTION No. 2000-09

WHEREAS, on December 7, 2000, the King Cove Corporation met and discussed issues that affect the village of King Cove socially, economically and culturally; and,

WHEREAS, the King Cove Corporation is opposed to the Biological Opinion and Incidental Take Statement issued November 30, 2000 by the National Marine Fisheries Service, Alaska Regional Sustainable Fisheries Division; and

WHEREAS, there is consensus that the native community of King Cove has been culturally and economically dependent on the living marine resources since time immemorial; and,

WHEREAS, there are immediate issues at the State, Federal and Native level that negatively impact our Native community; and,

WHEREAS, the Aleut people of King Cove want to continue living within the village of King Cove and continue to provide for their families, their children's education and remain independent of the welfare system; and,

NOW THEREFORE BE IT RESOLVED that the King Cove Corporation requests that the North Pacific Council supporting the State and Federal Governments provide:

1. That information on Fisheries be based on scientific and biological information when making a decision that effects our village.
2. When discussions or closures of fisheries are made, that all the effected areas, regions and villages concur with the State or Federal agency decisions.

PASSED AND APPROVED, this 7th day of December, 2000, at a duly called meeting of the Shareholders of the King Cove Corporation at King Cove, Alaska.

BY: Dean Gould
Dean Gould, President

ATTEST:

BY: Xenia Bendixen
Xenia Bendixen, Secretary/Treasurer

RECEIVED

JAN - 4 2001

N.P.F.M.C

North Pacific Management Council
Attn: Chairman David Benton
605 West 4th, Suite 306
Anchorage, Alaska 99501-2252

Dear Sir:

I am writing to draw your attention to the meeting of the North Pacific Management Council scheduled for Seattle Washington January 10th - January 12 the 2001. As I understand it much of this meeting will be to establish time lines for responding to directives issued by NMFS concerning the Steller Sea Lion closures in Alaska fishing waters.

One of the major inadequacies of the Biological Opinion and its' accompanying RPA was that the public had not been included in the process. It would appear that much the same is happening once again. The cost of round trip airfare from Anchorage to Seattle can be as much as \$500.00. The cost of interstate air transportation from some of the coastal communities most effected is easily another \$165.00. The cost of even budget food and lodging in the Seattle area can easily be \$200.00 per day. Simple addition will immediately show that the price for the opportunity to represent individual fishers interests and small private enterprise is easily \$1365.00 per each individual. I do not believe the portions of the Magnuson Stevenson act addressing opportunity for public input in any way shape or form mandate that this opportunity be held at great distance from the areas to be affected and at great expense for those individuals, businesses, and coastal communities which will be impacted by the decision making process.

In addition what if one is a fixed gear fisherman whose all important earning window occurs during this time. Add lost income for time not spent on the water harvesting product to the above equation and then extend that amount out to include lost revenue to not only individual vessel owners, but their crews, the communities in which they live and home port, and the many businesses which supply them.

Why is it necessary to hold these meetings which so directly effect the Alaskan economy in Seattle . I hope that you will consider the fact that only a tiny amount of the public will actually be available to enter the process which so impacts their lives and the future shape of their communities. Thank you for your consideration.

Michael G. Brooks
Michael G. Brooks

GREENPEACE

news release

Tel: (202) 462-1177
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Washington, DC

FOR IMMEDIATE RELEASE

January 11, 2001

ENDANGERED SPECIES ACT IGNORED BY FISHING AGENCY

*Leading Environmental Organizations Ask Administration
to Protect its Position on Steller Sea Lions.*

WASHINGTON—Greenpeace and other organizations hand-delivered a letter to George Frampton, the Acting Chairman of the Council on Environmental Quality, today, urging him to take measures to protect the threatened marine environment along the coast of Alaska. The National Marine Fisheries Service (NMFS), which regulates fishing in the U.S., is apparently disregarding the conclusions reached by its own scientists, and continuing to allow fishing at dangerously high levels in the Bering Sea. The most recent study done by scientists within NMFS demonstrates that overfishing is having a devastating impact on the health of the environment and the survival of the endangered Steller sea lion.

"The worst thing to do right now is to continue as if nothing has changed," said Niaz Dorry, Greenpeace Oceans Campaigner. "Clearly, the way we have been fishing is jeopardizing the Steller sea lion's survival. We must transform our fishing strategy immediately, into one that accounts for the effect of fishing on the entire marine environment."

The letter sent to George Frampton states: "This strategy being considered by NMFS is not only illegal, it would undo the protections for Steller sea lions... secured by you and others last month."

"For years, industrial fishing has been ravaging the marine environment in the Bering sea," continued Dorry. "Now there is definitive evidence of the destruction these ships are causing, and NMFS is ignoring their own evidence and the Endangered Species Act by bowing to the pressure of the industrial fishing industry."

In April 1998, Greenpeace, American Oceans Campaign, and Sierra Club, represented by Earthjustice Legal Defense Fund and Trustees for Alaska, filed a lawsuit seeking to force the NMFS to comply with federal environmental laws. In response, NMFS released its Biological Opinion, which confirms that the primary cause of the decline in the Steller sea lion population is overfishing, spearheaded by the industrial fishing fleet.

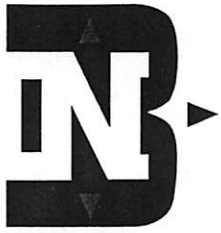
Since the 1980's, the Steller sea lion population has declined by over 80 percent, and continues to drop by five percent annually. Their rapid decline over the past few decades has mirrored the expansion of the industrial fishing fleet in the region. During the upcoming fishing season, the fishing industry will target spawning pollock for the lucrative Japanese roe (fish egg) market.

CONTACT: Aaron Bannon, Greenpeace Media Officer, (202) 319-2432; Niaz Dorry, (202) 251-6292; Web site—www.greenpeaceusa.org

WWW.
greenpeaceusa.org

Greenpeace is an international, non-profit organization using peaceful, direct action to expose global environmental problems and create solutions. It accepts no funding from industry or government.

Oceans
Ancient Forests
Global Warming
Genetic Engineering
Nuclear Issues
Toxics



BLUE NORTH FISHERIES

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Tollfree 1-877-TRUECOD • email: bluenorth@uswest.net

January 11, 2001

<< Public Comment >>

Mr. David Benton, Chairman
North Pacific Fisheries Management Council

To Mr. Benton and the Members of the Council:

This letter is in regards to NMFS' proposed regulations for July 21 - December 31, 2001 for the groundfish fisheries in the Bering Sea and Aleutian Islands.

Mr. Balsiger has indicated that his administration is supportive of Council suggestions to modify proposed closures for the remainder of 2001. He offers as an example that closing 50% of critical habitat to the three fisheries (pollock, Atka mackerel, and Pacific cod) would be acceptable. I suggest that this criteria be applied to effort, rather than blanket closures.

The Biological Opinion (BiOp) points out how little the fixed gear fleet contributes to localized depletion, the trawl sector removes over *ten times* as much groundfish from critical habitat as fixed gear, in less time:

- ❖ "In terms of effects on ESA-listed species, the slower and more dispersed nature of hook and line and pot fisheries make localized depletion less likely than would be possible with trawl gear. In addition, fleet capacity is currently much smaller..."
-BiOp, pgs. 215-6
- ❖ "...the magnitude of the trawl catch in critical habitat was much greater than pot, about 430,000 mt compared to about 14,000 mt (in 1999). Hook-and-Line catch was more dispersed outside critical habitat on average, and accounts for...about 25,000 mt inside (in 1999). The possible effects of these other [fixed] gear types were dwarfed by the biomass removed by the trawl sector in 1999, which removed 1,286,852 mt."
-BiOp, pgs. 216-7
- ❖ "...the hook and line fishery does fish in a manner that is consistent with the intent to minimize disturbance to the prey field."

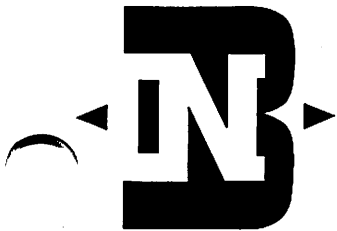
from: <http://www.nmfs.noaa.gov/steller/QandA.htm>

The problem of "localized depletion" is a trawl issue, and should be dealt with on a gear specific basis. Any attempts to include the fixed gear sector in the RPA's are misguided efforts born of politics and willful ignorance. As a fleet, fixed gear fishermen catch fish in a Steller Sea Lion-friendly manner. I propose that fixed gear fishermen be exempted from the proposed RPA's.

On behalf of myself, my company, and fellow fixed gear fisherman, I petition the Council to recognize the fundamental differences between fishing methods and make recommendations on an intelligent, informed, gear-specific basis.

Sincerely,

Mike Burns
President, Blue North Fisheries
F/V Blue North, F/V Blue Pacific, F/V Blue Dutch, F/V Blue Attu



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January 12, 2001

<< Public Comment >>

Mr. David Benton, Chairman
North Pacific Fisheries Management Council

To Mr. Benton and the Members of the Council:

This letter refers to the Synopsis of Draft 2001 Harvest Specifications Consistent with Steller Sea Lion Protection Measures issued by NMFS Alaska Region, dated January 9, 2001.

On pg. 8 of the Synopsis, NMFS' addresses concerns over Allocation of Prohibited Species Catch (PSC) Limits for Halibut, Crab, Salmon, and Herring. Specifically, the document states: "*Pending Council recommendations for modifications to Table 9, NMFS will consider amending PSC seasonal apportionments and amounts listed.*"

A look at Table 9 reveals that Halibut PSC apportionments for Pacific cod trawl fisheries are set at 1,334 mt while Pacific cod non-trawl fisheries have only 755 mt. Between these two fisheries there is a total of 2,089 mt of Halibut PSC, with the trawl fishery getting 63.9% and the non-trawl fisheries only 36.1%. There is a marked discrepancy between this bycatch allowance and the allocation of the actual target species, where trawl fisheries are allotted 47% and non-trawl fisheries 53% (Table 7).

Historically, trawl fisheries demonstrate an inability to catch their allocation of Pacific cod resulting in "Rollovers" to non-trawl fisheries. This trend is likely to increase as a result of the RPA's. The Pacific cod non-trawl fishery should be given additional allowance of halibut bycatch allowance to allow the harvest of this quota.

I urge the Council to correct this disparity by recommending a halibut PSC apportionment that more accurately reflects the division of effort between these two fisheries. I propose an allowance of 982 mt (47%) to Pacific cod trawl fisheries and 1,100 mt (53%) to Pacific cod non-trawl fisheries.

NMFS has indicated their willingness to consider amending PSC apportionments, I commend the Council in advance for their recommendation that they do so.

Sincerely,

Mike Burns
President, Blue North Fisheries
F/V. Blue North, F/V Blue Pacific, F/V Blue Dutch, F/V Blue Attu

REQUEST OF STEVE AARVIK (F/V WINDJAMMER), OMAR ALLINSON (F/V MISS LEONA), AND CHARLES BURRECE (F/V LONE STAR).

We request that the Council recommend small boat protections as authorized under the "Stevens Rider". Under Section 209(c)(6), the Council is authorized to make the following types of recommendations for the protection of small boats in 2001:

1. Open critical habitat where needed,
2. Adjust seasonal catch levels, and
3. Other measures as needed.

Senator Stevens' comments make clear Congress' intent that the Council recommend measures for the safety of small boats engaged in the fisheries. Senator Stevens also noted in his Section-by-Section Analysis (at page 4 of Item (c) of the Council materials):

"These modifications may include the opening of additional designated Steller sea lion critical habitat for fishing by small boats, the postponement of seasonal catch levels inside critical habitat for small boats, or other measures to ensure that small boat fishermen and on-shore processors in Alaska are not adversely affected during 2001 as compared to the fisheries before the July 19, 2000 injunction."

The term "small boat" is not defined in Section 209. There has been testimony before to the Council that in the Bering Sea, a small boat is one less than 90 feet in length overall, or alternatively 99 feet or less.

We request that the Council recommend the following small-boat safety measures as to the Bering Sea trawl fisheries, commencing in the year 2001 as contemplated by Congress in Section 209(c)(6):

1. That in 2001 non-AFA and AFA cod-exempt vessels of less than 100 feet in length overall be exempted from the seasonal catch restrictions as set forth in the RPA's (i.e. the 60/40 division of TAC by seasons), provided that such vessels must have had directed cod deliveries in the Bering Sea in 1999.
2. That commencing June 10, 2001, the same vessels be exempt from Critical Habitat closures and harvest limits, in addition to being exempt from seasonal catch restrictions.

We believe that these recommendations are consistent with Congress' intent and with the National Standards (especially regarding safety) under the Magnuson-Stevens Act. Similar protections should also be established for small boats engaged in the other fisheries affected by the RPA's.

T. Smith

Table 9.--PROHIBITED SPECIES BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES¹
 [All amounts are in metric tons]

TRAWL FISHERIES	Prohibited Species and Zone					
	Halibut mortality (mt) BSAI	Herring (mt) BSAI	Red King Crab (animals) Zone 1	C. opilio (animals) COBLZ ²	C. bairdi (animals)	
					Zone 1	Zone 2
Yellowfin sole	911	139	11,664	2,876,981	253,894	1,246,502
January 20 - March 31	286	.....	.....	.....	.....	.....
April 1 - May 20	196	.....	.....	.....	.....	.....
May 21 - July 3	49	.....	.....	.....	.....	.....
July 1 - December 31	380	.....	.....	.....	.....	.....
Rocksole/oth.flat/flat sole ³	854	20	64,782	469,130	272,126	415,501
January 20 - March 31	498	.....	.....	.....	.....	.....
April 1 - July 3	179	.....	.....	.....	.....	.....
July 1 - December 31	177	.....	.....	.....	.....	.....
RKC savings subarea ³	.....	.....	22,674	.....	.....	.....
Turbot/sablefish/arrowtooth ⁴	.....	9	.....	40,238	.....	.....
Rockfish (July 1 - December 31) ⁵	69	7	.....	40,237	.....	7,658
Pacific cod	1,334	20	11,664	524,736	136,400	225,941
Pollock/Atka/other ⁶	232	146	1,615	72,428	12,830	19,148
Midwater trawl pollock	.....	1,184	.....	.....	.....	.....
TOTAL TRAWL PSC	3,400	1,526	89,725	4,023,750	675,250	1,914,750
NON-TRAWL FISHERIES						
Pacific cod - Total	755					
Jan. 1 - June 10 ⁷	300					
June 11 - July 31	0					
August 1 - Dec. 31	455					
Other non-trawl - Total	78					
May 1 - December 31	78					
Groundfish pot & jig	Exempt					
Sablefish hook-&-line	Exempt					
TOTAL NON-TRAWL	833					
PSQ RESERVE⁸	342	.....	7,275	326,250	54,750	155,250
GRAND TOTAL	4,575	1,526	97,000	4,350,000	730,000	2,070,000

¹ Refer to § 679.2 for definitions of areas.

² C. opilio Bycatch Limitation Zone. Boundaries are defined at 50 CFR part 679, fig. 13..

³ The Council at its December 2000 meeting limited red king crab for trawl fisheries within the RKCSS to 35 percent of the total allocation to the rock sole, flathead sole, and other flatfish fishery category (§ 679.21(e)(3)(ii)(B)).

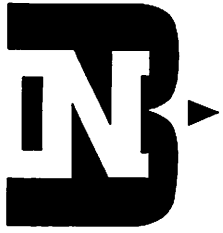
⁴ Greenland turbot, arrowtooth flounder, and sablefish fishery category.

⁵ The Council at its December 2000 meeting apportioned the rockfish PSC amounts from July 1 - December 31, to prevent fishing for rockfish before July 1, 2001.

⁶ Pollock other than pelagic trawl pollock, Atka mackerel, and "other species" fishery category.

⁷ Any unused halibut PSC from the first trimester may be rolled over into the third trimester.

⁸ With the exception of herring, 7.5 percent of each PSC limit is allocated to the multi-species CDQ program as PSQ reserve. The PSQ reserve is not allocated by fishery, gear or season.



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January 12, 2001

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On pg. 8 of the Synopsis, NMFS' addresses concerns over Allocation of Prohibited Species Catch (PSC) Limits for Halibut, Crab, Salmon, and Herring. Specifically, the document states: "*Pending Council recommendations for modifications to Table 9, NMFS will consider amending PSC seasonal apportionments and amounts listed.*"

A look at Table 9 reveals that Halibut PSC apportionments for Pacific cod trawl fisheries are set at 1,334 mt while Pacific cod non-trawl fisheries have only 755 mt. Between these two fisheries there is a total of 2,089 mt of Halibut PSC, with the trawl fishery getting 63.9% and the non-trawl fisheries only 36.1%. There is a marked discrepancy between this bycatch allowance and the allocation of the actual target species, where trawl fisheries are allotted 47% and non-trawl fisheries 53% (Table 7).

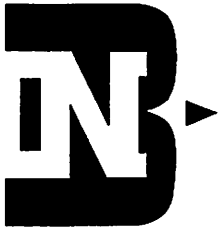
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January 11, 2001

<< Public Comment >>

Mr. David Benton, Chairman
North Pacific Fisheries Management Council

To Mr. Benton and the Members of the Council:

This letter is in regards to NMFS' proposed regulations for July 21 - December 31, 2001 for the groundfish fisheries in the Bering Sea and Aleutian Islands.

Mr. Balsiger has indicated that his administration is supportive of Council suggestions to modify proposed closures for the remainder of 2001. He offers as an example that closing 50% of critical habitat to the three fisheries (pollock, Atka mackerel, and Pacific cod) would be acceptable. I suggest that this criteria be applied to effort, rather than blanket closures.

The Biological Opinion (BiOp) points out how little the fixed gear fleet contributes to localized depletion, the trawl sector removes over *ten times* as much groundfish from critical habitat as fixed gear, in less time:

- ❖ "In terms of effects on ESA-listed species, the slower and more dispersed nature of hook and line and pot fisheries make localized depletion less likely than would be possible with trawl gear. In addition, fleet capacity is currently much smaller..."
-BiOp, pgs. 215-6
- ❖ "...the magnitude of the trawl catch in critical habitat was much greater than pot, about 430,000 mt compared to about 14,000 mt (in 1999). Hook-and-Line catch was more dispersed outside critical habitat on average, and accounts for...about 25,000 mt inside (in 1999). The possible effects of these other [fixed] gear types were dwarfed by the biomass removed by the trawl sector in 1999, which removed 1,286,852 mt."
-BiOp, pgs. 216-7
- ❖ "...the hook and line fishery does fish in a manner that is consistent with the intent to minimize disturbance to the prey field."

from: <http://www.nmfs.noaa.gov/steller/QandA.htm>

The problem of "localized depletion" is a trawl issue, and should be dealt with on a gear specific basis. Any attempts to include the fixed gear sector in the RPA's are misguided efforts born of politics and willful ignorance. As a fleet, fixed gear fishermen catch fish in a Steller Sea Lion-friendly manner. I propose that fixed gear fishermen be exempted from the proposed RPA's.

On behalf of myself, my company, and fellow fixed gear fisherman, I petition the Council to recognize the fundamental differences between fishing methods and make recommendations on an intelligent, informed, gear-specific basis.

Sincerely,

Mike Burns
President, Blue North Fisheries
F/V Blue North, F/V Blue Pacific, F/V Blue Dutch, F/V Blue Attu

Questions & Answers Concerning:

Endangered Species Act Section 7 Consultation - Biological Opinion

For Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Fisheries

December 1, 2000

Q 11. Long-liners and pot fisheries don't make "holes in the prey field", they catch fish one at a time. Why are those gear fisheries included in this scheme?

Long-lining includes hook and line fishing and the pot fishery. Individually, these two types of fishing do not have the magnitude of impact on fisheries as does the trawl fishery. However, cumulatively, the rate of removal for pot fisheries can be high over short time periods and total removals approach that of the trawl fishery for some species. This makes the potential rate of removal for these fisheries a concern, and does have the potential to create "holes in the prey field". However, the hook and line fishery does fish in a manner that is consistent with the intent to minimize disturbance to the prey field. NOAA Fisheries recognizes that and for that reason, NOAA Fisheries is allowing hook and line fishing during periods that other fishing is restricted. As protective measures for SSL are being developed, both fisheries are being reviewed separately from other trawl fisheries to see if their impact is of concern.

Q 12. Why does NOAA Fisheries believe that cod fishing jeopardizes Steller sea lions?

Cod is an extremely important component of the SSL diet especially in winter when SSL conservation is considered most important. Most of the fishery occurs inside critical habitat. For these reasons, the cod fishery overlaps in area, in time, and removes large amounts of fish in a very short period, thereby potentially creating "holes in the prey field", which can be of significant consequence to SSLs. The cod fishery is conducted using several gear types and NOAA Fisheries is considering the impacts of each of these gear types when developing conservation measures, as the various gear types have the potential for different levels of impacts.

Q 13. Substantial evidence seems to indicate other causes for the decline of Steller sea lions, such as ocean regime shift and predation by killer whales. Why is NOAA Fisheries focusing on the fisheries as the cause of the decline?

It is difficult to separate the effects of the regime shift and the effects of fishing on the declining SSL population. However, NOAA Fisheries has examined all the known or apparent causes of the decline - environmental shifts, increased predation, direct mortality, indirect and/or incidental competition with fisheries - when looking at the trends over the past few decades. During the 1970-80s, NOAA Fisheries believes the significant decline of 15 percent per year was due to a combination of all these activities. Since the 1990s, most

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COMMENT TO NORTH PACIFIC FISHERY MANAGEMENT COUNCIL ON STELLER SEA LION CONSERVATION MEASURES

January 11, 2001

Seattle, Washington

- The Alaska Crab Coalition (ACC), representing the owners and operators of Bering Sea crab pot vessels, wishes to provide comments for the administrative record supporting the findings and recommendations of the NPFMC on December 9, 2000 in regards to Steller sea lions and the NMFS Biological Opinion and Reasonable and Prudent Alternatives for conservation.
- In addition, the ACC also supports the recently enacted legislative program of conservation measures to protect Steller sea lions, P.L. 106-554, the Consolidated Appropriations Act of 2001.
- There are approximately 45 Bering Sea pot vessels that regularly participate in the harvest of Pacific cod in the Bering Sea and Aleutian Islands. These vessels harvest 9% of the total TAC, which last year amounted to almost 17,000 metric tons. The vessels are economically dependent on the fishery for a significant portion of their annual gross revenue. Almost 80% of the fleet's historic catch normally occurs in critical habitat, CH-RFRPA Area 8, as noted in figure 9.1a of the Biological Opinion of November 30, 2000 (BiOp).
- Closing Area 8, as proposed in the BiOp will likely foreclose the fishery to most of the pot vessels, as it closes off most of the productive cod fishing grounds adjacent to the ports of Akutan and Dutch Harbor. This is a significant problem, as the pot vessels fishing and travel time to port with fresh fish, is limited to 60 hours. Closure of Area 8 will force not only pot vessels, but trawl vessels into Area 7, a longer distance from the landing ports. The BiOp did not take into consideration the adverse conservation impacts of the effort displacement into Area 7, namely increased bycatch mortality of prohibited species of crab (PSC). In addition, the BiOP did not establish a scientific rationale for the boundaries of the proposed closure areas. The ACC participated in a scoping session with the NMFS this past summer and raised these issues, that will soon have a drastic effect on the pot vessels and increased crab bycatches.
- The cumulative effects of the CH-RFRPA of closing areas 8 and 9, in the Bering Sea will force pot and trawl vessels together into Area 7, create gear conflicts resulting in lost pots, and also result in high bycatches of already depressed bairdi and king crab stocks.

Arni Thomson, Executive Director

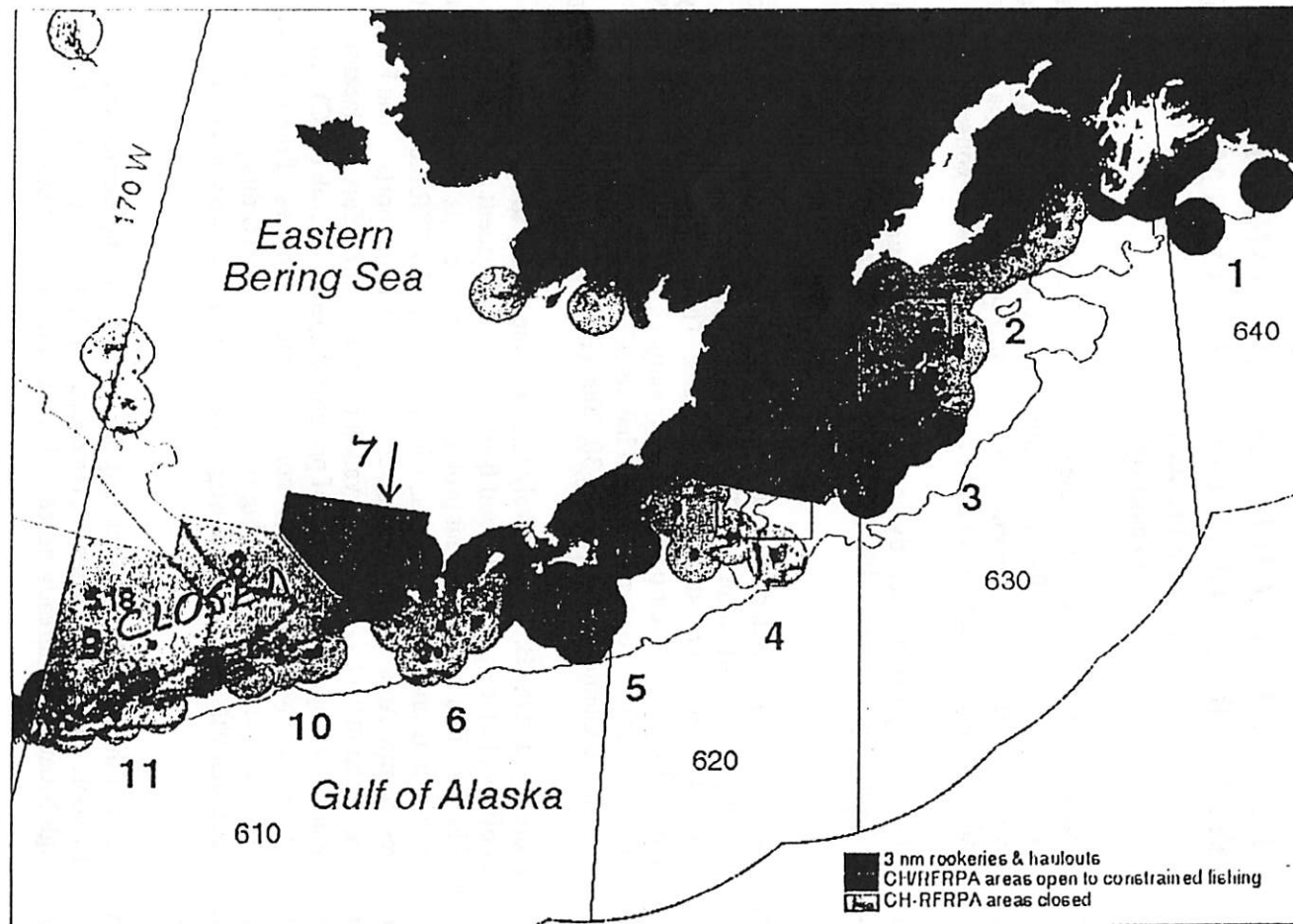


Figure 9.1a. CH-RFRPA areas closed and open to constrained fishing for pollock and Pacific cod fisheries in the Gulf of Alaska. Areas 1-6, 10 and 11 are in the Gulf of Alaska groundfish fishery management region (areas 610-640).

David Benton, Chair
North Pacific Fishery Management Council
605 West 4th Avenue
Anchorage, Alaska 99501

11 January 2001

Re: Emergency rule and the following regulations

Dear Chairman Benton:

The Center for Marine Conservation (CMC) writes regarding the Steller sea lion protective measures that will be discussed by the North Pacific Fisheries Management Council and its Advisory Panel at the special meeting in Seattle January 11 and 12. CMC understands that at the special meeting, the Council and AP will discuss both the emergency rule proposed by NMFS for the first half of the fishing season from January 20 to July 20, 2001, as well as the proposed regulations for the second half of the fishing, July 21 to December 31, 2001. In addition, the Council and AP will establish a schedule for developing protective measures for 2002. Finally, the Council and AP will develop a schedule and proposal for using the National Academy of Sciences' expertise to conduct an independent scientific review of the November 30, 2000 Biological Opinion (BiOp), its underlying hypothesis and Reasonable and Prudent Alternatives (RPAs).

CMC supports the BiOp's conclusion that "the Fishery Management Plans for Alaska Groundfish in the Bering Sea and Aleutian Islands and Gulf of Alaska, and the cumulative effects,... is [are] likely to jeopardize the continued existence of the western population of Steller sea lions." CMC has a long history of working to develop constructive conservation-based approaches to marine mammal/fishery interactions. We hope to work with all interested parties to improve the implementation of the BiOp and the RPAs and identify and undertake the necessary research and monitoring. To that end, CMC urges National Marine Fisheries Service (NMFS) to quickly establish its proposed NMFS Steller Sea Lion Team and to include adequate representation from the environmental community. In the short term, however, we are concerned about the implementation of the RPAs from the November 30 BiOp and the Appropriations Rider.

Emergency Rule Must Satisfy the ESA

CMC firmly believes that the Council and NMFS must implement the emergency rule consistent with the BiOp and the Endangered Species Act (ESA). The Appropriations Rider section 209, addressing the development of fishery management plans and the regulations to

implement measures to protect Steller sea lions, requires the Secretary of Commerce to submit to the Council "conservation and management measures" to implement the RPAs. The Council will then prepare an FMP amendment to implement those measures. The Rider requires that such measures be consistent with the Magnuson-Stevens Act, highlighting specifically "best available science, bycatch reduction, impacts on fishing communities, the safety of life at sea, and public comment and hearings." This provision does not waive the Endangered Species Act.

Ensure Bycatch Reduction and Protect Habitat

The RPAs and the Rider must be implemented in a manner that minimizes by catch and adverse impacts to habitat. Therefore, CMC recommends that NMFS and the Council take the necessary measures to minimize bycatch and adverse impacts to habitat. Specifically we recommend that the Council consider and address the different impacts of various gear types on prey availability, critical habitat and the potential for localized depletions of prey.

Under subsection (6) of the Rider, NMFS has discretion to make changes to the 2001 fisheries to provide "small boat" fishermen and "Alaskan onshore processors" with the same income levels in 2001 as they had in 1999. While this provision is laudable, this language is not mandatory and does not waive the application of the ESA or the Magnuson-Stevens Act to these fisheries. Although the Secretary is not obligated to maintain income levels of any fishery sector, should he choose to do so, CMC recommends that he modify the fishery in such a way that ensures protection for the western population of Steller sea lions and their critical habitat under the ESA. Subsection (6) does not define "small boat" fishermen and "Alaskan onshore processors," so it is unclear what exactly these phrases mean. We urge the Council to work with NMFS to define these terms, recognizing the importance of Alaska community-based vessels under sixty-feet in length. Vessel size limits need to be combined with other appropriate measures to ensure that fishing rates and volumes are not causing localized depletions of Steller sea lion prey.

Global Control Rule

The RPAs contain a Global Control Rule, which the Appropriations Rider modified. The Rider prevents the Global Control Rule from reducing the Total Allowable Catch (TAC) of any fishery by more than ten percent. This will affect the Gulf of Alaska pollock, which the RPAs would have reduced approximately nineteen percent in 2001 in the absence of the Rider. Since the ESA still applies and the Global Control Rule is an important component of avoiding jeopardy and adverse modification, CMC recommends that the Council and NMFS seek compensatory changes elsewhere in order to be meet requirements of the ESA.

Similarly, CMC has been working with the Council for over a year now to modify the Global Control Rule to prevent overfishing. Moreover, some North Pacific stocks have dropped to extremely low levels but have not been separated out in Council quota setting. Due to the need for a more responsive Control Rule and stronger protection for badly depleted stocks, CMC recommends that the Council and NMFS seek compensatory changes outside of the TAC-setting process, such as the creation of no take marine reserves, to avoid overfishing as required under the Magnuson-Stevens Act.

Aleutian Islands Pollock Closure

CMC supports the Council's recommendation for the continued closure of Aleutian Islands directed fishing for pollock. Such a closure is a necessary measure to allow the stock to rebuild from its extremely low biomass estimates and to provide prey for Steller sea lions.

Proportional TAC Reduction

Because of the restrictions under the Rider, it is likely the RPAs associated with the Global Control Rule will not achieve the goal of avoiding jeopardy to Steller sea lions. In addition, CMC believes the Control Rule proposed in the RPAs does not prevent overfishing as required by the Magnuson-Stevens Act. For example, there is no proportional TAC reduction in open areas to account for catch not taken in closed areas. Consequently, the entire TAC can be taken in open areas and areas outside critical habitat. These issues need to be addressed in the implementing regulations.

Independent Scientific Review

At the special meeting, the Council plans to develop a schedule and proposal for using the National Academy of Sciences (NAS) to conduct an independent scientific review of the BiOp and its underlying hypothesis and RPAs. It is not clear what the Council envisions in developing a proposal to the NAS. CMC recommends that, to ensure the review is truly "independent," the NAS alone should define the scope of the review, the process for review, and choose the peer review members.

Conclusion

The BiOp concluded that "the Fishery Management Plans for Alaska Groundfish in the Bering Sea and Aleutian Islands and Gulf of Alaska, and the cumulative effects,... is [are] likely to jeopardize the continued existence of the western population of Steller sea lions." Consequently, the implementation of this BiOp will require significant changes to the fisheries management scheme for fisheries prosecuted within Steller sea lion critical habitat to satisfy requirements of the ESA. The depleted nature of some stocks and concern about bycatch and habitat impacts require management measures that will satisfy the Magnuson-Stevens Act under the constraints of the Rider. CMC looks forward to working with the NMFS, the Council, the environmental community and other interested parties to help achieve both of these objectives in implementing the BiOp.

Thank you for the opportunity to comment.

Sincerely,



Kris Balliet
Alaska Region Director

Alaska Marine Conservation Council
PO Box 101145
Anchorage, AK 99510-1145

January 12, 2000

Mr. David Benton, Chair
North Pacific Fishery Management Council
605 West 4th Ave.
Anchorage, AK 99501-2252

Re: Steller Sealion Protection Measures

Dear Mr. Benton,

The Alaska Marine Conservation Council (AMCC) has testified and written to the North Pacific Fishery Management Council in the past year about the vital importance of recognizing the differences in impacts on marine habitat, bycatch, and rate and level of biomass removal of different fishing gears and methods. These differences should be qualified, quantified, and incorporated into the design of Steller sea lion conservation measures.

These differences were acknowledged by NMFS in the Biological Opinion:

"The various gear types used in these fisheries (trawl, pot, hook and line, and jig) have differential effects on the environment. ... In terms of effects on ESA-listed species, the slower and more dispersed nature of the hook and line and pot fisheries make localized depletion less likely than would be possible with trawl gear." (page 215, BiOp November 30, 2000)

Yet, neither the RPAs in the BiOp nor the proposed emergency rules for 2001 before us now reflect these differences. One example of the outcome of this oversight is a *de facto* cod and pollock allocation to the flatfish trawl fleet in the "red zones" as bycatch, at the expense of the fixed gear coastal fleet.

The Council emphasized the importance of differential gear impact analysis, by prompting NMFS in its September motion regarding Pacific cod fisheries. The Council called for analysis of specific scenarios that recognized differences in gear impacts on prey species within critical habitat. As far as we can tell, that analysis has not been done.

AMCC remains extremely concerned that the "reasonable and prudent alternative" (RPA) for Steller sea lion conservation still does not recognize gear differences. This broad brush approach is disproportionately impacting Alaska's coastal community fleets, specifically the smaller boats and more selective gears. AMCC regards the

gear-specific impact analysis and subsequent incorporation into management measures as a crucial step in the design of an RPA that meets both Steller sea lion conservation goals, addresses research objectives and better accommodates Alaska's coastal fishing communities.

Here are some examples of elements of an RPA design which reflect differential gear impacts in a manner that minimizes impacts on the prey field, while allowing an appropriate level of fishing.

- Establish weekly delivery limits for all vessels operating in critical habitat. This will slow down the rate of harvest. An additional benefit is that if appropriate harvest level is set, this approach could level the playing field for gear types fishing in critical habitat.
- Establish zones within critical habitat which allow lowest impact fisheries to harvest closer to shore, and those gears with higher rates and volume of extraction or likelihood to impact the integrity of the prey field to harvest further from shore.
- Establish a total allowable catch level and harvest rate for the "red zones", and allow fisheries which meet the BiOp temporal and spatial dispersal to criteria and the research objectives on fish removals fish in those areas.

General Principles for RPA Development

In response to the outline of the proposed January 20, 2001 final rule presented in Dr. Jim Balsiger's January 9, 2001 letter to you, AMCC offers these general principles for development of all RPAs, both in the immediate and in the long term. We would like to offer more specific comments on the proposed rule, and will do so when we have an opportunity to see it in print.

First, AMCC strongly supports efforts to maintain the integrity of the Steller sea lion prey field to encourage and support their recovery. We recommend this goal as the basis for management actions within critical habitat. Secondly, we were pleased to learn that the Magnuson-Stevens Fishery Conservation and Management Act is one of the three driving statutes in formulating the proposed rules. **AMCC recommends the RPAs adhere to Magnuson-Stevens Act requirements to minimize bycatch and protect habitat. The RPAs should be designed to ensure that there is no net increase in fish, shellfish, seabird or marine mammal bycatch, and no net increase in seafloor habitat impacts geographically.**

Third, AMCC strongly advocates use of the global control rule as a precautionary measure to further stabilize Steller sea lion prey fields. Additionally, the GCR guards against further impacting prey for other sensitive or recovering species (such as red-

legged kittiwakes, short-tailed albatross, fur seals, harbor seals and the great whales).

The BiOp states *"the effect of using the global control rule is increased likelihood that the stock is maintained at or above the target stock size by reducing the exploitation rate at low stock sizes, thereby ensuring a more stable source of available prey for Steller sea lions."* (page 291, BiOp November 30, 2000). We feel that implementing the FULL global control rule is imperative for sustaining the pollock, cod and atka mackarel fisheries off of Alaska's shores.

Again, we have not yet seen the proposed emergency rule in print, and therefore can not endorse the measures it contains. We hope that our general comments regarding the RPAs are useful. Finally, we will provide more comments to the Council on the 2001 and future rules, as well as our perspective on sea lion research priorities during the February Council meeting.

Sincerely,



Karen Wood-DiBari
AMCC Program Director

cc. Governor Tony Knowles, State of Alaska
Sue Salveson, Director, Sustainable Fisheries, NMFS
Dr. Mike Payne, Director, Protected Resources, NMFS

**PRELIMINARY LIST OF ISSUES TO ADDRESS IN THE INDEPENDENT
SCIENTIFIC REVIEW OF THE NOVEMBER 30, 2000
BIOLOGICAL OPINION ON THE
GULF OF ALASKA GROUND FISH FISHERY MANAGEMENT PLAN AND
THE BERING SEA/ALEUTIAN ISLANDS GROUND FISH FISHERY
MANAGEMENT PLAN**

January 11, 2001

This preliminary overview of the November 30, 2000 Biological Opinion on the Gulf of Alaska Groundfish Fishery Management Plan and the Bering Sea/Aleutian Islands Fishery Management Plan ("BiOp") is submitted by United Catcher Boats, Pacific Seafood Processors Association, At-sea Processors Association, Aleutians East Borough, Westward Seafoods, Inc., Wards Cove Packing Company, North Pacific Processors, Inc., Nelbro Packing Company, UniSea, Inc., Peter Pan Seafoods, Inc., Kodiak Salmon Packers, Inc., Alyeska Seafoods, Inc., Western Alaska Fisheries, Inc., Kanaway Seafoods, Inc., Royal Viking Inc., Morning Star L.P., City of Unalaska, Fishing Company of Alaska, Groundfish Forum, Inc., Golden Fleece, Iquique U.S., F.J. O'Hara and Sons, Arctic Sole Seafoods, Beagle Enterprises, L.P., Cascade Fishing, Inc., Jubilee Fisheries, Kodiak Fish Company, Fisherman's Finest, Ocean Peace, and Seafreeze Alaska, Inc. The purpose of these comments is to identify in a preliminary manner deficiencies in the BiOp that should be considered in the independent scientific review to be conducted under the auspices of the North Pacific Fishery Management Council ("Council").

I. INTRODUCTION AND OVERVIEW

The issue examined in the BiOp is whether the groundfish fisheries of the Bering Sea/Aleutian Islands ("BSAI") and the Gulf of Alaska ("GOA") adversely affect Steller sea lions. The BiOp divides that issue into two questions. The first is whether there is "interactive competition" between the fisheries and Steller sea lions (*i.e.*, disruption of foraging patterns, abandonment of foraging areas, etc.). On that question, the BiOp states the answer "can not be evaluated with the information currently available." BiOp at 187. The second question is whether the fisheries compete with Steller sea lions for the same food to the disadvantage of the Stellers. Again, the BiOp states the data required to answer the question "are either unavailable or equivocal." BiOp at 182.

In the "absence of definitive data or conclusive evidence" showing that the groundfish fisheries adversely affect Steller sea lions, BiOp at 183, the BiOp relies on "assumptions" to find competition between Stellers and the fishery and, based on these "assumptions," imposes regulations effectively shutting down large segments of the fishing industry.

The BiOp's assumptions warrant close scrutiny. The BiOp assumes that because fishing removes fish from the environment and Steller sea lions eat fish that the fisheries must compete with Steller sea lions. BiOp at 183. This assumption does not provide a basis for finding that the fisheries adversely affect the sea lions.

- *Adequacy of Forage.* On a global scale, the BiOp notes that the annual consumption of forage by the existing 43,000 Steller sea lions in the Western population is less than 400,000 tons. BiOp, App. 3 at 1. The 1999 groundfish biomass in the BSAI and GOA was approximately 21.8 million tons. BiOp, App. 3 at 1. The 1999 groundfish harvest was under 1.5 million tons. BiOp, Tables 2.4

and 2.6. This leaves a minimum of 20.3 million tons of groundfish from which the Steller sea lion population must find and eat 400,000 tons, or less than 2% of the total. Based on these facts, the BiOp concludes that given the overall groundfish population "Steller sea lions have adequate forage available to them to recover to optimal population levels." BiOp, App. 3 at 1.

- *Localized Depletion.* Recognizing the adequacy of forage on a global scale, the BiOp "assumes" that fish are essentially stationary and their abundance at a specific time and place "is finite." BiOp, App. 3 at 3. The BiOp then assumes that fishing reduces that "finite" amount of fish and that if Stellers are foraging in the fishing area then fishing "must create at least a temporary localized depletion" which causes nutritional stress on Stellers. BiOp at 187.

The BiOp offers no substantive factual analysis or scientific data on whether localized depletion actually occurs in the pollock and Pacific cod fisheries. In that regard, the BiOp states that data on the distribution of fish within the ocean "is vital" to assessing fishing effects, BiOp at 204, but the BiOp contains no such data. Similarly, the BiOp contains no scientific analysis on the effect of fishing for pollock and Pacific cod on school distribution and density. The BiOp also does not include data showing that during the pollock BSAI A season, the catch per unit of effort ("CPUE") remains constant. The localized depletion hypothesis should be tested, in part by a review of CPUE data.

As to Atka mackerel, the BiOp refers to prior Biological Opinions which noted there is some evidence of localized depletion. But the BiOp ignores the conclusion of these prior Biological Opinions that the Atka mackerel fishery as currently managed is not adversely affecting Stellers. Instead, the BiOp reverses the conclusion in the prior Biological Opinions without new analysis or new information. The Council's review of the BiOp should examine whether there is information that warrants this reversal.

- *Harvest Proportionate to Stock Distribution.* NMFS has argued that fishing must occur proportionately to the fish biomass so that fishing is not so concentrated as to cause localized depletion. In prior Biological Opinions, NMFS took the position that critical habitat should not be closed to fishing because to do so would undermine NMFS' proportional fishing approach. However, the BiOp divides the BSAI and GOA critical habitat into thirteen areas and then closes eight entire areas to fishing for pollock, Pacific cod and Atka mackerel. BiOp at 277 and at Figure 9.1a.

- *GOA Ten-Mile Closures.* Similarly, when NMFS issued Revised Final Reasonable and Prudent Alternatives ("RFRPAs") for pollock fisheries in 1999, NMFS concluded that the RFRPAs provided sufficient spatial and temporal dispersion of the fisheries to avoid any adverse effects on Steller sea lions. Among other things, NMFS carefully considered the extent of closed areas around rookeries and haulouts in the Gulf, and concluded that 10 nm closures provided adequate protection. The BiOp implicitly rejects these conclusions for the pollock fisheries, but it never mentions them, and provides no analysis to explain why they were rejected.

- *Competition for Prey.* The BiOp's assumptions of competition with the fishery need to be carefully analyzed, including the historical data showing that very large amounts of fish are found within these closed areas. Such data exist and should be examined in the BiOp. The Council review should also examine more recent data collected in the last seven years about Steller sea lion movements and compare that to where the fishery occurs.

Each of the deficiencies discussed in this paper should be carefully examined in the independent scientific review required by Congress. In addition, the Council should give careful consideration to these deficiencies when

reviewing proposals to implement the management measures recommended in the BiOp.

II. MARINE MAMMAL ISSUES

The following is a preliminary review of the major issues related to marine mammal matters which the Council should examine as part of its review of the BiOp.

- *Focus on a single cause of the population decline.* The BiOp does not provide an in-depth analysis of the leading hypotheses put forward to explain the decline of Steller sea lions (i.e., nutritional stress, regime shift, junk-food, lack of diet diversity, killer whale predation). Instead, it contains hypothetical theories about localized depletions and cursory rejections of alternative hypotheses.
- *Nutritional stress hypothesis is not adequately discussed.* The typical symptoms that accompany nutritional stress in pinnipeds (e.g., Trillmich and Ono 1991) are not outlined, nor is the available evidence about Steller sea lions contrasted with the predictions that flow from the nutritional stress hypothesis. See Donnelly and Trites (2000) for recent review.
- *Quantity versus quality of fish.* The BiOp emphasizes the *quantity* of fish available to Steller sea lions but does not give adequate consideration to the nutritional *quality* of fish. It may not be physically possible for young sea lions to survive on a diet of low quality prey, regardless of the quantity available to them (Geraci 1975, Winship 2000). Thus, greater consideration needs to be given to the possibility that abundant pollock are in fact the problem, not the solution, to the declining population of Steller sea lions. The junk-food hypothesis (Rosen and Trites, 2000) and

the diet-diversity hypothesis (Merrick *et al.*, 1997) are dismissed in a cursory and superficial manner. Yet both hypotheses have been published in peer-reviewed journals, while the localized-depletion theory has not.

- *Regime shift.* There is considerable agreement among knowledgeable scientists about the effects of regime shifts. Regime shifts may not affect ecosystems in repeatable or predictable manners. The fact that earlier regime shifts did not appear to have had the same devastating effect on Steller sea lions does not mean that the current regime shift does not underlie the present decline. See recent review by Benson and Trites (2000) and papers by Francis *et al.* (1998) and McFarlane *et al.* (2000).
- *Killer whale predation.* NMFS reviewed the work of Barrett-Lennard *et al.* and concluded that killer whale predation on the current population of Steller sea lions in western Alaska is potentially significant. However, the BiOp gives this information no further consideration.
- *Causes of the decline versus barriers to population recovery.* Factors that caused the population decline through the 1980s may no longer be the same factors preventing the population from recovering. The BiOp does not consider such a possibility. For example, mathematical models suggest that killer whales may not have caused the population decline, but may be the barrier to the recovery of Steller sea lions. See Barrett-Lennard *et al.* (1995).
- *Diet.* Details of the analyses presented in the BiOp are not documented or cited. Some of the conclusions drawn from the stomach content data are suspect because samples were pooled across time and space in ways that may bias the result.

- *Diets in southeast Alaska.* NMFS states that the diet of the increasing Steller sea lion population in southeast Alaska is comparable to the diet of the declining sea lions in the western stock. This statement is incorrect. Sea lions in southeast Alaska consume the most diverse array of prey compared to all other regions of Alaska. (Trites and Calkins, unpublished data).
- *Whiting.* Information presented about the importance of whiting in the diets of sea lions from California to British Columbia and the alleged effect of fishery closures on sea lion trends is misleading. No data are shown, and what data do exist are unlikely to support the contention that sea lions were limited by groundfish fisheries.
- *Size of fish consumed.* No information is presented on the size of fish consumed by sea lions relative to the sizes that are taken by commercial fisheries.
- *Consumption estimates.* NMFS undertakes an analytic calculation of food consumption and concludes that competition as a result of overall prey removal (under the FMP) does not adversely modify critical habitat. However, NMFS claims that this analysis raises issues that lead to the conclusion that fisheries compete with sea lions on a local level. There is no connection between this conclusion and the NMFS analytic analysis.
- *Ecosystem effects of fishing.* An ecosystem model (Ecopath) for the Bering Sea was published by Trites et al. in 1999. Results from this model consider the ecosystem effects of changing fishing effort, but are not mentioned in the BiOp.
- *Limited resources.* Most of the discussion about competition is formed around a nucleus of hypothetical possibilities. NMFS gives limited

consideration to whether resources are limited, and erroneously assumes that fisheries and sea lions must compete because they consume the same resource.

- *Foraging: behavioral observations.* A number of behavioral studies have been undertaken in the past 5 years that compare the lengths of trips and time spent on shore by sea lions in different seasons and regions of Alaska. See Porter (1997), Millette (1999), Trites and Porter (in review). This has bearing on whether sea lions are nutritionally stressed, but is not mentioned in the BiOp.
- *Foraging: telemetry studies.* Data are presented from only 53 animals (from 1990-1993) that carried satellite-tracking tags from 1-121 days (mean 37 days). The only foraging data presented is from Merrick and Loughlin . None of the data collected over the past 7 years is presented (*e.g.*, Andrews *et al.* 1999).
- *Census data.* A detailed analysis of census data by individual rookeries and haulout sites should be undertaken to provide a detailed understanding of population trends.
- *Population projections.* NMFS notes that a population viability analysis was conducted for the western population. However, the analysis that NMFS cites is a draft report that was never peer reviewed, and never submitted for publication. No mention is made of another population viability analysis that applied three different models to the sea lion population data (Gerber and VanBlaricom *in review*).

III. FISHERIES ISSUES

The following is a preliminary review of the major fisheries issues which the Council should examine as part of its review of the BiOp.

- *Regime shift.* A marked change in the climate and physical oceanographic conditions of the North Pacific occurred in the late 1970s. The phenomenon is termed the Pacific Decadal Oscillation ("PDO"). It is now widely accepted that the PDO was accompanied by large-scale changes in individual species productivity and in ecosystem characteristics. Such changes in species composition and trophic linkages may have reduced the carrying capacity of these areas for Steller sea lions independent of any interaction between commercial fisheries and the Steller sea lions. These changing ecological circumstances provide an alternative hypothesis for the Steller sea lion's decline (SSC 1998) as well as evidence that near-term recovery of the western stock to the level of its prior abundance may now be blocked ecologically. The Council should examine the impact of this and other factors on the decline and recovery of Steller sea lions.
- *Global Control Rule.* The global control rule proposed in the BiOp may expose the Steller sea lion forage base to increased predation beyond that allowed by the "Quality of Information" tiers now used to determine OFLs and ABCs in the groundfish fisheries. For pollock stocks, highly cannibalistic adults are known to consume large quantities of the small forage fish that are important to juvenile Steller sea lions (Livingston 1993). Adult cod are also highly piscivorous. By focusing a global control rule on the adult portion of the commercial biomass, instead of on the forage available to juvenile Steller sea lions, the BiOp does not account for

the detrimental effects of groundfish predation on juvenile pollock and cod.

- *Assess the overlap between the fishery and Steller sea lions.* To assess the hypothesis of food competition between Stellers and the fishery, the Council should determine the probability of the simultaneous pursuit of prey by juvenile sea lions and the fisheries (SSC 2000). The BiOp does not contain such an analysis. The analysis should focus at the population level, with the objective of quantifying the potential interactions between Steller sea lions and the fisheries. A quantitative approach is necessary to generate a perspective on the relative significance of potential interactions.
- *Compare other pinnipeds.* There are other areas of the world where commercial fisheries and the activities of foraging pinnipeds overlap in space and time. In these areas generally, commercial groundfish biomass per area is no higher than it is for groundfish biomass per area within Steller sea lion foraging areas. In most, if not all, of these areas, pinnipeds persist and in some cases the populations are expanding. (Shima *et al* 2000). An investigation of these pinniped/fishery interactions may prove informative.
- *Localized depletion.* The BiOp does not examine many years of observations on pollock catch rates and their location within the BSAI management areas. Other studies relied on in the BiOp also warrant closer scrutiny. For example, an analysis of commercial trawl cod catches provided by Smith (2000) was evaluated by the Council's Scientific and Statistical Committee and judged to contain certain flaws. Similarly, the unpublished analysis by Fritz (1998) contains assumptions that may affect its conclusions.

- *Biomass within 20 nm closures.* The BiOp does not, and the Council should, assess the prey available to Steller sea lions within the portion of critical habitat that encompasses the waters within 10 and 20 nm of rookeries and haulouts.

IV. ISSUES RELATED TO THE BIOP EXPERIMENTAL DESIGN

The following is a preliminary review of the major issues related to the experimental design which the Council should examine as part of its review of the BiOp.

- *Measure of Success.* It is generally agreed there are multiple reasons for the Steller's decline. As noted above, the BiOp states there are no data to prove that fishing has caused, or is causing, the Steller's decline. Consequently, the BiOp should not make an increase in the Steller's population the measure of success for a management program which controls an activity (*i.e.*, fishing) which may not have had, and which may not be having, any effect on Steller sea lions. The issue the BiOp addresses is NMFS' theory of localized depletion. The correct measure of success for the BiOp's reasonable and prudent alternative ("RPA") is whether the RPA successfully addresses localized depletion. The experimental design should focus on measuring the availability of forage. This approach would deal directly with Steller sea lion food availability and would provide for measured results over a relatively short time frame.
- *Comparability of Areas.* The essential component of the ecosystem that must be monitored in the experimental design is the local densities of fish. Areas that are closed or opened to fishing must be comparable (*i.e.*, they must be matched so that the only real difference between the two is whether there is fishing or no fishing). Furthermore, the amount of

fishing effort in an open area must be at a commercial level to ensure there is enough contrast between two areas to detect an effect, if it occurs at all.

- *Block II.* The BiOp establishes thirteen open and closed Steller sea lion areas which extend from the eastern GOA to the western Aleutian Islands as shown in Figure 9.1 of the BiOp. The BiOp then groups open and closed areas into Blocks. Block II, which contains Areas 7-11, includes the primary BSAI pollock fishing grounds. However, Block II does not provide that open areas and closed areas are comparable as required in the design criteria developed by NMFS during the May 1997 experimental design workshop. Thus, within Block II, only Area 7 is open while four areas are closed (Areas 8-11). Area 7 comprises only 20,500 square km while the closed areas (Areas 8-11) comprise 107,500 square km. Similar problems occur in Block I within the GOA, particularly with respect to Shelikof Strait.
- *Fishing Levels.* The quantities of pollock and Pacific cod allowed to be harvested under the experimental design are so limited that their removal will be insignificant relative to daily fish movements and will be undetectable within the Steller sea lion "prey field."
- *Fish Movement Within Areas.* The thirteen Steller sea lion management areas were established without regard to the naturally occurring environmental regions of pollock and Pacific cod habitat and without regard to the short-term major fish movements within these areas. For example, Bering Sea Area 7 is open while Area 8 is closed, but Areas 7 and 8 are a unified environmental region for pollock and Pacific cod. Open and closed area boundaries should not divide regions that constitute a natural ecological habitat. Fish movements within such regions are

extensive and typically involve the movement of hundreds of thousands of tons of fish due to tides, currents, temperature changes, feed patterns, or storms.

- *State Fisheries.* Fisheries conducted within waters of the State of Alaska, and the harvest from those state waters, were not considered and were not incorporated into the experimental design. The effects of these state fisheries must be considered if there is to be a valid experimental design because the state removals are likely to mask the impact of the experimental design.
- *Area Boundaries.* Except for Areas 12 and 13, the thirteen Steller sea lion management areas are inconsistent with the GOA and BSAI fishery regulatory management areas. Because of the inconsistency between the BiOp's thirteen Steller sea lion management areas and the GOA and BSAI fishery management areas, fishing vessel compliance and enforcement will be extraordinarily difficult for the industry and the Coast Guard.
- *Further Design Issues.* Assuming Steller sea lion population levels are the proper measure of the RPA's effectiveness, the experimental design in the BiOp does not meet the design criteria developed by NMFS at the May 1997 experimental design workshop. One criterion required that Steller sea lion population levels and trends be comparable. But, in Block II, only 2 of 30 non-pup sites (7%) are in waters open to fishing while 28 non-pup sites (93%) are in waters closed to fishing. Furthermore, the statistical tests set forth in Tables 9.11 and 9.12 of the BiOp that purport to demonstrate the statistical power to detect improvements in Steller sea lion populations should be evaluated by a statistician. In view of the assumptions underlying the experimental design, it is unlikely that the tests set forth in Tables 9.11 and 9.12 will provide an accurate result.

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