MEMORANDUM

TO: Council, SSC, and AP Members

FROM: Jim H. Branson
Executive Director

DATE: July 19, 1983

SUBJECT: Bering Sea/Aleutian Islands Groundfish

ACTION REQUIRED

1. Reconsider Amendment #6, the Fishery Development Zone.
2. Release Amendment #9, Field Order Authority, for public review.

BACKGROUND

1. On July 14 I mailed to you the RIR/IRFA for Amendment #6, the Fishery Development Zone, and a letter with attachments from Steve Johnson, representing the Japan Deep Sea Trawlers Association. This mailing was to enable the Council to respond to a procedural snag which Pat Travers says requires Council reconsideration of the amendment.

Two points need to be addressed. The first is do you agree with Steve Johnson's argument? If so, the Council should reaffirm its vote on Amendment #6.

2. Agenda item D-6(a) is a draft of Amendment #9 prepared by the PMT. The amendment will give the Regional Director field order authority to close foreign and domestic groundfish fisheries for conservation reasons. There is no such provision in the current FMP or regulations, although it is in the Gulf of Alaska Groundfish FMP.

If the Council is satisfied with this draft it should be sent out for public review. Final Council action on the amendment should be scheduled for the December meeting in order that appropriate analyses on the amendment may be prepared.

3. The Resource Assessment Document to be used as basis for the 1984 groundfish Total Allowable Catches (TACs) is available and summaries will be sent to the Bering Sea/Aleutian Islands Groundfish mailing list immediately following this meeting. The full document will be sent to the Council family and will be available to others on request.

Included here is Part III from the RAD, Evaluation of Harvesting Strategies, Agenda item D-6(b). The PMT has presented three options in Table 56 for the 1984 TACs.

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The Council should use the RAD as a basis for proposing the 1984 TACs at the September meeting. There will be a public comment period until November 18 on the proposed TACs. The Council should then make final TAC recommendations to the Regional Director at the December meeting.

4. At the May 1983 meeting the SSC proposed to review some of the language in Amendment #1 which Jay Hastings says conflicts with Council action and policy on this amendment. Mr. Hastings' letter is included here as Agenda item D-5(c). His main points concern criteria for reserve allocations and the foreign fishery closure on the Petrel Bank.

It is the opinion of the Council staff, the NMFS Regional staff and the General Counsel that the language in the amendment submitted for Secretarial review accurately reflects the Council's policy and actions on Amendment #1. The changes to the dates of the foreign closure on the Petrel Bank were made as per a comment received from the NMFS Regional office and considered at the May 1983 meeting. Pat Travers will report on any substantive issues which Mr. Hastings may have raised in his letter. The Council may wish to reaffirm its policy on allocation of groundfish reserves and the rationale for the closure dates on the foreign fishery on the Petrel Bank.

5. Agenda item D-6(d) is a formal notice that Amendment #7 has been approved by the Regional Director of NMFS.

Amendment #7 will modify the current depth restriction on foreign longliners in the Winter Halibut Savings Area from December 1 to May 31. Such a restriction will be imposed if the foreign longline halibut by-catch exceeds 105 mt.
DRAFT

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
Bering Sea/Aleutian Islands Groundfish
Fishery Management Plan

Amendment #9

Changes to the FMP

(All Changes are to the FMP as modified by Amendment 1.)

1. Revise the heading and add the following to Section 14.4.3.4:

14.4.3.4 In-Season Adjustment and/or Implementation of Time and Area Restrictions

The Council finds that the Optimum Yield and total allowable catches specified under Section 11 of this plan, which are based upon projections of the status of the stocks, economic and other conditions several months in advance of the actual fishery, may be found to be mis-specified in light of unpredicted and unanticipated adverse stock conditions which are revealed in-season.

Under such circumstances the Regional Director of the National Marine Fisheries Service, in close cooperation with the Commissioner of the Alaska Department of Fish and Game, shall take immediate action by issuing field orders imposing time and/or area restrictions. Therefore, this plan provides that seasons and areas shall be subject to in-season adjustment and/or implementation by the Regional Director. Such action is not considered emergency action that would require a plan amendment or amending the regulations. Adjusting and/or implementing season opening and closing dates is an inherent part of the plan year.
The Regional Director or his designee may adjust and/or implement season opening and closing dates or area restrictions based upon the following considerations:

1. the effect of overall fishing effort on groundfish stocks and prohibited species within a fishing area;
2. catch per unit effort and rate of harvest of groundfish stocks;
3. relative abundance of groundfish stocks within the fishing area in comparison with pre-season expectations;
4. the proportion of prohibited species catch in relation to groundfish catch being handled;
5. general information on the condition of groundfish stocks within the area;
6. information pertaining to the optimum yield of the groundfish complex and total allowable catch of the target stocks within a fishing area; and
7. any other factor necessary for the conservation of the groundfish and prohibited species resources.

2. Add the following to Section 14.5.3.4:

14.5.3.4 In-Season Adjustment of Time and Area Restrictions

The Regional Director of the National Marine Fisheries Service may issue field orders imposing time and/or area restrictions on the foreign fishery for conservation purposes only based upon the same factors considered when adjusting and/or implementing time and/or area restrictions on the domestic fishery, given in Section 14.4.3.4.
PART III: EVALUATION OF HARVESTING STRATEGIES

III.1. TOTAL ALLOWABLE CATCH OPTIONS

Amendment #1 to the Bering Sea-Aleutians groundfish FMP proposes to manage the resources as a groundfish complex. The MSY of the complex ranges from 1.4 to 2.4 million t. The OY is set at 85% of the MSY range, or 1.4 to 2.0 million t. The single species analyses (Part I) of this Resource Assessment Document shows that the EY for the groundfish complex for 1984 is 1,998,100 t (see Table A of Part I) while the multispecies/ecosystem analyses (Part II) show that the 1984 catch level for the groundfish complex should be in the 1.6-1.8 million t range. The EY values estimated from Part I (Table A) and sustainable catch levels suggested from Part II are summarized in Table 55. The Council will determine the total allowable catch (TAC) for the complex and may use Table 55 to set species TAC's within the complex. Figure 36 is also included to show the historical catch trend for groundfish in the Bering Sea/Aleutian regions.

The amount of each species within the complex may be allowed to vary within certain ranges discussed in Part II of the document where the effects of harvesting from a multispecies/ecosystem perspective were evaluated. A strategy for setting catch levels by species is to select levels equal or close to EY's in such a way that the sum for all species equal the complex TAC. Three TAC options for the groundfish complex have been evaluated and shown in Table 56. The TAC's are based on the following rationale:

TAC1: 1,800,000 t. This TAC maximizes the catch of groundfish. Based on single species analyses in Part I, EY for 1984 is estimated to be 1,998,100 t. However, multispecies/ecosystem analyses shown in Part II suggest that TAC be in the 1.6 to 1.8 million t range. The maximum TAC for the groundfish complex can, therefore, be set at 1.8 million t.
Table 55.—Summary of estimated equilibrium yields (t) from species-by-species analyses (Part I of this report) and suggested long-term sustainable catch levels from ecosystem analyses (Part II of this report).

<table>
<thead>
<tr>
<th>Species</th>
<th>1984 EY</th>
<th>Long-term sustainable catch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollock</td>
<td>1,300,000</td>
<td>More variable (1,100,000)</td>
</tr>
<tr>
<td>Pacific cod</td>
<td>155,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Yellowfin sole</td>
<td>&gt; 200,000</td>
<td>130,000</td>
</tr>
<tr>
<td>Turbot</td>
<td>85,000</td>
<td>85,000</td>
</tr>
<tr>
<td>Other flatfish</td>
<td>120,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Pacific ocean perch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Bering Sea)</td>
<td>15,000</td>
<td>12,000</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>3,400</td>
<td>-</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>11,600</td>
<td>-</td>
</tr>
<tr>
<td>Other rockfish</td>
<td>14,100</td>
<td>14,100</td>
</tr>
<tr>
<td>(Bering Sea)</td>
<td>3,100</td>
<td>-</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>11,000</td>
<td>-</td>
</tr>
<tr>
<td>Sablefish</td>
<td>6,000</td>
<td>9,000</td>
</tr>
<tr>
<td>(Bering Sea)</td>
<td>4,200</td>
<td>-</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>1,800</td>
<td>-</td>
</tr>
<tr>
<td>Atka mackerel</td>
<td>26,000</td>
<td>More variable (&gt;28,000)</td>
</tr>
<tr>
<td>Other Fish Species</td>
<td>67,000</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,988,100</td>
<td>1,800,000</td>
</tr>
<tr>
<td>Squid</td>
<td>10,000</td>
<td>-</td>
</tr>
</tbody>
</table>
Figure 36. Historical catch trend for groundfish catches in the Bering Sea/Aleutians region.
Table 56.—Three options on total allowable catches for the Bering Sea-Aleutians groundfish complex.

<table>
<thead>
<tr>
<th>Species</th>
<th>TAC 1</th>
<th>TAC 2</th>
<th>TAC 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollock (Bering Sea)</td>
<td>1,000,000</td>
<td>778,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>100,000</td>
<td>77,600</td>
<td>100,000</td>
</tr>
<tr>
<td>Pacific cod</td>
<td>155,000</td>
<td>120,600</td>
<td>120,000</td>
</tr>
<tr>
<td>Yellowfin sole</td>
<td>200,000</td>
<td>155,600</td>
<td>117,000</td>
</tr>
<tr>
<td>Turbot</td>
<td>85,000</td>
<td>66,100</td>
<td>90,000</td>
</tr>
<tr>
<td>Other flatfish</td>
<td>120,000</td>
<td>93,300</td>
<td>61,000</td>
</tr>
<tr>
<td>Pacific ocean perch (Bering Sea)</td>
<td>2,720</td>
<td>2,120</td>
<td>3,250</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>9,280</td>
<td>7,220</td>
<td>7,500</td>
</tr>
<tr>
<td>Other rockfish (Bering Sea)</td>
<td>3,100</td>
<td>2,400</td>
<td>7,727</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>11,000</td>
<td>8,600</td>
<td>(both)</td>
</tr>
<tr>
<td>Sablefish (Bering Sea)</td>
<td>4,200</td>
<td>3,300</td>
<td>3,500</td>
</tr>
<tr>
<td>(Aleutians)</td>
<td>1,800</td>
<td>1,400</td>
<td>1,500</td>
</tr>
<tr>
<td>Atka mackerel</td>
<td>26,000</td>
<td>20,200</td>
<td>24,800</td>
</tr>
<tr>
<td>Squid</td>
<td>10,000</td>
<td>7,800</td>
<td>10,000</td>
</tr>
<tr>
<td>Other fish species</td>
<td>71,900</td>
<td>55,760</td>
<td>77,314</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1,800,000</td>
<td>1,400,000</td>
<td>1,623,591</td>
</tr>
</tbody>
</table>

Notes:

TAC 1 = EY from Part I modified by multi-species/ecosystem analyses in Part II.
TAC 2 = (TAC1) x (1,400,000)
     = (1,800,000)

TAC 3 = 1983 optimum yields
Within the complex TAC, catch levels would have to be set for individual species groups. These catch levels may be set equal to EYs estimated in Part I (Table 55), except in the case of pollock, Pacific ocean perch, and the other groundfish category.

From Part I, EY for pollock was estimated to be 1,200,000 t in the eastern Bering Sea and 100,000 t in the Aleutian region. However, the 1979-81 year classes are known to be below average strength. Coupled with ecosystem analyses in Part II, which shows another year of low abundance before improvements are expected, it is recommended that TAC for pollock be set at 1,100,000 for both areas combined (1,000,000 t in the Bering Sea and 100,000 t in the Aleutian region).

The TAC for Pacific ocean perch is reduced by 20% from the EY's for the eastern Bering Sea and Aleutians stocks to reflect the results of ecosystem simulations in Part II. The simulations suggest that POP will stabilize at low levels of abundance, very much like the present level of abundance, and be able to sustain catches somewhere between 9,000 to 15,000 t only. The mid-point of this range is tentatively selected for management purposes. Therefore, catch levels for POP in 1984 should total no more than 12,000 t (2,720 t in the eastern Bering Sea and 9,280 t in the Aleutians).

The TAC for the other species category is increased by 4,900 t from EY to bring the total for the groundfish complex to 1,800,000 t.

**TAC2:** 1,400,000 t. This catch level is the low end of OY specified in Amendment #1 of the FMP. The minimum TAC for the groundfish complex can, therefore, be set in many ways to total 1,400,000 t. A suggested scheme is to set them proportionately to a change of TAC from 1,800,000 t to 1,400,000 t. The resultant catch levels are shown in Table 56.

**TAC3:** 1,623,591 t. This catch level maintains status quo. The amount is the total of OY's for individual species groups for 1983.
III.2. **IMPACT ON GROUNDFISH FISHERIES**

As noted, TAC1 maximizes groundfish catch, TAC2 minimizes groundfish catch, and TAC3 maintains status quo. TAC 3 is actually slightly above the mid-point of TAC1 and TAC2. Using TAC3 as a standard for comparison, percentage changes in catch levels are as follows:

<table>
<thead>
<tr>
<th>Species</th>
<th>TAC1</th>
<th>TAC2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollock (BS)</td>
<td>0</td>
<td>-22</td>
</tr>
<tr>
<td>(AL)</td>
<td>0</td>
<td>-22</td>
</tr>
<tr>
<td>Pacific cod</td>
<td>+29</td>
<td>+1</td>
</tr>
<tr>
<td>Yellowfin sole</td>
<td>+71</td>
<td>+33</td>
</tr>
<tr>
<td>Turbot</td>
<td>-6</td>
<td>-27</td>
</tr>
<tr>
<td>Flatfish</td>
<td>+97</td>
<td>+53</td>
</tr>
<tr>
<td>Pacific Ocean perch (BS)</td>
<td>-16</td>
<td>-35</td>
</tr>
<tr>
<td>(AL)</td>
<td>+24</td>
<td>-4</td>
</tr>
<tr>
<td>Other rockfish</td>
<td>+82</td>
<td>+42</td>
</tr>
<tr>
<td>Sablefish (BS)</td>
<td>+20</td>
<td>-6</td>
</tr>
<tr>
<td>(AL)</td>
<td>+20</td>
<td>-7</td>
</tr>
<tr>
<td>Atka mackerel</td>
<td>+5</td>
<td>-19</td>
</tr>
<tr>
<td>Squid</td>
<td>0</td>
<td>-22</td>
</tr>
<tr>
<td>Other species</td>
<td>-7</td>
<td>-28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>+11</td>
<td>-14</td>
</tr>
</tbody>
</table>

Maintaining status quo (TAC3) is a reasonably good option for managing the 1984 fishery. Some adjustments could be made to the TAC's for Pacific cod, yellowfin sole, turbot, other flatfish, and other species while maintaining a groundfish complex TAC of approximately 1,624,000 t. In particular, TAC for Pacific cod may be increased to satisfy the increased demand for cod and to take advantage of the strong 1977 year class, while it is still in the population.

III.3. **IMPACT ON PROHIBITED SPECIES CATCH**

It is quite difficult to predict the impact on prohibited species if the groundfish fishery were to take TAC1, TAC2, or TAC3. The major factors to
consider are (1) the allocation of individual species TAC to DAH and TALFF, (2) the allocation of TALFF to individual nations and their gear types, (3) the seasonal distribution of fishing effort on groundfish, and (4) the abundance of prohibited species on the grounds in 1984.

It is even difficult to say that the impact on prohibited species would be greater if TAC 1 is taken instead of TAC 3. In general, however, one would assume that if all events stay equal, that a higher TAC for groundfish would have a correspondingly higher impact on prohibited species. In any case, it is pointed out that Amendment #3, which controls the incidental catch rate of prohibited species by foreign fleets, is expected to be implemented by 1984. However, there is no amendment to control the incidental catch of prohibited species by the domestic groundfish fleet. Their impact can be substantial and is expected to increase correspondingly with increased groundfish catches, especially with increased yellowfin sole catches.
Mr. Jim H. Branson  
Executive Director  
North Pacific Fishery Management Council  
P.O. Box 3136DT  
Anchorage, Alaska 99510

Re: Bering Sea/Aleutian Islands Groundfish FMP Amendment #1

Dear Jim:

In reviewing the revisions to Amendment #1 resubmitted for Secretarial review by your letters dated December 2, 1982, February 24 and April 7, 1983, I have noted a number of substantive changes in the FMP provisions as compared to those approved by the Council in May of 1982. I am particularly concerned with changes to the FMP provisions on the reserve system. Additionally, I am concerned with changes in the proposed regulations implementing those provisions since your December 2 transmittal to the Secretary. These changes to the FMP provisions and implementing regulations lend themselves to a substantially different interpretation of the mechanism for reapportionment of reserves as compared to the document approved by the Council during its May 1982 meeting.

The Council has requested the SSC to review these changes during the July meeting. The purpose of this letter is to assist the SSC in its review. In order to compare the changes to the FMP provisions, I have attached the document which was approved by the Council in May 1982.

Section 11.5 Reapportionment of Reserve and Unneeded DAH and Section 11.3.1 Reserves. One of the most obvious changes in the FMP since the May 1982 Council meeting was the substitution of the word "may" for the word "shall" in section 11.5 regarding the reapportionment of the reserve and unneeded DAH. This change first appeared in your transmittal letter to Mr. Gordon dated December 2, 1982.

It has been explained to me that this word change was made in order to bring the release mechanism into conformity with section 11.3.1 of the FMP. However, in reviewing the FMP provisions included in your December 2 transmittal letter, I also noted
substantial changes to the wording of section 11.3.1 as compared to the May 1982 version. In the May 1982 document approved by the Council, the relevant provision of section 11.3.1 read as follows:

The reserve is not designated by species or species groups and will be apportioned to the fishery during the fishing year by the Regional Director in amounts and by species that he determines to be appropriate. The apportionment of reserve must be consistent with the most recent assessments of resource conditions and should not be detrimental to various components of the groundfish complex unless the Regional Director can support his determination that the socioeconomic considerations listed in section 11.3 or overall fishery operational problems dictate otherwise. The Regional Director may also withhold reserves for conservation reasons.

The second sentence of this paragraph was modified by the December 2 transmittal to read as follows:

The apportionment of the reserve to the target species or to the "other species" category must be consistent with the most recent assessments of resource conditions unless the Regional Director finds that the socioeconomic considerations listed above or specified fishery operational problems dictate otherwise. Except as provided for in the National Standard Guidelines for Fishery Conservation and Management (FR), the Regional Director must also find that the apportionment of reserves will not result in overfishing as defined in the guidelines. The Regional Director may withhold reserves for conservation reasons.

If we are referring to the original version of section 11.3.1 approved by the Council in May of 1982, then I do not understand why the change from the word "shall" to the word "may" in section 11.5 would be necessary to bring these two provisions into conformity. The May 1982 version of section 11.3.1 is quite clear and stands upon its own regardless of the requirement for mandatory apportionment. Since the reserve is undesignated, the original version prohibits the apportionment of reserves in a manner which would exceed an individual TAC "unless" socioeconomic considerations or overall fishery operational problems dictate otherwise. Therefore, if conditions in the fishery changed during the course of a fishing season, a socioeconomic consideration or overall fishery operational problem could only provide justification for an apportionment which
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exceeds an annual TAC determination. If my recollection from the May 1982 meeting is correct, this was to be interpreted as a benefit to both the domestic and foreign fisheries to avoid premature closures which have been experienced in the past.

On the other hand, if the change in the wording from "shall" to "may" in section 11.5 is based upon the revised wording to section 11.3.1 in the December 2 transmittal letter, then I can understand why the change may be necessary to bring the two provisions into conformity. Section 11.3.1 as revised by the December 2 transmittal is broader in scope and gives the Regional Director significantly more discretionary authority in the apportionment of reserves based upon socioeconomic considerations. Under the revised version, reserves could not only be apportioned to exceed a TAC during the course of the fishing season, but also withheld from apportionment to a particular species TAC during the course of the season for socioeconomic reasons. Given this broader language, the Regional Director would not be required to reapportion any portion of the reserve to TALFF. I do not recall such a broad interpretation at the time the Amendment was approved during the May 1982 meeting.

By letter dated February 24, 1983 you instructed NMFS to change the word "may" back to the word "shall" in the first paragraph of FMP section 11.5. However, in making this change, the revised wording of section 11.3.1 was not changed back to the original wording in the May 1982 document. Instead, the February 24 letter further modified the wording of section 11.5 to make each apportionment "subject to" the conditions in section 11.3.1. As a result of the February 24 letter, section 11.5 now reads as follows:

As soon as practicable after April 1, June 1, August 1, and on any such other dates as he determines appropriate, the Regional Director may apportion to DAH any amounts from the reserve that are needed in order to prevent a closure of the domestic fishery and he shall assess the progress of the domestic and foreign fisheries and shall apportion to TALFF any portion of the DAH or the reserve (subject to the conditions in Sections 11.3.1 and 12.2) that he determines will not be harvested by United States fishing vessels during the remainder of the fishing year. (Changes are underlined)

By making each apportionment subject to the conditions of section 11.3.1, the February 24 letter also modified the implementing regulations as proposed in the December 2 transmittal. In the December 2 transmittal, the proposed wording for 50 CFR 611.93(b)(1)(i)(A) read as follows:
(A) The annual determination of the TAC for each target species and the "other species" category shall be based upon two types of information:

(1) Biological condition of the groundfish stocks . . .

(2) Socioeconomic considerations . . .

As a result of the modifications under the February 24 letter, the CFR section now reads as follows:

(A) The annual determination of the TAC for each target species and the "other species" category, the apportionment of reserves to these species, and the reapportionment of surplus DAH to TALFF shall be based upon and be consistent with two types of information: (changes are underlined)

A number of other CFR sections were also modified at the same time to bring them into conformity with paragraph (b)(1)(i)(A). As a result of this change, the implementing regulations seem to confirm that each reserve apportionment, in addition to the annual determination of each species TAC, is to be based upon a consideration of socioeconomic factors. If this is the intent of the change, then I believe it is inconsistent with the Council policy and final decision on the reserve portion of Amendment 1. Socioeconomic factors are taken into consideration in the determination of the annual TAC's for the individual species. Once the individual TAC's have been established at the beginning of the year, 15 percent of the total TAC is set aside as a reserve. Therefore, each apportionment from the reserve, which is a component of the overall TAC, should not be subjected to an entirely new reconsideration of these socioeconomic conditions except in the case where the TAC may be exceeded. To avoid confusion and misinterpretation of section 11.3.1, the original wording should be reinstated and the implementing regulations revised accordingly to implement the original intent of the reserve system.

Section 11.3.1 Reserves. Another obvious change of substantial importance in the FMP can be found in the second full sentence of the first paragraph of section 11.3.1. The word "unexpected" has been deleted from subsentences (a) and (c) describing the reasons for which the reserve is to be used. In the original document approved by the Council in May 1982, this sentence read as follows:
When the TAC for the groundfish complex is determined by the Council, 15% of the TAC is set aside as a reserve. This reserve is used for (a) unexpected expansion of the domestic fishery, (b) correction of operational problems of the fishing fleet, (c) unexpected adjustments of species TAC's according to the condition of stocks during the fishing year, and (d) allocations.

The wording was changed by the December 2 submission as follows:

When the TAC for the groundfish complex is determined by the Council, 15% of the TAC is set aside as a reserve. This reserve is used for (a) expansion of the domestic fishery, (b) correction of operational problems of the domestic and foreign fishing fleets, promoting full and efficient use of groundfish resources, (c) adjustments of species TACs according to the condition of stocks during the fishing year, and (d) apportionments.

This deletion may have possibly been an oversight on part of the typist. However, if the word was purposefully deleted, this change would also support the change in section 11.5 from the word "shall" to the word "may". The word "unexpected" has a very substantial meaning when read within the context of the reasons for establishing the reserve. Deletion of the word broadens the scope for which reserves may be used, i.e. apportioned or withheld. This deletion results in an interpretation substantially different from the original version of the sentence submitted to the Council for approval during the May meeting.

The Council policy underlying the reserve system has been well-documented in the past. The primary purpose for establishing a reserve is to provide a buffer against "unexpected" expansion in the U.S. fishery. Surely the same would hold true for TAC adjustments during the course of the fishing year based upon stock conditions. It is only reasonable to assume that a withholding of reserves for domestic fishery expansion or biological reasons would be the result of a change in conditions or data which was not foreseen or expected at the beginning of the year when the DAH and TAC were established.

Finally, with respect to the reserve system, I do not find any provision requiring notice and opportunity for public comment in the event the Regional Director determines that reserves should be withheld for conservation reasons. According to the proposed implementing regulations, public comment is provided only in the case of apportionments. Since apportionments are mandatory based
upon a review of the progress in the U.S. fishery, a notice before each scheduled review date is unnecessary. We know upon which points we must comment and that these comments must be submitted to the Regional Director at least five days prior to the dates specified. However, since the withholding of reserves for conservation reasons is discretionary with the Regional Director, the public will never know prior to the specified date if the Regional Director may be considering such action. Some advance notice and opportunity for public comment is reasonably necessary if the Regional Director is considering a withholding of reserves for conservation reasons. Otherwise, we are forced to guess if such a decision may be under consideration each time comments are prepared on the scheduled apportionment.

During the course of the May 1982 meeting, I discussed this point with the PMT during its deliberations. It was my understanding that a provision for notice and opportunity for public comment would be included in the event the Regional Director is considering a withholding of reserves for conservation reasons. Failure to include such a provision may have been a minor oversight in preparing the Amendment package for Secretarial review.

Section 11.3 Total Allowable Catch (TAC). I have found one significant change in the December 2 transmittal as compared to the final version submitted to the Council during the May 1982 meeting. The provision for public hearings at the Council level before the Council recommends TAC's to the Regional Director has been deleted from the first sentence of the section. Since the proposed figures published in the Federal Register are based upon initial recommendations from the Council, public participation in the Council decision making process is most important. The provision for public hearings on Council recommendations for TAC's should be written back into section 11.3 as approved by the Council.

Section 14.5.3 Fishing Area Restrictions. The final revision I have noted since the May meeting is the additional time closure of the waters between 3 and 12 nautical miles in the area known as Petrel Bank from 7 days prior to the opening of the domestic king crab fishery. This closure is currently from January 1 – June 30.

I do not understand how this additional closure found its way into this Amendment package. No such proposal for closure was included in the original Amendment package and no public comment
has ever been submitted supporting this additional closure. Since it adds a considerable amount of time to the current closure, it should be deleted from this Amendment until such time as it has been reviewed by the public.

In conclusion, I am quite concerned over these revisions to the FMP since the Council last acted upon the Amendment during its May 1982 meeting. These changes lend themselves to a substantially different interpretation of the FMP provisions, especially those covering the reserve. Since these changes do not reflect the final Council decision upon the Amendment package, the original wording of the FMP provisions approved during the May 1982 meeting should be reinstated. The implementing regulations should also be revised in order to carry out the original intent of the Amendment.

Thank you very much for your consideration of these points. If you should have any questions, please feel free to call upon me. I shall be attending the July Council meeting to explain these concerns in further detail.

Sincerely,

Jay D. Hastings

enclosure
11.0 OPTIMUM YIELD (OY)

11.1 Maximum Sustainable Yield (MSY) of the Groundfish Complex

The groundfish complex and its fishery are a distinct management unit of the Bering Sea. The complex has more than 10 commercially important species and many others of lesser or no commercial importance. This complex forms a large subsystem of the Bering Sea ecosystem with intricate interrelationships between predators and prey, between competitors, and between those species and their environment. Therefore, the productivity and MSY of groundfish should be conceived for the groundfish complex as a unit rather than for many individual species groups.

The MSY of the groundfish complex is the range of 1.7 to 2.4 million mt. This is calculated by summing the MSY's of individual species groups that are derived from species-by-species analysis. A reasonable verification of the MSY for the groundfish complex is derived by averaging the 1968-1977 catches when the fishery went through periods of growth, peak, decline, and some stability (see Section 5.2 on History of Exploitation). The average catch was 1.8 million mt with a range of 1.1 to 2.4 million mt.

An ecosystem model of the Bering Sea developed by the Northwest and Alaska Fisheries Center (Laevastu and Larkins, 1981) shows that the mean exploitable biomass for the groundfish species covered by this FMP is about 9.3 million mt. This ecosystem model, the Prognostic Bulk Biomass (PROBUB) model, simulated the principal components of the ecosystem (mammals, birds, demersal fish, semi-demersal fish, pelagic fish, squid, crabs, and benthos) and considered their fluctuations in abundance caused by predation, natural mortality, environmental anomalies, and fishing. The magnitude of the mean exploitable biomass (9.3 million mt) suggests that the annual yield from it is probably much higher than the 1.7 to 2.4 million mt range estimated conservatively by the single species approach.

The ecosystem consideration also indicates that MSY of the groundfish complex may change if the present mix of species is altered substantially from the present period. Therefore, as changes take place, MSY for the complex may have to be re-examined.

11.2 Optimum Yield of the Groundfish Complex

The optimum yield (OY) of the groundfish complex is set equal to 85% of MSY or 1.4 to 2.0 million mt. This deviation from MSY reflects the combined influence of biological and socioeconomic factors. The important biological factors indicate that:

1. When considering condition of individual species within the complex, the OY range encompasses the summed ABC's of individual species for 1978-1981 (Low, et al. 1978; and Bakkala, et al. 1979, 1980, and 1981). This sum may be used as an indicator of the biological productivity of the complex, though not completely satisfactory, because multi-species/ecosystem interactions cannot be adequately taken into account. The 15% reduction of MSY further reduces the
risk associated with relying upon incomplete data and questionable assumptions in assessment models used to determine condition of stocks.

2. When considering multi-species/ecosystem models, the OY range is probably a conservatively safe level for the groundfish complex. The mean exploitable biomass of 9.3 million mt for the species groups (Laevastu and Larkins, 1981) suggests that the harvest level can be considerably higher than the OY range.

Although the multi-species/ecosystem models suggest that the harvest level can be higher than 2.0 million mt, it would only be so if the proper combination of exploitation rates by individual species commensurate to the natural balance of the groundfish complex are applied. This combination may not be desirable to the fishermen because the industry prefers only certain species. The recent catch history indicates that the present mix of species is socio-economically acceptable and that the groundfish complex should probably not be exploited at levels higher than 2.0 million mt at this time.

All of the socioeconomic considerations indicate that:

1. The OY range is not likely to have any significant detrimental impact on the industry. On the contrary, this range, when compared to the annual determination of OY, is more desirable because it creates a more stable management environment where the industry can consistently plan its activities with a minimum expectation of OY being equal to 1.4 million mt.

2. The OY range also covers actual catch levels during 1974-76 when the foreign fishery operated profitably before the MFMA was implemented and is slightly higher than actual catches since then. It will allow the foreign fishery to operate near historic levels and yet offer considerable opportunities for domestic fishery expansion.

Therefore, the range of 1.4 to 2.0 million mt will be the OY of the Bering Sea/Aleutian Islands groundfish complex covered by this FMP unless the plan is amended. An amendment will be made when the status of the groundfish complex changes substantially from the present condition or when socioeconomic considerations dictate that OY should fall outside the present range. OY may also have to be re-examined if substantial change from the present mix of species occurs or is desired of the groundfish complex.

11.3 Total Allowable Catch (TAC)

The TAC's for the groundfish complex and of its component species groups will be determined by the Alaska Regional Director of NMFS by the end of the preceding fishing year. The TAC for the complex shall be within the OY range of 1.4 to 2.0 million mt.

Prior to the Regional Director's determination, the Council will hold public hearings and recommend TAC's for the complex and its species groups to him based on the best available data concerning the stocks and the fisheries. The Council's recommendations shall be based upon the following types of information:
Biological condition of the stocks -- resource assessment documents will be prepared for the Council by July 1 by the Plan Development Team with the assistance of the Northwest and Alaska Fisheries Center of NMFS, other agencies, or scientists. These documents shall provide information on:

a. historical catch trend;
b. estimate of MSY of the groundfish complex and its component species group;
c. estimates of ABC of the individual species groups and assessments on their condition of stocks;
d. assessments of the multi-species and ecosystem impacts of harvesting the groundfish complex according to species ABC's, including considerations of rebuilding depressed stocks; and
e. alternative harvesting strategies of the component species groups;

The Council's recommendation of TAC's for the complex and its species groups shall also be based on socioeconomic considerations that are to the overall benefit of the nation, such as:

a. the need to promote efficiency in the utilization of fishery resources, including minimizing costs;
b. the need to manage for the optimum marketable size of a species;
c. the impact of groundfish harvests on prohibited species and the domestic target fisheries which utilize these species;
d. the desire to enhance depleted stocks;
e. the seasonal access to the groundfish fishery by domestic fishing vessels;
f. the commercial importance of a fishery to local communities;
g. the importance of a fishery to subsistence use;
h. the need to promote utilization of certain species; and
i. any other factors deemed appropriate.

11.3.1 Reserves

When the TAC for the groundfish complex is determined by the Council, 15% of the TAC is set aside as a reserve. This reserve is used for (a) unexpected expansion of the domestic fishery, (b) correction of operational problems of the fishing fleet, (c) unexpected adjustments of species TAC's according to the condition of stocks during the fishing year, and (d) allocations.

The reserve is not designated by species or species groups and will be apportioned to the fishery during the fishing year by the Regional Director in amounts and by species that he determines to be appropriate. The apportionment of the reserve must be consistent with the most recent assessments of resource conditions and should not be detrimental to various components of the groundfish complex unless the Regional Director can support his determination that the socioeconomic considerations listed in Section 11.3 or overall fishery operational problems dictate otherwise. The Regional Director may also withhold reserves for conservation reasons.
11.3.2 Allocations to Fishery

As described above when the TAC is determined, it is reduced by 15 percent to form the final reserve. The remaining 85 percent of the TAC is then apportioned to DAP, JVP, and TALFF (in that order) as deemed appropriate by the Regional Director, after consultation with the Council.

11.4 Derivation of DAH and TALFF Amounts

Amounts of DAH (= DAP + JVP) for each species or species group established for the beginning of the fishing year shall equal the amount of those species harvested by domestic fishermen during the previous year plus any additional amounts the Regional Director projects to be necessary to satisfy the needs of the growing domestic fishery. These supplemental amounts will be based on projected increase in (1) U.S. processing capacity and/or intention to process and (2) U.S. harvesting capacity and/or intention to harvest. The TALFF amounts for each species or species group will be established from the following equation: TALFF = TAC - DAH - Reserve (see Table 23-1).

11.5 Reapportionment of Reserve and Unneeded DAH

At any time, the Regional Director may assess DAH and apportion to DAH any amounts from the reserve for domestic fishery expansion that are needed in order to prevent a closure of the domestic fishery. As soon as practicable after April 1, June 1, August 1, and on such other dates as he determines necessary, the Regional Director shall apportion to TALFF any portion of DAH or the reserve for domestic fishery expansion that he determines will not be harvested by United States fishing vessels during the remainder of the fishing year.

When the Regional Director determines that apportionment is required on dates other than those scheduled and that immediate action is necessary to increase a TALFF or DAH amount, he may decide that such an adjustment is to be made without affording a prior opportunity for public comment. Public comments on the necessity for, and the extent of the apportionment, shall then be submitted to the Regional Director for a period of 15 days after the effective date of such action.
MSY = 1.7 to 2.4 million metric tons

\[ \text{OY} = 85\% \text{ MSY} = 1.4 \text{ to } 2.0 \text{ mmt} \]

**ORIGINAL AMENDMENT #1**

1. **Jan 1**
   - ITAC (1.4 mmt) by species
   - Operational Reserve (17,000 mt) not designated by species
   - 10%
   - 1,260,000 mt Reserve (140,000 mt) by species
   - DAH TALFF

2. **April 1**
   - FTAC
   - Operational Reserve (170,000 mt) not designated by species
   - 10%
   - Amount Reserve by species
   - DAH TALFF

**REVISED AMENDMENT #1**

1. **Jan 1**
   - ITAC + Initial Reserve (100,000 mt) designated by species by production factors
   - 10%
   - DAH TALFF

2. **April 1**
   - FTAC
   - Amount Reserve not designated by species
   - DAH TALFF
July 14, 1983

Clement V. Tillion, Chairman
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, Alaska 99510

Dear Clem,

This letter notifies you of approval of Amendment 7 to the FMP for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area. I am taking this action under redelegation of authority from the Assistant Administrator for Fisheries to Regional Directors of the National Marine Fisheries Service.

Final regulations implementing the amendment are scheduled to be filed with the Federal Register on July 29, 1983, which would make them effective August 31, 1983.

Sincerely,

Robert W. McVey
Director, Alaska Region
Mr. Jim H. Branson  
Executive Director  
North Pacific Fishery Management Council  
P. O. Box 3136 DT  
Anchorage, AK 99510

Dear Jim:

We understand that Amendment #6 to the BSAI Groundfish FMP establishing a Fishery Development Zone has been placed on the Agenda of the Council's July meeting in Homer. As you know, during previous deliberations in front of the Council on this issue, we expressed concern that in our opinion sufficient substantiation and justification for this Amendment hadn't been developed. Nevertheless, the Council approved the Amendment. It now appears that a Regulatory Impact Review for this Amendment has been prepared and serves as support for the Council's actions.

Taking into consideration the significant impacts upon the U.S. groundfish industry which is intended by this Amendment, the Coalition believes it only appropriate that the industry and public have ample opportunity to review and analyze its supporting documentation. In this regard, we would request the Council defer further action on this Amendment until its September meeting so that the interested parties can perform such work.

We look forward to the Council's favorable consideration of our request.

Best regards,

Walter T. Pereyra  
for Coalition For Open Ocean Fisheries

WTP:kb