

MEMORANDUM

TO: Council Members

FROM: Chris Oliver *CO*
Executive Director

DATE: November 19, 2004

SUBJECT: BSAI Pacific cod allocations

ESTIMATED TIME
2 HOURS

ACTION REQUIRED

Review discussion paper on BSAI Pacific cod allocations and develop problem statement and alternatives for analysis

BACKGROUND

At its October 2004 meeting, the Council initiated a discussion paper (Attachment C-9(a)) as a starting point to a new plan amendment to retain or alter the current (non-CDQ) BSAI Pacific cod allocations. Part of the impetus for this discussion paper is related to the Council's action on BSAI Amendment 80 at its October 2004 meeting. Prior to October, the components and options for Amendment 80 included allocations of all groundfish species (excluding AFA pollock and fixed gear sablefish) to all sectors fishing in the BSAI. In October, the Council approved eliminating Pacific cod from this analysis, and focused the analysis on establishing sector allocations for flatfish species only for the non-AFA trawl catcher processor sector. The Council then initiated this discussion paper for a separate amendment package.

The action at this meeting is to review the discussion paper which outlines prior Council actions regarding the BSAI Pacific cod allocations, the relevant problem statements associated with these actions, and potential decision points related to structuring new alternatives and options for analysis. The Council may also decide to develop a problem statement and alternatives for analysis at this time.

The BSAI Pacific cod fishery can be characterized as a fully prosecuted fishery, with a 2004 TAC of 199,338 mt (excluding the 7.5% CDQ reserve). This fishery is targeted primarily by trawl gear and hook-and-line catcher processors, and smaller amounts by hook-and-line catcher vessels, jig, and pot gear. Regarding the scope of a new amendment, it could be limited to the apportionment among the trawl, fixed gear (hook-and-line and pot), and jig sectors, or it could be expanded to include modifying the allocations to the fixed gear sectors that were implemented in 2004. The amendment could also make further splits of the trawl allocation between non-AFA trawl catcher processors and AFA trawl catcher processors, and/or non-AFA trawl catcher vessels and AFA catcher vessels.

The discussion paper reviews the Council's past actions with regard to the apportionment of the (non-CDQ) BSAI Pacific cod TAC among gear sectors. In brief, **BSAI Amendment 46** currently allocates the BSAI Pacific cod TAC among:

- trawl gear: 47%
(50% trawl catcher vessels)
(50% trawl catcher processors)
- fixed gear (hook-and-line and pot): 51%
- jig gear: 2%

Under Amendment 46, note that the trawl apportionment is also split between trawl catcher processors (50%) and trawl catcher vessels (50%). The allocations under Amendment 46 were the result of an industry negotiating committee appointed by the Council, which selected percentages that closely represented the current harvest percentages taken by the trawl and fixed gear sectors. This amendment was approved by the Council in 1996 and implemented January 1, 1997. While there is no sunset provision associated with this amendment, the Council's final motion expressed a desire to review this allocation scheme after four years of implementation. There is no regulatory requirement to review or modify this allocation.

Subsequently, the Council approved **BSAI Amendment 64** in October 1999, which further split the fixed gear portion (51%) of the BSAI Pacific cod TAC as follows:

- hook-and-line catcher processors: 80%
- hook-and-line catcher vessels: 0.3%
- pot vessels: 18.3%
- hook-and-line and pot vessels <60' length overall: 1.4%

With the exception of the allocation to the <60' fixed gear sector, the allocations were based closely on the 1995 - 1998 harvests in the directed Pacific cod fishery by each sector. In anticipation of the allocations under Amendment 64 expiring on December 31, 2003, the Council approved **BSAI Amendment 77** in June 2003 to continue the cod allocations to the fixed gear fleets. In addition to continuing the same fixed gear allocations above, Amendment 77 split the portion of the fixed gear TAC allocated to pot gear (18.3%) as follows:

- pot catcher vessels: 15.0%
- pot catcher processors: 3.3%

Amendment 77 was effective starting in 2004, and does not have a sunset date. **Thus, all of the allocations above would remain in place unless modified through an FMP and regulatory amendment.** Note that the trawl allocation remains split between trawl catcher processors and trawl catcher vessels only; there is currently no further split among non-AFA and AFA vessels.¹

¹The trawl catcher processor sector is currently allocated 23.5% of the BSAI Pacific cod TAC. NMFS Blend data indicates that on average during 1995-2003, the AFA catcher processor sector harvested about 21.6% of the total BSAI Pacific cod harvested by trawl catcher processors, and the non-AFA trawl catcher processor sector harvested about 78.4%. Translated into the relative percentage of the total BSAI Pacific cod allocation for trawl catcher processors, this represents 5.1% harvested by AFA catcher processors and 18.4% by non-AFA catcher processors. Note, however, that the trawl catcher processor sector has not harvested its full 23.5% allocation since the allocation was established in 1997. This same level of detail is not yet available for the non-AFA and AFA trawl catcher vessel sectors. However, while the trawl catcher vessel sector on average harvests more of its 23.5% allocation than the trawl catcher processor sector, it also does not typically harvest its full allocation.

Although the BSAI Pacific cod TAC is nearly always fully harvested, the trawl sectors and the jig sector do not typically harvest their entire allocations. Thus, regulations have been established under the above mentioned amendments to address the issue of quota that must be reallocated from one sector to another when it is projected to remain unused by the end of the fishing year. Since the BSAI Pacific cod allocations have been in effect, NMFS has reallocated quota each year from the trawl sectors and the jig sector to the hook-and-line catcher processor and pot sectors. Reallocations between gear types (e.g., trawl catcher processor to trawl catcher vessel) have occurred less frequently and in lesser amounts. The attached discussion paper provides more detail on the amount of quota (and to and from which sectors) that has been reallocated in the past six years.

An additional issue for potential inclusion in this new amendment may be how to adapt BSAI Pacific cod allocations in the case of future changes in the BSAI Pacific cod TAC groupings. Staff provided a discussion paper addressing this issue at both the June and October Council meetings (Attachment C-9(b)). The paper reviews three potential methodologies to use should the BSAI Pacific cod TAC be split into separate TACs for the BS and AI subareas in the future:

- Option 1: Allocations based on historic harvest in each area
- Option 2: Equal allocations in both areas
- Option 3: No allocations by area. (A subarea would be closed when the TAC for that area is reached)

Alternatives to the options above could also be developed. The intent is to provide direction to NMFS regarding how to establish allocations in the BS and AI management areas prior to separate TACs being issued in the annual specifications process. Should the Council determine that a future BSAI TAC split is likely, it may want to include one or more of the proposed methodologies in this new amendment addressing BSAI Pacific cod allocations. Alternatively, a separate amendment could be initiated to address the issue of modifications to the current TAC groupings, as this issue is certainly not limited to the BSAI Pacific cod fisheries. A more detailed discussion is provided in the attached discussion papers.

The 'BSAI Pacific cod Allocations' discussion paper was sent to the Council on November 10.

BSAI Pacific Cod Allocations
Discussion paper
November 3, 2004

In October 2004, the Council modified the elements and options for BSAI Amendment 80 and removed Pacific cod allocations from that amendment package. The intent was to streamline the analysis and shift it back to its original intent, to provide the non-AFA trawl catcher processor sector with a tool to meet the groundfish retention standards adopted in BSAI Amendment 79. The Council also reaffirmed that modifications to the Pacific cod allocations could be addressed in a separate amendment. To that end, the Council initiated a discussion paper as a starting point for a new plan amendment to alter the current BSAI Pacific cod allocations.

The current BSAI Pacific cod allocations were established through a series of amendments using a step-wise approach. Federal regulations at 50 CFR 679.20(a)(7) authorize BSAI Pacific cod allocations for the following sectors:

- Jig vessels
- Trawl vessels
- Trawl catcher processors
- Trawl catcher vessels
- Hook-and-line catcher processors
- Hook-and-line catcher vessels
- Pot catcher processors
- Pot catcher vessels
- Hook-and-line and pot catcher vessels <60' LOA¹
- Jig vessels

The action under a new amendment could be limited to modifying the apportionment among the trawl, fixed, and jig gear sectors, or it could be expanded to include modifying the allocations among the fixed gear sectors that the Council approved in 2003 and implemented in 2004. It could also make further splits of the trawl allocation between non-AFA trawl catcher processors and AFA trawl catcher processors, or non-AFA catcher vessels and AFA catcher vessels. This paper outlines prior Council actions regarding the BSAI Pacific cod allocations, the relevant problem statements associated with these actions, and potential decision points related to structuring new alternatives and options for analysis.

Table 2 (attached) provides a reference sheet for each of the past amendments and its primary provisions. It is anticipated that the Council could adopt a problem statement and alternatives and options for a new analysis at this meeting.

The BSAI Pacific cod fishery is targeted by multiple gear types, primarily by trawl gear and hook-and-line catcher processors, and smaller amounts by hook-and-line catcher vessels, jig, and pot gear. (Estimates of Pacific cod catch in the Bering Sea and Aleutian Islands is attached as Table 3.) This is a fully prosecuted fishery, with a 2004 TAC of 199,338 mt (excluding the 7.5% CDQ reserve). The BSAI Pacific cod TAC has been apportioned among the different gear sectors since 1994, and a series of amendments have modified or continued the allocation system. The next several sections of this paper outline the amendments that have authorized the various BSAI Pacific cod allocations.

¹Note that while the <60' hook-and-line and pot catcher vessels receive a separate sector allocation of BSAI Pacific cod, these vessels fish off the general hook-and-line catcher vessel and pot catcher vessel allocations, respectively by gear type, when those fisheries are open.

Cod allocations among the trawl, fixed gear, and jig sectors - BSAI Am. 24 and BSAI Am. 46

Beginning in 1994, **BSAI Amendment 24** allocated 2% of the total allowable catch (TAC)² for non-CDQ BSAI Pacific cod to vessels using jig gear, 54% to trawl gear, and 44% to fixed gear (hook-and-line and pot). These percentages roughly represented the existing harvests of each sector during 1991 - 1993, with the exception of the jig sector. The two percent jig allocation exceeded the existing historical harvest by that sector and was intended to allow for growth in the jig sector. The Council designed this allocation such that it would expire in three years, at the end of 1996. Am. 24 also authorized NMFS to divide the fixed gear allocation of Pacific cod into three seasons of four months duration. The intent of Am. 24 was to provide stability in the trawl, fixed, and jig gear fisheries by establishing designated allocations of the Pacific cod TAC, which were expected to increase the net benefits received from the harvest of Pacific cod.

In 1995, the Council initiated **BSAI Amendment 46**, to extend the allocations authorized by Amendment 24 beyond 1996. To guide the analysis of alternatives for Am. 46, the Council adopted the following problem statement:

The BSAI Pacific cod fishery continues to manifest many of the problems that led the Council to adopt Amendment 24 in 1993. These problems include compressed fishing seasons, periods of high bycatch, waste of resource, and new entrants competing for the resource due to crossovers allowed under the Council's moratorium program. Since the allocation of BSAI Pacific cod TAC between fixed gear, jig, and trawl gear was implemented in January 1994 when Amendment 24 went into effect, the trawl, jig and fixed gear components have harvested the TAC with demonstrably differing levels of PSC mortality, discards, and bycatch of non-target species. Management measures are needed to ensure that the Pacific cod TAC is harvested in a manner which reduces discards in the target fisheries, reduces PSC mortality, reduces nontarget bycatch of Pacific cod and other groundfish species, takes into account the social and economic aspects of variable allocations and addresses impacts of the fishery on habitat. In addition, the amendment will continue to promote stability in the fishery as the Council continues on the path towards comprehensive rationalization.

Under Am. 46, the general BSAI Pacific cod allocations were modified as follows:

- 51% fixed gear
- 47% trawl gear
(50% trawl catcher vessels)
(50% trawl catcher processors)
- 2% jig gear

The overall allocations were the result of an industry negotiating committee appointed by the Council, which selected percentages that closely represented the current harvest percentages taken by the trawl and fixed gear sectors under the current halibut PSC limits. The 2% jig allocation was also retained as part of this agreement. In addition to the overall split among sectors, Am. 46 also split the trawl sector portion of the BSAI Pacific cod TAC between trawl catcher processors (50%) and trawl catcher vessels

²Note that the "BSAI Pacific cod TAC" referenced throughout this document means the amount of the TAC that is distributed to various gear sectors less the CDQ reserve (7.5%) and the ICA (500 mt in 2004) for the fixed gear fleets targeting BSAI groundfish other than Pacific cod.

(50%), meaning each sector receives 23.5% of the annual BSAI Pacific cod TAC. The further trawl apportionments were a result of a separate negotiation by representatives of the different trawl fleets. This action also included authorization for NMFS to reallocate any portion of the Pacific cod allocations that were projected to remain unused among the various sectors if necessary.³

The allocations under Am. 46 have been in place since 1997. While there is no sunset provision or regulatory requirement to review or modify these allocations, the Council's motion on Am. 46 included a provision to review the allocations four years after implementation. This review, originally intended at the end of 2000, has not yet occurred.

Cod allocations among the fixed gear sectors - BSAI Am. 64 and BSAI Am. 77

Vessels began fishing in Federal waters off Alaska under the License Limitation Program (LLP) on January 1, 2000. Since the LLP was approved, changes in the fixed gear fleets prompted industry to petition the Council to further allocate cod in the BSAI among the various sectors of the fixed gear fleets. The following problem statement guided the analysis of alternatives for **BSAI Amendment 64**:

The hook-and-line and pot fisheries for Pacific cod in the BSAI are fully utilized. Competition for this resource has increased for a variety of reasons, including increased market value of cod products and a declining acceptable biological catch and total allowable catch.

Longline and pot fishermen who have made significant long-term investments, have long catch histories, and are significantly dependent on the BSAI cod fisheries need protection from others who have little or limited history and wish to increase their participation in the fishery. This requires prompt action to promote stability in the BSAI fixed gear cod fishery until comprehensive rationalization is completed.

Amendment 64, approved by the Council in October 1999, further apportioned the 51% of the BSAI Pacific cod TAC allocated to fixed (hook-and-line and pot) gear as follows:

- 80% hook-and-line catcher processors
- 0.3% hook-and-line catcher vessels
- 18.3% pot vessels (CP and CV)
- 1.4% hook-and-line and pot vessels <60' LOA

The percentage allocations selected closely represent the harvests in this fishery during 1995 - 1998, with an additional allocation for catcher vessels <60' LOA in order to allow for growth in the small boat sector. In addition to the fixed gear apportionments, Am. 64 addressed how to reallocate quota that was projected to remain unused by specific sectors. Any unused hook-and-line catcher vessel or <60' vessel allocation would be reallocated to the hook-and-line catcher processor sector, largely because that sector primarily 'funded' the <60' allocation. In addition, any unused jig or trawl allocations would be reallocated 95% to hook-and-line catcher processors and 5% to pot gear. This split reflected the actual harvest of reallocated quota from the trawl and jig sectors harvested by each sector during 1996 - 1998.

³Am. 46 specified that any unused trawl allocation (catcher processor or catcher vessel) would first be made available to the other trawl sector before it would be reallocated to any other gear type.

At the same time the Council approved Am. 64, it acknowledged that a further split between the pot sectors might be necessary to stabilize the harvests of pot catcher processors and pot catcher vessels in the BSAI Pacific cod fishery. Concern was expressed that the pot sector needed the same stability of direct fleet allocations, such as was done for the hook-and-line fleets. With several years of reduced opilio guideline harvest levels, the BSAI Pacific cod fishery realized an influx of pot vessels that previously fished primarily crab in the BSAI. The pot catcher processor sector petitioned the Council for a further split between the pot sectors, recognizing that a pot split would enable the pot catcher processor sector to avoid competing with a fluctuating and increasing number of pot catcher vessels moving into the cod fishery, and allow the sector to determine it's best time to fish due to marketing factors. Increased competition for 'A season' Pacific cod was the driving factor in the need for the overall pot split and the split between the pot sectors.

The fixed gear allocations under Amendment 64 became effective on Sept. 1, 2000. Because the amendment was designed to sunset on December 31, 2003, it necessitated approval of a new plan amendment to either continue or modify the fixed gear apportionments beyond 2003. Like the original action, **Amendment 77** was intended to respond to concerns that, absent a gear split, there is no mechanism to prevent one sector from increasing its effort in the fishery and eroding another sector's relative historical share. Amendment 77 proposed to continue the Pacific cod allocations among the fixed gear sectors, with an additional alternative that would create separate allocations for the pot catcher processor and pot catcher vessel sectors.⁴

Because Amendment 77 addressed both the overall fixed gear split and proposed to split the pot sectors' share of the TAC, the following two problem statements were adopted to guide analysis of **Amendment 77**:

Problem Statement 1: Overall fixed gear allocations (formerly under Amendment 64)

The fixed gear fisheries for Pacific cod in the BSAI are fully utilized. The fishermen who hold licenses in the BSAI Pacific cod fisheries have made substantial investments and are significantly dependent on BSAI Pacific cod.

The longline and pot gear allocations currently in place for the BSAI Pacific cod fishery under Amendment 64 expire December 31, 2003. Without action by the North Pacific Fishery Management Council, serious disruption to the BSAI Pacific cod fixed gear fisheries will occur. Prompt action is required to maintain stability in the BSAI fixed gear Pacific cod fishery until comprehensive rationalization is completed.

Problem Statement 2: Separate allocations for pot catcher processors and pot catcher vessels: (Applicable to Alternative 4, formerly under Amendment 68)

The catcher processor and catcher vessel pot fisheries for Pacific cod in the Bering Sea/Aleutian Islands are fully utilized. Pot catcher processors who have made significant long-term investments, have long catch histories, and are significantly dependent on the BSAI cod fisheries need protection from pot catcher vessels who want to increase their Pacific cod harvest. This requires prompt action to promote stability in the BSAI pot cod fishery until comprehensive rationalization is completed.

⁴In June 2002, the Council considered BSAI Amendment 68 to create separate allocations for the pot catcher processor and pot catcher vessel sectors. Considering the pending expiration of Am. 64, the Council decided to take no action on this amendment, deferring action on pot allocations until they could be rolled into one amendment package that would also address the other fixed gear sectors (Am. 77).

Under Amendment 77, the Council approved continuing the same overall fixed gear allocations under which the fixed gear Pacific cod fisheries had been operating since 2000. The apportionment among the hook-and-line catcher processors, hook-and-line catcher vessels, and pot vessels were based closely on 1995 - 1998 or 1995 - 1999 harvests by each sector, and the new apportionment between the pot sectors was based on catch history during 1998 - 2001. The allocation to the <60' sector continued to represent an increase over historical harvests, in order to allow for growth in this small boat, shorebased sector. The allocations approved under Amendment 77 are as follows:

- 80% hook-and-line catcher processors
- 0.3% hook-and-line catcher vessels
- 15.0% pot catcher vessels
- 3.3% pot catcher processors
- 1.4% hook-and-line and pot vessels <60' LOA

Reallocated quota among gear sectors

In addition to the allocations, Am. 77 again addressed the issue of quota that is reallocated from one sector to another when it is projected to remain unused by the end of the fishing year. The regulations implementing Am. 46 and Am. 77 govern reallocations both between and among gear types. Since the BSAI Pacific cod allocations have been in effect, NMFS has reallocated quota each year from the trawl sectors and jig sector (due to insufficient effort) to the pot and the hook-and-line sectors. In addition, having received a separate allocation in 2000 and subject to new seasonal apportionments due to Steller sea lion measures, a reallocation occurred from the pot sector to the hook-and-line catcher processor sector in 2002. Reallocations between gear types (e.g., trawl CP to trawl CV, or hook-and-line CP to hook-and-line CV) have occurred less frequently and in lower amounts. See Table 2 at the end of this paper for an overview of the current hierarchy for reallocating quota between and among gear sectors.

During 2000 - 2002, jig and trawl allocations (combined) accounted for a total of 50,900 mt of reallocated quota to the fixed gear sectors, which represented about 16% of the total fixed gear Pacific cod allocation during that time period. Reallocations from the trawl sector accounted for 82% (41,500 mt) of this rollover amount, or about 13% of the total fixed gear BSAI Pacific cod allocation during that time period.

In the past six years (1999 - 2004), NMFS has reallocated an average of about 8,300 mt from the trawl catcher processor sector; 4,400 mt from the trawl catcher vessel sector; and 3,200 mt from the jig sector each year. These reallocations have represented 12% - 25% of the trawl catcher processor sector's annual allocation; 0% - 34% of the trawl catcher vessel sector's allocation; and 84% - 94% of the jig sector's allocation. Recall that under Am. 64, the hook-and-line catcher processors were allocated the majority of this reallocated quota (95%), with the remainder (5%) allocated to the pot sector. See Table 1 below for more details.

Table 1. Reallocations (in mt and as a % of the sector's annual allocation) of BSAI Pacific cod from the trawl sectors and jig sector, 1999 - 2004

Year	Trawl CP		Trawl CV		Jig	
	mt	%	mt	%	mt	%
1999	7,000	18	2,000	5	2,800	85
2000	9,000	21	0	0	3,000	84
2001	10,000	24	14,000	34	3,000	86
2002	6,500	15	2,000	5	3,400	92
2003	11,500	25	1,671	4	3,600	94
2004*	5,700	12	7,000	15	3,545	89
Average	8,283		4,445		3,224	

Source: NMFS, Sustainable Fisheries, information bulletins.

*Reallocations as of 10/14/2004.

The primary change from the status quo with regard to reallocations under Amendment 77 was to apportion the jig sector's allocation (2% of the BSAI Pacific cod TAC) on a trimester basis (40% - 20% - 40%) and reallocate any unused jig quota to the <60' vessels using hook-and-line or pot gear near the end of each jig season. This allows for the <60' pot and hook-and-line vessels, which first harvested their entire annual allocation in 2002 and 2003, to receive additional quota during the spring and summer months when it is most advantageous for the small boat fleet. It was also intended to benefit the small boat fleet by increasing its quota at a time when the fleet has just started fishing for Pacific cod, reducing the risk of having to close the fishery intermittently while it waits for a potential reallocation from the jig sector. Previously, both unused jig and trawl quota was reallocated 95% to the hook-and-line catcher processors and 5% to pot sectors. Am. 77 retained this distribution for reallocating unused *trawl* quota, with an additional split for the pot sectors (0.9% to pot catcher processors; and 4.1% to pot catcher vessels).

Note that it may be more effective to view the hierarchy of reallocations as setting an order of preference of recipients of reallocated quota, and allow the Regional Administrator to make the inseason determination based on several variables such as remaining effort in the sector, remaining PSC for the sector, etc. One of the problems for the fleets in general is intermittent starting and stopping, and a fleet that is not based in Alaska may not want to return after the season has closed to fish a small amount of reallocated quota. Thus, it may be worthwhile to retain some flexibility regarding reallocated quota and allow the Regional Administrator to make the determination, considering the order of preference as determined by the Council and established in regulations. Note also that the more complex and greater the number of gear components involved, the more unwieldy the reallocations are to implement in-season.

Seasons and Prohibited Species Caps

All of the allocations to the BSAI Pacific cod gear sectors are seasonally apportioned, with the exception of the <60' catcher vessels using hook-and-line or pot gear. The seasonal apportionments are primarily a result of Steller sea lion protection measures established in 2001. While the hook-and-line catcher processor sector was subject to seasonal apportionments prior to 2001, they were modified under the Steller sea lion measures to the existing seasons. For the fixed gear sectors $\geq 60'$ LOA, the first season is allocated 60% and the second season is allocated 40%. For trawl gear, the first season is allocated 60%, and the second and third seasons are allocated 20% each.⁵ As discussed in the previous section, under Amendment 77, the jig seasons were modified from a 60% - 40% seasonal split to a trimester basis (40% - 20% - 40%), in order to provide for seasonal reallocations to the <60' fixed gear catcher vessel fleets. With the exception of the jig sector, any unused portion of a seasonal Pacific cod allocation is reapportioned to the next season. **Table 4** provides more detail on the seasonal apportionments to each gear sector.

Prohibited species caps are also in place for the trawl and non-trawl fisheries. The trawl sectors that are fishing BSAI Pacific cod are governed by a BSAI halibut bycatch allowance (1,434 in 2004), as well as herring and crab bycatch allowances. The trawl sectors as a whole are subject to the same cap. The hook-and-line sectors are subject to a halibut bycatch allowance (775 mt in 2004), which is apportioned among three seasons. There is typically no halibut bycatch apportioned to the second season (June 10 - August 15), meaning the hook-and-line fisheries essentially cannot target Pacific cod during that time. Similar to the trawl fisheries, the hook-and-line sectors (catcher processors and catcher vessels) share the same halibut bycatch allowance. The jig and pot sectors are exempt from a halibut bycatch cap. **Table 5** shows the 2004 prohibited species bycatch allowances for the BSAI trawl and non-trawl fisheries.

⁵The trawl catcher vessels' allocation is further allocated 70% in the first season, 10% in the second season, and 20% in the third season. The trawl catcher processors' allocation is further allocated 50% in the first season, 30% in the second season, and 20% in the third season.

Cod endorsements for the fixed gear fleets - BSAI Am. 67

Amendment 67 created eligibility requirements for vessels $\geq 60'$ LOA fishing for BSAI Pacific cod in Federal waters using fixed gear. Under Amendment 67, vessels that are engaged in directed fishing for BSAI Pacific cod in the Federal fisheries using fixed gear must qualify for a Pacific cod endorsement in addition to their area endorsement and general LLP license. Amendment 67 establishes the participation and landings criteria for each fixed gear type and vessel class that comprise the requirements for a Pacific cod endorsement. It is intended to provide a mechanism that would limit entry into the fishery by substantial numbers of fixed gear vessels that have not participated, or have not participated at a level that could constitute significant dependence on the fishery, in the past.

Amendment 67 was effective January 1, 2003. While there are still some unresolved appeals regarding individual applications for a cod endorsement, the endorsement requirement has significantly reduced the number of fixed gear vessels $\geq 60'$ LOA that are eligible to target BSAI Pacific cod, particularly pot vessels.⁶

Pacific cod allocations and eligibility criteria proposed under BSAI Am. 80

Part of the impetus for this discussion paper is related to the Council's action on BSAI Amendment 80 at the October 2004 Council meeting. Prior to the October meeting, the components and options for Amendment 80 included allocations of all groundfish species (excluding AFA pollock and fixed gear sablefish) to all sectors fishing in the BSAI. In October, the Council approved eliminating Pacific cod from this analysis, and focused the analysis on establishing sector allocations for flatfish species only for the non-AFA trawl catcher processor sector. The Council initiated this discussion paper as a starting point for a separate amendment package to address BSAI Pacific cod allocations. The intent is to develop a problem statement and options for analysis at this meeting.

The problem statement that was adopted for **Amendment 80** is as follows:

The Council's primary concern is to maintain a healthy marine ecosystem to ensure the long-term conservation and abundance of the groundfish and crab resources. To this end, the Council is committed to reducing bycatch, minimizing waste, and improving utilization of fish resources to the extent practicable in order to provide the maximum benefit to present generations of fishermen, associated fishing industry sectors, communities, and the nation as a whole, while at the same time continuing to look for ways to further rationalize the fisheries. The Council also recognizes that the fishing industry is made up of participants who have a vested interest in the continued improvement in the long-term conservation of the groundfish resources, but at times could be burdened with additional costs associated with management programs that improve conservation or reduce bycatch.

⁶As of November 3, 2004, the RAM database indicated that the number of vessel licenses endorsed for fishing BSAI Pacific cod with fixed gear were as follows: 44 hook-and-line catcher processors (6 interim licenses), 10 hook-and-line catcher vessels (1 interim), 9 pot catcher processors (3 interim), and 67 pot catcher vessels (13 interim). The interim status of the license is related to an appeal of the cod endorsement in 5 cases. Note that there are several exemptions from the Pacific cod endorsement requirement: catcher vessels $<60'$ LOA; any vessel exempt from the LLP program; and any harvest of Pacific cod for personal use bait. (RAM, 2004). As of November 3, 2004, the RAM database indicates that 117 catcher vessels $<60'$ hold BSAI non-trawl LLP groundfish licenses, which includes 8 licenses with interim status.

The problem facing the Council is two fold. First, is to develop programs to slow the race for fish, and reduce bycatch and its associated mortalities, while maintaining a healthy harvesting and processing industry, recognizing long term investments in the fisheries, and promoting safety, efficiency, and further rationalization in all sectors. Second, is to fashion a management program that would mitigate the cost, to some degree, for those participants burdened with additional costs associated with management programs that improve conservation and reduce bycatch, while also continuing to reduce discards of groundfish and crab to practicable and acceptable levels.

Given the above, it may be appropriate to review the two types of actions that were previously going to be considered under Amendment 80 related to Pacific cod allocations. **Amendment 80** included options for 1) sector allocations of BSAI Pacific cod, and 2) eligibility to participate in a sector, as follows:

Sector allocations for BSAI Pacific cod

- Options existed to create new sector allocations of BSAI Pacific cod for all sectors,⁷ based on catch history from various series of years from 1995 to 2003. This option would supercede all existing allocations under Am. 46 and Am. 77.
- An option also existed to retain the same apportionments of BSAI Pacific cod as in current regulation with an additional split of the current trawl catcher processor apportionment (23.5%): Non-AFA trawl catcher processors (18.3%) and AFA trawl catcher processors (5.2%). This option would maintain the current trawl - fixed gear - jig split under Am. 46 and the fixed gear allocations under Am. 77.
- Reallocations of unused quota among sectors would not have been affected.

Eligibility to Participate in a Sector

- Options existed to create eligibility requirements to participate in a sector.⁸ The criteria was based on participation (one landing to 1,000 mt) during various series' of years from 1995 to 2002. An option existed for separate eligibility requirements for the <60' fixed gear sector. An option also existed to exempt the <60' fixed gear sector and jig sector from eligibility requirements.
- An option also existed to use the eligibility requirements established under BSAI Am. 67 (Pacific cod endorsement) for vessels ≥60' using fixed gear (hook-and-line and pot). Fixed gear vessels have been operating under the cod endorsement requirement since 2003.

In sum, there were options in Am. 80 that would have potentially created new Pacific cod allocations to all sectors that currently receive a cod allocation, superceding the overall allocations set forth under Amendment 46 and most recently, for the fixed gear fleets under Am. 77. There were also options to retain the current allocations.

⁷The sectors included in Amendment 80 prior to the action taken in October 2004 were: non-AFA trawl CPs, AFA trawl CPs, non-AFA trawl CVs, AFA trawl CVs, hook-and-line CPs, hook-and-line CVs, pot CPs, pot CVs, jig, and <60' hook-and-line and pot CVs.

⁸Note that it is uncertain whether the eligibility criteria to participate in a sector would have been applied on an individual species basis or for all groundfish species in aggregate.

Options also existed to create a further split of the trawl allocations between AFA and non-AFA vessels. Currently, the trawl catcher processor sector and the trawl catcher vessel sector split the overall trawl allocation (47%) equally, and each sector receives 23.5% of the BSAI Pacific cod TAC. Several options in Amendment 80 would have further apportioned the trawl catcher processor allocation between non-AFA and AFA trawl catcher processors, and apportioned the trawl catcher vessel allocation between non-AFA and AFA trawl catcher vessels. One specific option existed to establish the non-AFA and AFA trawl catcher processor allocations at 18.3% and 5.2%, respectively.

In addition, there were options included that would change the *qualifications necessary* to participate in the BSAI Pacific cod fishery by sector. The fixed gear sectors, with the exception of the <60' vessels, currently must meet criteria in regulation under Amendment 67 in order to qualify for a *gear-specific* BSAI Pacific cod endorsement. The cod endorsements are issued for vessels ≥60' LOA that are operating as hook-and-line catcher processors, hook-and-line catcher vessels, pot catcher processors, and pot catcher vessels. The cod endorsements are not severable from a vessel's license, and have been in effect since January 2003. The trawl and jig sectors do not currently have a similar species endorsement requirement to fish BSAI Pacific cod; these sectors must only have the correct groundfish LLP, trawl/non-trawl, and area endorsement. Thus, the options under Amendment 80 could potentially have modified the current eligibility requirements for the fixed gear sectors to participate in the BSAI Pacific cod fishery, and established new eligibility requirements for the trawl and jig sectors.

Consideration of a problem statement and alternatives for analysis

Depending upon the problem the Council wants to address, the Council could review the problem statements of prior allocation actions and determine whether they are applicable. Upon development of a problem statement, appropriate alternatives and options could be developed. These may be similar to those proposed in Amendment 80, or they may represent a new suite of options more specific to each of the BSAI Pacific cod fisheries. **As stated previously, a new amendment could include one or more of the following actions:**

- modification of the apportionment among the trawl, fixed, and jig gear sectors (in place since 1997);
- modification of the allocations among the fixed gear sectors that were implemented in 2004;
- creation of a further split of the trawl allocations between non-AFA trawl catcher processors and AFA trawl catcher processors, and/or non-AFA trawl catcher vessels and AFA trawl catcher vessels;⁹
- modification of current eligibility requirements for participating in the fixed gear BSAI Pacific cod sectors; and/or establishment of eligibility requirements to participate in the jig and trawl sectors.

⁹If this action was proposed, the Council would need to clarify how to address catch history from the non-AFA surimi fillet trawl catcher processors that left the U.S. fisheries in 1998. This history could be assigned to either (AFA or non-AFA) CP sector or not used at all in determining sector allocations. Note that this is a question only if the years selected to determine the AFA and non-AFA CP sector allocations included years prior to 1999.

Note that harvest data for the fixed gear BSAI Pacific cod allocation amendments (Am. 64 and 77) have been based on catch history by a sector excluding any harvest that resulted from reallocated quota from another sector. Depending upon the problem being addressed, the Council may want to consider whether any new allocation basis would exclude or include reallocated quota.¹⁰ The Council could decide to use total retained catch (including reallocated quota) to determine the BSAI Pacific cod allocations for the general gear sector split among trawl, fixed, and jig gear, and alternatively, use catch history excluding reallocated quota to determine the allocations among the fixed gear fleets. Staff would use this methodology unless directed otherwise.

Subdividing the BSAI TAC

In addition, the Council may want to consider how to adapt either the existing or new Pacific cod allocations, in the case of future changes in the BSAI Pacific cod TAC groupings. Staff provided a discussion paper addressing this issue at both the June and October 2004 Council meetings, and no action has been taken as of yet. The paper reviews three potential methodologies to use should the BSAI Pacific cod TAC be split into separate TACs for the BS and AI subareas in the future. The intent is to provide direction to NMFS regarding how to establish allocations in the BS and AI management areas prior to separate TACs being issued in the annual specifications process. Absent this direction, there is concern that the time necessary to undergo an analysis and notice and comment rulemaking after the TAC is divided would cause significant interruption of the cod fisheries.

The discussion paper provided three different approaches to this issue, noting that other reasonable options could also be developed. The options presented were as follows:

1. Allocations based on historic harvest in each area. This option would calculate the allocations (BS and AI) based on the sector's historic harvest in each area during the qualification period. This approach would likely result in sectors being allocated different percentages of the BS and AI TACs.
2. Equal allocations in both areas. This option would use the allocation the sector received in the BSAI and apply it to the separate BS and AI subareas. Thus, this option would result in a sector being allocated the same percentage of TAC in the BS and AI, regardless of historic harvest patterns. For example, under the current allocations, the hook-and-line catcher processor sector receives 40.8% of the overall BSAI Pacific cod TAC. Under Option 2, that sector would receive 40.8% of the BS TAC and 40.8% of the AI TAC.
3. No allocations by area. This option would not assign a specific amount of catch to the BS or the AI. Instead, sectors would be allowed to harvest their allocations from either area, and NMFS would close a BS or AI subarea to directed fishing when the TAC for that area is reached. All sectors could then only continue participating in the directed Pacific cod fishery in the subarea that remains open.

¹⁰Note also that the sector allocations in several recent BSAI Pacific cod fixed gear amendments have been based on a sector's catch history in the directed (target) commercial BSAI Pacific cod fishery. This approach was used in order to capture harvests of the 'true' Pacific cod fixed gear fleets, with the intent not to include incidentally caught Pacific cod from halibut vessels or vessels targeting non-Pacific cod species. Staff will follow the same approach as previous analyses for the fixed gear allocations, unless directed otherwise. The overall allocation among the trawl, fixed, and jig gear sectors may be based on the retained legal catch of cod by each sector, whether in the directed Pacific cod fishery or not. This approach may make sense for the trawl sectors, which harvest Pacific cod incidentally during several of their target flatfish fisheries.

The Council may want to include one or more of these methodologies in a new amendment to address Pacific cod allocations, should it determine that future TAC changes are likely. The issue of whether to split the combined BSAI ABC (and TAC) by subarea has been raised at the Plan Team, SSC, and Council meetings during the last several years. The November 2003 BSAI SAFE Report noted that the BSAI Pacific cod ABC is not allocated by subarea, unlike pollock or sablefish. The BSAI Pacific cod ABC is based on an Eastern Bering Sea assessment model and expanded by a multiplier (1.17) into a BSAI-wide amount. In December 2003, the SSC recommended that the ABC should be split between BS and AI areas, but noted that management implications may preclude the Council from adopting separate area TACs in the specifications process. The SSC requested that the assessment authors evaluate potential methods for splitting the ABC and their potential management implications, so that specific recommendations could be made to the Council in the future.

In October 2004, the BSAI Plan Team and SSC recommended an approach (the Kalman filter) to estimate current biomass between areas because it has a strong theoretical justification and appears to result in sensible weights, with the most recent survey estimates receiving the highest weight (October 2004 SSC minutes). The Kalman filter approach results in subarea allocations of 85% for the BS and 15% for the AI of the combined BSAI ABC. However, the SSC noted that such weighting may no longer be necessary if a new, spatially disaggregated model is adopted for Pacific cod in the future, or if Pacific cod in the AI is managed separately under Tier 5.

Given the management implications related to the numerous sector allocations in the BSAI, the Pacific cod TAC has continued to be established for the entire BSAI management area. This same BSAI management system is anticipated in the 2005 TAC specifications process. However, if the Council determines that it is likely that the TAC groupings will be modified in the foreseeable future, it would be beneficial to provide direction to NMFS regarding the formula for allocating new subarea TACs. This formula could be included in this new amendment package as a general policy approach or as options.

Absent direction from the Council, NMFS could likely only implement Option 2 (equal allocations in both areas) without a regulatory or plan amendment. The other two approaches would require new legal authority and a new plan amendment. Thus, if the Council foresees separate BS and AI TACs in the near future and desires an approach other than Option 2, it will need to specify such direction and initiate a plan amendment to address this issue.

Table 2: Overview of BSAI Pacific cod Allocation and Endorsement Amendments

Amendments	Am. 24	Am. 46	Am. 64	Am. 67	Am. 77
Action	Allocation of BSAI P.cod TAC among trawl gear, fixed gear, and jig gear.	Allocation of BSAI P.cod TAC among trawl gear, fixed gear, and jig gear. Allocation between trawl CP and CV.	Allocation of fixed gear BSAI P.cod TAC (51%) among pot gear, longline CPs, longline CVs, and <60' vessels.	LLP Pacific cod endorsement requirements for fixed gear vessels in the directed BSAI P.cod fishery.	Allocation of fixed gear P.cod TAC (51%) among pot CPs, pot CVs, longline CPs, longline CVs, and <60' vessels.
Allocations	Trawl: 54% Fixed: 44% Jig: 2%	Trawl: 47% Trawl CP (23.5%) Trawl CV (23.5%) Fixed: 51% Jig: 2%	Of fixed gear 51%: longline CPs 80.0% longline CVs 0.3% pot (CP and CV) 18.3% <60' pot/longline 1.4%	Endorsement reqmt (based on participation and landings criteria) for the following sectors: longline CP, longline CV, pot CP and pot CV. Not required for <60' fixed gear vessels	Of fixed gear 51%: longline CPs 80.0% longline CVs 0.3% pot CPs 3.3% pot CVs 15.0% <60' pot/longline 1.4%
Allocation basis	approximate harvest during 1991 - 1993, with exception of increased jig allocation	industry negotiation: based closely on current harvest percentages of each sector under current halibut PSC limits	based closely on 1995 - 1998 harvests by each sector, with the additional allocation to the <60' vessels.	N/A	Longline CP, longline CV, and pot gear split based closely on 1995-1998 harvests. Pot CP and CV split based on 1998-2001 harvests. Additional allocation to <60' vessels.
Other actions	Authorized three seasons for fixed gear sector. Reallocations: 1) Authorized NMFS to reallocate unused P.cod from trawl to fixed gear and vice versa. 2) Reallocation of unused jig allocation to other gear sectors on or about Sept. 1.	Authorized three seasons for fixed gear sectors. Reallocations: 1) Authorized NMFS to reallocate unused P.cod within gear types and then between trawl and fixed gear. 2) Reallocation of unused jig allocation to fixed gear sectors specified for Sept. 15.	Authorized three seasons for fixed gear sectors. Reallocations: 1) Unused longline CV and <60' vessel allocation will be reallocated to longline CP sector. 2) Reallocation of unused jig allocation to fixed gear sectors specified for Sept. 15. 3) Unused trawl or jig allocations are reallocated: 95% to longline CPs and 5% to pot gear.	N/A	Authorized three seasons for fixed gear sectors. Reallocations: 1) Unused longline CV and <60' vessel allocation will be reallocated to longline CP sector 2) Established 3 seasons for jig gear allocation. Any unused portion of a seasonal allocation for jig gear will be reallocated to <60' CVs. 3) Unused trawl allocations are reallocated: 95% to longline CPs; 0.9% to pot CPs, 4.1% to pot CVs. 4) Unused pot CP or CV quota will be reallocated to the other pot sector before it is reallocated to other fixed gear sectors.
Date effective	Feb. 28, 1994	Jan. 1, 1997	Sept. 1, 2000	Jan. 1, 2003	Jan. 1, 2004
Sunset date	Dec. 31, 1996	none	Dec. 31, 2003	none	none

Note: The fixed gear allocations established under Am. 64 and Am. 77 were determined excluding quota reallocated from other gear (trawl or jig) sectors. Including reallocated quota would have reduced the percentage of catch harvested in 1995 - 1999 by the pot sector by about 0.5 percentage points (487 mt using the 2003 TAC) and increased the percentage of catch harvested by the longline catcher processor sector by the same amount.

Table 3. Historic fishing patterns of vessels in the Bering Sea and Aleutian Islands Pacific cod fishery by sector, 1995-2003.

Year	BS Harvest (mt)	AI Harvest (mt)	Total Harvest (mt)	Percent of Total BS Cod Catch	Percent of Total AI Cod Catch
AFA Trawl Catcher Processor					
1995	11,293	3,621	14,913	4.9%	21.9%
1996	8,170	4,122	12,292	3.9%	13.0%
1997	5,780	4,333	10,113	2.5%	17.3%
1998	5,033	3,973	9,006	3.1%	11.4%
1999	2,836	3,957	6,793	1.9%	14.1%
2000	1,959	1,838	3,797	1.3%	4.6%
2001	2,161	2,192	4,353	1.5%	6.4%
2002	2,633	1,388	4,021	1.6%	4.5%
2003	2,583	4,726	7,309	1.5%	14.6%
Avg. 95-03	4,716	3,350	8,066	2.5%	12.0%
Non-AFA Trawl Catcher Processor					
1995	30,770	4,189	34,959	13.5%	25.3%
1996	19,537	9,446	28,983	9.3%	29.9%
1997	28,026	1,820	29,846	12.1%	7.3%
1998	20,281	5,699	25,980	12.6%	16.3%
1999	20,199	5,167	25,366	13.9%	18.4%
2000	21,488	7,302	28,790	14.2%	18.4%
2001	18,831	6,854	25,685	13.2%	20.0%
2002	22,066	11,141	33,207	13.3%	36.2%
2003	17,578	12,481	30,058	9.9%	38.5%
Avg. 95-03	22,086	7,122	29,208	12.4%	23.4%

Year	BS Harvest (mt)	AI Harvest (mt)	Total Harvest (mt)	Percent of Total BS Cod Catch	Percent of Total AI Cod Catch
Pot Catcher Processors					
1995	3,608	1,021	4,629	1.6%	6.2%
1996	4,104	3,463	7,567	2.0%	11.0%
1997	4,037	406	4,443	1.7%	1.6%
1998	2,970	348	3,318	1.8%	1.0%
1999	2,256	917	3,174	1.5%	3.3%
2000	1,605	1,041	2,645	1.1%	2.6%
2001	2,649	492	3,141	1.9%	1.4%
2002	2,842	6	2,849	1.7%	0.0%
2003	5,181	0	5,181	2.9%	0.0%
Avg. 95-03	3,250	855	4,105	1.8%	3.0%
Hook-and-Line Catcher Processors					
1995	96,126	4,014	100,140	42.1%	24.3%
1996	89,903	5,788	95,692	43.0%	18.3%
1997	117,323	7,284	124,608	50.4%	29.0%
1998	86,260	13,757	100,016	53.7%	39.4%
1999	80,944	7,977	88,921	55.5%	28.4%
2000	81,185	15,508	96,693	53.6%	39.1%
2001	89,809	17,682	107,491	63.0%	51.7%
2002	99,141	2,759	101,900	59.8%	9.0%
2003	103,875	879	104,754	58.4%	2.7%
Avg. 95-03	93,841	8,405	102,246	53.3%	26.9%
Non-AFA Surimi and Fillet Catcher Processors (Trawl)					
1995	20,431	2,733	23,164	8.9%	16.5%
1996	9,033	5,422	14,455	4.3%	17.2%
1997	4,423	8,590	13,014	1.9%	34.3%
1998	2,144	9,871	12,016	1.3%	28.3%
Avg. 95-03	9,008	6,654	15,662	4.1%	24.0%
Hook-and-Line Catcher Vessels					
1995	1,104	920	2,024	0.5%	5.6%
1996	179	31	210	0.1%	0.1%
1997	129	33	163	0.1%	0.1%
1998	45	40	85	0.0%	0.1%
1999	169	142	311	0.1%	0.5%
2000	353	675	1,028	0.2%	1.7%
2001	551	135	686	0.4%	0.4%
2002	311	106	417	0.2%	0.3%
2003	496	96	592	0.3%	0.3%
Avg. 95-03	371	242	613	0.2%	1.0%

Year	BS Harvest (mt)	AI Harvest (mt)	Total Harvest (mt)	Percent of Total BS Cod Catch	Percent of Total AI Cod Catch
Pot Catcher Vessels					
1995	15,666	3	15,669	6.9%	0.0%
1996	23,001	1,148	24,149	11.0%	3.6%
1997	17,028	3	17,031	7.3%	0.0%
1998	10,016	37	10,053	6.2%	0.1%
1999	10,426	2,588	13,013	7.2%	9.2%
2000	14,278	2,066	16,344	9.4%	5.2%
2001	13,823	86	13,908	9.7%	0.3%
2002	12,812	0	12,812	7.7%	0.0%
2003	20,410	2	20,412	11.5%	0.0%
Avg. 95-03	15,273	659	15,932	8.5%	2.0%
Trawl Catcher Vessels					
1995	48,899	31	48,930	21.4%	0.2%
1996	54,870	2,189	57,060	26.2%	6.9%
1997	55,647	2,606	58,253	23.9%	10.4%
1998	33,684	1,214	34,898	21.0%	3.5%
1999	28,869	7,313	36,182	19.8%	26.0%
2000	30,431	11,221	41,652	20.1%	28.3%
2001	14,664	6,746	21,410	10.3%	19.7%
2002	25,927	15,393	41,320	15.6%	50.0%
2003	27,476	14,272	41,749	15.5%	44.0%
Avg. 95-03	35,608	6,776	42,384	19.3%	21.0%
Jig Catcher Vessels					
1995	599	0	599	0.3%	0.0%
1996	267	0	267	0.1%	0.0%
1997	173	0	173	0.1%	0.0%
1998	192	0	192	0.1%	0.0%
1999	100	69	169	0.1%	0.2%
2000	38	33	71	0.0%	0.1%
2001	52	19	71	0.0%	0.1%
2002	164	0	164	0.1%	0.0%
2003	155	0	156	0.1%	0.0%
Avg. 95-03	193	13	207	0.1%	0.0%

Source: NMFS Blend Data 1995-2002; NMFS Catch Accounting System 2003.

Note: This data includes both directed catch and incidentally caught Pacific cod. For the purpose of determining sector allocations in the analysis, only retained catch in the commercial BSAI Pacific cod fishery will be used, unless directed otherwise.

Note: This table does not delineate between cod harvested by fixed gear catcher vessels <60' and ≥60' LOA. In 1995 – 1999, the <60' fixed gear sector represented about 0.3% of the total fixed gear Pacific cod harvest. Since receiving a direct allocation, the <60' fixed gear CVs harvested <1% of the total fixed gear Pacific cod in 2000 and 2001, and about 1.4% in 2002. Note that under BSAI Am. 77, <60' fixed gear CVs fish off the Pacific cod allocations to the ≥60' CVs of their respective gear types, when the ≥60' CV fisheries are open.

TABLE 4.- 2004 GEAR SHARES AND SEASONAL APPORTIONMENTS OF THE BSAI PACIFIC COD TAC
[Amounts are in metric tons]

Gear sector	Percent	Share of gear sector total	Subtotal percentages for gear sectors	Share of gear sector total	Seasonal apportionment ¹	
					Date	Amount
<u>Total hook-and-line and pot gear allocation of Pacific cod TAC</u>	51	101,662				
Incidental catch allowance				500		
Processor and Vessel sub-total		101,162				
Hook-and-line Catcher/Processors			80	80,930	Jan 1 - Jun 10	48,558
					Jun 10 - Dec 31	32,372
Hook-and-line Catcher Vessels			0.3	303	Jan 1 - Jun 10	182
					Jun 10 - Dec 31	121
Pot Catcher/Processors			3.3	3,338	Jan 1 - Jun 10	2,003
					Sept 1 - Dec 31	1,335
Pot Catcher Vessels			15	15,174	Jan 1 - Jun 10	9,105
					Sept 1 - Dec 31	6,070
Catcher Vessels < 60 feet LOA using hook-and-line or pot gear			1.4	1,416		
<u>Trawl gear total</u>	47	93,689				
Trawl Catcher Vessel			50	46,844	Jan 20 - Apr 1	32,791
					Apr 1 - Jun 10	4,684
					Jun 10 - Nov 1	9,369
Trawl Catcher/Processor			50	46,844	Jan 20 - Apr 1	23,422
					Apr 1 - Jun 10	14,053
					Jun 10 - Nov 1	9,369
<u>Jig</u>	2	3,987			Jan 1 - Apr 30	1,595
					Apr 30 - Aug 31	797
					Aug 31 - Dec 31	1,595
Total	100	199,338				

¹ For most non-trawl gear the first season is allocated 60 percent of the ITAC and the second season is allocated 40 percent of the ITAC. For jig gear, the first season and third seasons are each allocated 40 percent of the ITAC and the second season is allocated 20 percent of the ITAC. No seasonal harvest constraints are imposed for the Pacific cod fishery by catcher vessels less than 60 feet (18.3 m) LOA using hook-and-line or pot gear. For trawl gear, the first season is allocated 60 percent of the ITAC and the second and third seasons are each allocated 20 percent of the ITAC. The trawl catcher vessels' allocation is further allocated as 70 percent in the first season, 10 percent in the second season and 20 percent in the third season. The trawl catcher/processors' allocation is allocated 50 percent in the first season, 30 percent in the second season and 20 percent in the third season. Any unused portion of a seasonal Pacific cod allowance will be reapportioned to the next seasonal allowance.

TABLE 5. - 2004 PROHIBITED SPECIES BYCATCH ALLOWANCES FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES

Trawl Fisheries	Prohibited species and zone					
	Halibut mortality (mt) BSAI	Herring (mt) BSAI	Red King Crab (animals) Zone 1 ¹	C. opilio (animals) COBLZ ²	C. bairdi (animals)	
					Zone 1 ¹	Zone 2 ¹
Yellowfin sole	886	171	33,843	2,776,981	340,844	1,788,459
January 20 - April 1	262	.....	.....	.....	.....	.....
April 1 - May 21	195	.....	.....	.....	.....	.....
May 21 - July 4	49	.....	.....	.....	.....	.....
July 4 - December 31	380	.....	.....	.....	.....	.....
Rock sole/other flat/flathead sole ⁴	779	25	121,413	969,130	365,320	596,154
January 20 - April 1	448	.....	.....	.....	.....	.....
April 1 - July 4	164	.....	.....	.....	.....	.....
July 4 - December 31	167	.....	.....	.....	.....	.....
Turbot/arrowtooth/sablefish ⁵	.....	11	.....	40,238	.....	.....
Rockfish	.....	.....	.....	.....	.....	.....
July 4 - December 31	69	9	.....	40,237	.....	10,988
Pacific cod	1,434	25	26,563	124,736	183,112	324,176
Midwater trawl pollock	.....	1,456	.....	.....	.....	.....
Pollock/Atka mackerel/other ⁶	232	179	406	72,428	17,224	27,473
Red King Crab Savings Subarea ³ (non-pelagic trawl)	.....	.....	42,495	.....	.....	.....
Total trawl PSC	3,400	1,876	182,225	4,023,750	906,500	2,747,250
Non-trawl Fisheries						
Pacific cod - Total	775	.....	.....	.....	.....	.....
January 1 - June 10	320	.....	.....	.....	.....	.....
June 10 - August 15	0	.....	.....	.....	.....	.....
August 15 - December 31	455	.....	.....	.....	.....	.....
Other non-trawl - Total	58	.....	.....	.....	.....	.....
May 1 - December 31	58	.....	.....	.....	.....	.....
Groundfish pot and jig	exempt	.....	.....	.....	.....	.....
Sablefish hook-and-line	exempt	.....	.....	.....	.....	.....
Total non-trawl PSC	833	.....	.....	.....	.....	.....
PSQ reserve ⁷	342	.....	14,775	326,250	73,500	222,750
PSC Grand total	4,575	1,876	197,000	4,350,000	980,000	2,970,000

¹ Refer to § 679.2 for definitions of areas.

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

³ In December 2003, the Council proposed limiting red king crab for trawl fisheries within the Red King Crab Savings Subarea (RKCSS) to 35 percent of the total allocation to the rock sole, flathead sole, and other flatfish fishery category (see § 679.21(e)(3)(ii)(B)).

⁴ "Other flatfish" for PSC monitoring includes all flatfish species, except for halibut (a prohibited species), greenland turbot, rock sole, yellowfin sole and arrowtooth flounder.

⁵ Greenland turbot, arrowtooth flounder, and sablefish fishery category.

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

⁷ With the exception of herring, 7.5 percent of each PSC limit is allocated to the CDQ program as PSQ reserve. The PSQ reserve is not allocated by fishery, gear or season.

Subdividing TACs in the Future

Any management system developed under Amendment 80a must be adaptable to future changes in TAC groupings/area allocations that may occur. Without devising a plan to allocate the sector allotments, if new TAC groupings/area allocations are implemented, NMFS' ability to issue future sector allocations in a timely fashion may be at risk. A management structure that provides NMFS direction on how to treat TAC changes would allow them to implement changes without going through a process that requires Council action and public comment. If those procedural steps must be taken to accommodate TAC changes before allocations can be issued, it is unlikely that the sector allocations would be made in time to start fisheries either on January 1st for hook-and-line and pot gear vessels or January 20th for trawl gear vessels.

Proper oversight of the Bering Sea and Aleutian Islands (BSAI) groundfish fisheries could require revising TAC groupings/area allocations in the future to meet biological or management objectives. Changes to TAC groupings/area allocations can be made either by altering the list of species assigned a TAC or by altering the geographic regions the TAC for a species represents.

This issue is complicated by the fact that as better genetic information becomes available, for species like rockfish, there are new species being identified and sub-populations may be identified that need to be protected. Pacific ocean perch are showing genetic structure within the ABCs defined in the GOA and roughey rockfish appear as though they may be composed of two sub-species. Given the increased biological information that is becoming available, new management systems that allocate TAC among sectors must acknowledge and make provisions for additional species that may require explicit management. Policy makers must not only consider future management needs from the stand point of breaking up species complexes like 'other species', other rockfish, and other flatfish, but also subdividing current single species ABCs.

Future TAC changes may be foreseeable, or they may not have been considered yet. The Council has been considering breaking the Pacific cod assessment into two ABC recommendations - one for the Bering Sea subarea and one for the Aleutian Islands subarea. In addition, the AFSC plans to develop a stock assessment for Pacific cod in the BS and AI subareas in the near future. Because the TAC is currently set for the entire BSAI management area, both the current allocations under BSAI Amendment 77 and the allocation formula being developed under Amendment 80a issues sector allotments based on the member's catches in the combined areas. If the TAC definitions are changed in the future, the formula for allocating the new TACs must account for those changes.

Also complicating this issue is whether PSC species will also need to be adjusted if TAC definitions are changed. This issue will only be discussed briefly in this paper, but it may be critical if a goal is rationalizing the BSAI Pacific cod fisheries.

The issue of altering TAC categories has been primarily discussed in terms of the Pacific cod fisheries at the IR/IU Technical Committee and in other forums. Pacific cod has been highlighted because the Council is currently discussing changing the Pacific cod TAC area designations. Discussing this issue using Pacific cod as the primary example seems reasonable since many of the management issues and problems associated with splitting the Pacific cod TAC into finer areas could also potentially apply to altering other species TACs. This paper explores how TAC changes could be implemented, in terms of inseason management, with particular emphasis placed on the impacts sectors could realize under Amendment 80a.

Relevant Background Information on the Pacific Cod Fishery

Consider an example that could have resulted if separate BSAI Pacific cod TACs were set in 2004. The Pacific cod TAC was set at 215,500 mt in 2004 for the BSAI management area. After a 7.5% deduction was taken for the CDQ program, the remaining 199,338 mt were divided among the sectors. The SSC noted, at their December 2003 meeting, that if the 2004 Pacific cod ABC was apportioned to the Aleutian Islands and Bering Sea using the "same multiplier" used for the combined areas, the Aleutian Islands subarea and Bering Sea

subarea would have had ABCs of 32,000 mt and 191,000 mt, respectively. Combined, the total ABC for the two areas was 223,000 mt. Differences between the estimated ABCs in the two areas and the TACs that would have been set cannot be determined with certainty. However, if the difference between the TAC and ABC for the entire BSAI were applied to the two areas, TACs of 30,924 mt and 184,576 mt would have been set for the Aleutian Islands subarea and Bering Sea subarea, respectively. After CDQ deductions the Aleutian Islands subarea and Bering Sea subarea would have been allocated 28,605 mt and 170,733 mt, respectively.

Groundfish licenses are currently required to participate in the BSAI groundfish fisheries in Federal waters. Groundfish licenses contain endorsements that define what the vessel using the license can do. Area endorsements define the geographic locations the licenses allow a vessel to fish. Under the Groundfish License Limitation Program, separate endorsements were issued for the Bering Sea subarea and Aleutian Islands subarea. Subarea endorsements were earned based on historic fishing patterns. Licenses may contain endorsements for both subareas, one of the two subareas, or neither of the subareas. Gear endorsements define what type of gear may be used: non-trawl, trawl, or both. Further, gear endorsements are required for vessels >60' to participate in the BSAI fixed gear Pacific cod fishery: hook-and-line catcher processors, pot catcher processors, hook-and-line catcher vessel, and pot catcher vessel.

Table 1 shows the endorsements that have been issued on groundfish licenses with a Bering Sea and/or Aleutian Islands endorsement. The far right column is the number of licenses that have been issued to fish in the BSAI. The other columns provide information on how the vessels using those licenses may operate. The first two columns on the left side of the table identify the gear endorsements on the licenses. "No" in the column indicates that they are not endorsed to use that gear type; "Yes" in the column means they may legally use that gear type. Using the "Grand Total" column and the "Gear Endorsements" columns we know that 343 of the 563 licenses may be used by vessels deploying only non-trawl gear. The remaining 220 licenses may be used on trawl vessels, with 85 of the 220 also endorsed for non-trawl gear. In the "Fixed Gear Cod Endorsement" columns, licenses are grouped by fixed gear Pacific cod endorsements. The BSAI endorsement section of the table shows whether the license includes an endorsement for the Bering Sea, Aleutian Islands, or both.

Table 1: Groundfish licenses that are endorsed for the Bering Sea/Aleutian Islands.

Gear Endorsements		Fixed Gear Cod Endorsements				BSAI endorsements			Total Licenses		
TRAWL	NON TRAWL	CP HAL	CP POT	CV POT	CV HAL	Both AI & BS	AI Only	BS Only			
No	Yes	No	No	No	No	80	10	135	225		
				Yes	No	5			5		
				Yes	No	9		55	64		
				Yes	Yes			2	2		
				Yes	No	2		3	5		
				Yes	Yes	1			1		
		Yes	No	No	No	No	No	32		2	34
						Yes	Yes	1			1
						Yes	No	1			1
						Yes	No	3			3
						Yes	Yes	1			1
						Yes	No	1			1
Total for Licenses with No Trawl Gear Endorsement						136	10	197	343		
Yes	No	No	No	No	No	76		59	135		
						23	2	50	75		
							1		1		
						1		3	4		
						5			5		
Total for Licenses with Trawl Gear Endorsement						105	3	112	220		
Grand Total of All Bering Sea/Aleutian Islands Licenses						241	13	309	563		

Source: NMFS Groundfish LLP database.

Information contained in Table 1 shows that 13 licenses are endorsed for the Aleutian Islands subarea only. All of those licenses may be used on non-trawl gear vessels, but only one is endorsed to participate in the directed fixed gear Pacific cod fishery (as a hook-and-line catcher vessel). Three of the 13 licenses are also endorsed for use on trawl vessels. They may participate in the directed Pacific cod fishery, but only with trawl gear.

About 40% of the non-trawl gear licenses are endorsed to fish both subareas, and about 50% of the licenses endorsed for trawl gear are endorsed to fish both subareas. The majority of licenses are endorsed for the Bering Sea subarea only.

Fishing patterns of vessels using the BSAI groundfish licenses will play an important role in determining the economic impacts of the splitting the Pacific cod ABC into Bering Sea and Aleutian Islands subareas. The two figures below are based on 2004 SAFE data and show the Aleutian Islands subarea and Bering Sea subarea Pacific cod catches by gear type from 1998-2003. The information in those figures indicates that trawl vessels have harvested almost all of the Aleutian Islands Pacific cod in recent years. Trawl vessels tended to harvest the majority of the Aleutian Islands Pacific cod in the earlier years, but the differences were not as pronounced. Harvest patterns in the Bering Sea appear to be more stable.

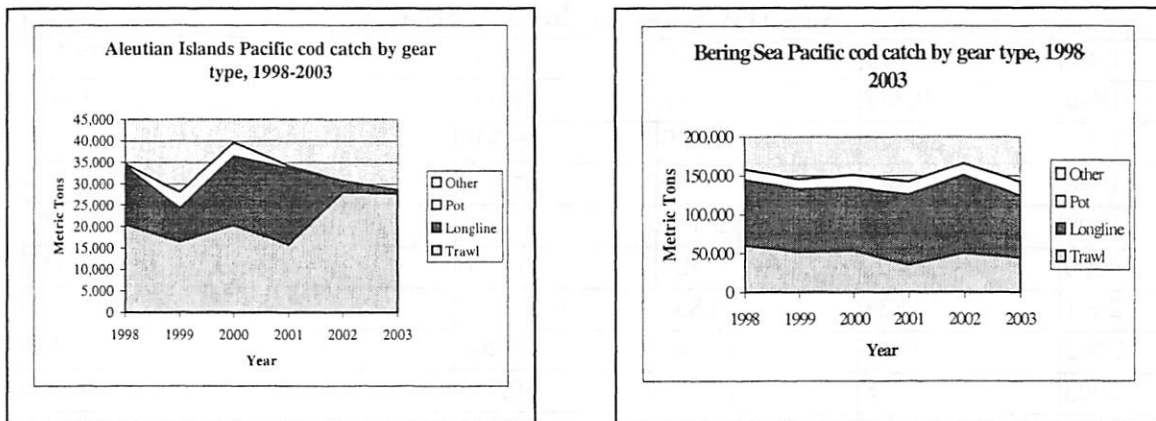


Table 2 shows the historic Pacific cod harvests in the Bering Sea subarea and Aleutian Islands subarea over the years 1995-2002 by fishing sector. Data in Table 2 is not broken out by all the sectors defined in Amendment 80a. The data to provide those breakouts has not yet been compiled by staff. While these categories are, in some cases, broader than those used in Amendment 80a, they do provide insights into where sectors have harvested Pacific cod in the Aleutian Islands subarea and Bering Sea subarea over the 1995-2002 time period.

Pacific cod harvests with trawl gear accounted for 67% of the harvest in the Aleutian Islands from 1995 - 2003 (Table 2). In 2002 and 2003, vessels using trawl gear harvested 91% and 97%, respectively (Blend Data). That information indicates that trawl vessels have traditionally harvested the majority of the Pacific cod catch in the Aleutian Islands, and over the past two full fishing years that percentage has dramatically increased. Vessels using hook-and-line gear harvested the remainder of the Aleutian Islands Pacific cod in 2002 and 2003. Based on these observations, the years used to allocate Aleutian Islands and Bering Sea TACs among sectors would greatly impact the distribution. Also recall that if the TAC were divided according to the current gear splits for the combined BSAI, trawl vessels would only be assigned 47% of the Aleutian Islands TAC.

Table 2: Historic fishing patterns of vessels in the Bering Sea and Aleutian Islands Pacific cod fishery by sector, 1995-2003.

Year	BS Harvest (mt)	AI Harvest (mt)	Total Harvest (mt)	Percent of Total BS Cod Catch	Percent of Total AI Cod Catch
AFA Trawl Catcher Processor					
1995	11,293	3,621	14,913	4.9%	21.9%
1996	8,170	4,122	12,292	3.9%	13.0%
1997	5,780	4,333	10,113	2.5%	17.3%
1998	5,033	3,973	9,006	3.1%	11.4%
1999	2,836	3,957	6,793	1.9%	14.1%
2000	1,959	1,838	3,797	1.3%	4.6%
2001	2,161	2,192	4,353	1.5%	6.4%
2002	2,633	1,388	4,021	1.6%	4.5%
2003	2,583	4,726	7,309	1.5%	14.6%
Avg. 95-03	4,716	3,350	8,066	2.5%	12.0%
Non-AFA Trawl Catcher Processor					
1995	30,770	4,189	34,959	13.5%	25.3%
1996	19,537	9,446	28,983	9.3%	29.9%
1997	28,026	1,820	29,846	12.1%	7.3%
1998	20,281	5,699	25,980	12.6%	16.3%
1999	20,199	5,167	25,366	13.9%	18.4%
2000	21,488	7,302	28,790	14.2%	18.4%
2001	18,831	6,854	25,685	13.2%	20.0%
2002	22,066	11,141	33,207	13.3%	36.2%
2003	17,578	12,481	30,058	9.9%	38.5%
Avg. 95-03	22,086	7,122	29,208	12.4%	23.4%

Year	BS Harvest (mt)	AI Harvest (mt)	Total Harvest (mt)	Percent of Total BS Cod Catch	Percent of Total AI Cod Catch
Pot Catcher Processors					
1995	3,608	1,021	4,629	1.6%	6.2%
1996	4,104	3,463	7,567	2.0%	11.0%
1997	4,037	406	4,443	1.7%	1.6%
1998	2,970	348	3,318	1.8%	1.0%
1999	2,256	917	3,174	1.5%	3.3%
2000	1,605	1,041	2,645	1.1%	2.6%
2001	2,649	492	3,141	1.9%	1.4%
2002	2,842	6	2,849	1.7%	0.0%
2003	5,181	0	5,181	2.9%	0.0%
Avg. 95-03	3,250	855	4,105	1.8%	3.0%
Hook-and-Line Catcher Processors					
1995	96,126	4,014	100,140	42.1%	24.3%
1996	89,903	5,788	95,692	43.0%	18.3%
1997	117,323	7,284	124,608	50.4%	29.0%
1998	86,260	13,757	100,016	53.7%	39.4%
1999	80,944	7,977	88,921	55.5%	28.4%
2000	81,185	15,508	96,693	53.6%	39.1%
2001	89,809	17,682	107,491	63.0%	51.7%
2002	99,141	2,759	101,900	59.8%	9.0%
2003	103,875	879	104,754	58.4%	2.7%
Avg. 95-03	93,841	8,405	102,246	53.3%	26.9%
Non-AFA Surimi and Fillet Catcher Processors (Trawl)					
1995	20,431	2,733	23,164	8.9%	16.5%
1996	9,033	5,422	14,455	4.3%	17.2%
1997	4,423	8,590	13,014	1.9%	34.3%
1998	2,144	9,871	12,016	1.3%	28.3%
Avg. 95-03	9,008	6,654	15,662	4.1%	24.0%
Hook-and-Line Catcher Vessels					
1995	1,104	920	2,024	0.5%	5.6%
1996	179	31	210	0.1%	0.1%
1997	129	33	163	0.1%	0.1%
1998	45	40	85	0.0%	0.1%
1999	169	142	311	0.1%	0.5%
2000	353	675	1,028	0.2%	1.7%
2001	551	135	686	0.4%	0.4%
2002	311	106	417	0.2%	0.3%
2003	496	96	592	0.3%	0.3%
Avg. 95-03	371	242	613	0.2%	1.0%

Year	BS Harvest (mt)	AI Harvest (mt)	Total Harvest (mt)	Percent of Total BS Cod Catch	Percent of Total AI Cod Catch
Pot Catcher Vessels					
1995	15,666	3	15,669	6.9%	0.0%
1996	23,001	1,148	24,149	11.0%	3.6%
1997	17,028	3	17,031	7.3%	0.0%
1998	10,016	37	10,053	6.2%	0.1%
1999	10,426	2,588	13,013	7.2%	9.2%
2000	14,278	2,066	16,344	9.4%	5.2%
2001	13,823	86	13,908	9.7%	0.3%
2002	12,812	0	12,812	7.7%	0.0%
2003	20,410	2	20,412	11.5%	0.0%
Avg. 95-03	15,273	659	15,932	8.5%	2.0%
Trawl Catcher Vessels					
1995	48,899	31	48,930	21.4%	0.2%
1996	54,870	2,189	57,060	26.2%	6.9%
1997	55,647	2,606	58,253	23.9%	10.4%
1998	33,684	1,214	34,898	21.0%	3.5%
1999	28,869	7,313	36,182	19.8%	26.0%
2000	30,431	11,221	41,652	20.1%	28.3%
2001	14,664	6,746	21,410	10.3%	19.7%
2002	25,927	15,393	41,320	15.6%	50.0%
2003	27,476	14,272	41,749	15.5%	44.0%
Avg. 95-03	35,608	6,776	42,384	19.3%	21.0%
Jig Catcher Vessels					
1995	599	0	599	0.3%	0.0%
1996	267	0	267	0.1%	0.0%
1997	173	0	173	0.1%	0.0%
1998	192	0	192	0.1%	0.0%
1999	100	69	169	0.1%	0.2%
2000	38	33	71	0.0%	0.1%
2001	52	19	71	0.0%	0.1%
2002	164	0	164	0.1%	0.0%
2003	155	0	156	0.1%	0.0%
Avg. 95-03	193	13	207	0.1%	0.0%

Source: NMFS Blend Data 1995-2002; NMFS Catch Accounting System 2003.

Options for Managing TAC Modifications

The next sections discuss how sector allocations that result from changes in TAC groupings/area allocations could be implemented in a timely fashion. A discussion of the impacts that the various allocation alternatives would have on the participants will also be presented.

Three different options will be presented for allocating Bering Sea subarea and Aleutian Islands subarea Pacific cod TACs to the Amendment 80a sectors. The options presented are the author's attempt to provide alternative approaches to dealing with this problem. Other reasonable options could be developed to resolve this problem that has not been considered in this paper. Each option assumes that the current gear allocations remain in place. The Council could select an option that supercedes those splits at the time of final action. However, this assumption was made to simplify this discussion. In other words, the three options are assumed to be subject to the hook-and-line and pot gear (51%), trawl gear (47%), and jig gear (2%) allocations. TAC subdivisions within the hook-and-line and pot gear sectors (Amendment 77 allocations) are also assumed to be included under these options.

The first option would calculate the percentage of each TAC based on the sector's historic harvest in each area during the qualification period. This approach would likely result in sectors being allocated different percentages of the Aleutian Islands and Bering Sea TACs. The second option would calculate the percentage of the combined Bering Sea/Aleutian Islands TAC they would be allocated and allow sectors to harvest that percentage from each area. This option would result in a sector being allocated the same percentage of TAC in the Bering Sea and Aleutian Islands areas, without regard to historic harvest patterns. The final option would use the second option to determine the sector allocations, but would not assign a specific amount of catch to the Bering Sea or Aleutian Islands. Instead, sectors would be allowed to harvest their allotment from either area. NMFS would close a subarea to directed fishing when the TAC for that sector is reached. That sector would then be required to move its entire directed Pacific cod fishing activity to the subarea that remains open.

Option 1: Allocations Based on Historic Harvest in Area

Option 1 would define the sector allocations for each area based on the relative percentages of Pacific cod that were harvested by the sectors during the qualifying period. This allocation split would be implemented in conjunction with the gear splits that are currently in place (this assumption was made by the author). The gear splits would be determined at the combined BSAI level and the sector allocations would be calculated at the individual subarea level. This would ensure that current gear allocations for the combined BSAI TAC remain in place, but sectors would be allocated different percentages of each area based on their historic harvest patterns. Because the formula for calculating the sector allocations is predetermined by Amendment 80a, it would be possible for inseason management staff to calculate the sector allocation formulas in a timely manner.

The steps for calculating the Pacific cod allocation under Option 1 are:

1. Multiply the gear allocation percentages, defined prior to Amendment 80a¹, by the combined BSAI region's TACs to determine the overall number of metric tons a gear group will be allowed to harvest.

This example assumes that the combined BSAI Pacific cod TAC is set at 199,338 mt after deductions are made for CDQ (7.5 percent of the TAC). In addition, approximately 0.5% of the hook-and-line and pot gear allocation was set aside as an ICA to meet Pacific cod bycatch needs in other non-Pacific cod directed fisheries by hook-and-line and pot gear vessels. The Aleutian Islands TAC is 28,533 mt

¹ The 51% percent of the BSAI Pacific cod TAC that is allocated to the hook-and-line and pot gear sector was further subdivided under BSAI Amendment 77. Amendment 77 allocated 80% of the hook-and-line and pot gear allocation to hook-and-line catcher/processors, 15% to pot catcher vessels, 3.3% to pot catcher/processors, 0.3% to hook-and-line catcher vessels, and 1.4% to <60' pot/hook-and-line catcher vessels.

and the Bering Sea TAC is 170,305 mt, combined they equal 198,838 mt. Given the current allocations by gear type the table below shows the total amount of Pacific cod each group would be allowed to harvest in the two areas combined.

Table 3: Allocations by gear and type of operation that are currently in regulation

	<i>Gear Allocations Metric Tons</i>	
Trawl CV	23.500%	46,844
Trawl CP	23.500%	46,844
Trawl Total	47.000%	93,688
Jig	2.000%	3,987
H&L CP	40.800%	80,930
Pot CV	7.650%	15,174
Pot CP	1.683%	3,338
H&L CV	0.153%	303
<60' H&L - Pot	0.714%	1,416
H&L and Pot Total	51.000%	101,162

Note: The shaded trawl, jig, and H&L and pot totals reflect the gear allocations made under Amendment 67.

- Assign each sector their historic percentage of the Aleutian Islands TAC (this percentage would need to be defined and it could be linked to the sector allocation years). The combinations of years identified by the Council as options to calculate sector allocations were used in Table 4. It should also be noted that information was not available for the <60' H&L – Pot CV sector when this section of the analysis was completed. Therefore, all of their allocation was taken from the BS in all but one alternative. During the 1995-97 time-period some of their allocation was assigned to the Aleutian Islands, because the Hook-and-Line CV sector would have been assigned more than their total allowable allocation in the Aleutian Islands. Therefore, 80mt of their allocation was assigned to the BS and the <60' H&L – Pot was assigned 80mt in the Aleutian Islands. This adjustment was not necessary during any other time period.

Table 4: Percentage of Pacific cod harvests in the Aleutian Islands caught by each sector

Sector	<i>AI Historic %</i>						
	1995-97	1995-02	1995-03	1998-02	1998-03	2000-03	2002-03
AFA CP (Trawl)	16.492%	10.550%	11.026%	7.957%	9.028%	7.397%	9.666%
Non-AFA Trawl CP	21.108%	21.421%	23.443%	21.557%	24.296%	27.547%	37.347%
Pot CP	6.678%	3.193%	2.814%	1.672%	1.401%	1.122%	0.010%
H&L CP	23.338%	31.029%	27.667%	34.385%	29.250%	26.854%	5.751%
Non-AFA S/F Trawl CP*	22.871%	11.046%	9.735%	5.884%	4.930%	0.000%	0.000%
H&L CV	1.345%	0.864%	0.797%	0.655%	0.597%	0.738%	0.319%
Pot CV	1.576%	2.461%	2.170%	2.848%	2.387%	1.571%	0.004%
Trawl CV	6.591%	19.385%	22.304%	24.969%	28.051%	34.733%	46.902%
Jig	0.000%	0.050%	0.044%	0.072%	0.060%	0.038%	0.000%
<60' H&L - Pot	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
Total	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

* These were CPs that harvested pollock and other groundfish species, but left the fishery before 1999 and are not AFA qualified and are not eligible to reenter U.S. fisheries.

Table 5: Aleutian Islands allocations of Pacific cod that would result if the percentages from Table 4 were applied to the assumed Aleutian Islands TAC.

Sector	<i>AI Allocation (mt)</i>						
	1995-97	1995-02	1995-03	1998-02	1998-03	2000-03	2002-03
AFA CP (Trawl)	4,706	3,010	3,146	2,270	2,576	2,111	2,758
Non-AFA Trawl CP	6,023	6,112	6,689	6,151	6,932	7,860	10,656
Pot CP	1,906	911	803	477	400	320	3
H&L CP	6,659	8,853	7,894	9,811	8,346	7,662	1,641
Non-AFA S/F Trawl CP*	6,526	3,152	2,778	1,679	1,407	-	-
H&L CV	303	247	227	187	170	211	91
Pot CV	450	702	619	813	681	448	1
Trawl CV	1,881	5,531	6,364	7,125	8,004	9,910	13,383
Jig	-	14	13	21	17	11	0
<60' H&L - Pot	80	-	-	-	-	-	-
Total	28,533	28,533	28,533	28,533	28,533	28,533	28,533

* These were CPs that harvested pollock and other groundfish species, but left the fishery before 1999 and are not AFA qualified and are not eligible to reenter U.S. fisheries.

The Aleutian Islands allocations under the various time periods reflects the fact that sectors tend to fish more in the Aleutian Islands some years. Allocations to the Pot sectors indicate that pot vessels harvested relatively more of the Pacific cod taken from the Aleutian Islands during the years 1995-97 than they did during the 2002-2003 time period. Because of this variation in Aleutian Islands catches between sectors, the time period selected for the allocations largely determines whether pot vessels will be participants in the Aleutian Islands Pacific cod fishery in the future. Other sectors will also be impacted by the years selected as the historic base period, but in most cases would be less likely to be excluded from the Aleutian Islands fishery.

- Adjust each sector's percentage of the Bering Sea TAC to ensure that they are allocated their assigned percentage of the combined Bering Sea and Aleutian Islands Pacific cod TACs. This adjustment is needed to ensure that each sector is given their entire allocation of the combined BSAI quota. Consider two sectors as examples. The H&L CP sector is assigned 40.8% of the Pacific cod. That percentage equates to 80,930mt of Pacific cod in the BSAI, in this example. Using historic catch rates from the years 1995-2002, that translates to 8,853mt in the Aleutian Islands. Because they were assigned 8,853mt in the Aleutian Islands, they are assigned a percentage of the BS TAC (see Table 6) that allows them to harvest the remainder of their 80,930² mt (72,076 mt) in the Bering Sea (see Table 7). For the next example consider a case where multiple sectors receive their Pacific cod allocation from the same gear allotment. In this case, an additional adjustment must be made to account for the relative catches of each sector. In the trawl catcher/processor sector, the AFA and Non-AFA trawl CP sectors share a Pacific cod allocation and would need to divide 23.5% of the TAC (half of the 47% of the Pacific cod TAC allocated to trawl gear vessels). To make that computation, the amount of Pacific cod the sectors were allocated in the Aleutian Islands (in step 2) would be subtracted from the total amount that is available to the two sectors. The remainder of the trawl CP allocation would be allocated from the Bering Sea based on each of the sector's relative historic Bering Sea harvest amounts. For example, during the 1995-02 time-period the AFA Trawl CPs harvested 18.1% of the trawl CP total in the BSAI, Non-AFA Trawl CPs harvested 64.5%, and the Non-AFA Surimi & Fillet CPs (recall that a decision needs to be made on how to treat this sector's catch) harvested 17.4% (based on catches reported in Table 2). Each sector's allocation from the BS and AI combined is equal to those percentages multiplied by the 46,844 mt available them in this example. That number is

² Rounding errors account for the fact that the BSAI total does not exactly equal the sum of the amounts reported for the Aleutian Islands and Bering Sea.

reported in Table 8. Their BS allocation is equal to the amount of Pacific cod available to them minus their allocation in the AI. That calculation is reflected in Tables 6 and 7.

Table 6: Percentage of Pacific cod harvests that may be taken from Bering Sea by each sector

Sector	<i>BS Historic %</i>						
	1995-97	1995-02	1995-03	1998-02	1998-03	2000-03	2002-03
AFA CP (Trawl)	2.885%	3.210%	3.168%	2.965%	2.972%	2.666%	2.558%
Non-AFA Trawl CP	10.658%	14.163%	14.234%	17.750%	17.423%	18.986%	17.071%
Pot CP	0.841%	1.425%	1.489%	1.680%	1.725%	1.772%	1.959%
H&L CP	43.610%	42.322%	42.885%	41.759%	42.620%	43.021%	46.557%
Non-AFA S/F Trawl CP*	3.831%	2.926%	2.697%	0.860%	0.701%	0.000%	0.000%
H&L CV	0.000%	0.033%	0.045%	0.068%	0.078%	0.055%	0.125%
Pot CV	8.646%	8.498%	8.547%	8.433%	8.510%	8.647%	8.909%
Trawl CV	26.402%	24.258%	23.769%	23.323%	22.807%	21.687%	19.648%
Jig	2.341%	2.333%	2.334%	2.329%	2.331%	2.335%	2.341%
<60' H&L - Pot	0.785%	0.832%	0.832%	0.832%	0.832%	0.832%	0.832%
Total	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

* These were CPs that harvested pollock and other groundfish species, but left the fishery before 1999 and are not AFA qualified and are not eligible to reenter U.S. fisheries.

Table 7: Bering Sea allocations of Pacific cod that would result if the percentages from Table 6 were applied to the assumed Bering Sea TAC.

Sector	<i>BS Allocation (mt)</i>						
	1995-97	1995-02	1995-03	1998-02	1998-03	2000-03	2002-03
AFA CP (Trawl)	4,913	5,468	5,396	5,049	5,062	4,540	4,357
Non-AFA Trawl CP	18,152	24,120	24,242	30,230	29,673	32,334	29,073
Pot CP	1,433	2,427	2,535	2,861	2,939	3,018	3,335
H&L CP	74,271	72,076	73,035	71,118	72,584	73,267	79,289
Non-AFA S/F Trawl CP*	6,525	4,983	4,594	1,465	1,194	-	-
H&L CV	-	57	76	117	133	93	212
Pot CV	14,725	14,472	14,555	14,362	14,493	14,726	15,173
Trawl CV	44,964	41,313	40,480	39,720	38,841	36,934	33,462
Jig	3,987	3,972	3,974	3,966	3,970	3,976	3,987
<60' H&L - Pot	1,336	1,416	1,416	1,416	1,416	1,416	1,416
Total	170,305	170,305	170,305	170,305	170,305	170,305	170,305

* These were CPs that harvested pollock and other groundfish species, but left the fishery before 1999 and are not AFA qualified and are not eligible to reenter U.S. fisheries.

Table 8: Total BSAI Pacific cod allocation assigned to each sector under the proposed alternatives.

Sector	<i>Total BSAI Allocation (mt)</i>						
	1995-97	1995-02	1995-03	1998-02	1998-03	2000-03	2002-03
AFA CP (Trawl)	9,619	8,478	8,542	7,319	7,638	6,650	7,115
Non-AFA Trawl CP	24,174	30,232	30,931	36,381	36,606	40,194	39,729
Pot CP	3,338	3,338	3,338	3,338	3,338	3,338	3,338
H&L CP	80,930	80,930	80,930	80,930	80,930	80,930	80,930
Non-AFA S/F Trawl CP*	13,051	8,135	7,371	3,144	2,601	-	-
H&L CV	303	303	303	303	303	303	303
Pot CV	15,174	15,174	15,174	15,174	15,174	15,174	15,174
Trawl CV	46,844	46,844	46,844	46,844	46,844	46,844	46,844
Jig	3,987	3,987	3,987	3,987	3,987	3,987	3,987
<60' H&L - Pot	1,416	1,416	1,416	1,416	1,416	1,416	1,416
Total	198,838	198,838	198,838	198,838	198,838	198,838	198,838

* These were CPs that harvested pollock and other groundfish species, but left the fishery before 1999 and are not AFA qualified and are not eligible to reenter U.S. fisheries.

An advantage of selecting Option 1 is that it takes into account the percentages of Pacific cod that each sector historically harvested in the most restrictive subarea. Those percentages may not reflect the current fishing patterns, but they could more closely reflect historic reliance on a subarea than assigning catch based on their average harvests in both areas combined. An important decision using this method would be selecting the years to determine the historic dependence in the Aleutian Islands. The example above, allocates trawl CVs only about 30% of their 2002 Aleutian Islands harvest. This shows the importance of selecting the years to be used to calculate the split between the Bering Sea and Aleutian Islands subareas.

One concern that has been expressed regarding Option 1 is that TAC fluctuations would have disproportionate impacts on the sectors that are allocated the greatest percentage of the subarea with the declining TAC. Option 2 mitigates that concern, but creates new issues.

Option 2: Allocate Equal Percentages in Both Areas

NMFS would be directed to allocate sectors the same percentage of the Bering Sea subarea and Aleutian Islands subarea TACs. Therefore, since the hook-and-line CP sector is allocated 40.8% of the BSAI Pacific cod TAC under the current regulations, they would be allocated 40.8% of the Bering Sea TAC and 40.8% of the Aleutian Islands TAC.

Sector allocations in this option are calculated the same as they were under Option 1, except that step 2 would be omitted. In cases where the allocations that are currently in regulation are assigned the same group of vessels as defined in Amendment 80a sectors, the allocation percentages would simply be set at the Bering Sea and Aleutian Islands levels. This is the case for the Hook-and-Line CPs. They would be allocated 40.8% of both subarea's TACs when the current TAC groups are split by subarea. In this example, the Trawl CP allocation would be divided among the Amendment 80a sectors, based on a percentage that must be defined. In Option 1 it was assumed that those percentages were based on relative catch of the sectors in that group. The example used in Option 1 shows that the AFA Trawl CPs harvested 18.1% of the trawl CP total, Non-AFA Trawl CPs harvested 64.5%, and the Surimi & Fillet CPs harvested 17.4% from 1995-2002 (based on catches reported in Table 2). Based on those harvests the sectors would be allocated their percentage of the group's total catch, multiplied by the 23.5% of the TAC that was available to them.

Option 2 solves the problem of disproportionate impacts that result from TAC fluctuations, but may force vessels to fish areas they have not historically fished and do not want to fish. This issue impacts all sectors, but

would likely be most onerous on the sectors comprised of smaller vessels. They would be required to travel greater distances to fish in conditions that may not be well suited for their vessels. When this option was discussed at the IRTU Committee meetings it was generally considered to be inferior to Option 1.

Option 3: No Allocations by Area

Sectors would not be allocated a specific percentage of the individual Aleutian Islands subarea and Bering Sea subarea TACs. Instead, sectors would continue to be issued an overall amount of Pacific cod that could be harvested from the BSAI. That allocation could be fished from either subarea, if TAC is available and the subareas are open to directed fishing. Once the directed fishing allowance for a TAC is reached, for either the Bering Sea or Aleutian Islands, NMFS would issue a closure notice and all the sectors fishing would be required to fish the open subarea if they wanted to participate in the directed fishery for Pacific cod.

This option provides the greatest flexibility for sectors and is, perhaps, the easiest for inseason management. NMFS would not be required to manage separate subarea allocations for each sector. They would only be required to monitor a single harvest limit for each area and use traditional management tools to open and close fisheries. It would provide flexibility to the fleet since they would be able to fish either subarea if they were open.

A possible drawback of this option is that it could cause sectors to race for Pacific cod in the subarea they expect to close first. This could impact a sector's ability to rationalize their harvest, especially if some members of the sector wanted to fish the subarea that is expected to close later in the year. When considering this option the policy makers will need to weigh the negative impacts of a possible race to catch the Aleutian Islands quota versus the flexibility that sectors would be provided when determining where to fish.

Altering TACs for Other Fisheries

A discussion of how the three options discussed above would be implemented for other fisheries is provided next. An important consideration in this discussion is which species will be allocated to sectors. If the TAC of a species or species group is altered that is not allocated to sectors, the issue is moot. The species would be managed as a non-target species. Management options for non-target species that are currently included in Amendment 80a are the current management system, ICAs managed as soft caps, and ICAs managed as hard caps. It is likely that many of the alterations made to TACs will be for the species defined as "non-target".

Assume that roughey rockfish are broken into two species (roughey A and roughey B) and the Council defines them as target species in Amendment 80a. It is unlikely that they will be defined as target species, but that assumption is made in this example to aid the discussion. TACs are set for the BSAI for the two species, and each of the defined sectors is allocated a percentage of the overall TAC.

Option 1 would rely on the same formula defined in Amendment 80a to allocate the two species. That formula will likely be based on the relative catch of the two species over a set of years defined by the Council. Historic catch data for each sector, relative to the catch of all sectors, based on either annual averages or for the entire time period, would be the basis for the calculations. NMFS would be able to calculate each sector's allocation based on that direction from the Council, if the historic catch data breaks out those two species. However, if the same years are used to determine the allocation as is defined in Amendment 80a, the data for those years are unlikely to contain the detail necessary to do the calculations. In that case, the allocation may need to be based on Option 2, and the Council could revise the allocation percentages on a slower time line as better harvest information becomes available.

Under Option 2, NMFS would use the same percentage that was used to allocate rougheye rockfish before the TAC was split, to allocate the new species. Therefore, if the Non-AFA Trawl CPs sector was allocated 25% of the rougheye rockfish TAC before the split, they would be allocated 25% percent of the TAC for rougheye A and 25% of rougheye B after the split. The outcome does not take differential harvest rates of the two species, by sector, into account.

Finally, Option 3 would set a limit on the amount of the two species that could be harvested by each sector. That limit would be based on their allocation of the two species combined. NMFS would monitor the removal of each TAC and close those fisheries to directed fishing when the TAC available for directed fishing is harvested. All sectors will be required to stop directed fishing for that species when the fishery is closed. They must then harvest their remaining allocation from the rougheye TAC that is open to directed fishing.

November 30, 2004

Ms. Stephanie Madsen, Chair
North Pacific Fishery Management Council
605 W 4th Avenue Suite 306
Anchorage, Alaska 99501

Subject: C-9 Pacific Cod Allocations:

Dear Chair Madsen:

I'm writing to you today as a representative of the Unalaska Native Fishermen's Association, and as a harvester that fishes in the 60' < under Pacific Cod fixed gear and jig fishery based out of Unalaska. The total Pacific Cod harvest through November 28, 2004 for the 60' < and under fixed gear and jig fleet is 3,028 MT, with another 2,159 MT of allocation remaining to be caught.

There were a total of 40 vessels that fished Pacific Cod in the 60' < under fixed gear and jig sector in 2004. Listed below is a breakdown by vessel type on the amount of Pacific Cod harvested so far in this fishery, this information came from the National Marine Fisheries Service office in Unalaska.

- 11 Pot vessels caught 2,431 MT of that amount three vessels harvested 60% of the total catch.
- 13 Hook & Line vessels caught 597 MT of that amount two vessels harvested 90% of the total catch.
- 16 Jig vessels caught 213 MT of that amount four vessels caught 68% of the total caught.

Of the 40 vessels that fished Pacific Cod in the 60' < fixed gear and jig sector a total of 9 vessels caught approximately 65% of the total amount of Pacific Cod. I believe that the above information proves that this sector of the Pacific Cod fishery doesn't need rationalization at this time, this sector still hasn't harvested their total cod allocation as of yet. We have a fishery that has room to grow and we expect to see some additional effort in this fishery and hopefully from local harvesters that reside in Unalaska. This fishery leaves room for the entry level participants to get a start in fishing and we feel that is very important to our community. We believe this fishery is well managed and doesn't have the large spikes in catch rates as do other cod fisheries.

Page Two
Letter to Chair Madsen of the NPFMC

We would ask the Council that when you put together the new amendment package for Pacific Cod that in the elements and options be included the options for the 60' < under fixed gear and jig fleet to be exempt from landing and eligibility requirements similar to what we had asked for and the Council included in the previous Amendment 80 when options for Pacific Cod were still included in that document. We thank you for considering are request and for the Councils efforts on this very important issue to many of the small boat harvesters in the Unalaska.

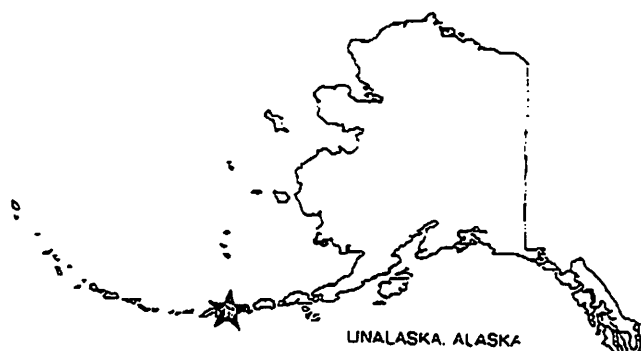
Sincerely,

A handwritten signature in black ink, appearing to read "David Fulton". The signature is written in a cursive, flowing style with a long horizontal stroke extending from the end of the name.

David Fulton
Member of UNFA

CITY OF UNALASKA

P.O. BOX 610
UNALASKA, ALASKA 99685-0610
(907) 581-1251 FAX (907) 581-1417



December 1, 2004

Stephanie Madsen, Chair
North Pacific Fishery Management Council
605 W 4th Avenue Suite 306
Anchorage, Alaska 99501

Subject: C-9 Pacific Cod Allocations:

Dear Chair Madsen:

On behalf of the City of Unalaska, I am writing to you today in continued support of the Unalaska resident small boat, fixed-gear fleet, particularly in relation to their concerns about the potential for a rationalized Pacific Cod fishery for the 60' and under fixed-gear pot, hook and line, and jig vessel sector. We realize that Council will now be working the Pacific Cod sector on a separate track from Amendment 80 and will be forming a new amendment with revised elements and options for the Pacific Cod fisheries. We would once again like to weigh in with comments supporting the local fleet's position on this issue.

The local 60' and under fixed-gear and jig fleet does not support their sector being rationalized and opposes qualifying years and landing requirements for participating in this fishery. The fleet prefers that this fishery remain open access or status quo in nature and continue as an entry level fishery, not just for the Unalaska small boat fleet, but also for other 60' and under vessels in this area from other communities in Southwest Alaska that fish cod. The majority of Unalaska's fishers feel that, due to the lack of history and landings during selected qualifying years rationalizing, this fishery would disenfranchise local fishers from a fishery that takes place right at their front door.

This issue is of further concern to the local fixed-gear fleet because of the changes made to the Pacific Cod rollover provision in Amendment 77 that just went into effect this fishing season. This provision allows the jig quota, which is 2% percent of the TAC, to be rolled over first to the 60' and under pot and hook and line vessels. The rollover from the jig sector, plus the fixed gear allocation of 1.4% of the TAC, has turned this fishery around by providing enough quota to allow for a year-round fishery thus attracting more markets and better ex-vessel prices, and allowing for new entrants. With the jig rollover, we now have a fishery that could have a 7 to 8 million pound harvest, making this a fishery through which harvesters can now make a year-round living.

2

We ask that the Council look at this fishery to see if there really is a need for it to have qualifying years and landing requirements. We certainly do not feel that this fishery warrants these types of restrictions at this time. This cod fishery is not over-capitalized. There are about 40 active vessels in the pot, long-line, and jig sector that fished in 2004, and they still haven't taken the total allocation available to them to date. This fishery doesn't have any management problems. It doesn't have large catch rates. It is open for long periods of time, and it is fairly easy to manage. It is a safe fishery, in that it doesn't have many problems with injuries and vessel sinkings.

We ask that when the new amendment package for the Pacific Cod sector is put together, the Council include the option for the 60' and under fixed-gear and jig fleet to be exempt from landing and eligibility requirements in a manner similar to what we had requested that the Council include in the previous Amendment 80 when options for Pacific Cod were still a part of that document.

As a community, we feel that if this fishery stays in an open access form, it will play an important role in the development of a small boat fleet for this community. We anticipate that this sector will see some growth in the future. The City of Unalaska has a 25 million dollar boat harbor in the works that should be under construction within two years. That boat harbor will provide moorage and services for many vessels in this sector. The harvesters are an important part of the community; many of them are landowners in the community and support our local businesses. We would expect that, as this fishery expands, vessel owners from other communities may setup operations in Unalaska and invest in the community. For these reasons, we will continue to advocate for sustaining this Pacific Cod fishery sector as open access and un-rationalized.

We thank you for taking the time to consider our request and for the Council's efforts on this issue which is of the utmost importance to the 60' and under fixed-gear and jig Pacific Cod harvesters of Unalaska.

Sincerely



Frank Kelty
Resource Analyst
City of Unalaska

CC: Shirley Marquardt, Mayor
Chris Hladick, City Manager

**PUBLIC TESTIMONY SIGN-UP SHEET FOR
AGENDA ITEM C-9 Pacific Cod Allocations**

	NAME (PLEASE PRINT)	AFFILIATION
1	Shawn Koson	Alaska Tug Assoc.
2	Frank Kelly	City of Unalaska
3	GERRY MERRIGAN	PROWLER FISHERIES
4	Bob Storrs - Dave Fulton	Unalaska Native Fishermen's Assoc.
5	DAVID LITTLE	CLIPPER SEAFOODS
6	THORN SMITH	NPLA
7	Paul MacGyver	At Sea Processor
8	Russell Perine	CCF
9	Russell Perine	Cod Trainers
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person "to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

DRAFT MOTION
12-13-04
Mrs Fuglvog/Rasmuson C-9

12/13/04: Draft Problem Statement(s):

1.) BSAI Pacific Cod Sector Allocations: *"The BSAI Pacific Cod fishery is fully utilized and has been allocated between gear groups and to sectors within gear groups. The current allocations among trawl, jig, and fixed gear were implemented in 1997 (Amendment 46) and are overdue for review. Harvest patterns have varied significantly among the sectors resulting in annual inseason reallocations of TAC. As a result, the current allocations do not correspond with actual dependency and use by sectors.*

Participants in the BSAI Pacific cod fishery who have made significant investments and have a long term dependence on the resource need stability in the allocations to their sectors. To reduce uncertainty and to provide stability, allocations should be adjusted to better reflect historic use by sector. The basis for determining sector allocations will be catch history as well as consideration of socio-economic factors.

As other fisheries in the BSAI and GOA are incrementally rationalized, historical participants in the BSAI p-cod fishery may be put at a disadvantage. Each sector in the BSAI Pacific cod fishery currently has different degrees of license requirements and levels of participation. Allocations to the sector level are a necessary step on the path towards comprehensive rationalization. Prompt action is needed to maintain stability in the BSAI Pacific Cod fisheries.

2.) Apportionment of BSAI Pacific Cod Sector Allocations between the BS and AI.

In the event that the BSAI Pacific cod ABC/TAC is apportioned between the BS and the AI management areas, a protocol needs to be established that would continue to maintain the benefits of sector allocations and minimize competition between gear groups; recognize differences in dependence among gear groups and sectors that fish for Pacific cod in the BS and AI; and ensure that the distribution of harvest remains consistent with biomass distribution and associated harvest strategy."

BSAI Pacific Cod Sector Allocations: Draft Elements and Options 12/13/04

Outline of Components

Part I: BSAI Pacific Cod Sector Allocations

A. Allocation to Sectors

- Component 1: Identify and define sectors.
- Component 2: Identify TAC to be allocated to sectors.
- Component 3: Method for determining catch history
- Component 4: Sector catch history years
- Component 5: Allocation of BSAI P-cod TAC to sectors.
- Component 6: Rollovers between sectors.

B. Apportionment of BSAI PSC to Sectors

- Component 1: Apportionment of trawl halibut PSC to the cod fishery group.
- Component 2: Apportionment of the cod trawl fishery group PSC to trawl sectors.
- Component 3: Apportionment of cod H&L halibut PSC between CPs and CVs.

Part II: Apportionment of BSAI P-cod Sector Allocations to BS and AI.

Note: This part would provide a method to apportion BSAI p-cod sector allocations to the BS and AI area in the event that the BSAI p-cod ABC/TAC is apportioned to the BS and AI areas during the specifications process.

- Option 1: Sector allocations remain as BSAI (with BS and AI TACs). No specific sector allocations to AI or BS. *(Council discussion paper: option 3)*
- Option 2: BS and AI sector allocations based on equal percentage from BSAI sector allocations. *(Council discussion paper: option 2)*
- Option 3: BS and AI sector allocations based on historic harvest share in AI area with remainder of BSAI allocation to be caught in the BS. Sector's BSAI allocation remains. *(Council discussion paper: option 1)*
- Option 4: BS and AI sector allocations based on historic harvest share in BS area with remainder of BSAI allocation to be caught in the AI. Sector's BSAI allocation remains. *(new, variation of option 3)*

PART 1: BSAI Pacific Cod Sector Allocations

A. Allocation to Sectors

Component 1: Identify and Define Sectors

Identify the sectors for which catch history will be calculated. The Council may choose to allocate to combined sectors in Component 5, however each sectors' catch history will be calculated separately.

1.1 Sectors for which catch history will be calculated.

- 1.1.1 AFA Trawl CPs: AFA 20*
- 1.1.2 H&G Trawl CPs (non-AFA Trawl CPs)
- 1.1.3 AFA Trawl CVs
- 1.1.4 Non-AFA Trawl CVs
- 1.1.5 Longline CPs: all freezer longliners
- 1.1.6 Longline CVs $\geq 60'$
- 1.1.7 Pot CPs
- 1.1.8 Pot CVs $\geq 60'$
- 1.1.9 Fixed Gear CVs (pot and longline) $< 60'$
- 1.1.10 Jig CVs

* the 20 CP vessels specifically listed in Section 208 (e) of AFA

Component 2: Identify TAC to be allocated to sectors. The BSAI p-cod TAC that is to be allocated to sectors is TAC less CDQ. In addition, the annual ICA for fixed gear would be deducted from (off the top) from the aggregate amount of BSAI Pacific cod TAC allocated to all the fixed gear sectors combined (status quo).

Component 3: Methodology for Determining Sector Catch History

P-cod is an IRIU species. For purposes of determining catch history, "catch" means retained legal catch (including rollovers). A sector's catch history includes all retained legal catch from both the federal fishery and parallel fishery in the BSAI, i.e. retained legal catch from the federal BSAI p-cod TAC (less CDQ). This includes retained legal catch from both LLP and non-LLP vessels except for those vessels whose claims to catch history have been extinguished by the American Fisheries Act (i.e the "AFA-9" CPs listed in Section 209 of the AFA).

For each of the years under consideration in Component 4 (1997-2003), each sector's annual harvest share will be calculated for that individual year as a percentage of the total retained legal catch by all sectors.

For each of the sets of catch history years in Component 4, each sector's harvest percentage will be calculated as the sector's average of the annual harvest share.

Component 4: Sector Catch History Years

Component is to include sets of years from which one set of years will be selected for all sectors. The allocations from Amendment 46 (BSAI Pacific Cod Allocations) were implemented in January, 1997 therefore years prior to 1997 are not under consideration.

There will be a suboption under each set of years to drop one year. Each sector would drop its worst year (smallest annual harvest share percentage for that sector). This could result in aggregate percentage greater than 100% for a set of years for all sectors combined. If that is the case, this would be scaled back to 100%.

- 4.1 1997 – 2003
 - 4.1.1 Drop one year.
- 4.2 1998 – 2002
 - 4.2.1 Drop one year.
- 4.3 1999 – 2003
 - 4.3.1 Drop one year.
- 4.4 2000 – 2003
 - 4.4.1 Drop one year.

Component 5: Allocation of BSAI TAC to Sectors

The intent of the allocations is to provide stability to the sectors therefore the sector allocations are hard cap allocations (plus rollovers, if any).

For all fixed gear sectors, the sector allocation is for all directed fishing for BSAI Pacific cod. For the jig and all trawl sectors, the sector allocation is for all directed and incidental catch of BSAI Pacific cod.

A hard cap allocation for the jig and trawl sectors means that when an individual sector's allocation (plus rollovers, if any) of BSAI Pacific cod is fully taken, all directed fishing for BSAI Pacific cod closes for that sector as well as closing any fisheries where BSAI Pacific cod would be caught incidentally by the same sector.

A hard cap allocation for the fixed gear sectors means that when an individual fixed gear sector's allocation (plus rollovers, if any) of BSAI Pacific cod is fully taken, all directed fishing for BSAI Pacific cod closes for that sector. However, this does not close fixed gear fisheries where BSAI Pacific cod are caught incidentally. That incidental catch is counted against the fixed gear ICA (Incidental Catch Allowance).

- 5.1 **Fixed Gear ICA:** A small amount (approximately 500 mt) of Pacific cod is taken incidentally in BSAI fixed gear directed fisheries for groundfish where Pacific cod is not the target. This amount is determined annually by the Regional Administrator and is to be deducted from the aggregate amount of BSAI Pacific cod TAC allocated to all the fixed gear sectors combined.

In the event the annual amount determined necessary for the fixed gear ICA increases significantly, the Council will re-visit this issue and consider limiting the ICA amount and/or revising MRAs.

5.2 Allocations to Sectors: Allocations to sectors are to be based on catch history (from Component 4) as well as other considerations (see Problem Statement).

The allocations (whether combined or separate) to the <60' fixed gear CVs and jig CVs (i.e the "small boat sectors") shall collectively not exceed:

- 5.2.1 Actual catch history % for jig and <60 collectively (from the set of years selected for all sectors).
- 5.2.2 2.71% (*represents current 2% jig allocation plus 1.4% of 51% fixed gear*)
- 5.2.3 3%
- 5.2.4 4%

Note: The intent of the allocations is to provide stability to the sectors. In all options and sub-options, the <60' fixed gear CV sector will only fish from the direct allocation to that sector plus any seasonal rollover of the unused jig allocation.

Component 6: Rollovers between Sectors

Rollovers will continue to be hierarchical in nature flowing from the most precise definition of a sector to the next more inclusive definition before unused p-cod is re-allocated to a different gear type while maintaining management flexibility. The jig allocation will continue to be seasonally apportioned and will rollover on a seasonal basis. For all other sectors, after September 1, managers may reallocate projected unused sector allocations taking into account: the intent of rollover hierarchy, and b.) the likelihood of a sector receiving a rollover to actually harvest the rollover.

Rollover Hierarchy for Unused Sector Allocations (current regs adapted to sector splits).

- 1.) Projected unused trawl sector allocation must be considered for reallocation to other trawl sectors (AFA CP trawl, non-AFA CP trawl, AFA CV trawl, non-AFA CV trawl) before being reallocated to the fixed gear sectors (CP H&L, CV H&L $\geq 60'$, CV pot $\geq 60'$, CP pot).
- 2.) Reallocation of TAC from the trawl sectors to fixed gear sector will be 0.9% to CP pot, 4.1% to CV pot $\geq 60'$, and 95% to CP H&L.
- 3.) Projected unused allocation in the jig sector should rollover to the <60' fixed gear CVs sector on a seasonal basis.
- 4.) Projected unused pot sector allocation (CVs $\geq 60'$ and CPs) must be considered for reallocation to the other pot sector before being reallocated to CP H&L.

5.) Projected unused allocation in <60' fixed gear CV sector(s), both pot sectors, and CV H&L >=60' should rollover to CP H&L.

6.) Unused seasonal allowances for trawl, pot, and hook-and-line sectors may be reapportioned to the subsequent seasonal allocation for the respective sectors.

B. Apportionment of BSAI PSC to Sectors

Note: The apportionment of trawl PSC to sectors would facilitate coop formation; may allow sectors to better manage PSC use; and prevent preemption by another trawl sector. However the apportionment of trawl PSC into the cod trawl fishery group and then between cod trawl sectors may prove to be difficult and could restrict management flexibility. The apportionments in this action will also have to work in conjunction with PSC apportionment in Amendment 80. Due to the complexity, the Council is seeking input on options for these components.

At this time, it may only be necessary to apportion trawl halibut PSC as it is the most constraining. The amount of herring PSC apportioned to the cod trawl fishery group (27 tons for 2005) may be too small to apportion between all trawl sectors. Crab PSC is abundance based and upon reaching the PSC limit, fisheries are not closed but rather areas are closed so that a fishery is not directly preempted.

Component 1: Apportionment of trawl halibut PSC to the cod fishery group.

The total amount of trawl halibut PSC for the non-CDQ fisheries is 3400 mt which is apportioned between Pacific cod, YFS, RS/OF/FHS, pollock/Atka mackerel/other. Generally, 1400 mt is apportioned to the cod trawl fishery group but this amount and actual use can vary annually. A significant amount of p-cod is taken incidentally in other trawl fisheries so the PSC use associated with that p-cod harvest would be attributed to a fishery group other than cod trawl. Amendment 80A will also allocate halibut PSC to the H&G trawl sector so that the amount of halibut PSC available to the remaining trawl sectors will be reduced.

(Options to be determined).

Component 2: Apportionment of the cod trawl fishery group PSC to trawl sectors.

(Options to be determined).

Component 3: Apportionment of cod H&L halibut PSC between CPs and CVs

The total amount of non-trawl halibut PSC for the non-CDQ fisheries is 833 mt. The 833 mt is normally apportioned between cod H&L and other non-trawl during the normal

specifications process. Generally 775 mt is apportioned to H&L cod and 58 mt to non-trawl other.

This component would divide up the halibut PSC amount apportioned to H&L cod between CP H&L and CV H&L (for CV \geq 60' and CV $<$ 60' combined). The apportionment to be done by one of the following options:

- 3.1 In proportion to the p-cod TAC allocated to the sectors.
 - 3.2 10 mt for CVs, remainder for CPs
 - 3.3 Other (*to be determined*)
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Part II: Apportionment of BSAI P-cod Sector Allocations to BS and AI

Note: This part would provide a method to apportion BSAI p-cod sector allocations to the BS and AI area in the event that the BSAI p-cod ABC/TAC is apportioned to the BS and AI areas during the specifications process.

Option 1: Sector allocations remain as BSAI (with BS and AI TACs).

- 1.1 No allocation to a sector of a specific percentage of a sub-area. Sectors would have BSAI allocation (from Part 1, A. Component 5) to fish in either sub-area (BS and AI) if the sub-area is open for directed fishing and TAC is available. (*Council discussion paper: Option 3*).

Option 2: BS and AI sector allocations based on equal percentage from BSAI sector allocations.

- 2.1 Allocation to a sector of an equal percentage in both sub-areas. The allocation percentage of BSAI TAC a sector receives (from Part 1, A. Component 5) would result in that same percentage being applied to both the BS and AI sub-areas so that a sector would have the same percentage in both sub-areas. (*Council discussion paper: Option 2*).

Option 3: BS and AI sector allocations based on a sector's historic harvest in AI with remainder of sector's overall BSAI allocation to be caught in the BS. Sector's BSAI allocation is maintained and used in annual calculation. (*Council discussion paper: Option 1*).

- 3.1 1997 – 2003
- 3.2 1998 – 2002
- 3.3 1999 – 2003
- 3.4 2000 – 2003
- 3.5 2002 – 2003

Option 4: BS and AI sector allocations based on historic harvest in BS with remainder of sector's overall BSAI allocation to be caught in the AI.

Sector's BSAI allocation is maintained and used in annual calculation.
(new, different version of Option 3).

- 4.1 1997 – 2003
- 4.2 1998 – 2002
- 4.3 1999 – 2003
- 4.4 2000 – 2003
- 4.5 2002 – 2003

No apportionment of BSAI PSC between the BS and AI is under consideration at this time.