

## Bering Sea Aleutian Islands Pacific Cod Allocations

### June 2005 Staff Discussion Paper

In December 2004, the Council approved a draft problem statement and preliminary alternatives and options for a new fishery management plan amendment to modify the current Bering Sea/Aleutian Islands (BSAI) Pacific cod allocations to the various gear sectors. Upon review of staff discussion papers at both the February and April 2005 Council meetings, the Council further revised the components and options for analysis. The current components and options are provided as **Attachment 1** to this paper.

The BSAI Pacific cod amendment package focuses on two primary issues:

- 1) BSAI Pacific cod allocations to all gear sectors (trawl, jig, hook-and-line, and pot); and
- 2) apportionment of the BSAI Pacific cod sector allocations between the BS and AI subareas.

The first part of the problem statement (see Attachment 1) notes the annual inseason reallocations of TAC among gear sectors and concerns that the current BSAI Pacific cod allocations do not adequately reflect actual use by sector. The second part of the problem statement addresses the need to establish a methodology by which to maintain sector allocations and minimize competition among gear groups, should the BSAI Pacific cod TAC be apportioned between the BS and AI subareas during a future specifications process.

The Council's current motion proposes BSAI Pacific cod allocations for the following sectors:

- AFA Trawl CPs
- Non-AFA Trawl CPs
- AFA Trawl CVs
- Non-AFA Trawl CVs
- Hook-and-line CPs
- Hook-and-line CVs  $\geq 60'$
- Pot CPs
- Pot CVs  $\geq 60'$
- Hook-and-line and pot CVs  $< 60'$
- Jig CVs

### Action for this Council Meeting

The Council approved several changes to the components and options for analysis in April. In addition, among other requests, the Council directed staff to develop a discussion paper on a concept that was presented in both the Advisory Panel minutes and public testimony regarding seasonal apportionments of BSAI Pacific cod between the trawl sector and the fixed gear sector. The portion of the Council motion on the seasonal allocation issue is as follows:

***Excerpt from Council motion (April 8, 2005):***

In addition, the Council directs staff to explore the following question: If the revised allocations result in a temporal distribution of the all gear harvest that closely approximates the current catch distribution, and the revised allocations result in changed seasonal apportionments of harvest within gear types (a seasonal apportionment that is different than that which is contained in the current regulations), will that be likely to trigger a formal re-consultation?

In addition, the Council requests staff explore alternative methods to determine sector allocations that would least disturb the bounds of seasonal harvests.

The purpose of this paper is to describe the issues associated with the concept proposed in the Council's April motion and to provide sufficient information for the Council to determine whether it wants to include options in the current suite of components to further analyze this concept. To that end, this paper is specifically provided to:

- **outline the issues relevant to the concept posed in the Council's motion**
- **provide information on informal consultations with NMFS Protected Resources Division relative to whether this concept would trigger a formal reconsultation**
- **identify any alternative methods of establishing allocations among the trawl and fixed gear sectors that would least disturb the bounds of seasonal harvests**

The action at the June meeting is to review this discussion paper and revise the current suite of components and options if determined necessary. Initial Council review of the analysis has been tentatively scheduled for December 2005.

## **Background and current seasonal apportionments**

In order to explore the question posed in the Council's motion above, some background information is necessary to understand the context. 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 vessels, and pot gear. This is a fully prosecuted fishery, with a 2004 TAC of 199,338 mt, 2005 TAC of 190,550 mt, and a 2006 TAC of 180,375 mt (excluding the 7.5% CDQ reserve each year).

The BSAI Pacific cod TAC has been apportioned among the different gear sectors since 1994 (trawl, fixed, and jig gear split), and a series of amendments have modified or continued the allocation system. Thus, the current BSAI Pacific cod allocations were established using a step-wise approach. **Attachment 2** provides a reference sheet for each of the past amendments and its primary provisions, including the basis for the allocations and the hierarchy for reallocating unused quota between and among gear sectors.

Currently, Federal regulations at 50 CFR 679.20(a)(7)(i) authorize distinct BSAI Pacific cod allocations for the following sectors:

- **51% fixed gear**  
(80% hook-and-line catcher processors)  
(0.3% hook-and-line catcher vessels)  
(3.3% pot catcher processors)  
(15.0% pot catcher vessels)  
(1.4% hook-and-line/pot vessels <60' LOA)<sup>1</sup>
- **47% trawl gear**  
(50% trawl catcher vessels)  
(50% trawl catcher processors)
- **2% jig gear**

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

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.<sup>2</sup> While the fixed gear sector was subject to seasonal apportionments prior to 2001, they were modified under the Steller sea lion measures to the existing seasons.

The 2001 Biological Opinion consulted on a comprehensive management regime, of which temporal dispersion of the fisheries was one part. The overall approach to the temporal dispersion measures in the BSAI Pacific cod fishery was to meet a seasonal target of 70% (Jan. 1 – June 10) in the first season and 30% (June 10 – December 31) in the second season.<sup>3</sup> To accomplish this objective, the fixed gear sectors ≥60' LOA are allocated 60% in the first season and 40% in the second season. For trawl gear, the first season is allocated 60%, and the second and third seasons are allocated 20% each.<sup>4</sup> The overall objective is to limit the amount of total cod harvest that could be taken in the first half of the year, in order to disperse the harvest of cod throughout the year in consideration of foraging sea lions.

Under Amendment 77 to revise the fixed gear allocations, 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 fleet earlier in the year. Amendment 77 was implemented on January 1, 2004. **Table 1** provides more detail on the current seasonal apportionments to each gear sector.

Table 1. Current seasonal apportionments by gear type

Date	Trawl gear (47%)			Fixed gear (51%)			Jig Gear (2%)			
	Season	Percent of trawl allocation	Percent of ITAC	Season	Percent of fixed gear allocation	Percent of ITAC	Date	Season	Percent of jig gear allocation	Percent of ITAC
1-Jan	No directed cod trawl fishing prior to Jan. 20			A	60%	30.6%	1-Jan	A	40%	0.8%
20-Jan	A	60%	28.2%				30-Apr			
1-Apr	B	20%	9.4%				30-Apr	B	20%	0.4%
1-Apr	C	20%	9.4%	31-Aug						
10-Jun				1-Nov	31-Dec	B	40%	20.4%	31-Aug	C
No directed cod trawl fishing after Nov. 1						31-Dec				
<b>TOTAL</b>		<b>100%</b>	<b>47%</b>		<b>100%</b>	<b>51%</b>		<b>100%</b>	<b>2%</b>	

With the exception of the jig sector, any unused *seasonal apportionment* to a particular sector is reallocated to the next seasonal allowance for that sector. Near the end of the year, however, NMFS considers whether one or more sectors will likely not be able to use its remaining BSAI cod allocation. Thus, Federal regulations outline a system for reallocating quota that is projected to remain unused by a particular sector near the end of the year (50 CFR 679.20(a)(7)(i)):

- Reallocations between the trawl gear sectors (e.g., trawl CV to trawl CP) are considered prior to reallocating to another gear type (e.g. trawl to fixed gear)
- Unused pot CP or pot CV quota is reallocated to the other pot sector before it is reallocated to the other fixed gear sectors
- Unused portions of a seasonal jig allocation are reallocated to the <60' fixed gear CV sector
- Unused hook-and-line CV sector and <60' fixed gear sector quota is reallocated to the hook-and-line CP sector
- Unused trawl quota is reallocated 95% to hook-and-line CP sector; 4.1% to pot CV sector; 0.9% to pot CP sector

<sup>2</sup>ESA Section 7 Consultation, Biological Opinion and Incidental Take Statement, NMFS Alaska Region. October 2001.

<sup>3</sup>Table 5.4, p. 153 of the 2001 Biological Opinion, NMFS. October 2001.

<sup>4</sup>Within the overall trawl allocation, the trawl catcher vessel sector is allocated 70% in the first season, 10% in the second season, and 20% in the third season. The trawl catcher processor sector is allocated 50% in the first season, 30% in the second season, and 20% in the third season.

## Reallocations among gear sectors

Since the BSAI Pacific cod allocations have been in effect, NMFS has reallocated quota each year from the trawl sectors and jig sector 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 and again in 2004. Reallocations between gear types (e.g., trawl CP to trawl CV, or hook-and-line CV to hook-and-line CP) have occurred less frequently and in lower amounts.

The primary reason reallocations occur from the jig sector is due to insufficient effort in that sector in the BSAI. There are several reasons commonly cited for the trawl reallocations. These include increased difficulty catching cod with trawl gear late in the year when cod are less aggregated (lower CPUE); seasonal apportionments creating a 20% C season for trawl gear under Steller sea lion mitigation measures; closure of the directed trawl fisheries due to the halibut bycatch cap; relatively high annual quotas of alternative trawl fisheries such as pollock (for AFA vessels); and high value alternative trawl fisheries such as yellowfin sole, rock sole, and flathead sole (for non-AFA catcher processors).

Note that the increased difficulty in harvesting cod in the second half of the year, however, is not unique to one sector. All gear sectors have increased difficulty harvesting cod later in the year when cod are less aggregated, and weather is a significant factor for the smaller vessel sectors in the fall season. The hook-and-line sectors (CPs and CVs) are also limited by halibut bycatch in the second half of the year, as these sectors do not have any halibut bycatch allowance from June 10 – August 15. This effectively delays the start of the cod hook-and-line season until August 15, when halibut bycatch becomes available. And as mentioned previously, while the fixed gear cod allocation was seasonally apportioned prior to 2001, these apportionments changed in 2001 with the Steller sea lion mitigation measures, and thus also reduced the amount of cod that the fixed gear sectors could harvest in the first half of the year.

In terms of metric tons, the majority of reallocations have been from the trawl sectors (CVs and CPs) since the gear specific allocations have been in effect. Because any unused *seasonal apportionment* to a particular sector is reallocated to the next seasonal allowance for that sector, reallocations from one gear sector to another (with the exception of jig) occur in the last season. Typically, reallocations from trawl to the fixed gear sectors occur in October, November, or December, always during the trawl C season (June 10 – Nov. 1).

In the past six years (1999 - 2004), NMFS has reallocated an average of about 8,200 mt from the trawl catcher processor sector; 4,300 mt from the trawl catcher vessel sector; and 3,200 mt from the jig sector each year. These reallocations have represented an average of 19% of the trawl catcher processor sector's annual allocation; 10% of the trawl catcher vessel sector's allocation; and 88% of the jig sector's allocation. The trawl sector as a whole (CVs and CPs) reallocated about 12,500 mt on average during 1999 – 2004 (see **Table 2**).

Thus, during 1999 - 2004, jig and trawl reallocations (combined) accounted for a total of about 94,500 mt of reallocated quota to the fixed gear sectors, which represented almost 15% of the *total fixed gear Pacific cod allocation* during that time period. **Reallocations from the trawl sector accounted for 80% (75,200 mt) of the total rollover amount (94,500 mt), or about 12% of the total fixed gear BSAI Pacific cod allocation during that time period.**<sup>5</sup>

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<sup>5</sup>Over 1999 – 2004, the fixed gear sectors (hook-and-line and pot) were allocated a combined total of 647,145 mt, which includes quota that was reallocated from other gear sectors. The fixed gear sectors harvest nearly all of their allocation each year.

Table 2. 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	5,413	12	6,127	13	3,545	89
Average	8,236	19	4,300	10	3,224	88

Source: NMFS, Sustainable Fisheries, information bulletins 1999 - 2004.

In sum, Table 1 outlines the seasonal apportionments by gear type for each BSAI Pacific cod fishery, and Table 2 shows the annual reallocations from the trawl and jig gear sectors to the fixed gear sectors since 1999. **Thus, given the annual reallocations, the *actual harvest* by gear type during each season is different from the seasonal apportionments of the allocations in regulation.** This is not unexpected, as these reallocations have been provided for in regulation and have occurred every year since the original gear splits were established in 1994.

## Current sector allocation options (Component 4)

The first part of the problem statement for the BSAI Pacific cod allocation amendment at issue notes that the current allocation scheme among gear types is overdue for review.<sup>6</sup> It addresses the annual reallocations of quota among gear sectors, and cites concerns that the current BSAI Pacific cod allocations do not adequately reflect actual dependency and use by sector. In order to meet the problem statement, the amendment would effectively modify the gear apportionments by accounting for total retained catch (including reallocated quota). The options for analysis thus calculate each sector's annual harvest share for each of the years under consideration in Component 4 (1995 – 2003) 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. Thus, for the purpose of determining catch history, 'catch' means retained legal catch *including* reallocated quota. (See Components 3 and 4 in **Attachment 1**.)

The suite of options for analysis would effectively modify and refine the allocations by overall gear type (trawl/fixed/jig) as shown in **Table 3**. The more refined allocations to each of the sectors proposed in the amendment are shown in **Table 4**. Note that these tables do not account for existing options to set the <60' hook-and-line and pot gear allocation and jig allocation at a level that exceeds historical use. Those options are provided for in Component 5. These tables also do not reflect the potential for three non-AFA trawl catcher vessels to meet specified eligibility criteria in Component 1 to participate in the AFA catcher vessel sector for purposes of the BSAI Pacific cod sector allocations. Table 3 is intended only to provide a summary view of the potential change to the current allocations resulting from the options in Component 4. The interaction of these additional components (1 and 5) with the options in Component 4 will be shown in the analysis.

Table 3. Range of potential BSAI Pacific cod allocations by sector under Component 4, Options 4.1 - 4.6

Gear Sectors	Range of potential BSAI Pacific cod sector allocations	Current allocation <sup>1</sup> (% of BSAI Pacific cod TAC)
Fixed Gear (hook-and-line and pot)	58.5% - 61.8%	51%
Trawl Gear	38.1% - 41.4%	47%
Jig Gear	0.1%	2%
TOTAL	100.0%	100%

<sup>1</sup>The percentage indicates the initial allocation the sector receives at the beginning of the year. It does not reflect any quota that is reallocated inseason among gear sectors.

Note: These options only reflect actual catch history. Under Component 5, there are options to establish a jig allocation of 2%, 3%, or 4% and a <60' fixed gear allocation of 0.71%, 1% and 2% of the BSAI Pacific cod fixed gear TAC. Thus, the options exist to maintain or increase each sector's current allocation under Component 5.

<sup>6</sup>While there is no regulatory requirement to review the BSAI Pacific cod gear allocations, the Council noted in its motion on BSAI Amendment 46 that it wanted to review the allocations four years after implementation of the trawl (47%), fixed (51%) and jig (2%) gear split. Amendment 46 was implemented January 1, 1997.

Table 4. BSAI Pacific cod sector allocations under Component 4, Options 4.1 - 4.6

OPTION	4.1 excluding AFA 9	4.1 including AFA 9	4.1.1 drop year excluding AFA 9	4.1.1 drop year including AFA 9	4.2 excluding AFA 9	4.2 including AFA 9	4.2.1 drop year excluding AFA 9	4.2.1 drop year including AFA 9	4.3 excluding AFA 9	4.3 including AFA 9
Years	1995 - 02	1995 - 02	1995 - 02	1995 - 02	1997 - 00	1997 - 00	1997 - 00	1997 - 00	1997 - 03	1997 - 03
<60 HAL/Pot CVs	0.3%	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%	0.1%	0.4%	0.4%
AFA Trawl CPs	1.8%	2.9%	1.9%	3.1%	2.1%	3.2%	2.4%	3.7%	1.6%	2.2%
AFA Trawl CVs	22.0%	21.8%	22.6%	22.2%	23.4%	23.1%	22.7%	22.4%	20.7%	20.5%
Jig CVs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Longline CPs	49.3%	48.7%	48.3%	47.7%	49.0%	48.5%	48.0%	47.3%	50.0%	49.7%
Longline CVs	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
Non-AFA Trawl CPs	13.1%	13.0%	13.2%	13.1%	13.3%	13.2%	14.0%	13.9%	14.6%	14.5%
Non-AFA Trawl CVs	1.8%	1.8%	1.8%	1.8%	1.3%	1.3%	1.4%	1.4%	2.1%	2.1%
Pot CPs	2.5%	2.5%	2.6%	2.6%	2.4%	2.4%	2.6%	2.5%	1.9%	1.9%
Pot CVs	8.9%	8.8%	9.0%	8.9%	8.2%	8.1%	8.6%	8.5%	8.4%	8.4%
TOTAL	100%	100%	100%	100%	100.0%	100.0%	100.0%	100%	100%	100%
OPTION	4.3.1 drop year excluding AFA 9	4.3.1 drop year including AFA 9	4.4 excluding AFA 9	4.4 including AFA 9	4.4.1 drop year excluding AFA 9	4.4.1 drop year including AFA 9	4.5	4.5.1 drop year	4.6	4.6.1 drop year
Years	1997 - 03	1997 - 03	1998 - 02	1998 - 02	1998 - 02	1998 - 02	1999 - 03	1999 - 03	2000 - 03	2000 - 03
<60 HAL/Pot CVs	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.6%	0.7%	0.7%	0.8%
AFA Trawl CPs	1.6%	2.3%	1.6%	2.1%	1.7%	2.3%	1.2%	1.3%	0.9%	0.9%
AFA Trawl CVs	21.2%	21.0%	20.2%	20.1%	21.2%	21.0%	19.3%	20.2%	18.4%	19.5%
Jig CVs	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Longline CPs	48.7%	48.4%	49.8%	49.6%	48.5%	48.1%	49.4%	48.3%	50.3%	49.0%
Longline CVs	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%	0.2%	0.3%	0.3%	0.4%
Non-AFA Trawl CPs	14.9%	14.8%	15.5%	15.4%	15.2%	15.2%	15.9%	15.4%	16.0%	15.6%
Non-AFA Trawl CVs	2.2%	2.2%	1.8%	1.8%	2.0%	2.0%	2.5%	2.7%	2.8%	3.0%
Pot CPs	2.0%	2.0%	2.1%	2.1%	2.2%	2.2%	1.9%	2.1%	1.4%	1.5%
Pot CVs	8.5%	8.5%	8.2%	8.2%	8.4%	8.4%	9.0%	9.0%	9.1%	9.2%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Percentage allocations were derived from each sector's average annual harvest share over the series of years identified under each option. The 'drop year' percentages are adjusted equally to result in an annual sum of 100%. Harvest data are retained catch from WPR reports and ADF&G fishtickets, 1995 - 2003. No 'targeting' was applied to the data. 2003 data are considered preliminary.

Note: The AFA-9 only have catch history through 1998, thus whether to include their catch history to determine the AFA trawl CP sector allocation is only a decision point under Options 4.1 - 4.4.

**Because there are no options to change the seasonal apportionments for each gear type from the current regulations (60% - 40% for fixed gear; 80% - 20% - 20% for trawl gear; 40% - 20% - 40% for jig gear), the understanding thus far is that the sector allocations resulting from this amendment will continue to be seasonally apportioned according to current regulations.**

The trawl sector’s overall allocation would be reduced by any of the action alternatives proposed in this amendment, as the quota that is currently reallocated near the end of each fishing year will instead be part of the fixed gear sector’s overall initial allocation. This action is thus expected to reduce the amount of quota that is projected to remain unused by the trawl sector and reallocated on an annual basis. This is in part the purpose of this amendment, in order to reflect actual use by sector.

**Given that the current suite of options does not propose changing the seasonal apportionments of these new sector allocations, the result is that any possible reduction in the trawl allocation would be distributed proportionally among each of its three seasons. Likewise, any potential increase to the fixed gear allocation would be distributed proportionally between its A and B seasons.** Table 5 provides an example below, should the overall trawl allocation be reduced (by 7%) to 40% and the fixed gear allocation be increased (by 7%) to 58%.

Table 5: Example of implementation of current options in Component 4, showing 7% of ITAC moved from trawl to fixed gear

Date	TRAWL					FIXED					TOTAL	
	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	1st/2nd half of year (mt)	Percent of ITAC
	<b>40%</b>					<b>58%</b>						
1-Jan	(no fishing allowed with trawl gear 1/1-1/20)											
20-Jan		A	60%	24.0%	48,000		A	60%	34.8%	69,600	133,600	66.8%
1-Apr		B	20%	8.0%	16,000							
10-Jun		C	20%	8.0%	16,000		B	40%	23.2%	46,400		
1-Nov	(no cod target allowed with trawl gear after 11/1)											
31-Dec												
<b>TOTAL</b>			<b>100%</b>	<b>40%</b>	<b>80,000</b>			<b>100%</b>	<b>58%</b>	<b>116,000</b>	<b>196,000</b>	<b>98.0%</b>

Note: ITAC = 200,000 mt in this example. The ITAC (Initial Total Allowable Catch) is the remainder of the TAC after the subtraction of the 7.5% CDQ reserve.  
 Note: This table uses an example of reducing the overall trawl allocation to 40% and increasing the overall fixed gear allocation to 58% of the BSAI Pacific cod ITAC. This example is used to show how the seasonal percentage of ITAC and the actual harvest would change for each sector. This table does not account for the allocation to the jig gear sector of 2% of the BSAI Pacific cod ITAC.

Table 5 shows how the seasonal allocations would be established under current regulations, such that the 60/20/20 split would be applied to the new allocation to the trawl sector and the 60/40 split would be applied to the new allocation to the fixed gear sector. For example, 60% of the 7% allocation increase to the fixed gear sector is apportioned to the A season, and 40% of the 7% increase is apportioned to the B season. The seasonal percentage of the gear allocations do not change; however, the seasonal percentage of the ITAC taken by each sector necessarily changes, as does the overall percent of the ITAC harvested in the first and second halves of the year (66.8% and 31.2%, respectively).

**It was noted at the April meeting, however, that the purpose of the proposed amendment is to revise the allocations such that they reflect actual historical use, and that the quota that comprises the adjustment in allocations is quota that is harvested only in the second half of the year.** In addition, it is not likely that the reasons the trawl sector does not currently harvest its entire C season allocation will change substantially in the near future, which increases the likelihood of continued reallocations, albeit of a lower amount. These discussions spurred consideration of the following concept outlined in the Council’s April 2005 motion.



## Discussion of concept in April Council motion

Given that the reallocations from the trawl sector have historically occurred only in the trawl sector's C season (after June 10), a concept was discussed in April of revising the allocations such that they would maintain the overall seasonal catch distribution between the trawl and fixed gear sectors that is currently occurring. This concept was discussed in the Advisory Panel minutes from April 2005 (minority report), in public testimony at both the Council and the Advisory Panel, and subsequently captured in the Council's April motion. In effect, this concept would:

- revise the current overall allocation to the trawl sector (from 47% of the BSAI Pacific cod ITAC to X) and fixed gear sector (from 51% of the BSAI Pacific cod ITAC to Y)
- maintain the current allocations in the A/B seasons for trawl gear (47%) and the A season for fixed gear (51%)
- provide that any reduction in the overall trawl allocation resulting from the proposed amendment would be applied only in the C season for trawl gear (June 10 – November 1)
- provide that any increase in the fixed gear allocation resulting from the proposed amendment would be applied only in the B season for fixed gear (June 10 – December 31)

This proposal necessarily changes the seasonal apportionments by gear type that are currently in regulation for the trawl and fixed gear sectors, but would maintain the overall seasonal apportionment for all gear types of 70% in the A season and 30% in the B season. It also mirrors what is currently occurring in the fisheries given the annual reallocations, in effect, it maintains the percent of the ITAC that each sector harvests in the first half of the year. The current allocation scheme and the concept proposed in the April Council motion are illustrated in Tables 6 – 10 below.

**Tables 6 – 10 use an assumed initial TAC of 200,000 mt. Tables 6 and 8** are the same, indicating the current regulations governing the trawl and fixed gear BSAI Pacific cod allocations. These tables are repeated only to facilitate comparison to the other tables.

**Table 7** is an example of what actually occurs in the BSAI Pacific cod fisheries, given that quota is annually reallocated from the trawl to fixed gear sectors late in the year, as authorized by current regulations. Table 7 shows that if 12,000 mt is reallocated from the trawl to the fixed gear sector (based on average annual reallocations during 1999 – 2004), the seasonal percentage of the ITAC harvested by trawl gear decreases substantially in the C season. Under the regulations, the trawl sector is effectively allocated 9.4% of the ITAC in its C season; however, the example in Table 7 shows that on average the trawl sector harvests only about 3.4% of the ITAC in its C season. Conversely, the seasonal percentage of the ITAC harvested by fixed gear increases from 20.4% to 26.4% if the rollover is accounted for. Note also that the overall distribution of cod harvest between the first half of the year and the second half of the year remains at about 70% and 30%, respectively.<sup>7</sup>

**The next set of tables shows two examples of the proposed concept in the Council's April motion. Table 8** again shows the current regulations governing both the trawl and fixed gear sectors, assuming an initial TAC of 200,000 mt. **Table 9 is provided for comparison, to show how the allocations would be established under the concept described above:** 1) maintain the current allocations in the A/B seasons for trawl gear and the A season for fixed gear, and 2) apply any reduction to the trawl allocation resulting from the proposed amendment only to the C season (June 10 – Nov. 1). Conversely, any increase in the fixed gear allocation resulting from the proposed amendment would be applied only in the B season for fixed gear (June 10 – December 31).

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<sup>7</sup>The 2% BSAI Pacific cod jig allocation is not included in these tables, thus, the far right column of the tables sum to 98% of the total BSAI Pacific cod ITAC.

Under the status quo, the trawl sector overall is allocated 47% of the BSAI Pacific cod ITAC. Table 9 uses an example of reducing the overall trawl allocation to 42%. In brief, the concept is to *maintain the current 47% allocation for the trawl A and B seasons*, such that the seasonal percentage of the ITAC harvested by trawl gear stays the same (28.2% and 9.4%, respectively). *Therefore, the entire reduction of 5% (47% - 42%) to the trawl allocation is realized entirely in the C season.* Comparing Table 8 to Table 9, the amount of the ITAC (by percent and metric tons) harvested by the trawl sector in the C season changes from 9.4% to 4.4% (18,800 mt to 8,800 mt). Note that the overall distribution of cod harvest between the first and second half of the year remains at about 70% and 30%, respectively.

Finally, **Table 10** provides a second example, similar to that shown in Table 9. The only difference is that Table 10 shows the result of reducing the overall trawl allocation by 7% (from 47% to 40% of the BSAI Pacific cod ITAC). Again, the seasonal percentage of the TAC harvested by trawl gear stays the same for the A and B seasons (28.2% and 9.4%, respectively). The entire *reduction* of 7% (47% - 40%) to the trawl allocation is realized entirely in the C season (from 9.4% in Table 7 to 2.4% in Table 10).

Note that any change in the ITAC does not affect the seasonal percentage of the ITAC harvested by each gear type or the seasonal percent of the allocation for each gear type under this concept. Using Table 10 as an example, should the ITAC be reduced by half, the trawl sector would continue to harvest 28.2%, 9.4%, and 2.4% of the ITAC in the A, B, and C seasons respectively. This would continue to equate to 70.5%, 23.5%, and 6.0% of the trawl sector's overall allocation in the A, B, and C seasons, respectively.

**In sum, the concept proposed:**

- *would* change the seasonal apportionment of the trawl sector's overall allocation from the current 60% - 20% - 20% in regulation, and *would* change the seasonal apportionment of the fixed gear sector's overall allocation from the current 60% - 40% in regulation.
- *would not* change the percentage (or mt) of the ITAC harvested by *each gear sector* in the first half of the year.
- *would* change the percentage of the ITAC (or mt) harvested by *each gear sector* in the second half of the year.
- *would not* change the distribution of harvest of the TAC *overall by both gear types* between the first half of the year (~70%) and the second half of the year (~30%).

**BSAI Pacific cod: Overview of current regulations (Table 6) and how the fishery actually operates (Table 7)**

Table 6. Current regulations

Date	TRAWL					FIXED					TOTAL	
	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	1st/2nd half of year (mt)	Percent of ITAC
	47%					51%						
1-Jan	(no fishing allowed with trawl gear 1/1-1/20)											
20-Jan		A	60%	28.2%	56,400		A	60%	30.6%	61,200	136,400	68.2%
1-Apr												
1-Apr		B	20%	9.4%	18,800							
10-Jun												
1-Nov		C	20%	9.4%	18,800		B	40%	20.4%	40,800	59,600	29.8%
31-Dec	(no cod target allowed with trawl gear after 11/1)											
<b>TOTAL</b>			<b>100%</b>	<b>47%</b>	<b>94,000</b>			<b>100%</b>	<b>51%</b>	<b>102,000</b>	<b>196,000</b>	<b>98.0%</b>

Note: ITAC = 200,000 mt in this example. The ITAC (Initial Total Allowable Catch) is the remainder of the TAC after the subtraction of the 7.5% CDQ reserve.

Note: Table 6 does not account for the allocation to the jig sector of 2% of the BSAI Pacific cod ITAC.

Table 7. Example of what occurs under current regulations using an average reallocation of 12,000 mt from trawl to fixed gear

Date	TRAWL					FIXED					TOTAL			
	Percent of ITAC	Season	Seasonal Percent of Allocation	Actual % of harvest by season	Seasonal Percent of ITAC	Metric tons	Percent of ITAC	Season	Seasonal Percent of Allocation	Actual % of harvest by season	Seasonal Percent of ITAC	Metric tons	1st/2nd half of year (mt)	Percent of ITAC
	47%					51%								
1-Jan	(no fishing allowed with trawl gear 1/1-1/20)													
20-Jan		A	60%	69%	28.2%	56,400		A	60%	54%	30.6%	61,200	136,400	68.2%
1-Apr														
1-Apr		B	20%	23%	9.4%	18,800								
10-Jun														
1-Nov		C	20%	8%	3.4%	18,800 - 12,000 = 6,800		B	40%	46%	26.4%	40,800 + 12,000 = 52,800	59,600	29.8%
31-Dec	(no cod target allowed with trawl gear after 11/1)													
<b>TOTAL</b>			<b>100%</b>	<b>100%</b>	<b>41%</b>	<b>82,000</b>			<b>100%</b>	<b>100%</b>	<b>57%</b>	<b>114,000</b>	<b>196,000</b>	<b>98.0%</b>

Note: ITAC = 200,000 mt in this example. The ITAC (Initial Total Allowable Catch) is the remainder of the TAC after the subtraction of the 7.5% CDQ reserve.

Note: Table 7 uses an example of 12,000 mt reallocated from trawl to fixed gear, based on the average annual reallocation from 1999 - 2004. Under current regulation, any quota reallocated from the trawl sector is allocated 95% to the hook-and-line CP sector, 4.1% to the pot CV sector, and 0.9% to the pot CP sector.

Note: Table 7 does not account for the allocation to the jig gear sector of 2% of the BSAI Pacific cod ITAC.

## Comparison of current regulations and proposal to apply new allocations only to second half of the year (June 10 – Dec. 31)

**Table 8. Current Regulations**

Date	TRAWL					FIXED					TOTAL	
	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	1st/2nd half of year (mt)	Percent of ITAC
	<b>47%</b>					<b>51%</b>						
1-Jan	(no fishing allowed with trawl gear 1/1-1/20)											
20-Jan		A	60%	28.2%	56,400		A	60%	30.6%	61,200	136,400	68.2%
1-Apr		B	20%	9.4%	18,800							
10-Jun		C	20%	9.4%	18,800		B	40%	20.4%	40,800		
10-Jun	(no cod target allowed with trawl gear after 11/1)										59,600	29.8%
31-Dec												
<b>TOTAL</b>			<b>100%</b>	<b>47%</b>	<b>94,000</b>			<b>100%</b>	<b>51%</b>	<b>102,000</b>	<b>196,000</b>	<b>98.0%</b>

Note: ITAC = 200,000 mt in this example. The ITAC (Initial Total Allowable Catch) is the remainder of the TAC after the subtraction of the 7.5% CDQ reserve.

Note: Table 8 does not account for the allocation to the jig sector of 2% of the BSAI Pacific cod ITAC.

**Table 9. Example of proposal showing 5% of ITAC moved from trawl to fixed gear sector**

Date	TRAWL					FIXED					TOTAL	
	Percent of ITAC	Season	Seasonal Percent of Allocation*	Seasonal Percent of ITAC	Metric tons	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	1st/2nd half of year (mt)	Percent of ITAC
	<b>42%</b>					<b>56%</b>						
1-Jan	(no fishing allowed with trawl gear 1/1-1/20)											
20-Jan		A	67.1%	28.2%	56,400		A	54.6%	30.6%	61,200	136,400	68.2%
1-Apr		B	22.4%	9.4%	18,800							
10-Jun		C	10.5%	4.4%	8,800		B	45.4%	25.4%	50,800		
10-Jun	(no cod target allowed with trawl gear after 11/1)										59,600	29.8%
31-Dec												
<b>TOTAL</b>			<b>100.0%</b>	<b>42.0%</b>	<b>84,000</b>			<b>100.0%</b>	<b>56.0%</b>	<b>112,000</b>	<b>196,000</b>	<b>98.0%</b>

Note: ITAC = 200,000 mt in this example. The ITAC (Initial Total Allowable Catch) is the remainder of the TAC after the subtraction of the 7.5% CDQ reserve.

Note: Table 9 does not account for the allocation to the jig sector of 2% of the BSAI Pacific cod ITAC.

Note: Comparing Table 8 to Table 9, the seasonal percentage of the allocation harvested by the trawl and fixed gear sectors changes under this proposal. However, the seasonal percentage of the ITAC and amount of fish harvested stays the same as the status quo for both sectors in the first half of the year. The overall distribution between the first and second halves of the year (70% - 30%) for all gear sectors is also maintained.

**Table 10. Example of proposal showing 7% of ITAC moved from trawl to fixed gear sector**

Date	TRAWL					FIXED					TOTAL	
	Percent of ITAC	Season	Seasonal Percent of Allocation*	Seasonal Percent of ITAC	Metric tons	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	1st/2nd half of year (mt)	Percent of ITAC
	<b>40%</b>					<b>58%</b>						
1-Jan	(no fishing allowed with trawl gear 1/1-1/20)											
20-Jan		A	70.5%	28.2%	56,400		A	52.8%	30.6%	61,200	136,400	68.2%
1-Apr		B	23.5%	9.4%	18,800							
10-Jun		C	6.0%	2.4%	4,800		B	47.2%	27.4%	54,800		
10-Jun	(no cod target allowed with trawl gear after 11/1)										59,600	29.8%
31-Dec												
<b>TOTAL</b>			<b>100.0%</b>	<b>40.0%</b>	<b>80,000</b>			<b>100.0%</b>	<b>58.0%</b>	<b>116,000</b>	<b>196,000</b>	<b>98.0%</b>

Note: ITAC = 200,000 mt in this example. The ITAC (Initial Total Allowable Catch) is the remainder of the TAC after the subtraction of the 7.5% CDQ reserve.

Note: Table 10 does not account for the allocation to the jig sector of 2% of the BSAI Pacific cod ITAC.

Note: Comparing Table 8 to Table 10, the seasonal percentage of the allocation harvested by the trawl and fixed gear sectors changes under this proposal. However, the seasonal percentage of the ITAC and amount of fish harvested stays the same as the status quo for both sectors in the first half of the year. The overall distribution between the first and second halves of the year (70% - 30%) for all gear sectors is also maintained.

It is not apparent that there are other methods to establish sector allocations that also prevent changing the bounds of seasonal harvests. The current regulations tie the seasonal apportionments (60/40 for fixed gear, 60/20/20 for trawl) to the sector's allocation, thus, any change to the annual allocation to a sector will necessarily change the amount that sector can *harvest* in a particular season. The concept described in the previous section would maintain (codify in regulation) the A and B season harvest for the trawl sector and the A season harvest for the fixed gear sector. **While additional methods are not proposed in this paper, the concept described above could be modified to preserve the bounds of seasonal harvest for any particular season, if desired.** Thus, this concept could be modified to maintain the C season harvest for a particular sector, or to maintain only the A season harvest for the trawl sector (Jan. 20 – April 1). The latter example is shown below in Table 11.

Table 11. Example of moving 7% of ITAC from trawl to fixed gear, and maintaining the current A season harvest for both sectors

Date	TRAWL					FIXED					TOTAL	
	Percent of ITAC	Season	Seasonal Percent of Allocation*	Seasonal Percent of ITAC	Metric tons	Percent of ITAC	Season	Seasonal Percent of Allocation	Seasonal Percent of ITAC	Metric tons	1st/2nd half of year (mt)	Percent of ITAC
	<b>40%</b>					<b>58%</b>						
1-Jan	(no fishing allowed with trawl gear 1/1-1/20)											
20-Jan		A	70.5%	28.2%	56,400		A	58.8%	34.1%	68,200	136,400	68.2%
1-Apr												
1-Apr		B	14.8%	5.9%	11,800							
10-Jun												
10-Jun		C	14.8%	5.9%	11,800		B	41.2%	23.9%	47,800	59,600	29.8%
1-Nov	(no cod target allowed with trawl gear after 11/1)											
31-Dec												
<b>TOTAL</b>			<b>100.0%</b>	<b>40.0%</b>	<b>80,000</b>			<b>100.0%</b>	<b>58.0%</b>	<b>116,000</b>	<b>196,000</b>	<b>98.0%</b>

Note: ITAC = 200,000 mt in this example. The ITAC (Initial Total Allowable Catch) is the remainder of the TAC after the subtraction of the 7.5% CDQ reserve. Table 11 does not account for the 2% allocation to the jig sector of the BSAI Pacific cod ITAC.

Note: Table 11 uses an example of a 40% trawl allocation and a 58% fixed gear allocation. This table illustrates the result of maintaining the current A season harvest for the trawl sector (28.2% of the BSAI Pacific cod ITAC), and dividing the remaining trawl sector allocation (11.8% of the ITAC) equally between the B (5.9%) and C seasons (5.9%). The seasonal percentage of the allocation harvested by the trawl and fixed gear sectors changes slightly, but the overall seasonal percentage of the ITAC and amount of fish harvested stays the same as the status quo for the A season (68.2% or 136,400 mt).

## Issue of potential for formal consultation

Having outlined the proposal in the Council's April motion in the previous section, the motion questions whether this general concept would trigger a formal re-consultation on Steller sea lions. This question is spurred by the fact that the current seasonal apportionments determined for the trawl (60/20/20) and fixed gear (60/40) Pacific cod fisheries are a result of the 2001 Biological Opinion, and the concept proposed would necessarily change those gear specific seasonal apportionments. (Note that any method to maintain the current seasonal *harvest* by gear sector for a particular season in the context of modifying the overall allocations to each sector would necessarily change the gear specific seasonal apportionments.)

The overall approach in the Biological Opinion is to have temporal dispersion in the Pacific cod fishery with a seasonal target for BSAI Pacific cod of 70% (Jan. 1 – June 10) in the first season and 30% (June 10 – December 31) in the second season.<sup>8</sup> As discussed previously, this seasonal split is achieved by establishing a 60% - 40% split in the fixed gear fishery (with the exception of fixed gear vessels <60' which have no seasonal apportionment) and 80% - 20% in the trawl fishery.<sup>9</sup> Among other factors, the Biological Opinion considered the current percentage of the BSAI Pacific cod ITAC that is allocated to each gear sector, the reallocations that were likely to continue to occur from the trawl to the fixed gear sector, and the seasonal harvest of each sector. The overall objective of the temporal dispersion is to limit the amount of the total Pacific cod harvest that could occur in the first half of the year.

<sup>8</sup>Table 5.4, p. 153 of the 2001 Biological Opinion, NMFS. October 2001.

<sup>9</sup>Which is achieved by 60% (A); 20% (B); and (20%) C seasons for trawl gear overall, and a 70% (A); 10% (B); 20% (C) split for trawl CVs and 50% (A); 30% (B); and 20% (C) for trawl CPs.

Thus, in April, the Council directed staff to both explore options that would least disturb the bounds of seasonal harvests, and to specifically explore whether the concept above would trigger a formal re-consultation. **In effect, would changes to the seasonal apportionment within the trawl and fixed gear sectors' allocations (60/40 for fixed; 60/20/20 for trawl) fall within the bounds of the 2001 consultation on Steller sea lions if the overall limitation on the amount of cod harvested by each gear type (and combined) in the first season is maintained?**

On May 4, 2005, Council staff met with NMFS Protected Resources staff and provided them with a review of the concept provided in this paper and the question above.<sup>10</sup> A letter was subsequently sent from the Council to NMFS, Alaska Region, requesting a preliminary review of ESA issues related to the proposed concept. The agency's response to this request will be attached to this discussion paper and provided to the Council at its June 2005 Council meeting.

## Summary

At this point, it is a policy decision for the Council as to whether to include this concept for further analysis in the suite of components and options for the BSAI Pacific cod allocation amendment package. If desired, the Council could add this concept as an option in Component 4, that would potentially apply to one or all of Options 4.1 – 4.7 which determine the sector allocations. In sum, the option would be to:

- Upon determination of the new overall allocations to the trawl and fixed gear sectors, maintain the *current* percentage of the ITAC allocated in the A and B seasons for trawl gear and the A season for fixed gear.
- Provide that any reduction in the overall trawl allocation resulting from the options would be applied only in the C season for trawl gear.
- Provide that any increase in the overall fixed gear allocation resulting from the options would be applied only in the B season for fixed gear.

As described above, this option would be implemented such that:

New trawl allocation = X

Seasonal percent of ITAC for **trawl A** season =  $60\% \times 47\% = 28.2\%$

Seasonal percent of ITAC for **trawl B** season =  $20\% \times 47\% = 9.4\%$

Seasonal percent of ITAC for **trawl C** season =  $X - (28.2\% + 9.4\%)$

New fixed gear allocation = Y

Seasonal percent of ITAC for **fixed gear A** season =  $60\% \times 51\% = 30.6\%$

Seasonal percent of ITAC for fixed gear B season =  $Y - 30.6\%$

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<sup>10</sup>Nicole Kimball (Council staff) provided Kaja Brix and Shane Capron (NMFS, Protected Resources Division) with a draft discussion paper outlining the concept in the April 2005 Council motion. Council (Kimball and Wilson) and NMFS staff (Brix and Capron) met on May 4, 2005, to review the paper and discuss any preliminary issues of concern related to the ESA.

**Council Motion on BSAI Pacific Cod Allocations  
(Updated as of April 8, 2005)**

**BSAI Pacific Cod Sector Allocations: Draft Problem Statement**

**Part 1.) BSAI Pacific Cod Sector Allocations:** The BSAI Pacific cod fishery is fully utilized and has been allocated among 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 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 Pacific 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.

**Part 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 among 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 Components and Options**

### **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 Pacific cod TAC to sectors
- Component 6: Rollovers between sectors
- Component 7: CDQ allocation of Pacific cod

#### **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 catcher processors (CPs) and catcher vessels (CVs)

### **Part II: Apportionment of BSAI Pacific cod Sector Allocations to BS and AI *(if needed)***

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

- Option 1: Sector allocations remain as BSAI (with AI and BS TACs). No specific sector allocations to AI or BS.
- Option 2: BS and AI sector allocations based on equal percentage from BSAI sector allocations.
- 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.



## **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 sector's catch history will be calculated separately.

1.1 Sectors for which catch history will be calculated.

1.1.1 AFA Trawl CPs (AFA 20\*)

Suboption a: Include catch history of the nine trawl CPs whose claims to catch history have been extinguished by Section 209 of the AFA

Suboption b: Exclude catch history of the nine trawl CPs whose claims to catch history have been extinguished by Section 209 of the AFA

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

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 hook-and-line)  $< 60'$

1.1.10 Jig CVs

\*refers to the 20 trawl CP vessels listed in Section 208(e) of American Fisheries Act

Eligibility criteria for non-AFA trawl catcher vessels to be included in the AFA catcher vessel sector for purposes of the cod allocations:

Option 1. The holder of a license that arose from a vessel/history that made a minimum of 100 mt of cod landings during each of the years 1995 – 1997.

#### **Component 2: Identify TAC to be allocated to sectors**

The BSAI Pacific cod TAC that is to be allocated to sectors is TAC less CDQ. In addition, the annual incidental catch allowance (ICA) for fixed gear would be deducted (off the top) from the aggregate amount of the BSAI Pacific cod TAC allocated to all of 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 Pacific cod TAC less CDQ). This includes retained legal catch from both LLP and non-LLP vessels. The analysis will also provide each sector's catch history based on total catch (retained and discarded) where practicable.

For each of the years under consideration in Component 4 (1995-2003), 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. Note that the allocations from Amendment 46 (BSAI Pacific Cod Allocations) were implemented in January 1997.

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 an 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 1995 – 2002
  - 4.1.1 Drop one year
- 4.2 1997 – 2000
  - 4.2.1 Drop one year
- 4.3 1997 – 2003
  - 4.3.1 Drop one year
- 4.4 1998 – 2002
  - 4.4.1 Drop one year
- 4.5 1999 – 2003
  - 4.5.1 Drop one year
- 4.6 2000 – 2003
  - 4.6.1 Drop one year
- 4.7 The Council can select percentages for cod allocated to each sector that fall within the range of percentages analyzed.

#### **Component 5: Allocation of BSAI TAC to Sectors**

- 5.1 **Fixed Gear ICA** (*status quo*): 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 NMFS Regional Administrator and is to be deducted from the aggregate amount of BSAI Pacific cod TAC allocated to all the fixed gear sectors combined (*i.e. off the top of fixed gear allocation*). In the event the annual amount determined necessary for the fixed gear ICA increases significantly, the Council will revisit 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 (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 percentage for jig and <60' fixed gear CVs collectively (from the set of years selected for all sectors in Component 4).
- 5.2.2 2.71% (represents current 2% jig allocation plus 0.71% <60' fixed gear CV allocation of non-CDQ BSAI Pacific cod TAC)
- 5.2.3 3% (represents 2% jig allocation plus 1% <60' fixed gear CV allocation of non-CDQ BSAI Pacific cod TAC)
- 5.2.4 4% (represents 2% jig allocation plus 2% <60' fixed gear CV allocation of non-CDQ BSAI Pacific cod TAC)

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

### **Component 6: Rollovers between Sectors**

Reallocated quota (rollovers) will continue to be hierarchical in nature, flowing from the most precise definition of a sector to the next most inclusive definition before unused Pacific 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: a) 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:**

Options 6.1 – 6.6 are considered a suite of provisions to create one comprehensive option for reallocating quota. These options represent the current regulations adapted to new sector splits. Option 6.7 is considered a second comprehensive option.

- 6.1 Projected unused trawl sector allocations 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 (hook-and-line CP, hook-and-line CV  $\geq 60'$ , pot CP, pot CV  $\geq 60'$ ).
- 6.2 Reallocation of TAC from the trawl sectors to fixed gear sectors will be 0.9% to pot CP 4.1% to pot CV  $\geq 60'$ , and 95% to hook-and-line CP.
  - 6.2.1 Suboption: Reallocation of TAC from the trawl sectors to the fixed gear sectors will be proportional to the new fixed gear allocations.
- 6.3 Projected unused allocation in the jig sector should rollover to the <60' fixed gear CV sector on a seasonal basis. The third trimester jig rollover should be available to the <60' fixed gear CV sector on September 1.
- 6.4 Projected unused pot sector allocations (CPs and  $\geq 60'$  CVs) must be considered for reallocation to the other pot sector before being reallocated to the hook-and-line CP sector.
- 6.5 Projected unused allocation in the <60' fixed gear CV sector, both pot sectors (CP and  $\geq 60'$  CV), and hook-and-line CV  $\geq 60'$  should rollover to the hook-and-line CP sector.
- 6.6 Unused seasonal allowances for the trawl, pot, and hook-and-line sectors may be reapportioned to the subsequent seasonal allocation for the respective sectors.

6.7 Projected unused allocations to any sector delivering inshore must be considered for reallocation to other inshore sectors before being considered for reallocation to any offshore sector. When considering reallocations of inshore sector fish the following hierarchy shall be followed:

Any unused allocation from any inshore sector will rollover using the following hierarchy:

First to Jig CV sector and/or <60' fixed gear CV sector; then to Hook-and-line CV  $\geq 60'$  sector or Pot CV  $\geq 60'$  sector; then to Trawl CV sectors (AFA and non-AFA)

Any CV allocation that is not harvested or likely to be harvested through the above hierarchy will be reallocated as per components 6.1 through 6.6.

#### **Component 7: CDQ Allocation of BSAI Pacific cod**

CDQ allocations for BSAI Pacific cod shall be removed from the TAC prior to the allocation to all other sectors at percentage amounts equal to one of the following options:

- 7.1 7.5% (*status quo*)
- 7.2 10%
- 7.3 15%

## **B. Apportionment of BSAI PSC to Sectors**

Note: The apportionment of trawl PSC to sectors would facilitate cooperative formation, may allow sectors to better manage PSC use, and may 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 BSAI 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 and crab PSC. The amount of herring PSC apportioned to the cod trawl fishery group (27 mt in 2005) may be too small to apportion between all trawl sectors.

The Council recommends under Part B, Components 1 and 2, that the analysis look at the variability of cod catch annually in the trawl fisheries in order to determine how much cod the various trawl sectors need in order to accommodate incidental catch needs in their non-cod target fisheries.

### **Component 1: Apportionment of trawl halibut and crab PSC to the cod fishery group**

The total amount of trawl halibut PSC for the non-CDQ fisheries is 3,400 mt, which is apportioned between Pacific cod, yellowfin sole, rocksole/other flatfish/flathead sole, pollock/Atka mackerel/other. Generally, 1,400 mt is apportioned to the cod trawl fishery group, but this amount and actual use can vary annually. A significant amount of Pacific cod is taken incidentally in other trawl fisheries so the PSC use associated with that Pacific cod harvest would be attributed to a fishery group other than cod trawl. Amendment 80 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 halibut and crab PSC to trawl sectors**

Option 1: PSC apportioned to the cod trawl sectors will be based on the average bycatch rate of the trawl cod sectors applied to the cod allocation percentages determined for each sector under Part A Component 4.

### **Component 3: Apportionment of cod hook-and-line 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 hook-and-line sectors and other non-trawl fisheries during the annual specifications process. Generally, 775 mt is apportioned to hook-and-line cod fisheries and 58 mt to other non-trawl.

This component would divide the halibut PSC amount apportioned to hook-and-line cod between hook-and-line CPs and hook-and-line CVs (for CVs  $\geq 60'$  and CVs  $< 60'$  combined). The apportionment is to be done by one of the following options:

- 3.1 In proportion to the BSAI Pacific cod TAC allocated to the sectors
- 3.2 10 mt for CVs, remainder for CPs
- 3.3 Other *(to be determined)*

## **Part II: APPORTIONMENT OF BSAI PACIFIC COD SECTOR ALLOCATIONS TO BS AND AI**

*Note:* This part would provide a method to apportion BSAI Pacific cod sector allocations to the BS and AI areas in the event that the BSAI Pacific cod ABC/TAC is apportioned to the BS and AI areas during the specifications process. No apportionment of BSAI PSC between the BS and the AI is under consideration at this time.

### **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 a 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.

### **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.

### **Option 3: BS and AI sector allocations based on a sector's historic harvest in the 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.**

- 3.1 1995 - 2002
- 3.2 1997 – 2003
- 3.3 1998 – 2002
- 3.4 1999 – 2003
- 3.5 2000 – 2003
- 3.6 2002 – 2003

Table A-1. Overview of BSAI Pacific cod Allocation and Endorsement Amendments

Amendments	Am. 24	Am. 46	Am. 64	Am. 67	Am. 77
<b>Action</b>	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 <b>fixed gear</b> BSAI P.cod TAC (51%) among pot gear, longline CPs, longline CVs, and <60' vessels.	LLP Pacific cod endorsement requirements for ?60' <b>fixed gear vessels</b> in the directed BSAI P.cod fishery.	Allocation of <b>fixed gear</b> P.cod TAC (51%) among pot CPs, pot CVs, longline CPs, longline CVs, and <60' vessels.
<b>Allocations</b>	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 rqmt (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%
<b>Allocation basis</b>	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.
<b>Other actions</b>	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.
<b>Date effective</b>	Feb. 28, 1994	Jan. 1, 1997	Sept. 1, 2000	Jan. 1, 2003	Jan. 1, 2004
<b>Sunset date</b>	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 A-2. 2005 AND 2006 GEAR SHARES AND SEASONAL ALLOWANCES OF THE BSAI PACIFIC COD ITAC (amounts are in mt)**

Gear Sector	Percent	2005 Share of gear sector total	2005 Subtotal percentages for gear sectors	2005 Share of gear sector total	2005 Seasonal apportionment <sup>1</sup>		2006 Share of gear sector total	2006 Subtotal percentages for gear sectors	2006 Share of gear sector total	2006 Seasonal apportionment <sup>1</sup>	
					Date	Amount				Date	Amount
Total hook-and-line/pot gear	51	97,181	.....	.....	.....	.....	91,991	.....	.....	.....	.....
Hook-and-line/pot ICA	.....	.....	.....	500	.....	.....	.....	.....	500	.....	.....
Hook-and-line/pot sub-total	.....	96,681	.....	.....	.....	.....	91,491	.....	.....	.....	.....
Hook-and-line C/P	.....	.....	80	77,344	Jan 1-Jun 10 Jun 10-Dec 31	46,407 30,938	.....	80	73,193	Jan 1-Jun 10 Jun 10-Dec 31	43,916 29,277
Hook-and-line CV	.....	.....	0.3	290	Jan 1-Jun 10 Jun 10-Dec 31	174 116	.....	0.3	274	Jan 1-Jun 10 Jun 10-Dec 31	165 110
Pot C/P	.....	.....	3.3	3,190	Jan 1-Jun 10 Sept 1-Dec 31	1,914 1,276	.....	3.3	3,019	Jan 1-Jun 10 Sept 1-Dec 31	1,812 1,208
Pot CV	.....	.....	15	14,502	Jan 1-Jun 10 Sept 1-Dec 31	8,701 5,801	.....	15	13,724	Jan 1-Jun 10 Sept 1-Dec 31	8,234 5,489
CV < 60 feet LOA using Hook-and-line or Pot gear	.....	.....	1.4	1,354	.....	.....	.....	1.4	1,281	.....	.....
Total Trawl Gear	47	89,559	.....	.....	.....	.....	84,776	.....	.....	.....	.....
Trawl CV	.....	.....	50	44,779	Jan 20-Apr 1 Apr 1-Jun 10 Jun 10-Nov 1	31,345 4,478 8,956	.....	50	42,388	Jan 20-Apr 1 Apr 1-Jun 10 Jun 10-Nov 1	29,672 4,239 8,478
Trawl CP	.....	.....	50	44,779	Jan 20-Apr 1 Apr 1-Jun 10 Jun 10-Nov 1	22,390 13,434 8,956	.....	50	42,388	Jan 20-Apr 1 Apr 1-Jun 10 Jun 10-Nov 1	21,194 12,716 8,478
Jig	2	3,811	.....	.....	Jan 1-Apr 30 Apr 30-Aug 31 Aug 31-Dec 31	1,524 762 1,524	3,608	.....	.....	Jan 1-Apr 30 Apr 30-Aug 31 Aug 31-Dec 31	1,443 722 1,443
Total	100	190,550	.....	.....	.....	.....	180,375	.....	.....	.....	.....

<sup>1</sup> 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 A-3. 2005 AND 2006 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 <sup>1</sup>	<u>C. opilio</u> (animals) COBLZ <sup>1</sup>	<u>C. bairdi</u> (animals)	
					Zone 1 <sup>1</sup>	Zone 2 <sup>1</sup>
Yellowfin sole	886	183	33,843	3,101,915	340,844	1,788,459
January 20 - April 1	262	.....	.....	.....	.....	.....
April 1 - May 21	195	.....	.....	.....	.....	.....
May 21 - July 5	49	.....	.....	.....	.....	.....
July 5 - December 31	380	.....	.....	.....	.....	.....
Rock sole/other flat/flathead sole <sup>2</sup>	779	27	121,413	1,082,528	365,320	596,154
January 20 - April 1	448	.....	.....	.....	.....	.....
April 1 - July 5	164	.....	.....	.....	.....	.....
July 5 - December 31	167	.....	.....	.....	.....	.....
Turbot/arrowtooth/sablefish <sup>3</sup>	.....	12	.....	44,946	.....	.....
Rockfish	.....	.....	.....	.....	.....	.....
July 5 - December 31	69	10	.....	44,945	.....	10,988
Pacific cod	1,434	27	26,563	139,331	183,112	324,176
Midwater trawl pollock	.....	1,562	.....	.....	.....	.....
Pollock/Atka mackerel/other <sup>4</sup>	232	192	406	80,903	17,224	27,473
Red King Crab Savings Subarea <sup>6</sup>	.....	.....	.....	.....	.....	.....
(non-pelagic trawl)	.....	.....	42,495	.....	.....	.....
Total trawl PSC	3,400	2,012	182,225	4,494,569	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 <sup>5</sup>	342	.....	14,775	364,424	73,500	222,750
PSC grand total	4,575	2,012	197,000	4,858,993	980,000	2,970,000

<sup>1</sup> Refer to § 679.2 for definitions of areas.

<sup>2</sup> "Other flatfish" for PSC monitoring includes all flatfish species, except for halibut (a prohibited species), Greenland turbot, rock sole, yellowfin sole and arrowtooth flounder.

<sup>3</sup> Greenland turbot, arrowtooth flounder, and sablefish fishery category.

<sup>4</sup> Pollock other than pelagic trawl pollock, Atka mackerel, and "other species" fishery category.

<sup>5</sup> 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.

<sup>6</sup> In December 2004, the Council recommended that red king crab bycatch for trawl fisheries within the RKCSS be limited to 35 percent of the total allocation to the rock sole/flathead sole/"other flatfish" fishery category (see § 679.21(e)(3)(ii)(