

FLATFISH TAC EXCHANGE CONCEPT

Bill Orr

EXAMPLE INITIAL SPECIFICATIONS

	Flathead Sole	Rock Sole	Yellowfin Sole	Total TAC
ABC	68,300	219,000	242,000	
TAC	41,458	85,000	197,660	324,118
ABC SURPLUS	26,842	134,000	44,340	
A80 TAC	40,000	80,000	140,000	260,000
Coop A CQ	30,000	60,000	100,000	190,000
Coop B CQ	10,000	20,000	40,000	70,000

Rule: Coop can access ABC Surplus in proportion to its A80 CQ allocation for that flatfish species, by relinquishing a like amount of CQ of another A80 flatfish species

Example: Coop A has 75% of the A80 CQ for Flathead Sole. The ABC Surplus of flathead sole is 26,842 mt. Coop A can access up to 75% of that ABC Surplus (20,131 mt) by relinquishing 20,121 mt of CQ of yellowfin sole and/or Rock Sole. Use all yellowfin sole for this example.

RESULT OF EXAMPLE EXCHANGE

	Flathead Sole	Rock Sole	Yellowfin Sole	
ABC	68,300	219,000	242,000	No Change in individual ABC
TAC	41,458	85,000	197,660	324,118 No Change in Total TAC
Exchange	20,131	0	-20,131	
Revised TAC	61,589	85,000	177,529	324,118
ABC SURPLUS	6,711	134,000	64,471	
New A80 TAC	60,131	80,000	119,869	260,000 No Change in total A80 TAC
Coop A CQ	50,131	60,000	79,869	190,000 No Change in total Coop A CQ
Coop B CQ	10,000	20,000	40,000	70,000 No Change in total Coop B CQ



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Mr. Eric Olson, Chair
North Pacific Fishery Management Council
605 West 4th, Suite 306,
Anchorage, Alaska 99501

Dear Mr. Olson,

The Alaska Seafood Cooperative (AKSC) is a harvesting cooperative consisting of seventeen vessels and five companies. The multi species Amendment 80 sector operates under hard caps for yellowfin sole, flathead sole, rock sole, Pacific cod, Atka mackerel, and Pacific ocean perch, as well as halibut and crab. Because any of these species may be caught in a Bering Sea flatfish trawl, Amendment 80 vessels must stop fishing when any of these allocations are reached. Depending on environmental conditions and other factors, this could result in stranded quotas.

For the reasons described in this letter, AKSC supports initiating an analysis of options to improve inseason operational flexibility for Amendment 80 vessels.

OY, TAC setting, Amendment 80 operations, and the need for increased flexibility

As biomasses fluctuate over time, Total Allowable Catches (TACs) are adjusted accordingly. During years where pollock, Pacific cod, and flatfish biomasses are simultaneously high, industry and the Council must make difficult allocation choices to remain below the statutory 2 million mt Bering Sea and Aleutian Islands (BSAI) optimum yield (OY) limit. During years when non-Amendment 80 species TACs are high, lowered Amendment 80 TACs result in reduced flexibility and may prematurely stop fishing, particularly with lower yellowfin sole, rock sole, flathead sole, and Pacific cod TACs. The Amendment 80 sector must support TAC amounts that allow for maximum harvest of all species in a wide range of environmental conditions.

To ensure that cooperative quotas are not exceeded, AKSC distributes quota among each of its active vessels, and vessel captains are required by internal agreement to remain below their allocations. At the beginning of each year, companies establish fishing plans for their vessels based on expected environmental conditions, bycatch limitations, and market conditions. In practice, these can rarely be estimated with any precision, and actual fishing plans change throughout the year.

Early in the year, some companies trade their expected surplus quota to other companies to increase efficiencies. However, bycatch rates, ice conditions, vessel breakdowns, markets, and other variables are unpredictable. A prudent vessel operator balances these unknowns, and

maintains quota balances to increase operational flexibility throughout the year. Underharvesting potentially limiting species early in the year allows maximization of others throughout the remainder of the year.

For example, most AKSC companies participate in the late winter rock sole with roe fishery. Because rock sole is hard capped, vessels must maintain a rock sole quota balance to support fishing throughout the remainder of the year. In 2011, vessel captains were conservative and intentionally left a portion of their rock sole unharvested, anticipating that these amounts would be needed during the course of summer and fall yellowfin sole fisheries. This decision was based on 2010 catch rates as a reasonable proxy for 2011. However, rock sole were less aggregated later in the year than they had been at the same time in previous years, and AKSC left 24 percent of its allocation unharvested.

The following table shows rock sole rates in the AKSC yellowfin sole fishery from 2008 through 2011. Rock sole rates vary greatly by year and month (e.g., September). Based on 2010 catch rates from June through September, captains constrained their winter rock sole with roe fishery. However, actual rates during this time were much less. This table illustrates the difficulty of managing rock sole quota from year to year.

Percent Rock Sole in Yellowfin Sole Target (Rock sole to all Groundfish)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2008	7%	9%	9%	4%	10%	3%	16%	5%	5%	5%	3%	3%
2009	0%	2%	6%	3%	4%	5%	14%	9%	6%	4%	1%	0%
2010	3%	6%	14%	5%	3%	9%	14%	16%	11%	5%	2%	0%
2011	0%	1%	4%	3%	8%	7%	12%	13%	4%	4%	2%	2%

Since AKSC began operations in 2008, AKSC companies have become increasingly adept at maximizing quotas within the context of Amendment 80 hard caps and changing conditions. Companies are less conservative and internal and external trading has increased. However, due to the current multispecies hard cap nature of Amendment 80 fisheries, these constraints will continue to limit flatfish harvest because companies must maintain a balance of each flatfish species that is sufficient to allow for both operational flexibility and annual fluctuations in actual catch rates.

Pacific cod and halibut PSC limitations

Amendment 85 allocated 13.4 percent of the annual Pacific cod TAC to the Amendment 80 sector. This was based on an analysis of each sector’s retained catch from 1995-2003. However, by using these years, Amendment 85 did not address a change in management structure in 1998 when Increased Retention/Increased Utilization (IRIU) regulations required vessels to retain 100 percent of all harvested cod. In addition, Amendment 85 did not consider the effect of the American Fisheries Act of 1999 that precluded vessels from participation in the pollock fishery, which can have relatively higher levels of cod bycatch. Therefore the years 1995, 1996, and 1997 underestimated retained cod catch. According to Table 3-10 in the Amendment 85 analysis found on the NMFS website

(<http://www.fakr.noaa.gov/analyses/amd85/amd85socdraft.pdf>), retained catch from 1999 – 2003 was much higher than from 1995 – 1997 and not less than 15.3 percent.

Table 3-10 BSAI Pacific cod annual harvest share by sector (retained harvest, excluding meal) including AFA 9 catch history, 1995–2003

SECTOR	1995	1996	1997	1998	1999	2000	2001	2002	2003	average
<60 HAL/Pot CVs	0.5%	0.1%	0.0%	0.0%	0.1%	0.2%	0.7%	0.9%	1.0%	0.4%
AFA Trawl CPs	5.0%	3.8%	4.0%	5.1%	2.6%	1.1%	0.9%	0.8%	0.8%	2.7%
AFA Trawl CVs	22.5%	26.5%	25.0%	22.8%	22.9%	22.4%	12.3%	20.3%	18.5%	21.5%
Jig CVs	0.3%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
Longline CPs	49.6%	42.8%	50.9%	50.8%	47.4%	46.6%	56.7%	47.7%	49.5%	49.1%
Longline CVs >60'	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.9%	0.1%	0.1%	0.1%
Non-AFA Trawl CPs	9.1%	9.2%	9.2%	13.3%	15.3%	16.0%	15.5%	17.9%	15.6%	13.5%
Non-AFA Trawl CVs	1.8%	1.7%	1.5%	0.9%	1.2%	1.7%	2.0%	3.5%	4.2%	2.1%
Pot CPs	2.5%	4.3%	2.3%	1.9%	2.2%	1.5%	2.0%	1.2%	0.8%	2.1%
Pot CVs >60'	8.6%	11.5%	7.1%	5.1%	8.1%	10.3%	9.1%	7.5%	9.5%	8.5%
Total	1	1	1	1	1	1	1	1	1	100.0%

Source: Harvest data are retained catch (excluding meal) from WPR reports and ADF&G fishtickets, 1995 - 2003. Each sector's annual harvest share was calculated for the individual year as a percentage of the total retained legal catch by all sectors.

Pacific cod are caught incidentally in every Amendment 80 fishery, especially in higher volume fisheries such as yellowfin sole. During years with high Pacific cod biomass, the ratio of Pacific cod to other quota species creates a scenario where Pacific cod in effect becomes a prohibited species and is avoided. Rather than maximizing cod catch throughout the year or targeting cod, most AKSC captains are in a situation where they must avoid high concentrations of Pacific cod, sometimes to the detriment of otherwise low bycatch/high volume fishing. In 2011, only 6 percent was harvested in the Pacific cod target.

The following table reflects cod harvest during 2011. AKSC's 2011 total cod allocation was 23,232 mt, while its total allocation for all Amendment 80 species was 222,740 mt. Because cod is harvested in all fisheries, most vessel captains aim for about 10 percent cod relative to all other Amendment 80 species.

2011 AKSC Pacific Cod Percentage Relative to Amendment 80 Flatfish Target												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Percent Cod	10%	11%	7%	12%	8%	6%	22%	16%	9%	16%	9%	11%

In July and August, cod rates in the summer yellowfin sole fishery jumped to 22 and 16 percent respectively. Consequently, most captains chose to leave the yellowfin sole grounds until cod rates decreased. These captains searched for other lower bycatch fisheries, such as arrowtooth flounder. As the season winds down and captains are better able to predict quota needs, companies may intentionally increase cod harvest to the extent that aggregated cod can be found. However, cod do not tend to aggregate later in the year, and cod bycatch rates in other fisheries vary widely by year. Additionally, where cod aggregations can be found, captains are prohibited by Steller sea lion regulations from directed fishing for cod beginning November 1.

Halibut PSC reflects a similar scenario. By regulation, the Amendment 80 halibut PSC allocation has been reduced by 200 mt over four years. However, Amendment 80 allows captains to leave areas of high halibut bycatch without losing fishing opportunities to other vessels, and overall

halibut bycatch has been reduced beyond regulatory allocation reductions. The following table shows 2011 AKSC halibut bycatch by month and fishery. Blank cells indicate that no target fishing occurred in that month.

2011 AKSC Halibut Rates (kg/mt)												
Target	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Flathead sole		34		28	16	23	5	2	28	2		
Yellowfin sole		0	2	4	1	7	14	7	2	5	10	34
Rock sole	6	7	4	8	7	18	9	7	7	23	66	

Notice the relatively inconsistent halibut rates associated with flathead sole target fishery. For the last several years, high halibut rates, high cod rates, and ice cover during typical flathead sole fishing times have resulted in lower than average flathead sole harvest. However, these conditions are impossible to predict during the TAC setting process. In any given year, environmental conditions may change: halibut and cod bycatch in the flathead sole fishery may decrease, and increase in the yellowfin sole fishery. If this occurs, flathead sole may become a more viable target fishery, or flathead sole may be interspersed with other flatfish targets. In either case, maintaining higher flathead sole quotas are important under the current Amendment 80 management scenario.

Increased flexibility under Proposed Flatfish Management

Prior to Amendment 80 implementation, NMFS apportioned 15 percent of yellowfin sole, rock sole, and flathead sole TACs to the non-specified reserve (NSR). As harvest limits for species contributing to the NSR were reached, NMFS could reallocate quota from the NSR to increase harvest of those species as long as the acceptable biological catch (ABC) for any given species was not exceeded. This structure increased management flexibility to address some of the same constraints described above. Amendment 80 eliminated this process, instead allocating all yellowfin sole, rock sole, and flathead sole to individual sectors.

The Council discussion paper draws upon the NSR concept and allows Amendment 80 captains some additional operational flexibility to adapt to inseason and annual changes to fishing conditions. Figure 2 in the paper shows a process for allocating a combined flatfish complex TAC for yellowfin sole, flathead sole, and rock sole. To ensure the ABC for any individual species is not exceeded, ABCs would also be allocated to sectors (called Individual Biological Limits (IBL) in the Council discussion paper), including community development quota groups, and cooperatives according to Figure 2. Each sector would be responsible for remaining below their allocation for the flatfish complex, and portion of the individual species ABCs. ***Under this program, the ABC for an individual species would not be exceeded, and sectors would not be affected by other sectors.***

Under this proposed allocation scenario, AKSC would receive allocations for a combined flatfish complex, and portions of the ABCs for yellowfin sole, flathead sole, and rock sole. Internally, AKSC would allocate each of these quota categories to individual vessels. Each vessel would be responsible for managing its flatfish complex quota and IBL for each species.

The benefits of this program accrue toward species with high ABCs but low TACs under the current system. Table 8 in the discussion paper describes additional catch potential for each of the three proposed flatfish complex species using 2011 specified values. AKSC vessels would have had access to 89,286 mt of additional rock sole in exchange for harvesting less flathead or yellowfin sole. In the above example, vessel captains could choose to increase rock sole with roe harvest early in the season with less risk of limiting yellowfin sole harvest later in the year.

In another example, the flathead sole fishery could become a more viable fishery if environmental conditions change such that halibut and cod are not intermingled with flathead sole. Additionally, increased cod allocations could increase incentives to harvest flathead sole. If these conditions exist in the future, vessel captains could choose to focus on flathead sole (which is valued higher than yellowfin and rock sole) in exchange for reduced yellowfin or rock sole fishing.

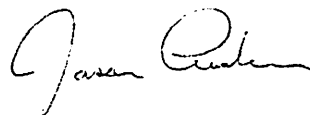
Recommendations

One critical decision point highlighted in the discussion paper is how to establish a system for allocating yellowfin sole to the BSAI trawl limited access fleet under the new system. Amendment 80 established a stair-step allocation that balanced yellowfin sole and pollock TAC sizes only. Some of the options described in the discussion paper would reapportion yellowfin sole so that the BSAI trawl limited access portion would increase. ***We are not in favor of any option that would reevaluate yellowfin sole apportionments between the BSAI trawl limited access and Amendment 80 sectors.***

In sum, the combination of multiple hard caps, changing environmental conditions, changing market conditions, vessel operational constraints, and variable and unpredictable bycatch rates creates an inefficient management scenario. Vessel managers monitor and juggle limiting catch rates for halibut, crab, and Pacific cod while attempting to maximize Amendment 80 flatfish harvests within these constraints. We believe the concept developed in the discussion paper addresses many of these concerns, and will assist in maximizing Amendment 80 flatfish harvests. Therefore, ***we recommend that the Council develop an analysis of options for initial review.***

Please do not hesitate to contact me at (206) 462-7682 with any additional questions.

Sincerely,



Jason Anderson
Alaska Seafood Cooperative, Manager