Alaska Seafood Cooperative Report to the North Pacific Fishery Management Council for the 2010 Fishery

March 25, 2011

Prepared by Jason Anderson and Beth Concepcion

ALASKA SEAFOOD COOPERATIVE

Wild Seafood Harvested Responsibly

Introduction

On September 14, 2007, the National Marine Fisheries Service (NMFS) published a final rule implementing Amendment 80 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands management area (BSAI). Amendment 80 provides specific groundfish and prohibited species catch (PSC) allocations to the non-American Fisheries Act (AFA) trawl catcher processor sector and allows the formation of cooperatives. Sector allocations and the formation of cooperatives were intended to assist compliance with the Groundfish Retention Standard (GRS) program.

On January 20, 2008, the Alaska Seafood Cooperative (AKSC) began fishing allocations under regulations implementing Amendment 80. This report summarizes AKSC, its catch for the 2010 fishing year, the processes implemented to ensure that catch limits are not exceeded, and issues affecting AKSC members.

AKSC membership

AKSC is comprised of the following six member companies, and seventeen non-AFA trawl catcher processors.

Company	Vessel	Length Overall
M/V Savage	Seafisher	211
Fishermen's Finest, Inc.	American No. 1	160
	U.S. Intrepid	184
Iquique U.S., L.L.C.	Arica	186
	Cape Horn	158
	Rebecca Irene	140
	Tremont	125
	Unimak	184
Ocean Peace	Ocean Peace	220
O'Hara Corporation	Constellation	165
	Defender	124
	Enterprise	124
	Harvester Enterprise	181
United States Seafoods, LLC	Seafreeze Alaska	296
	Legacy[1]	132
	Alliance	107
	Vaerdal	124

[1] The Prosperity LLP is assigned to the Legacy.

Coop management

AKSC activities are governed by a Board of Directors, which is appointed by AKSC Members. Additionally, owners, captains, crew, and company personnel participate and provide input to the cooperative management process. The Members executed a cooperative agreement after extensive discussion and negotiation that outlines harvest strategies, harvest shares, and agreement compliance provisions. The agreement is amended as necessary to improve cooperative management of allocations and PSC, and to comply with regulatory programs.

The AKSC Manager is responsible for the day-to-day management of the cooperative. This includes facilitating communication among the fleet, member companies, and AKSC staff; ensuring compliance with the AKSC agreement and regulatory programs; tracking the AKSC budget; coordinating Board meetings and AKSC activities; ensuring harvest shares are distributed in a timely and accurate manner; and managing AKSC office and staff. The Manager also completes all cooperative reporting requirements in a timely manner, including applying for annual catch allocations on behalf of AKSC. Finally, the Manager coordinates with other staff on research, protected species issues, and community outreach to provide catch and operational transparency.

AKSC also employs a full-time Data Manager. The Data Manager is responsible for tracking individual vessel catch and bycatch information relative to allocations; providing regular reports to the coop and individual vessel reports as requested; securely archiving data; identifying and resolving data errors; and working with the Alaska Region and Observer Program offices to ensure timely information streams. The Data Manager also provides Geographic Information System support and analysis as needed.

Finally, AKSC members employ Seastate, Inc., which assists as a third party in management activities. Seastate, Inc. is the direct observer data link for many of the processes and activities described in this document, specifically, identifying bycatch issues and tracking historic catch and bycatch trends.

Harvest strategy

AKSC has implemented several protocols and practices to maintain regulatory compliance and ensure allocations are not exceeded. These are described below.

Subsequent to receiving annual cooperative allocations, AKSC and Seastate, Inc. staffs calculate individual vessel harvest shares and PSC limits. For each internal harvest share and PSC allocation, a reserve is established so that both individual vessels and AKSC as a whole have a

buffer that will be reached prior to the allocation limit. Vessels may not fish into their reserve without Member approval.

The AKSC agreement also establishes a mechanism for Members to transfer quota among themselves. These transfers must be approved by the AKSC Manager, and may be facilitated by AKSC staff.

Catch monitoring

AKSC receives data from several different sources. Generally, this includes total catch and species composition information from the North Pacific Groundfish Observer Program, Alaska Fisheries Science Center; total catch and species composition information from the Alaska Region; and production data from the Alaska Region. These data are used by NMFS to debit quota accounts and, during 2010[2], to determine Groundfish Retention Standard (GRS) compliance.

The AKSC Data Manager receives observer data, which is archived in a database. The database allows the Data Manager to track various Amendment 80 quota accounts, bycatch amounts, catch of other non-Amendment 80 targets, and transfers between Members. The Data Manager uses the database to summarize catch information and distribute regular catch reports to vessels and AKSC members. The Data Manager also performs routine data quality checks on observer data, and resolves any discovered errors with individual vessels and NMFS.

NMFS Alaska Region quota catch information is provided to AKSC staff on a secure website. As noted above, this information constitutes official AKSC catch. As a quality control measure, the Data Manager compares these data with the corresponding observer data, and explores and resolves discrepancies.

In addition to receiving regular reports from AKSC staff, Seastate, Inc. provides each Member and AKSC staff access to a secure website. This webpage provides vessel owners with vessel-level catch information for Amendment 80 quota species, GOA sideboarded species, and other species of interest. Additionally, the Seastate, Inc. website displays information on vessel and cooperative GRS levels.

AKSC vessels submit daily production reports through a NMFS software program called Elandings. Because NMFS uses production information to calculate an annual GRS, AKSC also collects this information to keep a running tally of vessels' GRS'.

[2] On December 15, 2010, NMFS issued an emergency rule (75 FR 78172) exempting vessels from GRS regulations. AKSC vessels operated during 2010 under GRS regulations. Therefore, this reports summarizes AKSC GRS-related management activities and performance.

these challenges and ensure quota limits are not exceeded, NMFS has required and AKSC vessels have implemented the extensive and expensive monitoring program described above.

GOA sideboard management

Regulations limit Amendment 80 vessels to historic catch levels by establishing sideboard amounts for several species. To help manage GOA sideboard fisheries, AKSC established a GOA fishing plan. The 2010 GOA fishing plan described management measures AKSC utilized to ensure individual vessels had access to historical GOA catch amounts for certain rockfish fisheries, and halibut PSC.

Rockfish Pilot Program management

In 2010, AKSC vessels participated in the Rockfish Pilot Program Limited Access fishery, and others were members of a Rockfish Pilot Program cooperative. For the Limited Access fishery, AKSC staff communicated with NMFS to provide daily catch information in order to establish appropriate closure dates for Amendment 80 rockfish sideboards and the Rockfish Pilot Program catcher processor sideboards.

2010 AKSC Catch

The following tables provide AKSC catch. All data is rounded to the nearest whole number for reading simplicity. ***AKSC catch during the 2010 fishing year fell within allocation levels, and no overages occurred.*** It's important to understand that fishing behavior and catch amounts under any given year of cooperative operations may not reflect those of other years. Several examples are provided below.

AKSC vessels are concerned that individual vessel Pacific cod apportionments could severely constrain their ability to harvest other groundfish species at the end of a fishing year. Therefore, many vessels tend to conserve Pacific cod early in the year, and many have chosen to limit or eliminate Pacific cod directed fishing altogether. In 2010, some vessels were forced to temporarily leave the fishery due to concerns over reaching cod allocations, while other vessels were forced to significantly alter their fishing behavior due to the same concerns.

In 2010, ice conditions reduced large-scale directed flathead sole fishing opportunities on traditional fishing grounds and during typical time frames. Additionally, flathead sole fishing opportunities were constrained by concerns over large halibut biomass on the flathead grounds. To reduce overall halibut catch, AKSC vessels chose to alter fishing behavior and target species in areas of reduced halibut abundance. In years where halibut abundance on the flathead grounds is less significant and ice is less of a concern, vessels may choose to increase flathead sole effort.

AKSC initially apportions its annual NMFS-issued allocation to individual companies or vessels. Subsequently, AKSC companies are able to engage in transfers with other AKSC companies or vessels to maximize harvesting efficiencies. Because allocations are managed under hard caps, some portion of each of AKSC's allocations will be left unharvested to serve as a buffer prior to reaching allocation amounts. Total 2010 transfer amounts are shown in the tables below. These amounts include transfers between individual companies, and individual vessels within a company.

Bering Sea and Aleutian Islands AKSC Allocated Quota and Catch Amounts

Species	AKSC A80 Allocation (mt)	AKSC Catch (mt)	Total Transfer Amounts (mt)
Cod (Total)	*20,278	20,023	5,056
Yellowfin Sole	*110,733	74,034	28,679
Rock Sole	*58,863	44,558	10,160
Flathead	42,872	13,915	4,941
POP 541	1,551	1,515	138
POP 542	1,591	1,458	14
POP 543	2,665	2,583	24
Mackerel 541	9,282	9,234	2,280
Mackerel 542	9,863	7,826	746
Mackerel 543	7,036	6,727	418

Notes: AKSC received a yellowfin sole reallocation of 20,000 mt on September 8, a Pacific cod reallocation of 3,400 mt on September 8, and a rock sole reallocation of 6,000 mt on August 13. Allocation amounts marked with an asterisk "*" include those amounts. Total Transfer Amounts include transfers between companies, transfers between vessels within the same company when that information is available, and transfers into the cooperative from other sectors (rollovers).

Bering Sea and Aleutian Islands AKSC PSC Limits and Catch Amounts

Species	AKSC A80 Allocation	AKSC Catch	Total Transfer Amounts
Halibut Mortality (mt)	*2,094	1,668	463
King Crab Z1 (#)	*118,237	48,615	52,638
Bairdi Z1 (#)	*547,715	132,095	307,059
Bairdi Z2 (#)	*1,320,277	125,648	918,447
COBLZ Opilio (#)	1,461,308	163,136	112,664

Notes: Halibut mortality is reported as metric tons and crab mortality in numbers. AKSC received a halibut reallocation of 340 mt, a Zone 1 red king crab reallocation of 48,000, a Zone 1 Bairdi crab reallocation of 290,000, and a Zone 2 Bairdi crab reallocation of 880,000. All of these reallocations occurred on September 10. Allocation amounts marked with an asterisk "*" include those amounts. Total Transfer Amounts include transfers between companies, transfers between vessels within the same company when that information is available, and transfers into the cooperative from other sectors (rollovers).

Bering Sea and Aleutian Islands Salmon Catch Amounts

Species	AKSC Catch (#s)
Chinook	1,437
Non-Chinook	929

Notes: Salmon are reported as individual fish.

Groundfish Retention Standard

In addition to beginning Amendment 80 operations, Amendment 79 required AKSC to meet (GRS) requirements beginning in 2008. The GRS and Amendment 80 required the cooperative to annually retain a percentage of groundfish relative to their overall Bering Sea and Aleutian Islands catch. The GRS is applicable to AKSC in aggregate, and is phased in over a four year period according to the following table:

Groundfish Retention Standard	
GRS Schedule	Annual GRS
2008	65%
2009	75%
2010	80%
2011 and each year thereafter	85%

The GRS calculation is based on the proportion of groundfish retained. The GRS calculation numerator is the amount of groundfish retained over the course of a fishing year. Product recovery rates (PRR) published in regulation (Table 3 to 50 CFR 679) are applied to the weight of each species by product type. This amount is known as the round weight equivalent (RWE). Retained product weight is self reported by each vessel through a software program called Elandings.

The denominator of the GRS calculation is the total groundfish harvest by an Amendment 80 vessel over the course of a fishing year. Because vessels also catch non-groundfish species, NMFS and fishing companies must rely on observers to collect sub-samples from each haul. The proportion of groundfish in a sample is expanded to the total haul weight, as measured by a motion-compensated flow scale, to estimate the total amount of groundfish in each haul.

The cumulative AKSC GRS is calculated as the sum of all participating vessels' retained catch divided by the sum of all participating vessels' groundfish catch. ***For 2010, AKSC achieved a***

GRS of 84 percent. This was 4 percent higher than mandated by GRS regulations. AKSC has complied with 2010 GRS retention requirements.

GRS In the Future

The Council identified two problems with the GRS program. First, NOAA Enforcement determined that prosecuting an apparent GRS violation was prohibitively expensive, and would require impractical enforcement resource allocation. These difficulties and costs arise from the need to verify retention estimates and substantiate records for each cooperative vessel. Second, the Council noted that estimates of groundfish retention used to establish GRS standards in the Amendment 79 analysis differ substantially from those produced from measures employed in the implementation of Amendment 79. These differences required retention well beyond that envisioned by the Council in Amendment 79.

The resultant costs and implementation problems associated with the GRS program prompted the Council to consider removing its implementing regulations through emergency action. NMFS agreed and on December 15, 2010, an emergency rule was issued to temporarily suspend GRS regulations (75 FR 78172). In the meantime, the Council initiated a parallel FMP amendment to permanently remove these regulations.

To continue high levels of groundfish retention in a transparent manner, the Amendment 80 fleet proposed to internally monitor and enforce groundfish retention according the standards established under Amendment 79. This would be accomplished through a civil contract with substantial non-compliance fines, and an annual third party audit report provided to the Council. The implementation of the contract would mirror the details of Amendment 79 to avoid confusion, and would be calibrated to reflect differences between the calculation described in Amendment 79 and that used to enforce the GRS standard.

At its February 2011 meeting, the Council took final action to remove the GRS program. Also at this meeting, Amendment 80 sector representatives provided final details of the industry groundfish retention solution, and notified the Council that all members of the Amendment 80 sector were signatories to the groundfish retention contract. Details of the GRS problems, the industry solution, and the process for removing the GRS can be found in the EA/RIR/IRFA prepared for this action (http://www.fakr.noaa.gov/npfmc/analyses/GRS211.pdf).

While the December 15, 2010 emergency rule effectively nullified the GRS for 2010, all AKSC vessels had finished operations by December 8, 2010. Therefore, each vessel operated the entire fishing year under the assumption that the GRS would be effective.

According to Council discussions at its February 2011 meeting, a critical component of the industry monitored groundfish retention program is the third party audit. 2011 will be the first year of operating under this new system. However, to remain transparent to the public, AKSC has conducted a third party audit for 2010.

Findings and Future Issues

The following section highlights management programs and issues that concern AKSC members. These sections are titled:

- Pacific Cod
- Steller sea lion (SSL) Protection Measure Effects
- PSC Reductions
- GOA Specific Issues

Pacific Cod

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 which 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 EA/RIR/IRFA found on the NMFS website (http://www.fakr.noaa.gov/analyses/amd85/amd85socdraft.pdf), retained catch from 1998 – 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.

Additionally, at the time of final action, the Council had information about 2004 and 2005 retained catch that indicated continued higher average catches than 1998-2003.

Amendment 80 was implemented simultaneously with Amendment 85, and allocated Pacific cod amounts among cooperatives and the Limited Access sector. For cooperatives, these allocations became a hard cap, and all fishing must stop when that cap is reached.

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, 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 2010, only 3,068 mt of the 20,023 mt harvested by AKSC was reported in the cod target.

This problem is complicated by a disconnect between the annual TAC setting process and actual fishing conditions. For example, groundfish surveys conducted during 2009 inform the TAC setting process for 2010. However, actual biomass levels during 2010 may be higher than were seen during the 2009 survey. Additionally, environmental conditions change when and where these Pacific cod are found.

In 2010, AKSC harvested 20,023 mt of its 20,278 mt Pacific cod allocation, or 119 percent of its initial allocation. As individual companies neared their cod allocation limits, vessels stopped fishing and any remaining cod was consolidated onto a few vessels. Had additional cod been available, most vessels would have continued to fish. During 2010, cod was significantly limiting, even with a 3,400 mt rollover from other sectors. One company estimated that it lost 5 months of fishing, or about 12.5 percent of its fishing time. Had this rollover not been available, AKSC fishing would have been further curtailed.

Finally, SSL regulations designed to eliminate directed cod fishing later in the year require NMFS to place cod on bycatch status. After October 31, vessels encountering cod must remain below the maximum retainable amount (MRA) relative to other basis species on board the vessel. If a vessel encounters large volumes of cod early in a trip, the captain may be forced to discard cod even though this catch is debited against quota.

Discards required by MRA regulations count against the sector's hard cap and represent unnecessary waste. This problem is already being felt with the increased cod biomass in the Bering Sea and is likely to escalate in the future as cod stocks increase and incidental catch in flatfish fisheries would therefore be expected to increase as well. Therefore, a November 1 Pacific cod directed fishing closure is not necessary for the Amendment 80 sector. Removing this closure will reduce waste of Pacific cod caused by forced discards, and will also reduce the cost of avoiding cod that are an increasing fraction of the groundfish biomass.

SSL RPA Effects

On December 13, 2010, NMFS issued an interim final rule to implement additional SSL protection measures (75 FR 77535). These protection measures significantly reduced fishing opportunities for Atka mackerel and Pacific cod in the Aleutian Islands.

In our view, the interim final rule is based on a substantively and procedurally flawed final biological opinion. The jeopardy and adverse modification findings, as well as its Reasonable and Prudent Alternative ("RPA") in the final biological opinion are (1) not based upon the best scientific and commercial data available; (2) the product of an inadequate rulemaking process, and (3) arbitrary and capricious.

Additionally, some of the anticipated spillover effects are summarized below:

- **PSC, Pacific cod, and other quota species.** Vessels that have historically targeted Atka mackerel in the Aleutians are highly specialized in this fishery. As such, they have not focused on flatfish, and may not have sufficient quota allocations to support moving into the flatfish fisheries. Furthermore, because Atka mackerel is a relatively low bycatch fishery, Atka mackerel-focused vessels may not have the PSC and Pacific cod allocations needed to prosecute the flatfish fishery.

- **Market effects.** If vessels affected by SSL regulations are able to effectively move away from PSC and Pacific cod concentrations, we expect additional flatfish to be harvested. As flatfish enters the market, prices may drop, further exacerbating the problem.

- **Other fisheries.** As vessels are displaced from Atka mackerel and Pacific cod fisheries, they will be looking for other non-allocated, low bycatch, high volume fisheries. This may create competition with other sectors interested in these fisheries and may initiate a "race for fish".

- **Groundfish retention.** Atka mackerel vessels have historically experienced high retention in this fishery. Displacing vessels to fisheries with lower retention rates could create groundfish retention challenges.

PSC reductions

In 2008, 2009, and 2010, AKSC was able to operate within PSC allocations using 70, 83, and 81 percent of its halibut mortality allocation respectively. Additionally, AKSC used a lower portion of its crab limits during these years. However, as previously noted, fishing behavior, halibut distribution, and harvest under the first years of cooperative operations may not reflect those of subsequent years.

Additionally, note that Table 35 to 50 CFR 679 shown below requires annual PSC reductions through 2012 as part of Amendment 80. Prior to Amendment 80 AKSC members had access to

total trawl PSC amounts that exceeded Amendment 80 allocations. For example, the 2007 BSAI trawl halibut PSC limit was 3,400 mt.

Table 35 to Part 679 – Apportionment of Crab PSC and Halibut PSC Between the Amendment 80 and BSAI Trawl Limited Access Sectors

Fishery	Year	Halibut PSC limit in the BSAI	Zone 1 Red king crab PSC limit	*C. opilio* crab PSC limit (COBLZ)	Zone 1 *C. bairdi* crab PSC limit	Zone 2 *C. bairdi* crab PSC limit
			As a percentage of the total BSAI trawl PSC limit after allocation as PSQ			
Amendment 80 sector	2008	2,525 mt	62.48	61.44	52.64	29.59
	2009	2,475 mt	59.36	58.37	50.01	28.11
	2010	2,425 mt	56.23	55.3	47.38	26.63
	2011	2,375 mt	53.11	52.22	44.74	25.15
	2012 and all future years	2,325 mt	49.98	49.15	42.11	23.67
BSAI trawl limited access	All years	875 mt	30.58	32.14	46.99	46.81

Under Amendment 80, vessel captains are able to slow fishing operations, and move from areas with higher PSC rates. The consensus from AKSC vessel is that lower than normal halibut biomass has been seen in typical head and gut fishing areas. Therefore, AKSC is cautiously optimistic about these first three years of cooperative operations. Higher PSC abundance on flatfish fishing grounds coupled with Amendment 80 halibut and crab PSC annual reductions, and changes to fishing patterns due to water temperatures, ice conditions, and/or climate change could result in future PSC constraints.

The following table summarizes current and historical PSC usage through March 2 of each Amendment 80 fishing year, and shows annual variation among allocated PSC categories for the first months of operations.

	2008			2009			2010			2011		
Species	Usage Amount (mt)	Annual Allocation (mt)	% Usage	Usage Amount (mt)	Annual Allocation (mt)	% Usage	Usage Amount (mt)	Annual Allocation (mt)	% Usage	Usage Amount (mt)	Annual Allocation (mt)	% Usage
Halibut	187	1,837	10.19%	305	1,793	17.03%	308	1,754	17.57%	238	1,743	13.65%
King Crab Z1	10,622	78,631	13.51%	28,667	74,351	38.56%	16,600	70,237	23.63%	16,952	67,405	25.14%
Bairdi Z1	30,283	340,520	8.89%	37,733	321,922	11.72%	37,400	257,715	14.51%	25,936	247,017	10.50%
Bairdi Z2	389	580,311	0.07%	430	548,443	0.08%	4,085	440,277	0.93%	2,167	423,529	0.51%
Opilio (COBLZ)	931	1,632,432	0.06%	295	1,544,825	0.02%	28,625	1,461,309	1.96%	2,636	2,686,159	0.09%

Research and Outreach

In addition to harvesting and processing activities, AKSC is actively engaged in several projects to improve the natural and human environment affected by fishing operations. These are briefly described below.

Reducing halibut mortality

AKSC believes operating as a cooperative increases incentives for individual bycatch accountability and optimal use of halibut bycatch mortality limits. AKSC vessels now have a direct relationship between how they utilize their halibut bycatch mortality allowances and how much of their allocated and non-allocated target species are harvested. Therefore, AKSC companies are continuing to improve their utilization of halibut excluders and how they avoid bycatch hotspots through data sharing. Potential reductions in halibut mortality rates through improved halibut handling procedures is another important part of the AKSC's overall set of steps to make best use of its halibut bycatch allowances. Work in this area is of critical importance to the development of an adequate set of tools to accommodate the 50 MT per year reduction in the halibut bycatch mortality cap as part of Amendment 80. The following summarizes AKSC's recent EFP research to explore improved halibut handling procedures:

- Halibut bycatch mortality rates in flatfish and cod fisheries currently range from 70-80 percent. Because Amendment 80 allows vessels to avoid bycatch and slow fishing operations, halibut that is caught will spend more time in live tanks. Therefore, halibut mortality is expected to increase under Amendment 80 fishing conditions.

- The largest obstacle to reducing halibut mortality rates is the Amendment 80 catch monitoring requirements. To allow for accurate estimations of catch, including halibut bycatch, sorting and removal of PSC prior to observer sampling is currently prohibited.

- Most observers collect samples in a vessel's factory as catch moves from holding tanks to processing areas. Halibut near the back of the tank may not be discarded for up to 10 hours in some cases, and this time will increase under Amendment 80.

- To explore whether halibut accounting could occur on deck where halibut could be discarded in better condition, AKSC was issued an experimental fishing permit (EFP). Phase I of the EFP was conducted from May 27 – June 27, 2009 on three AKSC vessels. These vessels fished under the EFP but used their own Amendment 80 allocations of halibut PSC and groundfish.

- The average mortality rate for halibut sorted on deck was 45 percent. This was a reduction of almost 50% relative to the current average mortality rate assigned to the EFP target fisheries (75 percent is the average mortality rate applied to the BSAI flatfish fisheries currently).

- Average sorting time on deck for the EFP overall was approximately 27 minutes from the time the net was brought aboard to the time the last halibut was returned to the water or deck sorting was completed, whichever was longer. In practice, this included the time it took the crew to sort out the halibut (as little as 10 minutes on some tows) and the time it took the sea sampler on duty to measure and assess viability for each halibut.

- Most of the modified halibut handling procedures used for the EFP appeared to be feasible for the EFP vessels in the arrowtooth, flathead sole, rex sole and Pacific cod fisheries.

- The spring yellowfin sole fishery may not be a feasible candidate for alternative handling procedures due to greater catch amounts and very low halibut bycatch rates. Fall yellowfin sole fishing, however, is generally more like the cod and flathead sole fishing done in the EFP in terms of catch amounts per tow and the size and number of halibut in each tow, and might be a good candidate for reductions in halibut mortality rates with deck sorting.

- A subsequent Phase II to this EFP is being planned. This EFP could address many of the operational issues needed to implement modified halibut handling processes in a real world setting. These could include: utilizing technology to monitor crew sorting halibut on deck rather than employing additional sea samplers to complete this work, evaluating automated methods to rapidly weigh or measure halibut and addressing methodologies for halibut viability sub-sampling within current observer sampling constraints.

Community outreach

AKSC representatives have traveled to western Alaska communities to engage with community leaders. During several trips to Nome, Bethel, Dillingham, and Anchorage, AKSC met with representatives from the Bering Sea Elders Advisory Group, Kawerak, the Association of Village Council Presidents, the Bristol Bay Economic Development Corporation, the Bristol Bay Native Association, the Qayassic Walrus Commission, and the United States Fish and Wildlife Service. We discussed AKSC operations under Amendment 80, provided catch information, and discussed research to reduce trawl effects to the benthic habitat.

We negotiated a regulatory closure to protect western Alaska subsistence resources in the Etolin Strait/Nunivak Island area, while still maintaining access to important flatfish fishing grounds. And finally, we have engaged with residents of the Bristol Bay region to develop a mutually agreeable solution to the perceived issue of grounds pre-emption and bycatch concerns relative to small-scale halibut fishing opportunities in the area.

Because careful halibut bycatch management is so important to AKSC's ability to harvest its target species allocations, AKSC captains avoid areas with high halibut rates as much as possible. As high concentrations of yellowfin sole migrate across the Bering Sea shelf, AKSC

vessels follow these schools as they typically represent high catch per unit effort (CPUE) and low halibut bycatch. As the ice clears, large spawning schools of yellowfin sole congregate in very shallow water. At certain times of the year, these may be the only low bycatch areas. Displacement to other areas would result in higher CPUE, longer bottom times, increased costs, and additional habitat effects.

These shallow yellowfin spawning areas are sometimes adjacent to western Alaska communities. Community members have expressed concern to AKSC and the Council about all vessel activities, and their affects on local commercial and subsistence harvests. Our experience thus far has shown that effective communication between communities and the industry is possible and may preclude the need for the Council to take formal action in resolving disputes. We hope that in the future we may build on past success and increase the community level dialogue in order to address issues of mutual concern.

Northern Bering Sea Research Area (NBSRA)

On July 25th, 2008, NMFS issued a final rule closing the NBSRA (73 FR 43362) to non-pelagic trawling. Since then, the Alaska Fisheries Science Center has been developing a research plan to better understand the effects of a commercial scale fishery in this area. As ocean temperatures rise, fish stocks are expected to move north. While AKSC is interested in the possibility of a future commercial fishery in the NBSRA, we support a slow, reasoned approach to understanding trawl impacts to the habitat, marine mammals, fish stocks, and traditional activities. Fish stocks are healthy in traditional fishing grounds, and we believe the Council, NMFS, and fishery stakeholders have a rare opportunity for a natural experiment to understand trawl impacts, and make management decisions that meet national net benefit requirements.

Looking forward

The following is a list of regulatory changes that would increase efficiencies, add flexibility, and help AKSC vessels meet Amendment 80 goals. We welcome the opportunity to work with the Council and NMFS to accomplish these changes.

Change the January 20 annual season start date

January 20 has traditionally been the regulatory start date for all trawl fisheries. This date was established for several reasons, including providing trawl vessels with single fair start date several weeks after the holiday season. Because AKSC vessels are allocated most of their traditional target species, are allocated PSC limits, are subject to hard caps on these limits, and are subject to sideboards on non-traditionally harvested species, the Council has eliminated many of the competition scenarios the January 20 start date was in part designed to mitigate.

This artificial start date creates stress on many of the vendors that we depend on, particularly the shipyards, airlines and hotels. By moving the January 20 start date back to January 1 for the

Amendment 80 sector, AKSC vessels would have additional flexibility to schedule fishing operations around environmental and biological conditions of the fishery, and plan non-fishing or shipyard times. It would also provide twenty additional fishing days, which would be beneficial in allowing us to harvest our quotas.

Provide regulatory mechanism for inter-sector trades

With the formation of the freezer longline cooperative, inter-sector trades of allocated species has become possible. Allowing Amendment 80 and freezer longliners to transfer cod and halibut provides additional flexibility for both sectors.

Remove November 1 cod closure for trawl vessels

As noted above, SSL regulations designed to eliminate directed cod fishing later in the year require NMFS to place cod on bycatch status, and result in discards as vessels operate later in the year. Removing this closure will reduce waste of Pacific cod caused by forced discards, and will also reduce the cost of avoiding cod that are an increasing fraction of the groundfish biomass.

Summary

The Council has designed, and NMFS has implemented, a well-designed program that provides AKSC with the necessary tools to effectively manage Amendment 80 fisheries, minimize bycatch to the extent practicable, and increase retention. AKSC and its member companies are working hard to maximize the goals of Amendment 80 by implementing internal data management and quality control measures that enable companies and vessel captains to maximize allocations. Amendment 80 is arguably one of the most successful, highly regulated rationalization programs to date. For 2010, AKSC catch amounts for this complex multi-species fishery were well below regulatory limits, and the GRS exceeded minimum requirements. Additionally, Amendment 80 participants have worked with the Council and NMFS to address concerns with the GRS while maintaining high retention levels. While AKSC companies are pleased with these successes, they have identified management elements that could be improved, and look forward to addressing these with the Council and NMFS.

Attachment 1

FISHERIES INFORMATION SERVICES
413 SW Butterfield Place Corvallis, OR 97333
541-602-1609

Jason Anderson
Manager, Alaska Seafood Coop

March 23, 2011

PROCEDURES FOR AUDIT OF RETENTION COMPLIANCE STANDARDS FOR ALASKA SEAFOOD COOP

PURPOSE and DEFINITIONS:
The purpose was to provide an independent determination of annual retention rate of groundfish for Alaska Seafood Coop (ASC) boats in Bering Sea/Aleutians (BSAI) groundfish fisheries in 2010. The rate is defined as round weight equivalent of all retained groundfish (production) divided by observed total groundfish catch.

DATA SOURCES and CONFIDENTIALITY:
FIS agreed with ASC to keep all data confidential. All raw data is in the purview of National Marine Fisheries Services (NMFS). After receiving permissions from each company, NMFS Alaska Region staff provided to FIS data for each of the fourteen boats that participated in 2010 cooperative fisheries.

DATA SCOPE and FORMAT:
Data was received for 14 boats. There are two types of data. *Production* data was aggregated by week, species and product type, converted to round weight equivalence. *Observed total groundfish catch* is from the NMFS Catch Accounting System (CAS) and was aggregated by week, species group and round weight. Data was requested by week in order to exclude weeks for species on PSC status (required to be discarded; as it turned out, this situation did not apply in 2010).

DATA PROCESSING:
Through the use of Pivot tables, annual summaries by species for each boat were produced, including all FMP groundfish species listed on table 2a of the regulations. For each boat, total production was divided by total observed groundfish to determine its retention percentage. Total production for all boats was divided by total observed groundfish for all boats to determine the cooperative's retention percentage.

DATA RECONCILIATION and EVALUATION:
For each boat, FIS compared weeks with data between CAS and production. In one case, there was an extra week of production data. NMFS staff confirmed this resulted when a small amount of fish was observed one week but not processed until the next. Another boat's percentage appeared to be an outlier, much smaller than range of percentages of other boats. Coop staff ascertained that observed groundfish catch in observer data-base was incorrect, and Alaska Regional personnel subsequently re-ran the query and provided revised data to FIS.

DATA SUMMARY
The totals for all fourteen boats were 234,873 mt of production (in round weight) and 278,785 mt of observed groundfish, for a Coop rate of 84.2 %.

Janet Smoker