


MEMORANDUM

TO: Council

FROM: Chris Oliver 
Executive Director

DATE: March 25, 2008

SUBJECT: Amendments 62/62 (single geographic location)

ESTIMATED TIME 1 HOUR

ACTION REQUIRED:

Review action on Amendments 62/62 and affirm or repeal.

BACKGROUND

The Council's final action on Amendments 62/62 took place at two meetings. In June 2002, the Council took final action to revise obsolete or inconsistent inshore/offshore language in the BSAI and GOA Groundfish FMPs. In October 2002, the Council took final action to allow AFA stationary floating processors to move locations up to four times in the BSAI during a calendar year. Since that time, a combination of circumstances has resulted in the delay of bringing these amendments forward for NMFS' approval and implementation.

It is prudent to bring these amendments forward for review by the Council to confirm its previous recommendations because of changes to the pollock fishery in the intervening years, and because other amendments have incorporated some of the proposed FMP changes under Amendments 62/62. The changes in the fishery that occurred during the delay may or may not affect the Council's affirmation of its previous decision. Additionally, because other amendments incorporated many of the FMP changes, the action adopted by the Council in 2002 will not match what will be submitted for Secretarial review. The updated analysis was mailed out in mid-March; an executive summary of that analysis is attached **(Item D-3(1))**.

Inshore/Offshore Language

The purpose of the recommended revisions concerning BSAI inshore/offshore language in the FMPs was to make the FMPs consistent with the AFA, passed in 1998. All of the BSAI inshore/offshore language made obsolete by the AFA was removed from Federal regulations under a final rule published in December 2002 that implemented AFA provisions under Amendments 61/61/13/8. To revise inshore/offshore language in the FMPs, four action alternatives were adopted by the Council under Amendments 62/62: Alternative 2 removes obsolete inshore/offshore language from the BSAI FMP, Alternative 3 revises the BSAI FMP description of the catcher vessel operating area (CVOA), Alternative 4 removes references to BSAI inshore/offshore allocations from the GOA FMP, and Alternative 5 removes the December 31, 2004, sunset date for inshore/offshore sector allocations of pollock and Pacific cod from the GOA FMP.

Two of the recommended revisions have since been made to the FMP as part of comprehensive housekeeping amendments. The FMP revisions included in Alternatives 2 and 4 were made as part of Amendments 83/75, which revised the FMPs by updating harvest, ecosystem, and socioeconomic information; consolidating text; and organizing the information to improve the readability of the documents. Amendments 83/75 were approved by NMFS on June 14, 2005. Alternative 3 has still not been implemented, which is to bring the CVOA language in the BSAI FMP into compliance with current Federal regulations. Also, Alternative 5 needs to be affirmed by the Council, to remove the sunset date for the inshore/offshore sector allocations in the GOA FMP.

Single Geographic Location (SGL)

The purpose of this action was to provide greater flexibility for AFA stationary floating processors by allowing them to process targeted BSAI pollock in up to four geographic locations during a single fishing year. In addition, AFA stationary floating processors would be required to process all GOA pollock and GOA Pacific cod where they processed these species in 2002. There are no revisions needed to the BSAI FMP because there is no SGL language in the FMP; this action requires only regulatory amendments. The October 2002 final Council motion for single geographic location is presented below:

In the Bering Sea directed pollock fishery, AFA inshore floating processors would be required to operate in a single geographic location in State waters for the duration of each reporting week, but would be allowed to change locations from week to week, to a maximum of four changes per calendar year. In addition, AFA inshore processors would be required to process all GOA pollock and GOA Pacific cod in the same location at which they processed these species in 2002.

Subsequent to the Council taking final action on SGL, changes have occurred in the pollock fishery in the BSAI. Because of the AI pollock allocation to Adak, the AFA pollock fishery in the AI no longer exists. Also, there appear to be changes in the distribution of pollock in the BS which could result in increased interest in moving AFA CV operations to the north.

These changes have led NMFS to recommend that the Council review its action from October 2002 and affirm, modify, or repeal that action. To help in this endeavor, provided below are three issues that potentially influenced the single geographic location Council action, which may need review given the change in BSAI pollock fishery since 2002.

- On the middle of page iv of the Executive Summary and on the bottom of page 22 is a discussion concerning the representatives of AFA stationary floating processors, AFA onshore processors, and other interested parties having little or no opposition to the change in the single geographic location action in 2002. Given that the discussion took place in 2002 and the BSAI pollock fishery has changed since that time, is there still little or no opposition to the change in single geographic location?
- On the middle of page 5 and on the bottom of page 33 is a brief statement with industry representatives in 2002 concerning a feasible scenario of moving a floating processor to the Pribilof Islands during the pollock B season. Given the change in the pollock fishery since 2002, is moving a floater to the Pribilof Islands still a reasonable.
- Finally, on the bottom of page 37 and on the middle of page 38 is brief discussion of future plans for the floating processors. A representative of one company indicated that his firm had not current plans to move their floating processor, while a representative from the other company indicated they may consider moving their float processor after the pollock A season. Given the change in the BSAI pollock fishery since 2002, have the future plans for these floating processors changed?

At this meeting, the Council may discuss these issues and determine how to proceed on this matter.

EXECUTIVE SUMMARY

On October 7, 2002, the Council took final action on the single geographic location (SGL) portion of Amendments 62/62. The Council selected Alternative 3 as the preferred alternative. The alternative would redefine the SGL for American Fisheries Act (AFA) stationary floating processors. These AFA stationary floating processors would be allowed to relocate to an alternative location, within State waters, in the Bering Sea (BS) from reporting week to reporting week, for up to a maximum of four changes per calendar year. In addition, AFA stationary floating processors would be required to process any Gulf of Alaska (GOA) pollock and GOA Pacific cod delivered to them in the same location at which they processed these species in 2002. The document also includes options for revising obsolete inshore/offshore language in the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (BSAI FMP) and of the Fishery Management Plan for Groundfish of the Gulf of Alaska (GOA FMP), in order to be consistent with AFA and existing regulations, and removing the sunset date for GOA inshore/offshore allocation to be consistent with the removal of the sunset date for the AFA program in the Bering Sea and Aleutian Islands Management Area (BSAI). The Council, in June 2002, took final action on the proposed inshore/offshore language revisions portion only, selecting Alternatives 2 through 5, as the preferred action.

Problem Statement

The problem statement developed and formally adopted by the Council, in April 2002, to address the proposed changes to the SGL is presented below:

Existing regulations require AFA inshore floating processors to operate in a single geographic location when processing BSAI targeted pollock. The result is a lack of flexibility and inefficient use of these facilities. The problem for the Council is to develop an FMP amendment to remove this restriction in the BSAI while providing continued protection for GOA groundfish processors. The Amendment should increase flexibility for these facilities to provide opportunities for reduced delivery costs and enhanced product quality while avoiding negative environmental impacts.

A problem statement for revising inshore/offshore language in the BSAI and GOA FMPs is presented below:

The American Fisheries Act (AFA) was passed by Congress in the fall of 1998. Because of the implementation of the AFA, much of the inshore/offshore language in the BSAI and GOA Groundfish FMPs is obsolete or inconsistent with current fishery management regulations. In addition, since Congress recently eliminated the AFA sunset date, the GOA inshore/offshore allocation sunset date of December 31, 2004, is no longer necessary. The problem before the Council is to revise outdated and inconsistent inshore/offshore language in the BSAI and GOA FMPs and remove the sunset date for GOA inshore/offshore allocation to achieve intended consistency between the BSAI and GOA regulations.

Consolidated Appropriations Act of 2004

Before Amendments 62/62 were submitted to the Secretary of Commerce for review in accordance with Section 304 of the Magnuson-Stevens Fishery Conservation and Management Act, the U.S. Congress, in Section 803 of the Consolidated Appropriations Act of 2004 (HR 2673), now Public Law 108-199, required that future directed fishing allowances of pollock in the Aleutian Islands be allocated to the Aleut Corporation. The action states that only fishing vessels approved by the Aleut Corporation, or its agents,

would be allowed to harvest this allowance. In February 2004, the Council passed a motion requesting an analysis of options that might be incorporated into an FMP amendment to create a structure within which such an allocation could be made. On June 11, 2004, the Council took final action on Amendment 82, which allocated pollock total allowable catch (TAC) to the Aleut Corporation for a directed pollock fishery in the Aleutians Islands (AI). The action limited access to the pollock fishery to only vessels less than 60 feet in length, or AFA vessels with Aleut Corporation approval. The action also specified that AI pollock may only be delivered to a shoreside processor or a stationary processor which has an approved Catch Monitoring Control Plan, or to one or more AFA vessels, as permitted by legislation. The final rule to implement Amendment 82 to the BSAI FMP was published on March 1, 2005 (70 FR 9856), with an effective date of February 24, 2005.

It is NMFS's interpretation that Section 803 of the Consolidated Appropriations Act of 2004 (Public Law 108-199) supersedes AFA provisions, including SGL requirements in the AI, by allocating all of the AI directed pollock fishery to the Aleut Corporation. As a result, the alternatives and analysis in the proposed action have been revised to reflect this legislative action.

Alternatives Under Consideration

There are two actions in this amendment. The first action addresses changes in the SGL restriction for AFA stationary floating processors. The second action addresses the revision of inshore/offshore language in the BSAI and GOA FMPs and elimination of the sunset date for GOA inshore/offshore allocations.

Single Geographic Location

The first alternative under this action item is to leave intact the language that restricts AFA stationary floating processors to a single geographic location, during a single fishing year, while processing targeted BS pollock.

The second alternative would require AFA stationary floating processors to remain at a single geographic location, for the duration of a reporting week, while processing targeted BS pollock. Between reporting weeks, stationary floaters would be able to change locations. In addition, these stationary floaters would be restricted to their 2002 pollock processing location, when they process GOA pollock and GOA Pacific cod.

The third alternative is the same as Alternative 2, but limits the AFA stationary floating processors to relocating, within State of Alaska waters, in the BS. It would, further, allow a maximum of four location changes per calendar year. This alternative was selected by the Council as the preferred alternative in October 2002.

Alternative 1: (Status Quo) AFA stationary floating processors would be restricted to a single geographic location, during a fishing year, while processing BS directed pollock.

Alternative 2: In the BS directed pollock fishery, AFA stationary floating processors would be required to operate in a single geographic location in State waters for the duration of each reporting week, but would be allowed to change locations from week to week. In addition, AFA stationary floating processors would be required to process all GOA pollock or GOA Pacific cod delivered to them, in the same location at which they processed these species in 2002.

Alternative 3: (Preferred Alternative) In the BS directed pollock fishery, AFA stationary floating processors would be required to operate in a single geographic location in State waters for the duration of each reporting week, but would be allowed to change locations from week to week, to a maximum of four

changes per calendar year. In addition, AFA stationary floating processors would be required to process all GOA pollock and GOA Pacific cod delivered to them, in the same location at which they processed these species in 2002.

BSAI and GOA FMPs Proposed Inshore/Offshore Language

The first alternative is no action. The second alternative is to remove obsolete inshore/offshore language from the BSAI FMP. The third alternative would update the Catcher Vessel Operational Area (CVOA) to accommodate AFA-related changes. The fourth alternative would, if adopted, remove references to BSAI inshore/offshore from the GOA FMP. The final alternative would remove the December 31, 2004, sunset date for GOA inshore/offshore allocations from the GOA FMP.

The following alternatives are not mutually exclusive, so any combination of alternatives can be selected including no action.

Alternative 1 (Status Quo): Retain original inshore/offshore language in the BSAI and GOA FMPs.

Alternative 2 (Preferred Alternative): Remove obsolete inshore/offshore language from the BSAI FMP.

Alternative 3 (Preferred Alternative): Update the CVOA to accommodate AFA-related changes.

Alternative 4 (Preferred Alternative): Remove references to BSAI inshore/offshore from the GOA FMP.

Alternative 5 (Preferred Alternative): Remove the December 31, 2004, sunset date for GOA inshore/offshore allocations from the GOA FMP.

Environmental Impacts:

None of the alternatives under consideration would affect the prosecution of the BSAI or GOA pollock or Pacific cod fisheries, significantly. The proposed alternatives, in comparison to the status quo, are designed to allow AFA stationary floating processors to process targeted BS pollock (and other groundfish) in more than one location, during a fishing year. The proposed action would also eliminate obsolete inshore/offshore language in the BSAI and GOA FMPs, and eliminate the sunset date for the GOA inshore/offshore allocation from the GOA FMP. Since the proposed inshore/offshore language revisions are simply updating the BSAI and GOA FMPs to reflect current regulations, there is no impact to the environment from these alternatives. The SGL alternatives are not expected to affect takes of species listed under the Endangered Species Act. In addition, none of the alternatives are expected to substantially alter the regional catch of BS or GOA pollock, Pacific cod, or bycatch rates of other fish and crab. A summary of environmental impacts from the SGL alternatives are included in Table E1.

Economic Impacts:

Single Geographic Location Alternatives

Alternative 1 is the status quo/no action alternative. This alternative, if adopted, would retain the current SGL language in the BSAI FMP and in the regulations. Currently, AFA stationary floating processors are able to change locations only between fishing years, with regard to processing BS targeted pollock. They are able to move to different locations during the same fishing year to process other targeted groundfish. In selecting this alternative, the stationary floating processors would likely remain in their current locations. There would be no change in the competitive situation in the AFA stationary floating processor sector and no change in the efficiency in operations for the two stationary floating processors.

Alternative 2 would limit AFA stationary floating processors to a single geographic location, in State waters, in the BS, for the duration of each reporting week. Stationary floaters would be able to move to a different location between reporting weeks. The benefits of choosing this alternative would be possibly increasing efficiency of the stationary floating processor sector, by reducing delivery costs for their associated catcher vessels, and possibly improving pollock product quality. The floaters would be able to locate closer to some of the pollock grounds (e.g., during the B season), which would reduce delivery times and costs for catcher vessels. Other possible impacts may include increased tax revenue from fishery resource landing tax and increased commerce, including purchases of retail goods and services, for certain coastal communities. However, any increase in commerce or tax revenue in one community would be offset by a reciprocal decline in tax revenue and commerce in another community. It may also be possible that the added flexibility to relocate these processing operations will permit avoidance of some, or all, of the local (e.g., city, borough) landings taxes. Reportedly, this has been a consideration, although not a final determining factor, in the current location decisions of these operations.

Under Alternative 2, AFA floaters could potentially leverage their inherent mobility advantage and expand their processing activity in other groundfish, such as Pacific cod. There is a potential for some level of preemption of shoreside deliveries to fixed onshore facilities of other groundfish, although this potential is highly speculative in nature. It is not clear if this preemption would actually take place, since current regulations already allow the two stationary floating processors to move from their pollock processing location and process other groundfish, yet they have declined to do so. In addition, non-AFA processors are able to operate in the areas where the stationary floating processors could relocate. By positioning itself closer to the pollock fishing grounds, thereby reducing delivery costs, there is potential economic incentive for catcher vessels, which are not members of a given floater's cooperative, to deliver a portion of their 10 percent non-specified cooperative allocation to the stationary floating processors.

In discussions with representatives of AFA stationary floating processors, and other potentially interested parties, there is little or no opposition to this amendment. However, several representatives from AFA onshore processors qualified their approval of the amendment, stating a preference for a maximum of one or two moves per year, rather than the ability to move weekly as provided under Alternative 2. Most representatives believe the AFA cooperative agreements have, by and large, addressed the concern over preemption, by assigning permanent allocations to each sector and participating cooperative. Originally, the SGL restriction was placed in the inshore/offshore regulations to prevent floating processors (which have some limited mobility), which operate in the inshore processing sector, from having an unfair economic- advantage over operators of onshore processing plants. It was also intended to prevent offshore catcher/processors and motherships, that have greater mobility, from entering the inshore sector. With the passage of the AFA, and the associated cooperative agreements, these concerns diminished in the BS pollock target fisheries.

Alternative 3, selected as the Council's preferred alternative, in October 2002, would also limit AFA stationary floating processors to a single geographic location, within State waters, in the Bering Sea, for the duration of each reporting week. Like Alternative 2, stationary floaters would be able to move to a different location between reporting weeks. Unlike Alternative 2, the preferred alternative would limit the number of location changes to a maximum of four, per calendar year. The most obvious potential benefit of choosing either Alternative 2 or Alternative 3 would be the possibly increased efficiency accruing to the stationary floating processor sector. These efficiency gains could be realized by both the floating processing plant and the cooperative's catcher vessel fleet delivering to it, by reducing delivery costs and possibly improving pollock product quality. Other possible distributional effects include increased tax revenue from fishery resource landing tax accruing to some communities that currently do not receive such payments, and increased commerce, including purchases of retail goods and services, for certain coastal communities. In addition, concerns expressed by onshore AFA processors, about the

ability of these two floating operations to make frequent in-season location changes, are reduced under Alternative 3, as compared to Alternative 2 .

BSAI and GOA FMPs Proposed Inshore/Offshore Language

Under all of the alternatives considered, there are no economic impacts from updating and/or eliminating inshore/offshore language in the BSAI and GOA FMPs. These changes, technical or editorial in nature, are intended to remove inconsistencies in the FMPs with the AFA and current regulations. This, in turn, will help reduce potential confusion on the part of industry participants, other interested parties, and the public at large. Removing the December 31, 2004, sunset date from the GOA inshore/offshore allocation regime would continue the current inshore/offshore allocation into the foreseeable future consistent with current regulations. Economic benefits of removing the sunset date for the allocation were explored in the EA/RIR/IRFA for Amendments 51/51, which contained specific options in the analysis for the GOA allocations to "rollover," without a sunset date. The analysis emphasized that, while the Council is proceeding toward a fully rationalized program, a stable environment in the fisheries is critical to success of a rationalization regime. Maintaining the existing allocation provides a reasonable assurance to each industry sector involved, regarding the future institutional structure of the fishery. The analysis also recognized the acceptance (i.e., lack of controversy) within the Council, fishing industry, environmentalists, and general public of the appropriateness of these allocations in the GOA. While voluminous public testimony was received on the BSAI allocations, none was received in opposition to the GOA allocations.

Table E1. Summary of Environmental Impacts

Area of Consideration	Alternative 1 - Retain SGL Restriction to One Year (Status Quo)	Alternative 2 - Redefine SGL Restriction to One Week	Alternative 3 - Limit SGL to the Bering Sea and Relocations to 4 per Calendar Year (Preferred Alternative)
Impacts on Pollock and Pacific Cod Stocks	Baseline	Alternative 2 is expected to result in no change to the pollock or Pacific cod stocks. There is the potential for some minor shifts in spatial concentration of fisheries along the 50 fathom line, north of Unimak Island, most likely during the BS pollock B season, to a more dispersed area south of the Pribilof Islands area.	Same as Alternative 2, but impacts from spatial shifting could be smaller, due to the limit on relocating and the limitation on the operating area.
Direct Impacts of Trawl Gear on Habitat	Baseline	Alternative 2 is expected to result in the same level of trawling. However, there is some potential for shifting of effort from the area along the 50 fathom line just north of Unimak Island, to a more dispersed area south of the Pribilof Islands area, most likely during the BS pollock B season.	Same as Alternative 2, but impacts from spatial shifting could be smaller, due to the limit on relocating and the limitation on the operating area.
Impacts on Essential Fish Habitat	Baseline	Alternative 2 could potentially redirect 12.64 percent of the BS B season trawling to other areas like the Pribilof Islands. However, the shift could increase the Pacific cod effort and, thus, increase impacts on living substrates caused by bottom trawling.	Same as Alternative 2, but impacts from spatial shifting could be smaller, due to the limit on relocating and the limitation on the operating area.
Effluent Discharge Impacts	Baseline	Alternative 2 could potentially redirect effluent discharge to other areas of the BS. The effects on these other areas from effluent discharge is largely unknown, but may be affected by the sensitivity of living marine resources to potential disturbance, pollution, or other discharge events.	Same as Alternative 2, but impacts from spatial shifting could be less widely dispersed, due to the limit on relocation and the limitation on the operating area.

Area of Consideration	Alternative 1 - Retain SGL Restriction to One Year (Status Quo)	Alternative 2 - Redefine SGL Restriction to One Week	Alternative 3 - Limit SGL to the Bering Sea and Relocations to 4 per Calendar Year (Preferred Alternative)
Bycatch and Discard Impacts	Baseline	Alternative 2 is not expected to adversely impact the bycatch rate. The action does not alter the amount of Pacific cod or pollock harvested. With the potential for shifting of effort to the Pribilof Islands, most likely during the BS pollock B season, the bycatch rates for this area are similar to or lower than those near Unimak Island.	Same as Alternative 2, but impacts from spatial shifting could be smaller, due to the limit on relocation and the limitation on the operating area.
Endangered or Threatened Species	Baseline	Alternative 2 is not expected to adversely impact endangered or threatened species. There is some potential for reduction in competitive prey conflicts, caused by relocation of harvesting from fishing grounds along the 50 fathom line north of Unimak Island during the pollock B season to a more dispersed area south of the Pribilof Islands.	Same as Alternative 2, but impacts from spatial shifting could be smaller, due to the limit on relocation and the limitation on the operating area.
Marine Mammal Protection Act	Baseline	Same as Endangered or Threatened Species	Same as Endangered or Threatened Species
Cumulative Effects	Baseline	Alternative 2 is anticipated to have minor incremental cumulative impacts, but is similar enough to (and within the scope of) the cumulative impacts presented in Alternative 3 of the AFA EIS and Alternative 1 of the Groundfish Programmatic SEIS that the conclusions would not differ in any significant way from the referenced studies.	Same as Alternative 2.
Significance of Fishery Management Actions	Baseline	Alternative 2 is not expected to result in adverse impacts to the environment that would result in a significance determination.	Same as Alternative 2.

Table E2 Qualitative Summary of Benefits/Costs and Distributional Impacts

Benefit/Cost or Impact Category	Alternative 1 - Retain SGL Restriction to One Year (Status Quo)	Alternative 2 - Redefine SGL Restriction to One Week	Alternative 3 - Limit SGL to the Bering Sea and Relocations to 4 Per Calendar Year (Preferred Alternative)
Catcher vessel operating costs	As the status quo, Alternative 1 would result in no change in catcher vessel operating costs.	There is potential for reduced operating costs for the cooperative fleets delivering to the two stationary floating processors, should those processors operate in areas closer to concentrations of pollock, than their current locations in Beaver Inlet and Akutan, respectively. This situation, should it occur, would most likely be for the BS pollock B season and involve operations in St. Paul in the Pribilof Islands. The magnitude of these potentially reduced catcher vessel operating costs cannot be estimated, <i>a priori</i> , but the differences in actual running times between these harbors is shown in Table 4.3.	Same as Alternative 2, but AFA floaters would be restricted to only four relocations in the Bering Sea per calendar year, so the potential cost savings accruing to catcher vessels would be relatively smaller, all else being equal.
Stationary floating processing ship operations	As the status quo, Alternative 1 would result in no change in operations for the two stationary floating processing ships.	<p>There is potential for increased product value, increased product quality, or both if future operations of one or the other of the stationary floating processing ships were to operate nearer to concentrations of pollock during part of the year. The magnitude of the potential gain from efficiency or product value is unknown at this point.</p> <p>Allowing the F/V ARCTIC ENTERPRISE and the F/V NORTHERN VICTOR to relocate during the fishing season may add greater economic and operational flexibility for their respective companies to deal with regulation changes from measures to protect Steller sea lion or other time/area closures that may occur in future. Relocating would incur a financial cost, but these costs cannot be estimated.</p>	Same as Alternative 2, but AFA floaters would be restricted to only four relocations in the Bering Sea per calendar year.

Benefit/Cost or Impact Category	Alternative 1 - Retain SGL Restriction to One Year (Status Quo)	Alternative 2 - Redefine SGL Restriction to One Week	Alternative 3 - Limit SGL to the Bering Sea and Relocations to 4 Per Calendar Year (Preferred Alternative)
Regional economic impacts	Alternative 1 would result in no change in regional economic effects.	There could be a regional shift in some economic impacts from expenditures by the two stationary floating processing ships, should they relocate from their current locations of Beaver Inlet and Akutan, to other locations where they would operate part of the year under Alternative 2. These communities may lose a portion of the economic activity associated with the operation of these companies. In addition, the Aleutians East Borough may lose a portion of the fish tax revenues they currently receive, if the floaters relocate to another location outside the Borough.	This alternative is similar to Alternative 2, but AFA floaters would be restricted to only four relocations in the Bering Sea per calendar year.
Competitive situation among the AFA inshore plants	Alternative 1 would result in no change in the competitive situation within the group of eight AFA inshore processing plants.	There could be a relatively small shift in competitive advantage to benefit the owners of the F/V ARCTIC ENTERPRISE and the F/V NORTHERN VICTOR and their respective cooperative fleets. The AFA onshore processing plant operators have, despite numerous opportunities, expressed no opposition to this change, except regarding the number of changes permitted.	Same as Alternative 2, but AFA floaters would be restricted to only four relocations in the Bering Sea per calendar year. The AFA onshore processing plant operators have, despite numerous opportunities, expressed no opposition to this change, except regarding the number of changes permitted.

MEMO

APRIL 2, 2008

TO: FILE

FROM: JOE PLESHA

RE: ANOTHER METHOD ESTIMATING THE VALUE OF HARVESTING
AND PROCESSING QUOTA

It is difficult to develop exact values for harvesting and processing quota. In a January 11, 2008 memo, I estimated the total value of harvesting quota in the opilio and Bristol Bay Red king crab fisheries to be about \$1,180,000,000 and the total value of processing quota in those fisheries to be only about \$90,000,000. These estimates were based on reported sales of quota. This memo uses another method to estimate the value of harvesting and processing quota and then compares the value of quota allocated to vessel owners, processing plant owners and skippers as a percent of the total value of the fishery.

Processing Quota

An estimate of the value of processing quota is made difficult by the fact that the market for Processing Quota Shares is extremely thin and there is very little public information regarding either lease rates of Individual Processing Quota or permanent sales of Processing Quota Shares. In contrast, there is abundant information regarding actual transactions involving purchase of crab delivered with both "A" and "B" and "C" shares. (See Attachment One.)

There is a method of determining the value of processing quota that does not rely on transactions of the actual quota. The lease value of processing quota must equal the price differential between the delivered price of crab delivered under an "A" share, and crab delivered under "B/C" shares, which is unencumbered harvesting quota. Simple arithmetic requires that the loss to the harvester, as measured by the discount in price received for a pound of crab delivered under an "A" share, be equal to the discount (gain) at which the processor is able to purchase crab delivered under an "A" share, relative to the cost of doing so under a "B" or "C" share delivery.

The estimate of the value of processing quota derived from the ex-vessel price differential between crab delivered under "A" shares and the same crab delivered under "B" and "C" shares is as follows:

The ex-vessel price for crab delivered under "B" or "C" shares is the price that exists where processing quota doesn't exist. The price for crab delivered under "A" shares is typically less than the price for crab delivered under "B" or "C" shares. The difference in price represents the premium collected by the processor, over that which is paid in a

situation where processing quota does not exist. The total value of processing quota for one pound of crab, in a given year, is exactly the same as this price differential. An estimate of the capitalized value of Processing Quota Shares can be arrived at by assuming a constant quota then calculating the Net Present Value of the annual value of Individual Processing Quota across a range of various discount rates.

What follows is an estimate of the capitalized value of Processing Quota Shares for the opilio and Bristol Bay Red king crab fishery.

Opilio Processing Quota

To estimate the expected opilio TAC, I have taken the average of the opilio TAC (excluding CDQ) for the past three years (2006-2008). That average is 41,035,300 pounds. At an annual quota of 41,035,300 pounds, with 87% of the quota covered by "A" shares, the annual harvest of "A" quota opilio is 35,700,711 pounds.

Processors purchasing opilio crab delivered with "B" and "C" shares during the 2007 opilio harvest, paid a price premium of about \$0.055 a pound over what they were paying for crab delivered with "A" shares.

The annual rent collected by processors who purchase opilio delivered under "A" share quota is therefore about \$0.055 per pound multiplied by 35,700,300 pounds per year, which equals \$1,963,539 a year.

The Net Present Value of a perpetual rent payment of \$ 1,963,539 per year, using a range of discounts of 8% to 12 % yields the following estimate of the value of Processing Quota Shares in the opilio fishery.

\$1,963,539 divided by 8% equals \$24,544,239
\$1,963,539 divided by 12% equals \$16,362,825

King Crab Processing Quota

To estimate the expected Bristol Bay Red king crab TAC, I have taken the average of the red king crab TAC for the past three years (2005-2007). That average is 16,271,700 pounds. At an annual quota of 16,271,700 pounds, with 87% of the quota covered by "A" shares, the annual harvest of "A" share quota king crab is 14,156,378 pounds.

Processors purchasing red king crab with "B" and "C" shares during the 2007 fishery, paid a price premium of about \$0.15 a pound over the price they paid for red crab delivered with "A" shares.

The annual rent collected by processors who purchase king crab delivered under an "A" share quota is \$0.15 per pound multiplied by 14,156,379 pounds per year, which equals \$2,123,457 a year.

The Net Present Value of a perpetual rent payment of \$2,123,457 per year using a range of discounts of 8% to 12 % yields the following estimate of the value of IPQ in the Bristol Bay Red king crab fishery.

\$2,123,457 divided by 8% equals \$26,543.212
 \$2,123,457 divided by 12% equals \$17,695,475

Total Estimated NPV of Processing Quota

	<u>Opilio</u>	<u>BBRKC</u>	<u>Total</u>
At 8%	\$24,544,239 +	\$26,546,212 =	\$51,090.451
At 12%	\$16,362,825 +	\$17,695,475 =	\$34,058,300

Harvesting Quota

Individual Harvesting Quota is frequently leased. The lease rate has commonly been referred to as a percentage of the ex-vessel price for a particular species of crab. That is misleading. The lease rate is dependent upon whether the holder of harvesting quota believes it can make more money harvesting the crab with its own vessel, or whether the quota-holding firm can make more money leasing the harvesting quota it holds and have another vessel-owning firm actually harvest the quota. At some price, the holder of quota will determine it is in its economic interest to lease the quota to another vessel-owning firm instead of fishing the quota itself.

For example, currently the holder of opilio crab harvesting quota is paid about \$0.87 per pound to lease its quota to a vessel-owning firm. That is the price at which holders of opilio harvesting quota believe is in their financial interest to lease to others rather than fish themselves. This happens to equal about 50% of the ex-vessel price that the vessel-owning firm receives for deliveries of raw opilio crab. If the ex-vessel price of opilio crab were to reach \$10 per pound, however, and fishing costs did not increase, the actual price paid to holders of opilio harvesting quota would change substantially. Harvesting quota holders could expect to receive slightly over \$9.00 per pound to lease opilio harvesting quota to vessel-owning firms. If holders of quota received only \$5.00 per pound (50% of \$10) they would be forgoing about \$4.00 per pound which they would otherwise earn by fishing the quota themselves.

So, although harvesting quota lease rates in the opilio and red crab fisheries are often expressed as a percentage of the ex-vessel price received for deliveries of crab, that characterization, although accurate (after all, any two numbers can be expressed as a ratio), is misleading. Lease rates for harvesting quota are better understood as a price at which a quota holder believes it is in its financial best interest to lease its quota to a vessel-owning firm rather than harvest the quota itself.

Opilio Harvesting Quota

In the 2007 opilio crab fishery the average lease payment for Individual Fishing Quota was about \$0.87 per pound. Assuming an average TAC for opilio crab of 41,035,000 pounds annually, the lease payment would equal about \$35,495,535 per year.

The Net Present Value of a perpetual rent payment of \$35,495,535 per year, using a range of discounts of 8% to 12 % yields the following estimate of the value of Harvesting Quota Shares in the opilio fishery:

\$35,495,535 divided by 8% equals \$443,694,181
 \$35,495,535 divided by 12% equals \$295,796,121

Bristol Bay Red King Crab Harvesting Quota

In the 2007 Bristol Bay Red king crab fishery, the lease payment for Individual Harvesting Quota was about \$3.13 per pound. Assuming an average TAC for red crab of 16,271,700 pounds annually, the lease payment would equal about \$50,982,490 per year.

The Net Present Value of a perpetual rent payment of \$50,982,490 per year, using a range of discounts of 8% to 12% yields the following estimate of the value of Harvesting Quota Shares in the Bristol Bay Red king crab fishery.

\$50,982,490 divided by 8% equals \$637,281,131
 \$50,982,490 divided by 12% equals \$424,854,087

Total Estimated NPV of Harvesting Quota

	<u>Opilio</u>	<u>BBRKC</u>	<u>Total</u>
At 8%	\$443,694,181	+ \$637,281,131	= \$1,080,975,312
At 12%	\$295,796,121	+ \$424,854,087	= \$720,650,208

Comparison of the Total Value of Harvesting Quota Shares and Processing Quota Shares

Opilio Fishery

On an annual basis, below is the comparison of the total value of the opilio fishery received by vessel owners, processing plant owners and skippers:

Average Opilio TAC (after CDQ) = 41,035,300 lbs.

Annual Value of the Fishery

Rents earned per pound by IFQ	\$0.87
Plus Rents earned per pound of IPQ	+ \$0.055
Total Rents earned per pound	= \$0.0925
Multiplied by Average TAC	x 41,035,300
Annual Total Value of the Fishery	= \$37,957,653

Vessel Owners' "B" Share Value (10% of Total Value Fishery) = \$3,795,765

Skippers' "C" Share Value (3% of Total Value of Fishery) = \$1,138,729

Total Annual Value of "A" Shares (Both IPQ & IFQ Components)

Value of "B" Shares	\$3,795,765
Plus Value of "C" Shares	+ <u>\$1,138,729</u>
Total =	= \$4,934,494
Subtracted from Total Annual Value of Fishery	\$37,957,653
Equals Total Annual Value of "A" Shares	= \$33,023,157

Processors' Rents From "A" Shares

Total Poundage of "A" Shares (Ave. TAC x 87%) =	35,700,711 lbs.
Multiplied by Rents earned per pound of IPQ =	x <u>\$0.055 per lb.</u>
Total Processors' Rents per pound of "A" Shares	= \$1,963,539

Vessel Owners' Rents From "A" Shares

Total Poundage of "A" Shares (Ave. TAC x 87%) =	35,700,711 lbs.
Multiplied by Rents earned per pound of IFQ =	x <u>\$0.87 per lb.</u>
Total Vessel Owners' Rents per pound of "A" Shares	= \$31,059,619

Percent of Total Value of the Fishery Received by Sector

Vessel Owners

Value of "B" Shares =	\$3,795,765
Plus Vessel Owners "A" Share Rents =	+ <u>\$31,059,619</u>
Total Vessel Owners Rents	= \$34,855,383
Divided by Total Value of Fishery =	÷ <u>\$37,957,653</u>
Equals Vessel Owners' % of Value	= 91.83%

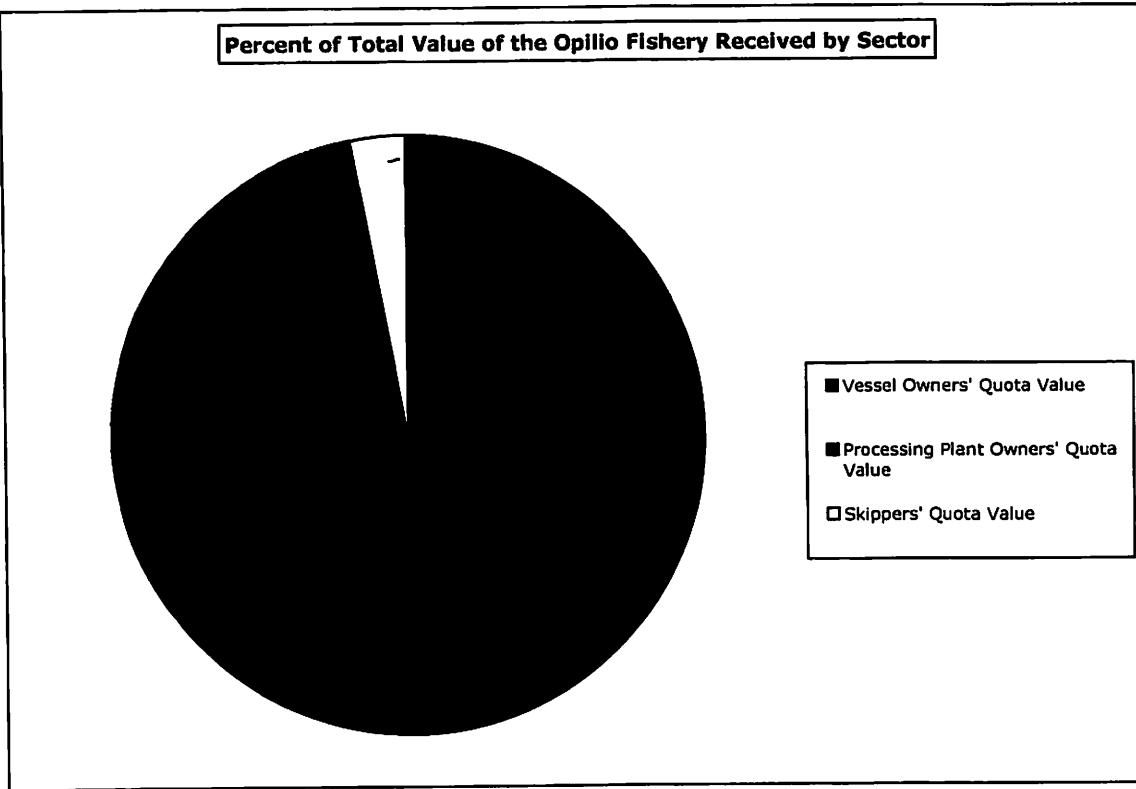
Processing Plant Owners

Processors "A" Share Rents =	\$1,963,539
Divided by Total Value of Fishery =	÷ <u>\$37,957,653</u>
Equals Processors' % of Value	= 5.17%

Skippers

Value of "C" Shares =	\$1,138,729
Divided by Total Value of Fishery =	÷ <u>\$37,957,653</u>
Equals Skippers % of Value	= 3%

Below is a "pie" chart illustrating the value of the opilio fishery received by vessel owners, processing plant owners and skippers.



Bristol Bay Red King Crab Fishery

On an annual basis, below is the comparison of the total value of the Bristol Bay Red king crab fishery received by vessel owners, processing plant owners and skippers:

Average Opilio TAC (after CDQ) = 16,271,000 lbs.

Annual Value of the Fishery

Rents earned per pound by IFQ	\$3.13
Plus Rents earned per pound of IPQ	+ \$0.15
Total Rents earned per pound	= \$3.28
Multiplied by Average TAC	x 16,271,000
Annual Total Value of the Fishery	= \$53,371,176

Vessel Owners' "B" Share Value (10% of Total Value Fishery) = \$5,337,117

Skippers' "C" Share Value (3% of Total Value of Fishery) = \$1,601,135

Total Annual Value of "A" Shares (Both IPQ & IFQ Components)

Value of "B" Shares	\$5,337,117
Plus Value of "C" Shares	+ \$1,601,135
Total =	= \$6,938,252
Subtracted from Total Annual Value of Fishery	\$53,371,176

Equals Total Annual Value of "A" Shares = **\$46,432,923**

Processors' Rents From "A" Shares

Total Poundage of "A" Shares (Ave. TAC x 87%) = 14,156,379 lbs.
Multiplied by Rents earned per pound of IPQ = x \$0.15 per lb.
Total Processors' Rents per pound of "A" Shares = **\$2,123,457**

Vessel Owners' Rents From "A" Shares

Total Poundage of "A" Shares (Ave. TAC x 87%) = 14,156,379 lbs.
Multiplied by Rents earned per pound of IFQ = x \$3.13 per lb.
Total Vessel Owners' Rents per pound of "A" Shares = **\$44,309,466**

Percent of Total Value of the Fishery Received by Sector

Vessel Owners

Value of "B" Shares = \$5,337,117
Plus Vessel Owners "A" Share Rents = + \$44,309,466
Total Vessel Owners Rents = \$49,646,583
Divided by Total Value of Fishery = ÷ \$53,371,176
Equals **Vessel Owners' % of Value** = **93.02%**

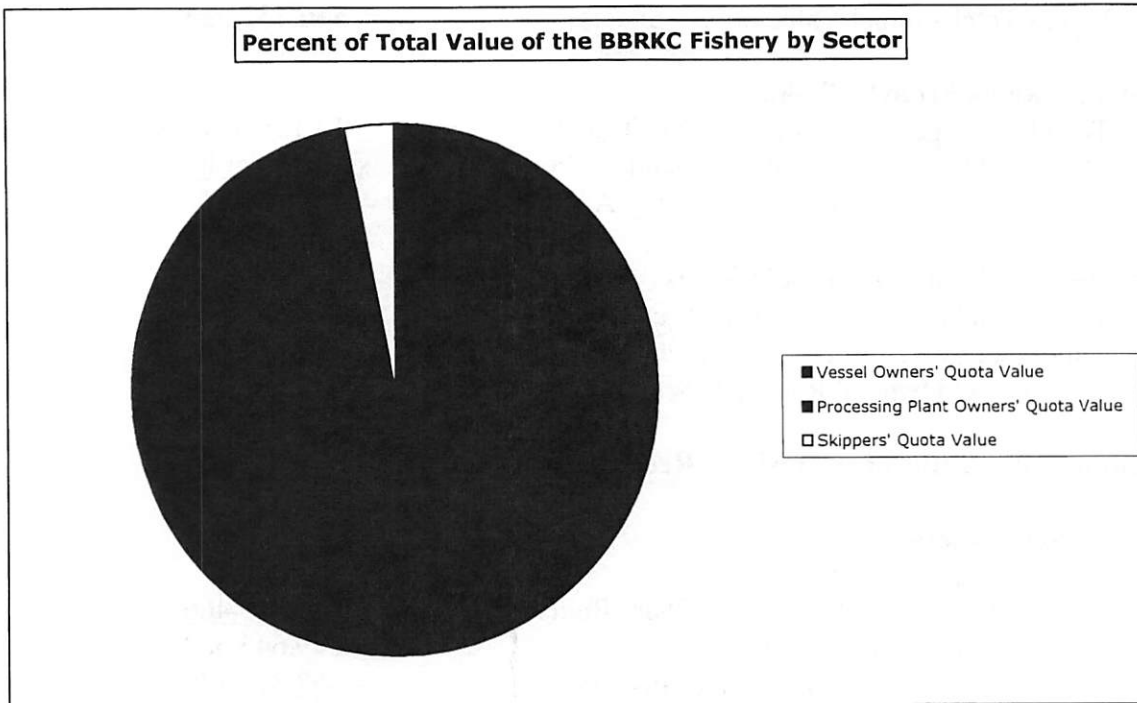
Processing Plant Owners

Processors "A" Share Rents = \$2,123,457
Divided by Total Value of Fishery = ÷ \$53,371,176
Equals **Processors' % of Value** = **3.98%**

Skippers

Value of "C" Shares = \$1,601,135
Divided by Total Value of Fishery = ÷ \$53,371,176
Equals **Skippers % of Value** = **3%**

Below is a chart illustrating the value of the Bristol Bay Red king crab fishery received by vessel owners, processing plant owners and skippers.



Conclusion

You can estimate the value of harvesting and processing quota based on capitalized value of annual lease payments for each. Over ninety percent of the total value of the opilio crab and Bristol Bay Red king crab fisheries has already been allocated to vessel owners (now holders of harvesting quota). Processors, on the other hand, have received about five percent (or less) of the total value of these two fisheries.

Here are the differentials as per ICE last week.

ight want to double check against Trident records to see if they really make sense.

Price Matrix- Opilio Crab- 2007		
	A shares	B/C Shares
Trident	\$ 1.707	\$ 1.707
Royal Aleutian	\$ 1.707	\$ 1.757
Westward	\$ 1.72	\$ 1.72
Peter Pan	\$ 1.73	\$ 1.79
Icicle	\$ 1.834	N/A
Stellar Seafoods	\$ 1.707	\$ 1.707
SnoPac	\$ 1.65	N/A
Ocean Beauty	1.90/1.95	\$ 1.95
Harbor Crown	-	\$ 1.92
Blue Dutch	\$ 1.71	N/A
Alaska Fresh	-	\$ 1.95
Alyeska	\$ 1.834	\$ 1.834

5¢
6¢

Summary of Red King Crab Prices 2007 Season		
	A Shares	B & C Shares
Alaska Fresh	\$ 4.500	\$ 4.650
Alyeska	\$ 4.510	\$ 4.650
APS	\$ 4.450	\$ 4.600
Blue Dutch -1-	?	N/A
Harbor Crown	N/A	\$ 4.650
Icicle	\$ 4.514	N/A
Ocean Beauty	N/A	\$ 4.650
Peter Pan	\$ 4.400	N/A
Snopac	\$ 4.3867	N/A
Royal Aleutian/UniSea	\$ 4.455	N/A
Trident	\$ 4.422	N/A
Westward	\$ 4.401	\$ 4.541
YAK	\$ 4.450	N/A

15¢
14¢
15¢

14¢

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