**ESTIMATED TIME** 

2 HOURS

(For all C-4 items)

#### MEMORANDUM

TO:

Council, SSC and AP Members

FROM:

Chris Oliver

**Executive Director** 

DATE:

November 21, 2002

SUBJECT:

American Fisheries Act Issues

**ACTION REQUIRED** 

(a) Final review of measures for BSAI winter Pacific cod amendment

(b) Review initial co-op reports and agreements (full report in February)

**BACKGROUND** 

#### P. cod Sideboards

In October 2002, staff presented for initial review the EA/RIR/IRFA for Amendment 73 (Pacific cod sideboard provisions). The Council approved the document for public review once additional information addressing weekly participation patterns, latent licenses, and catch history as a percent of TAC have been included. The EA/RIR/IRFA was changed to reflected the Council's request and is presented now for possible final action at this meeting. The Executive Summary is attached as Item C-4(a)(1).

The purpose of this action is to provide greater protection to non-AFA trawl catcher vessels targeting BSAI Pacific cod during the months of January and February. The concern is over impacts to the non-AFA vessels that have traditionally fished Pacific cod and may have been subject to increased competition as a result of implementation of the AFA. The potential impacts of this increased level of competition include factors such as decreased catch per unit of effort resulting in longer fishing times per trip, reductions in catch, and decreased safety.

#### Alternatives under consideration include:

- 1. Retain current sideboards measures
- 2. Limiting access to the directed trawl fishery for Pacific cod in January and February in area 655430 to open access vessels which have a history of economic dependency upon the winter Bering Sea Pacific cod fisheries, demonstrated by average January, February deliveries of at least 250,000 lbs for 4 out of the 5 pre-AFA years of 1995-1999 and to the cod exempt AFA vessels.
- Allocate catch to non-AFA vessels based on Alternative 2 under two options:
  - a. a range of 2.5 to 5 million lbs (with no cap)
  - b. historical catch of TAC of Pacific cod
- 4. Require co-ops to limit the fishing impact AFA vessels have on the cod grounds so as not to preempt non-AFA vessels from their historical participation.

At this meeting, the Council is scheduled to review the revised analysis and possibly take final action. An agreement between the AFA and non-AFA vessels, if negotiated this fall, would likely inform the Council's action on this issue.

#### **Initial Co-op Reports**

Annually the Council reviews the co-op agreements for the upcoming fishing year, as well as the end-of-year co-op reports for the preceding year. As we did last year, I requested co-op representatives to provide us copies of individual co-op agreements only if there were changes to those agreements since the last version. We are expecting those to be available for review at this meeting, along with the inter-co-op agreements, including those relating to salmon bycatch management. I also expect the preliminary end-of-year reports to be made available for review at this meeting. We were unable to distribute these ahead of the meeting, as the deadline for submission was December 1. Copies are available for review in the AP, SSC, and Council meetings rooms. Final co-op reports are due in February.

#### **EXECUTIVE SUMMARY**

The proposed amendment would restrict AFA trawl catcher vessels from harvesting Pacific cod in an area just north of Unimak Island during January and February, allocate a portion of the Bering Sea Aleutian Islands (BSAI) Pacific cod to non-AFA vessels meeting specified historical landing minimums, or require cooperatives to limit the number or size of AFA vessels on the cod grounds to ensure non-AFA vessels do not get preempted and insure their historical participation.

#### **Problem Statement:**

The problem being addressed by this amendment is a claim by three non-AFA vessels, who have historically harvested BSAI Pacific cod, that competition in area 655430 has increased considerably during the January and February period because of AFA. AFA-qualified trawl catcher vessels, that normally targeted pollock during this period prior to the AFA, can now transfer their share of pollock allocation to other more efficient cooperative members, thus, are free to now target winter cod. The increased competition is thought to adversely impact open access vessels through lower catch per unit of effort, reduction in catch, and increased dangers to smaller vessels from crowding on the fishing grounds. Section 211 of the AFA requires the Council to recommend measures necessary to protect vessels with a history of investment in and dependence on Pacific cod from the adverse impacts caused by the AFA or by fishery cooperatives in the directed BSAI pollock fishery.

#### **Alternatives Under Consideration:**

There are four proposed alternatives in this amendment. The first is status quo. The second alternative restricts access to the trawl catcher vessel winter cod fishery located just north of Unimak Island based on a threshold level of historical deliveries. The third alternative allocates a portion of the Pacific cod to non-AFA vessels who meet the threshold level of historical deliveries under option two. The forth and final alternative requires cooperatives to limit the number of vessels on the winter cod grounds. These additional sideboard alternatives apply only to the catcher vessel fleet. Below are the alternatives as outlined by Council.

Alternative 1: (Status Quo) Retain current sideboard measures for AFA trawl catcher vessels targeting Pacific cod in the Bering Sea/Aleutian Islands. Currently these vessels are limited to harvesting no more than the ratio of retained catch of AFA vessels in 1997 (for Pacific cod only) to the available TAC for Pacific cod during that same period.

Alternative 2: Limiting access to the directed trawl fishery for Pacific cod in January and February in area 655430 to open access vessels which have a history of economic dependency upon the winter Bering Sea Pacific cod fisheries, demonstrated by average January, February deliveries of at least 250,000 lbs for 4 out of the 5 pre-AFA years of 1995-1999 and to the cod exempt AFA vessels.

Alternative 3: Allocating catch for non-AFA vessels which meet the criteria set forth in alternative number two under the following options:

Option 1: A range of 2.5 to 5 million lbs (with no cap)

Option 2: Historical catch of TAC of Pacific cod

Alternative 4: Require co-ops to use such measures as limiting the number or size of AFA vessels on the cod grounds at any given time to ensure that non-AFA vessels do not get preempted and insure their historical participation.

#### **Environmental Impacts:**

None of the alternatives under consideration would affect the prosecution of BSAI Pacific cod other than potentially reducing temporal concentration of effort during the winter period. If Alternative 2 or 4 are selected, there is some potential for temporal and spatial shifting of vessels displaced from the winter cod grounds North of Unimak Island. None of the alternatives are expected to affect takes of species listed under the Endangered Species Act or substantially alter the take of Pacific cod and bycatch rates of other fish and crab. A summary of the environmental impacts are included in Table E1.

#### **Economic Impacts:**

The impacts of this amendment are distributional in nature, and reflect the losses or gains from the vessels that would be removed from participation in the January and February Pacific cod fishery in statistical area 655430. The issue is largely one of policy intent by the NPFMC in implementing the AFA and what level of protection they wish to provide for a relatively small group of small trawl vessels with historic participation in the fishery.

If Alternative 2 were implemented, many vessels that have participated in the Pacific cod fishery during January and February in the statistical area 655430 would be displaced. Only non-AFA vessels who failed to qualify and AFA trawl catcher vessels without Pacific cod exemptions would be the displaced from the January and February fishery and thus, could experience decreased net revenues from Pacific cod. There could also be potential negative impacts to shorebased processing plants from diminished efficiency due to extended period of deliveries for Pacific cod over the year.

Alternative 3 would allocate quota to qualified non-AFA vessels. However, the alternative by itself would provide little protection for the non-AFA vessels on the winter cod grounds. Under this alternative, AFA trawl catcher vessels would still be allowed to fish in area 655430 during the January and February period, thus not resolving the initial claim by the three non-AFA vessels.

Alternative 4 would require AFA trawl catcher vessels to limit their effort on the winter cod grounds so non-AFA vessels are not harmed from their historical participation. Although not explicit, the alternative implies that participants in the AFA and non-AFA trawl catcher vessel sectors are required to reach an agreement on the level of effort that is considered harmful to the non-AFA vessels and develop measures so as not to exceed this level during the January and February period. As a result, a thorough analysis of this alternative is not possible. In general though, the alternative allows greater flexibility for AFA and non-AFA trawl catcher vessel participants to reach some amiable agreement. Thus, the alternative could have a lower economic impact on AFA vessels when compared to Alternative 2. However, the vast number of AFA participants and the unanimous consent required by AFA cooperatives make any agreement between

participants difficult. Alternative 4 also provides no regulations on communicating compliance measures to enforcement officials, so enforcement and monitoring of this alternative would not be possible. The alternative could be enforceable if language is added to the alternative that would require the cooperatives to report these compliance measures to enforcement officials.

A qualitative summary of the benefits and costs that will result from the different alternatives is shown in Table E2. Based on results from analysis, all alternatives except the no-action alternative will likely result in costs exceeding benefits. Alternative 4 is less clear since it does not specify the level of reduction, but it could potentially have a lower economic impact on displaced vessels than Alternatives 2.

### E1. Summary of Environmental Impacts

	Alternative 1	Alternative 2	Alternative 3, Option 1	Alternative 3, Option 2	Alternative 4
Area of	Retain Current Sideboard			Allocated based on Catch	
Consideration	Measures (Status Quo)	Limited Access	Allocate 2.5 - 5 million lbs	History	Co-ops Limit Effort
Impacts on Pacific cod stocks		Alternative 2 is not expected to change Pacific cod stocks. There is the potential for some reduction in effort on the winter cod fishery. In addition, there could be some temporal and spatial shifting, but no significant impacts are excepted.	Same as for Alternative 2. but with the likelihood of a larger degree of temporal and spatial shifting of AFA vessels including cod- exempt vessels.	Same as for Alternative 3	Same as for Alternative 2, but with the likelihood of a smaller degree of temporal and spatial shifting by AFA catcher vessels
Direct impacts of trawl gear on habitat	Alternative 1 is not expected to change the intensity, timing, or location of the winter cod fishery. Effort by AFA and non-AFA catcher vessels will likely continue northwest of Unimak Island during the January and February period.	Alternative 2 could potentially reduce the impacts of trawling on the habitat northwest of Unimak Island during the January and February period. There is the potential for some temporal or spatial shifting by AFA catcher vessels, but no significant impacts are expected.	Same as for Alternative 2, but with the likelihood of a larger degree of temporal and spatial shifting of AFA vessels including codexempt vessels.	Same as for Alternative 3	Same as for Alternative 2, but with the likelihood of a smaller degree of temporal and spatial shifting by AFA catcher vessels
Impacts on essential fish habitat	Alternative 1 is not expected to impact the essential fish habitat. Effort by AFA and non-AFA catcher vessels will likely continue northwest of Unimak Island during the January and February period.	Alternative 2 is not expected to adversely impact the essential fish habitat northwest of Unimak Island and could even decrease impacts caused by reduced effort. There is the potential for some temporal and spatial shifting in effort by AFA catcher vessels to other areas in the Aleutian Islands and Bering Sea, but no significant impacts are expected.	Same as for Alternative 2,	Same as for Alternative 3	Same as for Alternative 2, but with the likelihood of a smaller degree of temporal and spatial shifting by AFA catcher vessels
Bycatch and discard impacts	Alternative 1 is not expected to adversely impact the bycatch rate from status quo level.	Alternative 2 is not expected to adversely impact the bycatch rate. The action does not alter the amount of Pacific cod harvested. There is the potential for effort by AFA catcher vessels to shift to other areas in the Bering Sea and Aleutian Islands during the January and February period, but bycatch rates are similar or lower in these areas.	Same as for Alternative 2, but with the likelihood of a larger degree of temporal and spatial shifting of AFA vessels including codexempt vessels.	Same as for Alternative 3	Same as for Alternative 2, but with the likelihood of a smaller degree of temporal and spatial shifting by AFA catcher vessels
Endangered or threatened species Marine Mammal Protection Act	Alternative 1 is not expected to adversely impact endangered or threatened species. Effort will likely continue northwest of Unimak Island during the January and February period by AFA and non-AFA catcher vessels.  Same as Endangered or Threatened Species	Alternative 2 is not expected to adversely impact endanger or threaten species. There is some potential for temporal and spatial shifting of effort by AFA catcher vessels, but no significant impacts are expected.  Same as Endangered or Threatened Species	Same as for Alternative 2, but with the likelihood of a larger degree of temporal and spatial shifting of AFA vessels including codexempt vessels.  Same as Endangered or Threatened Species	Same as for Alternative 3 Same as Endangered or Threatened Species	Same as for Alternative 2, but with the likelihood of a smaller degree of temporal and spatial shifting by AFA catcher vessels Same as Endangered or Threatened Species
Cumulative Effects	Alternative 1 will retain the existing sideboard regulations, so there is no additional cumulative impact	Alternative 2 is anticipated to have minor incremental cumulative impacts, but are 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 DPSEIS that the conclusion would not deter in any significant wayfrom the reference studies.	Same as for Alternative 2, but with the likelihood of a larger degree of temporal and spatial shifting of AFA vessels including cod- exempt vessels.	Same as for Alternative 3	Same as for Alternative 2, but with the likelihood of a smaller degree of temporal and spatial shifting by AFA catcher vessels
Significance of fishery management actions	Alternative 1 is not expected to result in any adverse impacts to the environment that would result in a significance determination.	Alternative 2 is not expected to result in adverse impacts to the environment that would result in a significance determination. There is the potential for establishing a precedent for future actions by restricting access to the fishery for a limited number of participates.	Same as for Alternative 2, but with the likelihood of a larger degree of temporal and spatial shifting of AFA vessels including codexempt vessels.	Same as for Alternative 3	Same as for Alternative 2, but with the likelihood of a smaller degree of temporal and spatial shifting by AFA catcher vessels

Table E2. Qualitative Summary of Economic Impacts

	Alternative 1	Alternative 2	Alternative 3, Option 1	Alternative 3, Option 2	Alternative 4
Impact on resource management	none	A reduction in the number of vessels participating in the January/February BSAI Pacific cod fishery in area 655430. There would be a potential for shifting harvest to March-December months.	A minimum allocation of 2.5 to 5 million pounds would be reserved for the qualifying non-AFA vessels.	qualifying non-AFA vessels for	The number of AFA vessels (including both AFA codexempt and non-cod exempt) vessels participating would be restricted to a maximum daily limit during January and February in area 655430.
Benefits	no change from the status quo	Decreased on-grounds competition for Pacific cod during January and February. The level of decrease in participation would depend upon whether or not the restrictions were applied to both the AFA cod-exempt vessels and AFA non-cod exempt vessels.	Allocate quota to non-AFA vessels and allow AFA vessels to fish during the witner cod fishery.	Same as for Alternative 3, Option 1.	Would allow greater flexibility to AFA and non-AFA participants to reach an agreement on the level harm and methods for limiting effort on the cod grounds.
Costs	no change from the status quo	Economic distocation from vessels restricted from future participation in the January/February Pacific cod fishery in area 655430. Potential for shifts to higher fishing costs and spreading out the processing period for shoreside plants	Would not limit the number of AFA vessels on the winter cod grounds, and thus, would not resolve the initial claim by the non-AFA vessels.	Same as for Alternative 3, Option 1.	Economic dislocation from vessels restricted from future participation in the January/February Pacific cod fishery in area 655430. Potential for shifts to higher fishing costs and spreading out the processing period for shoreside plants. Alternative has the potential for lower costs than Alternative 2.

Table 4.12. (continued) Qualitative Summary of Economic Impacts

	Alternative 1	Alternative 2	Alternative 3, Option 1	Alternative 3, Option 2	Alternative 4
Net Benefits	no change in net benefits	Benefits to the number of qualified vessels are likely to be exceeded by costs to excluded vessels and to shoreside processing companies. The increased costs result from: a) displaced effort to the March-December Pacific cod fishery will result in decreased catch per unit of effort on dispersed stocks, b) increases in running and fishing time will increase vessel costs or displaced vessels, and c) shoreside processing companies may have extended processing periods for Pacific cod throughout a longer season, resulting in lowered efficiencies.	Likely would result in lower net benefits since there would be an allocation of quota to non- AFA vessels, but the alternative would do little to resolve the initial claim by the non-AFA vessels.	Same as for Alternative 3, Option 1.	Economic dislocation from vessels restricted from future participation in the January/February Pacific cod fishery in area 655430 would be the same as described for Alternative 2. Alternative has the potential for a lower economic impact on displaced vessels than Alternative 2.
Objectives of Amendment		Achieves a reduction in on- ground competition for qualifying non-AFA vessels, as well as qualifying AFA vessels participating in the January and February Pacific cod fishery in area 655430.	AFA vessels on the winter cod grounds, and thus, would not	Same as for Alternative 3, Option 1.	same as for Alternative 2
E.O. 12866 significance	Does not appear to be significant. The entire exvessel value of the January/February Pacific cod fishery during the 1995-2000 period for the three fleet groups ranges from \$1.6 million in 1996 to \$7.2 million in 2000.	same as for Alternative 1	same as for Alternative 1	same as for Alternative 1	same as for Alternative 1

#### Supplemental Analysis for Amendment 73

## Jon M. Cracken Handout

#### **United Catcher Boat Proposal**

The United Catcher Boat proposal is understood to limit access to the Pacific cod trawl fishing in the Sarachef test area from January 20 to February 20 to open access vessels with a historical dependence following any year where the average daily number of AFA non-exempt vessels exceed 15 in area 655430 during the January 20 to February 20 period. AFA cod exempt vessels would not be effected by the limited access fishery and could fish in the Sarachef test area. This agreement would terminate when rationalization of the cod fishery takes effect.

The proposed alternative is a slight modification of Alternative 2 which creates a limit access fishery in area 655430 from January to February. Under the proposed alternative, rather than restricting AFA non-exempt vessels from fishing in area 655430, the proposed alternative would establish a trigger that if surpassed would restrict the AFA non-exempt vessels from fishing the following year in the Cape Sarachef test area during the January 20 to February 20 period. The Cape Sarichef test area and the location just outside Northwest portion of the test site, also known as 'Cod Alley,' has historically been the main location of the winter cod trawl fishery (NMFS, October 2002). Figure 1, below, depicts the test area and 10 mile no-trawl zone. In addition, the Figure 1 also shows the general locations of trawl hauls from January to April 2002.

The advantage of the proposed alternative is it would allow both AFA and non-AFA vessels to continue fishing during the winter cod season while providing an incentive for AFA vessels to limit their numbers on the grounds during the January and February period. In addition, the temporary restriction of AFA non-exempt vessels from the Cape Sarachef test area would allow these vessels continued access to deeper portions of Cod Alley just outside the test area while allowing non-AFA trawl catcher vessels unfettered access to the shallower portions of Cod Alley inside the test area.

Since this proposed alternative is a modified version of Alternative 2, the alternative is within the scope of the analysis. Results from the analysis show that many of the AFA non-exempt vessels that have participated in the fishery over the years would be displaced under Alternative 2 scenario. The displacement of participants could result in some temporal and spatial shifting, which could result in lower net revenues from Pacific cod fishing. Under the proposed alternative, temporal and spatial shifting could be reduced because AFA non-exempt vessels would be allowed to target Pacific cod in area 655430 as long the daily average did not exceed 15 from January 20 to February 20. In addition, by allowing AFA non-exempt vessels access to the deeper portions of Cod Alley if the restriction is imposed could further reduce spatial and temporal shifting. As a result, losses in net revenues caused by these shifts could potential diminish under the proposed alternative.

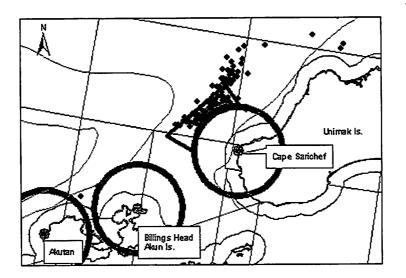
The proposed alternative does shift some of the economic burden to the next years AFA non-exempt participants. The shifting of the burden to next years participants, if the daily average of AFA non-exempt vessels exceed 15, could diminish the incentive to limit the number of AFA vessels on the winter cod grounds. However, based on past fishing patterns, it is probable that many of the same AFA non-exempt vessels that fished the same year the daily average exceeded 15 vessels would also be participants the following year when the restriction would be imposed.

Although the alternative does provide a limit on the number AFA non-exempt vessels in area 655430 from January 20 to February 20, there is the potential for wide daily fluctuations in the number vessels on the cod grounds. A daily average is calculated by summing the number of unique AFA non-exempt vessels targeting Pacific cod in area 655430 over the January 20 to February 20 period and dividing by the total number of days during that period. By using daily average rather than an absolute maximum, this could result in daily

counts of AFA vessels exceeding 15 thus creating the potential for some crowding and economic inefficiencies. However, for every vessel over 15, there would need to be a reciprocal decline in the number vessels below 15 in order to not trigger the restriction. For example, the first day of a three day fishery could see 40 vessels on the grounds followed by 2 vessels on the grounds during each of the next two days. The daily average for these three day fishery is 14.7 vessels. Despite this potential for wide fluctuations in the daily count, using a daily average rather than absolute maximum does provide some flexibility to the AFA non-exempt vessels to adjust their numbers depending on extraneous influences.

Finally, in discussions with Elizabeth Conners at the Alaska Fisheries Science Center, there is some concern the restriction of AFA non-exempt vessels from the Cape Sarachef test area could have a negative influence on the investigation of the effects of commercial fishing on local abundance of Pacific cod. Any absence of normal fishing patterns by AFA non-exempt vessels could lead to misleading results.

Figure 1. Unimak Pass SSL 20 nm No-Trawl Zones for 1999/2001 and Location of Observed Bottom Trawls in January-April 2002.



#### **Non-AFA Proposals**

The non-AFA vessels Miss Leona, Lone Star, and Windjammer have presented two alternatives. Alternative A (preferred alternative) would expand the restricted area specified in Alternative 2 of the amendment to all waters in area 517 east of 166 W longitude. The alternative would allow AFA non-exempt vessels on the winter cod grounds, but would limit their numbers based on their historical weekly average during the first five weeks of the Pacific cod season from 1995 to 1997 in area 517. However, the document for Amendment 73 document has vessel number by week for area 655430 not area 517. It appears there might be some confusion in which area should be selected for this proposed alternative. Assuming the authors of this proposal meant to select area 655430 rather than 517, the historical weekly average of AFA non-exempt vessels was 1.2. This was calculated by summing the number of vessels during the first five weeks of 1995, 1996, and 1997 and dividing by the total number of weeks during this period which was 15.

Alternative B is similar to Alternative A, but expands the maximum number of AFA non-exempt vessels on the winter cod grounds. The alternative would restrict the number of AFA non-exempt vessels on the winter cod grounds in area 655430 to their weekly average during the January and February period in 2001 and 2002. Using data published in Table 4.4 (d) the weekly average would be 6 vessels rounding up. This proposed alternative also differs from the first proposal by leaving, at least initially, the restricted area to include only area 655430. However, the proposal would expand the restricted area to included all waters in area 517 east of 166 W. longitude if area 655430 was closed for any reason.

Like the United Catcher Boats proposal, the non-AFA proposed alternatives are a modified version of Alternative 2 so they are within the scope of the analysis. The advantage of two non-AFA proposals, again like the United Catcher Boat's proposal, is they reduced, to some degree, the economic costs caused by displacement of AFA non-exempt vessels from the winter cod fishery under Alternative 2. Rather then displacing all AFA non-exempt vessels from area 655430 during the January and February period, the proposed alternatives would allow some limited activity by these vessels. This could potentially reduce some temporal and spatial shifting that might have occurred under Alternative 2.

The proposed alternatives do have some differences with the United Catcher Boat's proposal. Under the non-AFA proposed alternatives, the number of AFA non-exempt vessels on the winter cod grounds would be limited to a maximum of 1 or 6 vessels depending on which proposal was selected. The United Catcher Vessel proposal would limit the daily average to 15 from January 20 to February 20. Under this proposal, the number of vessels on the grounds during this period could fluctuate as long as the daily average was 15 after the 32 day period.

Another difference is the non-AFA proposals would expand the restricted area from what is currently specified, area 655430, to all waters in area 517 east of 166 W. longitude. Although this area is not specifically denoted on Figure 2 below, information in the figure does provide a general idea of the area discussed in the non-AFA proposal. Alternative A would expand the restricted area now, while the second alternative would only expand the restricted area if the Pacific cod fishery was shut down in area 655430 for any reason. As shown in Tables 4.2. and 4.3, nearly all of the harvest of winter cod during the 1995 to 2002 period has taken place in area 655430. As a result, by expanding the restricted area to include all waters east of 166 W. longitude, AFA non-exempt vessels would be further restricted from areas in which to target Pacific cod, thus potentially causing higher marginally economic costs from spatial shifting.

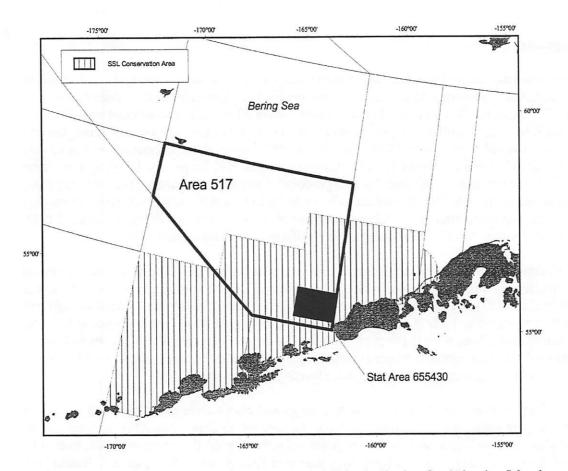


Figure 2. Map of Statistical Area 655430 and Area 517 in the Bering Sea/Aleutian Islands.

# PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM \_\_\_\_\_ C-4 AFA

	PLEASE SIGN ON THE NEXT BLANK LINE. LINES LEFT BLANK WILL BE DELETED.				
	NAME CHUCK BLUECE	AFFILIATION			
1.	Brent Paine, Russell Pritchet	AFFILIATION  TUCK, Indep. Cod Transless.  AlogICA BOOK CO.  PREMIER PACIFIC SEAFOODS			
2.	Len Tippett	Alasica Boat Co.			
3.	PJOHN HENDERSCHEDT	PREMIER PACIFIC SEAFOODS			
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