

DISCUSSION PAPER

Proposed Regulatory Amendment to the Gulf of Alaska Pollock and Pacific Cod Sideboards for the Non-exempt AFA Catcher Vessel Fleet

OCTOBER 2008

**Prepared by staff of the
North Pacific Fishery Management Council**

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EXECUTIVE SUMMARY

This discussion paper reviews the potential impacts of the proposed action to revise the Gulf of Alaska Pacific cod and pollock sideboard limits for the non-exempt American Fisheries Act (AFA) catcher vessel fleet. At its December 2007 meeting, the Council identified a set of alternatives for the proposed action. The Council reviewed an initial EA/RIR/IRFA for the proposed action at the June 2008 meeting. At that time, the Council asked that staff develop a discussion paper that provided additional information on the sideboard fisheries.

The sector directly affected by the proposed action consists of catcher vessels that are permitted under the AFA and are not exempt from GOA groundfish catcher vessel sideboards. There are currently 111 AFA permitted catcher vessels, and 16 of these vessels are exempt from Pacific cod and pollock sideboards in the GOA. The objective of the proposed action is to reduce the potential impacts to non-AFA vessels resulting from participation by the 95 non-exempt AFA catcher vessels in directed fisheries for GOA Pacific cod and pollock.

At the June 2008 meeting, the Council adopted the following Purpose and Need Statement:

Since the establishment of GOA groundfish sideboard limits for non-exempt AFA catcher vessels by the American Fisheries Act (AFA) of 1998, changes in both GOA and BSAI fisheries warrant re-examination of these sideboard limits. The majority of the current sideboard limits for pollock and Pacific cod have gone unharvested by the non-exempt AFA catcher vessel sector in recent years, while during that time other vessels have increased their dependency on these fisheries in the GOA. On the other hand, given changes in the BSAI fisheries, including significant reductions in the BSAI pollock TAC in 2008, the potential exists for increased effort in GOA pollock and Pacific cod fisheries by non-exempt AFA catcher vessels, thereby reducing harvest opportunities for vessels that have developed an increased dependency on these relatively small, fully subscribed fisheries.

Alternatives Considered

Alternative 1— No action

Alternative 1 would not change the existing GOA pollock and Pacific cod sideboards for non-exempt AFA catcher vessels. Currently, sideboard amounts are calculated annually as a fixed percentage of the Western and Central GOA pollock and Pacific cod TACs. The percentages are based on retained catch by non-exempt AFA catcher vessels of pollock and Pacific cod, respectively, during 1995 through 1997, divided by the TAC for that species over the same period. Sideboard amounts are calculated annually by multiplying the sideboard percentages by the pollock and Pacific cod TACs available to catcher vessels in that year. The sideboards are then divided into seasonal apportionments.

Alternative 2— Recalculate sideboards based on catch history from 2005 through 2007

Under Alternative 2, the GOA Pacific cod and pollock sideboard limits for non-exempt AFA catcher vessels would be recalculated. Sideboards would be based on the retained catch of non-exempt AFA CVs of each species from 2005 through 2007 divided by the TAC for that species over the same period.

Alternative 3— Recalculate sideboards based on catch history from 2001 through 2005

Under Alternative 3, the GOA Pacific cod and pollock sideboard limits for non-exempt AFA catcher vessels would be recalculated. Sideboards would be based on the retained catch of non-exempt AFA CVs of each species from 2001 through 2005 divided by the TAC for that species over the same period.

Alternative 4— Prohibit non-exempt AFA catcher vessels from directed fishing for pollock and Pacific cod in the GOA

Under Alternative 4, directed fishing by non-exempt AFA catcher vessels for GOA Pacific cod and pollock would be prohibited, where the term “directed fishing” means any fishing activity that results in

the retention of an amount of a species or species group on board a vessel that is greater than the maximum retainable amount for that species or species group as calculated under §679.20.

Alternatives Considered but Eliminated From Further Review

The alternative of removing GOA sideboard limits was considered but eliminated from further review for the following reasons:

- 1) The alternative does not meet the stated purpose and need.
- 2) The alternative would not meet the requirement of Sec. 211(c)(1) of the AFA

Analysis of the Alternatives

The baseline conditions under the status quo alternative were compared to potential changes to the sideboards under Alternatives 2 and 3. Tables E-1 and E-2 show the harvest reductions that would have been necessary if the revised sideboards under Alternatives 2 and 3 had been in effect during 2001-2007. Under Alternative 2, sideboards would be based on retained catch during 2005-2007. Under this alternative, pollock harvests in Area 610 during 2001-2007 would have been reduced by 24.7%, and pollock harvests in Area 630 would have been reduced by 20.8%. Area 620 pollock harvests would not be reduced under Alternative 2. Western Gulf Pacific cod harvests would have been reduced by 29.2% and Central Gulf harvests by 19.2%. Under Alternative 3, sideboards would be based on retained catch during 2001-2005. Under this alternative, pollock harvests in Area 620 during 2001-2007 would have been reduced by 7.9%. Area 610 and 630 pollock harvests and Western and Central Pacific cod harvests would not be reduced under Alternative 3. The harvest reductions under Alternatives 2 and 3 were calculated based on annual sideboard harvests. In some management areas, the majority of sideboard harvests occur during one or two seasons. If the seasonal distribution of catch is taken into account, the harvest reductions are substantially larger.

Table E-1. Summary of non-exempt AFA CV GOA pollock sideboards and harvests by management area during 2001-2007, and sideboard harvest reductions under Alternatives 2 and 3.

	Management Area ¹		
	610	620	630
Alternative 1 (Status Quo)			
Current Sideboard Ratio (% of TAC)	61.123%	14.271%	24.375%
Total Sideboard Amount (mt) during 2001-2007	106,037	26,076	27,790
Total Sideboard Catch (mt) during 2001-2007	31,057	17,216	8,077
Alternative 2 (Sideboards based on 2005-2007 retained catch)			
Revised Sideboard Ratio (% of TAC)	13.474%	9.831%	5.612%
Revised Sideboard Amount (mt) during 2001-2007	23,375	17,964	6,398
Harvest Reductions to Comply with Sideboard (mt)	7,682	0	1,679
Harvest Reductions to Comply with Sideboard (% of catch)	24.7%	0	20.8%
Alternative 3 (Sideboards based on 2001-2005 retained catch)			
Revised Sideboard Ratio (% of TAC)	20.405%	8.673%	8.298%
Revised Sideboard Amount (mt) during 2001-2007	35,399	15,848	9,460
Harvest Reductions to Comply with Sideboard (mt)	0	1,368	0
Harvest Reductions to Comply with Sideboard (% of catch)	0.0%	7.9%	0.0%
Alternative 4 (No directed harvest)	No harvest in directed fishery		

¹ Pollock catch data for Area 640 withheld due to confidentiality.

Table E-2. Summary of non-exempt AFA CV GOA Pacific cod sideboards and harvests by management area during 2001-2007, and sideboard harvest reductions under Alternatives 2 and 3.

	Management Area	
	Western Gulf	Central Gulf
Alternative 1 (Status Quo)		
Current Sideboard Ratio (% of TAC)	14.23%	7.22%
Total Sideboard Amount (mt) during 2001-2007	15,820	12,141
Total Sideboard Catch (mt) during 2001-2007	837	3,499
Alternative 2 (Sideboards based on 2005-2007 retained catch)		
Revised Sideboard Ratio (% of TAC)	0.533%	1.682%
Revised Sideboard Amount (mt) during 2001-2007	593	2,828
Harvest Reductions to Comply with Sideboard (mt)	244	671
Harvest Reductions to Comply with Sideboard (% of Catch)	29.2%	19.2%
Alternative 3 (Sideboards based on 2001-2005 retained catch)		
Revised Sideboard Ratio (% of TAC)	0.876%	2.355%
Revised Sideboard Amount (mt) during 2001-2007	974	3,960
Harvest Reductions to Comply with Sideboard (mt)	0	0
Harvest Reductions to Comply with Sideboard (% of Catch)	0.0%	0.0%
Alternative 4 (No directed harvest)	No harvest in directed fishery	

Net Benefits to the Nation

This section presents a discussion of the net economic effects under each of the alternatives.

Under the status quo (Alternative 1), the existing GOA Pacific cod and pollock sideboards for non-exempt AFA catcher vessels would be maintained. Under this alternative, the non-exempt AFA catcher vessel fleet has the potential to increase its harvests of GOA pollock and Pacific cod at some future time up to the sideboard limits. This increase could contribute to losses of production efficiency due to an increased race for fish. Costs could rise slightly if other participants in the GOA pollock and Pacific cod fisheries, including exempt AFA vessels and non-AFA vessels, perceive a need to increase rates of effort to maintain their historical share of the overall catch. The increase in effort could contribute to more aggressive fishing practices (e.g., plugging nets, less care for catch brought on board) that lower product quality. The extent of these possible effects is very difficult to predict and depends on several factors, including future TACs and market conditions.

Alternatives 2 and 3 would allow non-exempt AFA catcher vessels to continue to conduct directed fisheries for GOA pollock and Pacific cod, though at reduced levels. More restrictive sideboard limits would negatively affect entities in the non-exempt AFA CV fleet, compared to the no action alternative, although it is uncertain whether such differences would be significant for the fleet as a whole. Reducing the sideboard limits for pollock and Pacific cod would disproportionately burden those non-exempt AFA CVs which rely to a great extent on the GOA pollock and Pacific cod fisheries.

The analysis of the likely outcomes of the alternatives presented in section 1.2 indicates that Alternative 2 would have an overall greater negative effect on entities in the non-exempt AFA CV fleet than Alternative 3. Alternative 4 would deny non-exempt AFA catcher vessels access to the directed GOA Pacific cod and pollock fisheries. The majority of sideboard catch consists of directed catch. Alternative 4 would have a significant, negative impact on the gross revenues of non-exempt AFA catcher vessels that have significant reliance on these directed fisheries.

Differences among the alternatives for revising the non-exempt AFA CV sideboards may result in distributional gains and losses across sectors. Given the open access nature of the GOA pollock and Pacific cod fisheries and the capacity that exists in other fleets, any harvest forgone by the non-exempt AFA CV fleet would almost certainly be harvested by members of the exempt AFA and non-AFA fleets. Consequently, the options to revise the non-exempt AFA sideboards essentially represent a tradeoff between AFA and non-AFA vessels. Reductions in the sideboard limits for non-exempt AFA catcher vessels under Alternatives 2, 3 and 4 would be offset, as the exempt AFA and non-AFA sectors would realize that amount of gain in the amount of harvest available to them. While relative operating costs and other factors may affect the “net” results of such trade-offs, the net benefits to the Nation would be expected to tend towards neutral. Losses experienced by the non-exempt AFA CV fleet would be offset by the gains experienced by the exempt AFA and non-AFA fleets.

Introduction

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Purpose and Need Statement

At its June 2008 meeting, the Council adopted the following Purpose and Need Statement:

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Alternatives Considered

At the December 2007 meeting, the Council identified the following set of alternatives. At this meeting, the Council may wish to revise the alternatives for analysis, or request an expanded analysis of one or more of the alternatives.

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the retention of an amount of a species or species group on board a vessel that is greater than the maximum retainable amount for that species or species group as calculated under §679.20.

Alternatives Considered but Eliminated From Further Review

The alternative of removing GOA sideboard limits was considered but eliminated from further review for the following reasons:

1) The alternative does not meet the stated purpose and need, which is to reduce the potential impacts to non-AFA vessels resulting from participation by the non-exempt AFA catcher vessel fleet in directed fisheries for GOA Pacific cod and pollock. Any alternative that does not meet the underlying purpose and need statement is not considered a reasonable alternative under the National Environmental Policy Act, and may be eliminated from further consideration.

2) In addition to not furthering the Council's stated purpose and need, this alternative would not meet the requirement of Section 211(c)(1) of the AFA, which states that the North Pacific Council shall recommend for approval by the Secretary conservation and management measures to—(A) prevent the catcher vessels eligible under subsections (a), (b), and (c) of Section 208 from exceeding in the aggregate the traditional harvest levels of such vessels in other fisheries under the authority of the North Pacific Council as a result of the formation of fishery cooperatives in the directed BSAI pollock fishery; and (B) protect processors not eligible to participate in the directed BSAI pollock fishery from adverse effects as a result of this Act or as a result of the formation of fishery cooperatives in the directed BSAI pollock fishery.

The removal of GOA sideboard limits would allow AFA catcher vessels to exceed in the aggregate the traditional harvest levels of such vessels in the GOA pollock and Pacific cod fisheries under the authority of the North Pacific Council. Section 213(c)(1) of the AFA provides the Council with the authority to recommend management measures to supersede provisions of the AFA, except for Sections 206 and 208, for (1) conservation purposes, or (2) to mitigate adverse effects on fisheries or on owners of fewer than three vessels in the directed BSAI pollock fishery caused by this title or fishery cooperatives in the directed pollock fishery. Such measures must take into account all factors affecting the fisheries and must be imposed fairly and equitably to the extent practicable among and within the sectors in the directed pollock fishery.

The Council's intent in exempting certain AFA catcher vessels from GOA sideboard limits was to mitigate adverse economic effects on owners of fewer than three vessels in the directed BSAI pollock fishery. The exempt vessels are primarily owned by independent operators who own fewer than three vessels that participate in the directed BSAI pollock fishery.

1.1 Description of the Fisheries

This section provides a brief description of the GOA pollock and Pacific cod fisheries. A detailed description of these fisheries can be found in the *Alaska Groundfish Fisheries Final Programmatic Supplemental Environmental Impact Statement* (NMFS 2004). Updated fishery statistics are provided in *Economic Status of the Groundfish Fisheries off Alaska, 2006* (Hiatt et al. 2007).

1.1.1 GOA pollock

The commercial fishery for walleye pollock in the GOA began as a foreign fishery in the early 1970s. Catches increased rapidly during the late 1970s and early 1980s. A large spawning aggregation was discovered in Shelikof Strait in 1981, and a fishery developed for which pollock roe was an important product. The domestic fishery for pollock developed rapidly in the GOA with only a short period of joint venture operations in the mid-1980s. The fishery was fully domestic by 1988. Figure 1 shows the history of the GOA pollock harvests and TACs from 1970 through 2007.

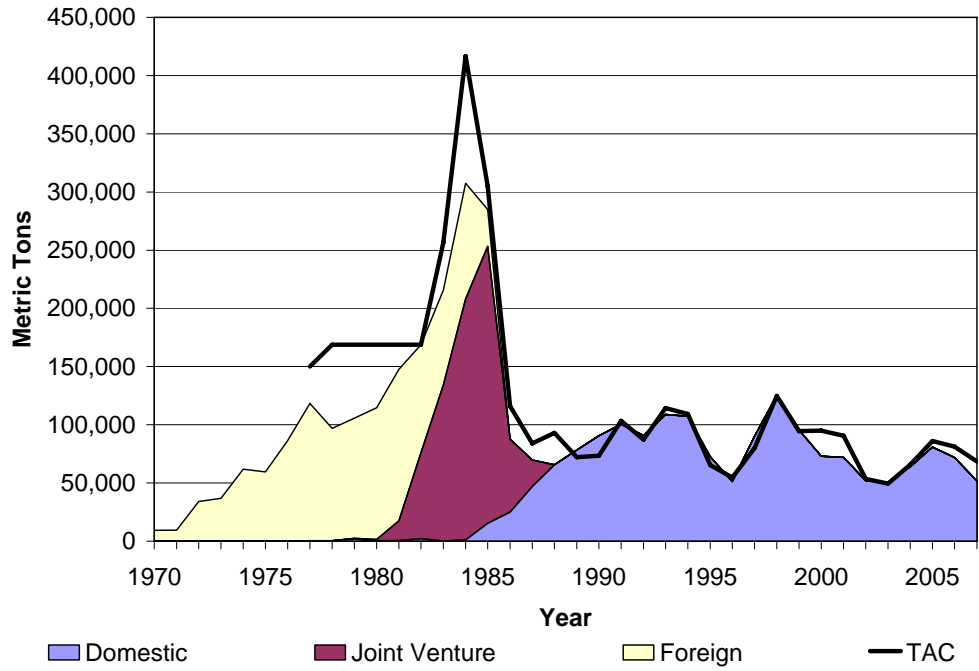


Figure 1. Harvests and TACs (mt) in the Gulf of Alaska pollock fishery, 1970 – 2007.

Source: www.afsc.noaa.gov/REFM/docs/2007/GOApollock.pdf

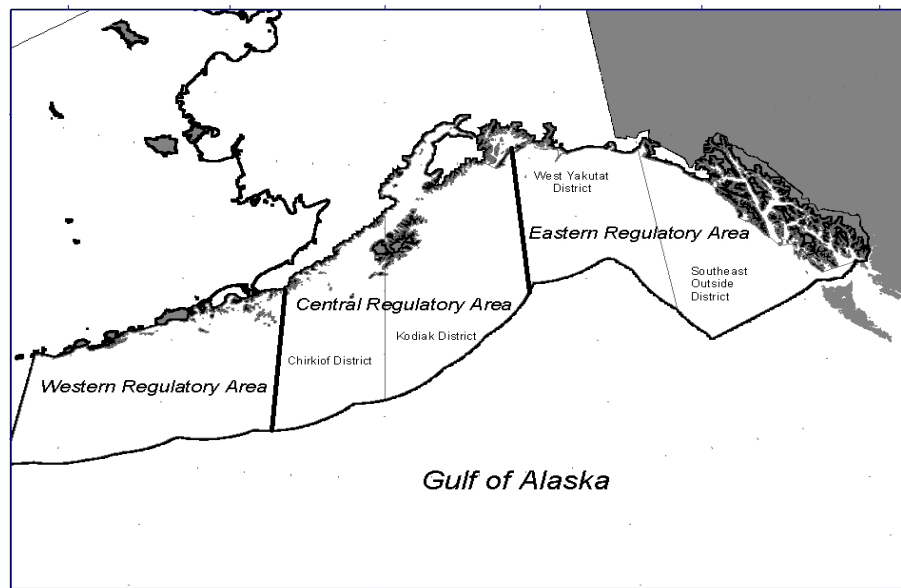


Figure 2. Management areas for the Gulf of Alaska pollock fisheries.

Figure 2 shows the management areas for the GOA pollock fishery. The Western Regulatory Area includes management Area 610 (Shumagin). The Central Regulatory Area is comprised of management Areas 620 (Chirikof) and 630 (Kodiak). The Eastern Regulatory Area includes management Areas 640 (West Yakutat) and 650 (Southeast Outside).

The GOA pollock TACs are allocated entirely to the inshore processing sector, with the exception of incidental catch of pollock in other directed fisheries processed by the offshore sector. In 1995, the State of Alaska began managing a State waters pollock fishery in Prince William Sound. The guideline harvest level (GHL) for the State waters pollock fishery in Prince William Sound is deducted from the ABC for the Western stock of pollock in the Western/Central/West Yakutat Area. In 2007 and 2008, the State waters pollock GHL for the Prince William Sound fishery was 1,650 mt.

Approximately 90% of the pollock catch is taken with pelagic trawl gear. During winter, vessels target pre-spawning aggregations in Shelikof Strait and near the Shumagin Islands. Fishing in summer is less predictable, but typically occurs on the east side of Kodiak Island and in nearshore waters along the Alaska Peninsula. Incidental catch of other groundfish species during the directed pollock fisheries in the GOA is low. For tows classified as pollock targets in the GOA between 2004 and 2006, approximately 94% of the catch by weight consisted of pollock. Pollock targets are defined by the predominance of pollock in the catch, and may include tows where other species were targeted, but caught pollock inadvertently. The most common managed species in the incidental catch are arrowtooth flounder, Pacific cod, flathead sole, Pacific Ocean perch, rex sole, and the shortraker/rougeye rockfish complex. The most common nontarget species are eulachon, capelin, squid, grenadiers, and various shark species.

Kodiak is the major port of landing for pollock in the GOA, with 61% of the 2002-2006 landings. In the western GOA, Sand Point, Dutch Harbor, King Cove, and Akutan are important ports, sharing 38% of 2002-2006 landings. Secondary ports, including Cordova, Seward, and Homer account for the remaining 1% of the 2002-2006 landings. Primary products produced from the GOA pollock fishery are surimi, minced product, fillets, meal, oil and roe.

Recent GOA pollock harvests and TACs

Table 1. Recent harvests and TACs (mt) in the Gulf of Alaska pollock fisheries by management area during 1999-2007.

Year	610-Shumagin			620-Chirikof			630-Kodiak			640-W Yakutat		
	Catch	TAC	% TAC caught	Catch	TAC	% TAC caught	Catch	TAC	% TAC caught	Catch	TAC	% TAC caught
1999	23,384	23,120	101%	38,142	38,840	98%	30,133	30,520	99%	1,759	2,110	83%
2000	22,074	26,378	84%	699	7,815	9%	25,853	20,987	123%	2,108	2,340	90%
2001	30,471	31,056	98%	1,742	8,059	22%	17,026	23,583	72%	2,351	2,235	105%
2002	17,455	17,840	98%	20,535	25,233	81%	10,902	6,995	156%	1,818	1,165	156%
2003	16,510	16,788	98%	19,642	19,685	100%	12,435	10,339	120%	943	1,078	87%
2004	23,450	22,930	102%	24,654	26,490	93%	14,290	14,040	102%	226	1,280	18%
2005	30,921	30,380	102%	27,904	34,404	81%	19,329	18,718	103%	1,885	1,688	112%
2006	24,691	28,918	85%	27,156	30,492	89%	17,056	18,448	92%	1,572	1,792	88%
2007	17,955	25,012	72%	19,360	20,980	92%	14,441	14,850	97%	86	1,398	6%

Source: NMFS Annual Catch Reports.

Table 1 shows recent catch history and TACs in the GOA pollock fisheries in management Areas 610, 620, 630 and 640. It should be noted that in 2000 and 2001, harvests in the Shelikof area were recorded separately from harvests in other portions of Areas 620 and 630. Landings in the Shelikof area totaled 25,853 mt and 18,895 in 2000 and 2001, respectively. The Shelikof area includes portions of Areas 620

and 630, and these harvests comprised most of the Area 620 harvests. Starting in 2002, the Shelikof harvests are no longer accounted for separately. In general, pollock TACs have been fully harvested in Areas 610, 620, and 630. In 2007, only 72% of the Area 610 TAC was harvested as a result of low harvests during the C and D seasons. Seasonal apportionments and harvests are discussed in more detail below.

Seasonal apportionments of pollock TAC and sideboards

Since 1992, the GOA pollock TAC has been apportioned spatially and temporally to reduce potential impacts on Steller sea lions. The apportionments have changed over time, but the general objective has been to allocate the TAC to management areas based on the distribution of surveyed biomass, and to establish three or four seasons during which some fraction of the TAC can be taken. The Steller sea lion protection measures implemented in 2001 established four seasons in the Central and Western GOA beginning January 20, March 10, August 25, and October 1, with 25% of the total WGOA and CGOA TAC allocated to each season (see Table 2). Within each management area (610, 620, and 630), the seasonal apportionments are based on the seasonal distribution of pollock biomass in that area. Area 640 and 650 TACs are not seasonally apportioned.

In general, the A and B season apportionments are based on the observed distribution of pollock biomass within each management area during the 4 most recent winter surveys, and the C and D season apportionments are based on the observed pollock distribution during the 4 most recent summer surveys. However, for the 2008 and 2009 harvest specifications, the Council recommended and NMFS approved basing the Central GOA A season apportionment on the average of the winter and summer distributions of pollock. Table 2 summarizes the 2008-2009 GOA pollock seasonal apportionments. The pollock sideboard amounts for the non-exempt AFA fleet are apportioned seasonally in the same proportions as the overall TACs within each management area.

Table 2. 2008-2009 GOA pollock seasonal apportionments.

Season	Shumagin (Area 610)	Chirikof (Area 620)	Kodiak (Area 630)	Total ¹
A	3,322 (26.35%)	6,215 (49.30%)	3,069 (24.35%)	12,606 (25%)
B	3,322 (26.35%)	7,576 (60.09%)	1,709 (13.56%)	12,606 (25%)
C	5,480 (43.47%)	2,695 (21.38%)	4,431 (35.15%)	12,606 (25%)
D	5,480 (43.47%)	2,695 (21.38%)	4,431 (35.15%)	12,606 (25%)
Annual Total	17,602	19,181	13,640	50,423

¹The WYK and SEO pollock TACs are not seasonally apportioned and are not included in the total pollock TACs shown in this table.

Management of seasonal apportionments of pollock

Inseason managers time the closure of each season to meet the TACs. During certain seasons, the pollock seasonal apportionments are typically not fully harvested. For example, during 2007 the A season apportionments were not fully harvested in Areas 610 and 620. The annual GOA harvest specifications state that within each fishing year, any unharvested (or overharvested) seasonal pollock allowance may be added to (or subtracted from) subsequent seasonal allowances. The rollover amount of unharvested pollock is limited to 20% of the seasonal apportionment for the management area. Any unharvested pollock above the 20% limit could be further distributed to the other statistical areas, in proportion to the estimated biomass in the subsequent season in those statistical areas (679.20(a)(5)(iv)(B)).

Table 3 shows the percent of the final seasonal pollock apportionment harvested during each year in each of the GOA management areas. Note that the final seasonal apportionment includes any unharvested or overharvested pollock that has been added to or subtracted from the initial seasonal apportionment. Due to the fast pace and relatively small TACs and seasonal apportionments in the GOA pollock fisheries, inseason managers are not always able to time the closure of each season to meet the seasonal apportionments. For example, in 2007 the Area 620 final B season apportionment was 172% harvested and the Area 630 final B season apportionment was 161% harvested. However, the annual Area 620 and 630 TACs were only 92% and 97% harvested, respectively, due to underharvesting of other seasonal apportionments.

Inseason managers attempt to prevent seasonal overages by opening some of the GOA pollock fisheries for relatively short time periods (12, 24, or 48 hour openings), particularly during the B season, when pollock are carrying high value roe (see Table 4). For example, since 2003 the B season in the Kodiak management area (630) has opened for only 12 or 24 hours. Even under these short openings, B season harvests in Area 630 have still typically exceeded the B season apportionments. Pollock catches in the GOA are highly variable and have ranged as high as 4,000 mt per day, making the task of balancing the need to provide adequate opportunities for the fleet to prosecute the fisheries while meeting, but not exceeding, the TACs quite challenging.

Table 3. Percent of final* seasonal pollock apportionments harvested in management areas 610, 620, and 630 during 2003-2007.

Season	2003	2004	2005	2006	2007
Area 610					
A	146%	105%	145%	100%	77%
B	83%	104%	45%	187%	120%
C	108%	99%	90%	61%	30%
D	86%	100%	119%	60%	82%
Full year	98%	102%	102%	85%	72%
Area 620					
A	77%	67%	113%	90%	24%
B	119%	115%	100%	105%	172%
C	83%	93%	18%	38%	79%
D	75%	91%	3%	67%	18%
Full year	100%	93%	81%	89%	92%
Area 630					
A	109%	69%	114%	119%	106%
B	172%	321%	187%	11%	161%
C	136%	90%	47%	113%	59%
D	116%	64%	121%	71%	101%
Full year	120%	102%	103%	92%	97%

Source: NMFS Seasonal Catch Reports, 2003-2007.

* Final apportionments include any rolled over amounts of unharvested TAC from previous seasons.

Table 4. Season length (days) of GOA pollock seasons during 2001-2007.

Area 610							
Season	2001	2002	2003	2004	2005	2006	2007
A	9	3	3	2	3	3	6
B	1.5	2	3	3	2	4	7
C	18	5	5	5	9	27	37
D	12	4	3	6	13	31	31
Total	40.5	14	14	16	27	65	81

Area 620							
Season	2001	2002	2003	2004	2005	2006	2007
A	40	36	36	36	41	49	49
B	16	16	24	11	10	11	17
C	25	21	5	8	12	30	23
D	31	31	2	31	0	31	31
Total	112	104	67	86	63	121	120

Area 630							
Season	2001	2002	2003	2004	2005	2006	2007
A	25	2	2	2.5	17	26	9
B	2	2	0.5	1	0.5	0	1
C	20	10	2	7	5	33	14
D	31	1	2	3	10	31	31
Total	78	15	6.5	13.5	32.5	90	55

Source: NMFS GOA Pollock Season length summaries, 2001-2007.

1.1.2 GOA Pacific cod

During the two decades prior to passage of the Magnuson Act in 1976, the GOA Pacific cod fishery was relatively small, with average harvests of approximately 3,000 mt per year. Most of the catch during this period was taken by the foreign fleet, whose catches of Pacific cod were usually incidental to directed fisheries for other species. By 1976, catches had increased to 6,800 mt. The foreign fishery peaked in 1981 with a harvest of nearly 35,000 mt. A small joint venture fishery existed through 1988, and harvested approximately 1,400 mt per year. The domestic fishery increased steadily through 1986, then increased more than three-fold in 1987 as the foreign fishery was eliminated. Currently, Pacific cod is the second largest volume fishery in the GOA after pollock.

Three separate area TACs are identified for Pacific cod in the Western Gulf, Central Gulf, and Eastern Gulf management subareas. The recent TACs, total catches, and the percentage of TACs harvested in the federal Pacific cod fisheries in the Western and Central GOA are summarized in Table 5. During 2005 through 2007, the Central and Western Gulf TACs were not fully harvested. During those years, the directed season remained open until December 31st for the fixed gear sectors. Vessels continued to fish for Pacific cod until the end of the year, but the TACs were not fully harvested.

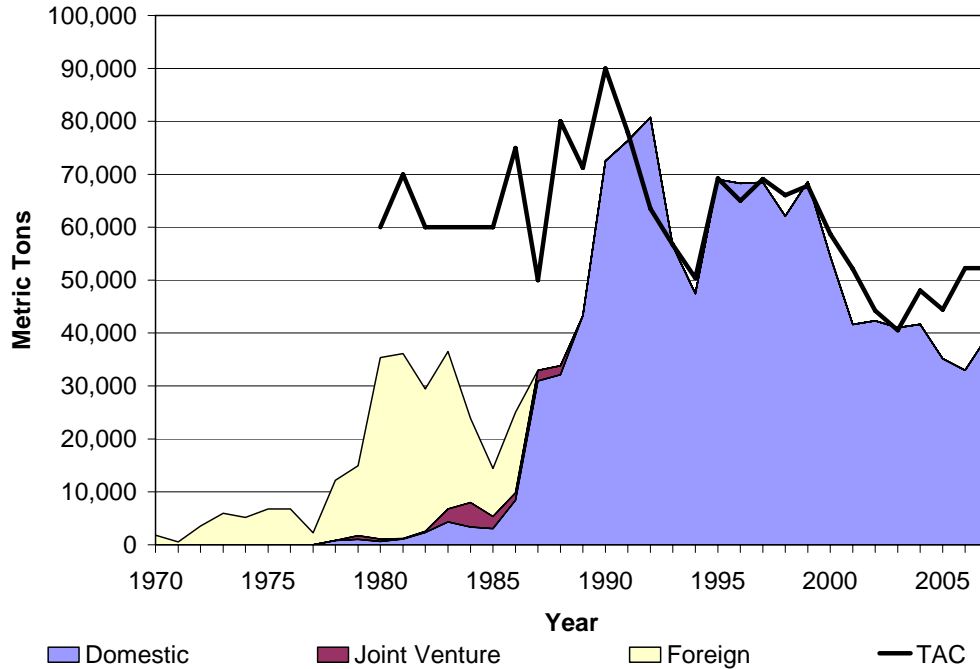


Figure 3. Harvests and TACs in the Gulf of Alaska Pacific cod fishery, 1970 – 2007

Source: http://www.afsc.noaa.gov/refm/stocks/2006_assessments.htm

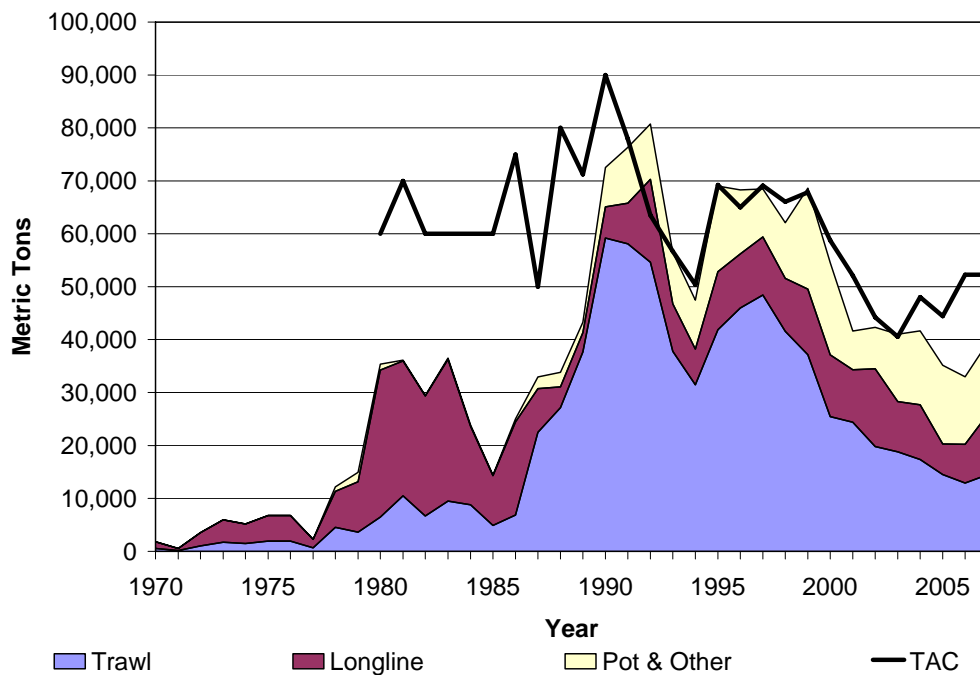


Figure 4. Harvests and TACs in the Gulf of Alaska Pacific cod fishery by gear, 1970 – 2007

Source: http://www.afsc.noaa.gov/refm/stocks/2006_assessments.htm

Table 5. Harvests (mt), TACs (mt) and percent of TACs harvested in the federal Pacific Cod fishery in the Western and Central Gulf, 1995–2007.

Year	Western Gulf			Central Gulf		
	Catch (mt)	TAC (mt)	Percent of TAC harvested	Catch (mt)	TAC (mt)	Percent of TAC harvested
1995	22,516	20,100	112.0%	45,465	45,650	99.6%
1996	19,823	18,850	105.2%	47,589	42,900	110.9%
1997	23,949	24,225	98.9%	43,678	43,690	100.0%
1998	19,817	23,170	85.5%	41,436	41,720	99.3%
1999	23,158	23,630	98.0%	44,544	42,935	103.7%
2000	21,867	20,625	106.0%	32,188	34,080	94.4%
2001	14,161	18,300	77.4%	27,324	30,250	90.3%
2002	17,168	16,849	101.9%	25,058	24,790	101.1%
2003	16,235	15,450	105.1%	24,828	22,690	109.4%
2004	15,554	16,957	91.7%	27,464	27,116	101.3%
2005	12,402	15,687	79.1%	22,595	25,086	90.1%
2006	14,742	20,141	73.2%	23,011	28,405	81.0%
2007	13,401	20,141	66.5%	25,985	28,405	91.5%

Source: NMFS Blend (1995-2002) and Catch Accounting (2003-2007) data.

In addition to area apportionments, GOA Pacific cod is allocated on the basis of processor component (inshore/offshore) and season; there is no explicit apportionment among gears. The inshore component is allocated 90% of the TAC and the remainder is allocated to the offshore component. Within the Central and Western GOA management areas, 60% of the annual TAC is apportioned to the A season for hook-and-line, pot, and jig gear from January 1 through June 10, and for trawl gear from January 20 through June 10. Forty percent of the annual TAC is apportioned to the B season for hook-and-line, pot, and jig gear from September 1 through December 31, and for trawl gear from September 1 through November 1. The longline and trawl fisheries are also associated with a Pacific halibut mortality limit which sometimes constrains the magnitude and timing of harvests taken by these two gear types. Since 1997, the State of Alaska has managed its own Pacific cod fishery (hereafter referred to as the ‘State waters fishery’). Currently, the State waters Guideline Harvest Level (GHL) consists of 25% of the Western and Central GOA ABC. The federal TAC is set below the ABC to accommodate the State waters fishery.

Presently, the Pacific cod stock is exploited by a multiple-gear fishery, including trawl, longline, pot, and jig components. Trawl gear has traditionally accounted for the largest single-gear share of the catch, although the proportion of catch taken by the fixed gear sectors has increased during recent years due to the earlier start date (Jan 1) and declining TACs. The GOA Pacific cod fisheries have the largest number of participants of any Alaska groundfish fisheries. Participants in the 2006 fisheries included 187 hook-and-line, 144 pot and 62 trawl vessels. Competition for the GOA Pacific cod resource is high for a variety of reasons, including increased market value of cod products, rationalization of other fisheries in the BSAI and GOA, increased participation by fishermen displaced from other fisheries, a reduced federal TAC due to the State waters cod fishery, and Steller Sea Lion mitigation measures including the A/B seasonal split of the GOA Pacific cod TAC.

Significant portions of Pacific cod harvests are processed in inshore processing plants and communities. Inshore plants include shore based plants that process groundfish, as well as floating processors moored or anchored near shore that operate in a single geographic location during a given year. The most

common primary products produced from the GOA Pacific cod fishery are skinless boneless fillets, and for processors without fillet machinery headed and gutted fish. A wide variety of ancillary products may also be produced, including roe, milt, surimi, collars, stomachs, heads, fish meal and oil.

1.2 Background on GOA Pollock and Pacific Cod Sideboards

1.2.1 Regulatory background

This section provides a brief description of the GOA groundfish sideboard limits for non-exempt AFA catcher vessels, and a summary of other relevant regulations, in order to provide the necessary regulatory context for the proposed action. Paragraph 211(a) of the AFA mandates that the “North Pacific Council shall recommend for approval by the Secretary such conservation and management measures as it determines necessary to protect other fisheries under its jurisdiction and the participants in those fisheries, including processors, from adverse impacts caused by this Act or fishery cooperatives in the directed pollock fishery.” With specific reference to catcher vessels, paragraph 211(c)(1)(A) of the AFA required the Council to recommend for approval by the Secretary conservation and management measures to prevent listed AFA catcher vessels from exceeding their traditional harvest levels in other groundfish fisheries as a result of the formation of fishery cooperatives in the BSAI pollock fishery. The Council met the requirement by taking final action on a comprehensive suite of sideboard measures, including catcher vessel sideboards for GOA groundfish species, at its June 1999 meeting and forwarding those recommendations to NOAA Fisheries. An emergency interim rule containing the Council’s recommendations was published on January 28, 2000 (65 FR 4520). This rule was superseded by the final rule to implement Amendments 61/61/13/8, effective on December 30, 2002 (67 FR 79692).

The catcher vessel sideboards apply to all AFA catcher vessels participating in all GOA groundfish fisheries, with the exception of 16 vessels that qualified for sideboard exemptions. AFA catcher vessels which are less than 125 ft LOA and have annual landings of pollock in the BSAI of less than 5,100 mt, and which made at least 40 landings of GOA groundfish from 1995 through 1997, are exempt from the GOA groundfish sideboard limits.

Sideboard limits for non-exempt AFA catcher vessels in the GOA are based on the historic harvest levels by these vessels in the GOA groundfish fisheries. Specifically, the groundfish sideboard limits in the GOA were calculated by dividing the retained catch (mt) of non-exempt AFA catcher vessels of each sideboard species from 1995 through 1997 by the TAC for that species over the same period. For Pacific cod, separate sideboard ratios were calculated for the inshore and offshore TACs based on retained catch in the inshore and offshore fisheries during 1995 through 1997. Each year during the harvest specifications process, the sideboard amounts (mt) are calculated by multiplying the sideboard ratios by the TACs. Sideboard amounts are then apportioned seasonally. Table 6 shows the sideboard ratios in each GOA management area, and the 2008 TACs and sideboard amounts for pollock and Pacific cod. All catch of sideboard species made by non-exempt AFA catcher vessels, including both targeted catch and incidental catch, is deducted from the sideboard limits.

Table 6. Final 2008 GOA Non-Exempt AFA CV Groundfish Harvest Sideboard Limitations for Pollock and Pacific Cod

Species	Apportionments by season	Area/ component	Ratio of 1995–1997 non-exempt AFA CV catch to 1995–1997 TAC		2008 non-exempt AFA catcher vessel sideboard (mt)
			2008 TAC (mt)		
Pollock	A Season January 20–March 10	610 (Shumagin)	0.6112	3,322	2,030
		620 (Chirikof)	0.1427	6,215	887
		630 (Kodiak)	0.2438	3,069	748
	B Season March 10–May 31	610 (Shumagin)	0.6112	3,321	2,030
		620 (Chirikof)	0.1427	7,576	1,081
		630 (Kodiak)	0.2438	1,709	417
	C Season August 25–October 1	610 (Shumagin)	0.6112	5,480	3,349
		620 (Chirikof)	0.1427	2,695	385
		630 (Kodiak)	0.2438	4,431	1,080
	D Season October 1–November 1	610 (Shumagin)	0.6112	5,479	3,349
		620 (Chirikof)	0.1427	2,695	385
		630 (Kodiak)	0.2438	4,431	1,080
Annual	640 (West Yakutat)	0.3499	1,517	531	
	650 (Southeast Outside)	0.3499	8,240	2,883	
Pacific cod	A Season January 1–June 10	610 (WG) inshore	0.1423	10,502	1,494
		610 (WG) offshore	0.1026	1,167	120
		620 (CG) inshore	0.0722	15,350	1,108
		620 (CG) offshore	0.0721	1,706	123
	B Season Sept 1–December 31	610 (WG) inshore	0.1423	7,002	996
		610 (WG) offshore	0.1026	778	80
		620 (CG) inshore	0.0722	10,233	739
		620 (CG) offshore	0.0721	1,137	82
	Annual	E inshore	0.0079	2,155	17
		E offshore	0.0078	239	2

Source: NMFS 2008 and 2009 Harvest Specifications.

NOAA Fisheries does not allocate the sideboard amounts among the AFA fishery cooperatives. After NOAA Fisheries sets the annual sideboard amounts, the cooperatives divide the sideboard amounts among themselves and each cooperative determines how their portion of the sideboard is divided among member vessels. Because the three AFA catcher vessel sectors (inshore, offshore, and mothership) share the same sideboards, an inter-cooperative agreement was implemented to divide the sideboards among cooperatives and set penalties for exceeding the cap.

The pollock and Pacific cod sideboards are apportioned seasonally based on the percentage of the overall pollock and Pacific cod TAC allocated to each season. NOAA Fisheries closes the directed pollock and Pacific cod fisheries to non-exempt AFA catcher vessels when sideboard amounts are inadequate to support directed fisheries. The closures are timed so that adequate amounts of these species are available to support incidental needs in other directed fisheries. NMFS will only open directed fisheries for a species when adequate sideboard amounts exist at the start of the fishing year to cover both directed harvests and incidental catch of that species in other fisheries. In addition, NMFS closes other directed groundfish fisheries to non-exempt AFA catcher vessels when sideboard amounts are too small to support a directed fishery. As Table 7 shows, several GOA directed groundfish

fisheries were closed to the non-exempt AFA catcher vessel sector during the 2008 and 2009 season due to small sideboard limits.

Table 7. Directed fisheries closed to non-exempt AFA catcher vessels in the GOA during 2008 and 2009, and sideboard amounts (mt) for these fisheries.

Species	Regulatory area/district	Amount (mt)
Pacific cod	Eastern	17 (inshore) 2 (offshore)
Deep-water flatfish	Western	0
Rex sole	Western	1
Flathead sole	Eastern and Western	19 and 7 (2008) 20 and 70 (2009)
Arrowtooth flounder	Eastern and Western	17 and 10
Northern rockfish	Western	1
Pelagic shelf rockfish	Entire GOA	0(W), 0(C), 4(E)
Demersal shelf rockfish	Southeast Outside District	1

Source: NMFS 2008 and 2009 Harvest Specifications.

In addition to the AFA sideboards in the GOA pollock and Pacific cod fisheries, there are stand down requirements for trawl catcher vessels that fish in both the BSAI and GOA (§679.23(h)) that impact AFA catcher vessels. These measures were implemented in 1998, and are intended to prevent unexpected shifts of fishing effort between BSAI and GOA fisheries that can lead to overharvests of total allowable catch in the Western and Central regulatory areas of the GOA. There are 3 stand down requirements:

- (1) Trawl catcher vessels operating in the BSAI while the pollock or Pacific cod fisheries are open for directed fishing are prohibited from deploying trawl gear in the Western and Central GOA for three days after landing or transferring all BSAI groundfish. An exception applies to trawl catcher vessels that participate in the directed Pacific cod fisheries in the GOA and deliver to processors operating in the offshore sector.
- (2) Trawl catcher vessels operating in the Western GOA area while pollock or inshore Pacific cod are open for directed fishing are restricted from using trawl gear in the BSAI for three days after landing or transferring all Western GOA groundfish.
- (3) Trawl catcher vessels operating in the Central GOA area while pollock or inshore Pacific cod are open to directed fishing are restricted from using trawl gear in the BSAI for two days after landing or transferring all Central GOA groundfish.

In addition to stand down requirements, there are exclusive fishing seasons for trawl catcher vessels that participate in the directed pollock fisheries in both the BSAI and GOA that impact AFA catcher vessels (§679.23(h)). These measures were implemented by emergency interim rule on January 25, 2000 (65 FR 3892) to address competitive interactions between the groundfish fisheries and Steller sea lions. As shown in Table 8, catcher vessels fishing in one season in the GOA or BSAI are prohibited from fishing in the alternative management area until the following season. This prohibition limits the concentration of fishing effort in one area and reduces the potential for localized depletion of Steller sea lion prey. Vessels less than 125 ft LOA are exempt from this restriction when fishing east of 157° 00' W longitude.

Table 8. Exclusive fishing seasons for trawl catcher vessels operating in the BSAI and GOA directed pollock fisheries.

If you own or operate a catcher vessel and engage in directed fishing for pollock in the	During the	Then you are prohibited from subsequently engaging in directed fishing for pollock with that catcher vessel in the
BSAI	A season	GOA until the following C season
	B season	GOA until the A season of the next year
GOA	A season	BSAI until the following B season
	B season	BSAI until the following B season
	C season	BSAI until the A season of the following year
	D season	BSAI until the A season of the following year

Finally, AFA catcher vessels are subject to trip limits for pollock that were implemented as part of the package of Steller sea lion mitigation measures adopted in 1999 (64 FR 3441). Catcher vessels are prohibited from retaining on board more than 300,000 lb (136 mt) of unprocessed pollock harvested in the GOA at any time during a trip (§679.7(b)(2)). This trip limit does not exempt vessels from regulations that require 100 percent retention of pollock when directed fishing for pollock is open. In addition, vessels are prohibited from operating as pollock tenders and retaining on board more than 600,000 lb (272 mt) of unprocessed pollock in the GOA east of 157° 00' W longitude (§679.7(b)(3)). This regulation is intended to preclude the large scale use of tender vessels to circumvent the trip limit restriction. Tendering west of 157° 00' W longitude is allowed because smaller vessels delivering to Sand Point and King Cove are more dependent on tenders than the larger vessels that operate east of 157° 00' W longitude and deliver primarily to Kodiak. In December 2007, the Council took final action on a regulatory amendment intended to clarify the trip limit rules. If implemented, the amendment will:

- 1) Limit trawl catcher vessels in the GOA pollock fisheries to landing no more than 300,000 lbs (136 mt), through any delivery means, during a calendar day. A calendar day is defined as 12 AM to 12 AM (or 0001 hrs to 2400 hrs). The calendar day limit replaces the trip limit.
- 2) Limit the cumulative amount of pollock harvested from any GOA reporting area by an individual trawl catcher vessel to 300,000 lbs (136 mt) times the number of calendar days the fishery is open in the respective reporting area.

The amendment is intended to more effectively restrict catcher vessel pollock harvests in the GOA and allow enforcement of the trip limit regulation as the Council intended when the limit was initially implemented. NMFS has not yet published a proposed rule for the Council's amendment, but industry has agreed to comply with the provisions of the amendment before the revised rule is implemented.

1.2.2 Sideboard catch history for the non-exempt AFA CV sector

Data Sources

Harvest data reported in the tables below are the official catch totals used by NMFS to account for the non-exempt AFA catcher vessel sideboards¹. The harvest tables show total catch (including discards), and include both directed and incidental catch. The data sources include: NMFS Catch Accounting database (2003-2008), NMFS Shoreside Logs (2002), and ADFG Fish Tickets (2000-2001). ADFG Fish Tickets and NMFS Shoreside Logs were used for 2000-2002 data, rather than NMFS Blend data, because Blend data is reported by processor rather than by harvesting vessel. Harvest data from Area 640 for the non-exempt AFA CV fleet is not reported here, because fewer than 3 vessels participated in the fishery on an annual basis, and data cannot be reported due to confidentiality restrictions.

Harvest data reported in the annual AFA Cooperative reports is not summarized in this discussion paper. At the Council's request, staff reviewed discrepancies between NMFS catch totals and the catch totals reported in the AFA Co-op reports. In most cases, discrepancies occurred when sideboard harvests from one or more vessels were missing from the Co-op reports. Overall, sideboard harvests reported in the Co-op reports were somewhat lower than the official NMFS catch totals.

NOAA Fisheries allocates the non-exempt AFA catcher vessel sideboard amounts in the aggregate to the non-exempt AFA CV fleet. The AFA cooperatives allocate the sideboards among the nine catcher vessel cooperatives under the Intercoop Agreement, which manages the initial distribution, and re-distribution via intercoop transfers, of the aggregate sideboard amounts among the cooperatives based on catch history. The nine cooperatives could potentially reallocate the sideboard amounts among the co-ops at any time. This reapportionment would be a result of a revision of the Intercooperative Agreement, and would not be the direct result of the proposed action alternatives. Therefore, apportionment of the sideboard limits among the AFA Cooperatives is not discussed further in this document.

Note on reporting of seasonal pollock sideboard harvests

The non-exempt AFA pollock sideboards are apportioned seasonally in the same proportions as the overall pollock TAC in each GOA management area. The seasonal apportionments of the sideboard amounts are reported in the annual harvest specifications. The tables below report the percentage of each seasonal apportionment that was harvested. These percentages are calculated based on the initial seasonal apportionments in the harvest specifications, not including rollovers, and do not paint a complete picture of seasonal harvests.

For the overall pollock fishery in each management area, the final seasonal apportionments include any unharvested amounts that were rolled over from a previous season. As noted earlier, the rollover amount of unharvested pollock is limited to 20% of the seasonal apportionment for the management area. Any unharvested pollock above the 20% limit could be further distributed to the other statistical areas, in proportion to the estimated biomass in the subsequent season in those statistical areas (679.20(a)(5)(iv)(B)). Even after rollover amounts are taken into account, overages are common in the seasonal pollock fisheries in each GOA management area (see Table 3) due to the fast and often unpredictable pace of the fishery.

¹ Harvest data reported here may differ slightly from previous NMFS catch reports of non-exempt AFA GOA sideboard harvests, because one vessel's status changed from non-exempt (2000-2003) to exempt (2004-present). Previous NMFS catch reports did not account for this vessel's change in exempt status.

Representatives of the AFA fleet have indicated that the non-exempt AFA sideboards are currently managed as an annual sideboard limit. Unused seasonal apportionments are rolled over to the next season. The harvest specifications do not clearly state whether the non-exempt AFA sideboard seasonal apportionments are subject to the same rollover regulations that are used to manage the overall fishery. If the rollover rules apply to the non-exempt AFA sideboard apportionments, the rollover amount of unharvested pollock would be limited to 20% of the seasonal apportionment. Harvests of up to 120% of the initial seasonal apportionment would be allowed.

Summary of non-exempt AFA CV pollock harvests in Area 610 (Shumagin)

The Area 610 seasonal and annual pollock TACs and the non-exempt AFA CV pollock harvests during 2000-2008 are shown in Table 9. Harvest data was not available for the 2008 C and D seasons. The non-exempt AFA CV fleet may harvest up to 61.12% of the Area 610 pollock TAC. During 2000-2007, harvests ranged from 8.4% of the TAC in 2007 to 25.4% of the TAC in 2001 (see Table 10). Non-exempt AFA CVs harvested 41.5% or less of their total annual sideboard for pollock in Area 610 during each year. The non-exempt AFA pollock sideboard catch in Area 610 shows a decreasing trend, with the proportion of the sideboard harvested dropping from 41.5% to 13.8% from 2001-2007. Overall, during 2000 through 2007, 38,090 mt (30.3%) of the 125,799 mt total sideboard limit in Area 610 was harvested. The percentage of the seasonal sideboard harvested ranged between 0% and 85.5%. There was no consistent pattern in the seasonality of the pollock sideboard harvest in Area 610. During some years the pollock catch was concentrated in the C or D seasons, while in other years the highest catches were in the A or B seasons.

Table 9. Area 610 pollock TAC and non-exempt AFA CV harvests during 2000 – 2008.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
Area 610 Seasonal and Annual TACs (mt)									
A	7,498	7,707	2,916	2,894	3,747	5,035	4,210	4,511	3,322
B	3,749	3,854	2,916	2,894	3,748	5,035	4,210	4,511	3,321
C	11,506	10,998	5,949	5,500	7,717	10,155	10,249	7,995	5,480
D	9,588	9,165	5,949	5,500	7,718	10,155	10,249	7,995	5,479
Full Year	32,341	31,724	17,730	16,788	22,930	30,380	28,918	25,012	17,602
Non-Exempt AFA CV Catch (mt)									
A	*	*	*	*	1,040	1,675	*	126	*
B	*	*	*	*	*	*	*	0	*
C	1,754	2,213	2,138	1,359	2,438	*	*	1,139	Na
D	5,011	4,649	1,412	1,144	*	2,552	1,803	841	Na
Full Year	7,033	8,053	3,700	3,190	4,708	4,860	4,441	2,106	Na

Source: ADFG Fish Tickets (2001), NMFS Shoreside Logs (2002), and NMFS Catch Accounting (2003-June 2008).

Table 10. Percent of Area 610 pollock TAC and sideboard harvested by non-exempt AFA CVs, 2000 – 2008.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
Non-Exempt AFA CV Catch as a Percent of TAC (Sideboard = 61.12% of TAC)									
A	*	*	*	*	27.8%	33.3%	*	2.8%	*
B	*	*	*	*	*	*	*	0.0%	*
C	15.2%	20.1%	35.9%	24.7%	31.6%	*	*	14.3%	na
D	52.3%	50.7%	23.7%	20.8%	*	25.1%	17.6%	10.5%	na
Full Year	21.7%	25.4%	20.9%	19.0%	20.5%	16.0%	15.4%	8.4%	na
Non-Exempt AFA CV Catch as a Percent of Sideboard									
A	*	*	*	*	45.4%	54.4%	*	4.6%	*
B	*	*	*	*	*	*	*	0.0%	*
C	24.9%	32.9%	58.8%	40.4%	51.7%	*	*	23.3%	na
D	85.5%	83.0%	38.8%	34.0%	*	41.1%	28.8%	17.2%	na
Full Year	35.6%	41.5%	34.1%	31.1%	33.6%	26.2%	25.1%	13.8%	na

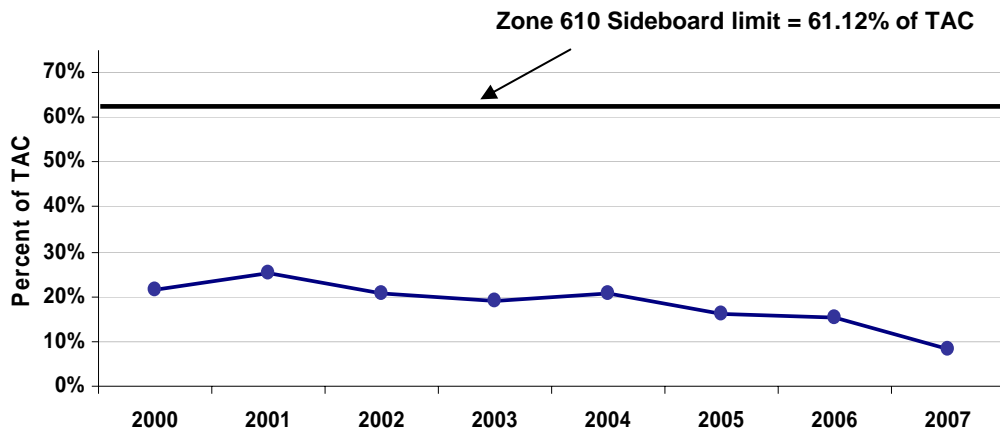


Figure 5. Non-exempt AFA CV pollock harvest in Area 610 as a percent of TAC, 2000-2007.

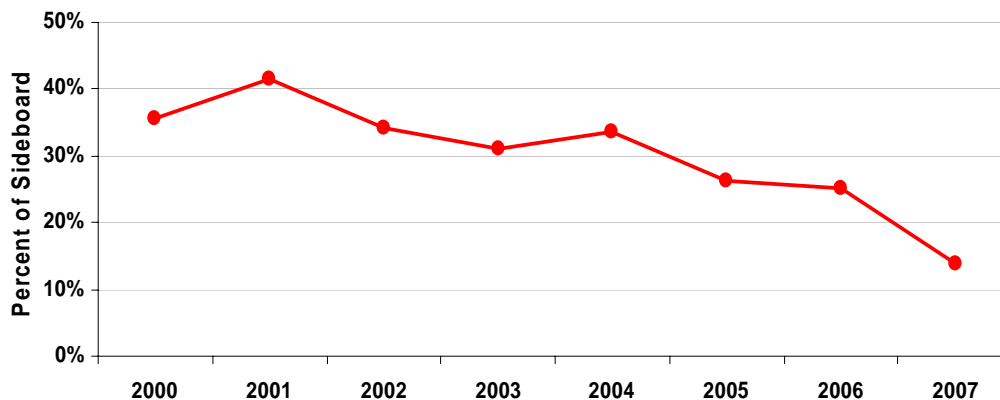


Figure 6. Non-exempt AFA CV pollock harvest in Area 610 as a percent of sideboard, 2000-2007.

Table 11 shows the relative economic importance of the Gulf of Alaska pollock fishery in Area 610 to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs as a proportion of total revenues by those vessels in all Alaska fisheries. For non-exempt AFA vessels that harvested pollock in Area 610, the revenues from those harvests accounted for 10% of total revenues during 2000-2007. Only 1 or 2 exempt AFA CVs participated in the Area 610 pollock fishery during a given year, and revenues from those harvests averaged 13.7% of total revenues. For non-AFA CVs using trawl gear to harvest pollock, revenues from Area 610 pollock accounted for 22% of total revenues during 2000-2007. In the non-exempt AFA sector, there was substantial annual variation in the percentage of revenues derived from Area 610 pollock, ranging from 3.3% to 20.8% of revenues.

Table 11. Economic importance of Gulf of Alaska pollock fishery in Area 610 to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs during 2000 – 2007.

AFA non-exempt CVs				
Year	Vessel count	610 Pollock	All Alaska Fisheries	Percent of revenues
2000	9	\$1,858,428	\$13,687,621	13.6%
2001	11	\$1,562,421	\$7,523,232	20.8%
2002	7	\$930,014	\$11,962,734	7.8%
2003	7	\$818,885	\$11,593,093	7.1%
2004	6	\$1,018,623	\$7,779,245	13.1%
2005	7	\$1,316,750	\$10,515,774	12.5%
2006	4	\$1,225,709	\$14,863,559	8.2%
2007	8	\$454,887	\$13,750,664	3.3%
Total		\$9,185,718	\$91,675,921	10.0%

AFA exempt CVs				
Year	Vessel count	610 Pollock	All Alaska Fisheries	Percent of revenues
2000	2	*	*	12.6%
2001	1	*	*	26.4%
2002	2	*	*	7.2%
2003	2	*	*	11.9%
2004	2	*	*	9.9%
2005	1	*	*	56.8%
2006	2	*	*	16.0%
2007	2	*	*	0.6%
Total		*	*	13.7%

Non-AFA CVs				
Year	Vessel count	610 Pollock	All Alaska Fisheries	Percent of revenues
2000	35	\$3,724,950	\$19,011,287	19.6%
2001	39	\$5,662,850	\$16,652,588	34.0%
2002	32	\$3,014,024	\$14,358,384	21.0%
2003	26	\$2,832,324	\$14,175,634	20.0%
2004	22	\$3,674,868	\$15,311,457	24.0%
2005	27	\$5,770,807	\$22,003,489	26.2%
2006	29	\$5,174,821	\$24,033,288	21.5%
2007	29	\$2,908,636	\$23,379,286	12.4%
Total		\$32,763,279	\$148,925,414	22.0%

Source: ADFG Fish Ticket and CFEC Gross Revenues data.

* Non-AFA CVs only includes CVs with trawl landings of Area 610 pollock.

Summary of non-exempt AFA CV pollock harvest in Area 620 (Chirikof)

The Area 620 annual and seasonal TACs and non-exempt AFA CV pollock harvests during 2000-2008 are reported in Table 12. Harvest data was not available for the 2008 C and D seasons. The non-

exempt AFA CV fleet may harvest up to 14.27% of the Area 620 pollock TAC. Actual harvests during 2000-2007 ranged from 3% of the TAC in 2000 to 13.7% of the TAC in 2002. Non-exempt AFA catcher vessels generally harvested more than 50% of their annual sideboard for pollock in Area 620 in each year. Overall, 18,124 mt (64.9%) of the 30,379 mt total sideboard limit in Area 620 was harvested during 2000-2007. The pollock sideboard catch in Area 620 was generally concentrated in the B season, with that season accounting for 73% of the total pollock sideboard harvest during 2000-2007. Pollock harvests exceeded the initial seasonal sideboard apportionments by more than 20% during some years, primarily during the B season. Seasonal overages were accommodated by a rollover of the unharvested portion of the sideboard limit from the previous season. Again, it should be noted that in the overall fishery, B season harvests have often exceeded 120% of the *final* seasonal apportionment (even after accounting for rollover amounts; see Table 3).

Table 12. Area 620 pollock TAC and non-exempt AFA CV harvests during 2000 – 2008.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
Area 620 Seasonal and Annual TACs (mt)									
A	11,739	10,479	8,618	6,535	9,027	11,692	11,192	7,357	6,215
B	5,870	5,232	8,618	7,778	10,704	13,820	13,394	8,924	7,576
C	6,847	6,546	2,905	2,686	3,380	4,446	2,953	2,304	2,695
D	5,706	5,465	2,905	2,686	3,379	4,446	2,953	2,304	2,695
Full Year	30,162	27,722	23,046	19,685	26,490	34,404	30,492	20,889	19,181
Non-Exempt AFA CV Catch (mt)									
A	*	360	*	179	*	724	*	*	508
B	805	1,651	1,391	1,658	1,513	1,308	2,331	2,656	1,874
C	*	*	1,222	*	*	0	*	*	na
D	0	*	*	*	*	0	0	0	na
Full Year	908	2,100	3,154	2,135	1,988	2,031	2,991	2,815	na

Source: ADFG Fish Tickets (2001), NMFS Shoreside Logs (2002), and NMFS Catch Accounting (2003-June 2008).

Table 13. Percent of Area 620 pollock TAC and sideboard harvested by non-exempt AFA CVs, 2000 – 2008.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
Non-Exempt AFA CV Catch as a Percent of TAC (Sideboard = 14.27% of TAC)									
A	*	3.4%	*	2.7%	*	6.2%	*	*	8.2%
B	13.7%	31.6%	16.1%	21.3%	14.1%	9.5%	17.4%	29.8%	24.7%
C	*	*	42.0%	*	*	0.0%	*	*	na
D	0.0%	*	*	*	*	0.0%	0.0%	0.0%	na
Full Year	3.0%	7.6%	13.7%	10.8%	7.5%	5.9%	9.8%	13.5%	na
Non-Exempt AFA CV Catch as a Percent of Sideboard									
A	*	24.1%	*	19.2%	*	43.4%	*	*	57.3%
B	96.0%	221.1%	113.1%	149.4%	99.1%	66.3%	122.0%	208.5%	173.4%
C	*	*	294.7%	*	*	0.0%	*	*	na
D	0.0%	*	*	*	*	0.0%	0.0%	0.0%	na
Full Year	21.1%	53.1%	95.9%	76.0%	52.6%	41.4%	68.8%	94.4%	na

Source: ADFG Fish Tickets (2001), NMFS Shoreside Logs (2002), and NMFS Catch Accounting (2003-June 2008)

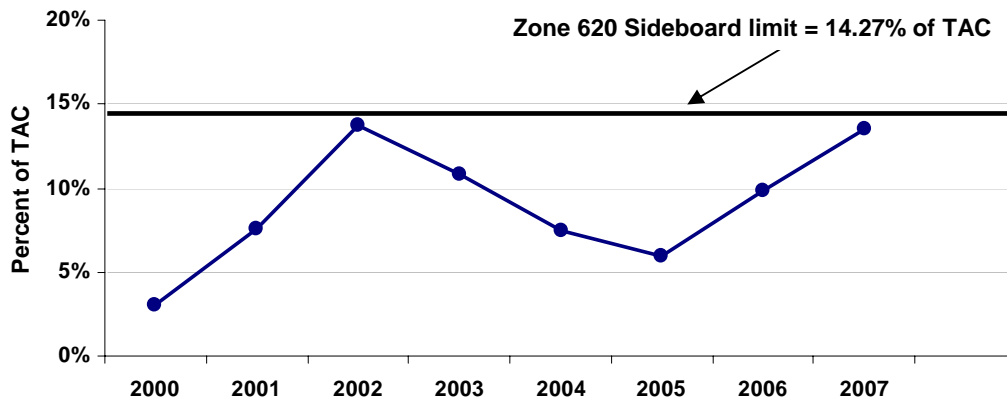


Figure 7. Non-exempt AFA CV pollock harvest in Area 620 as a percent of TAC, 2000-2007.

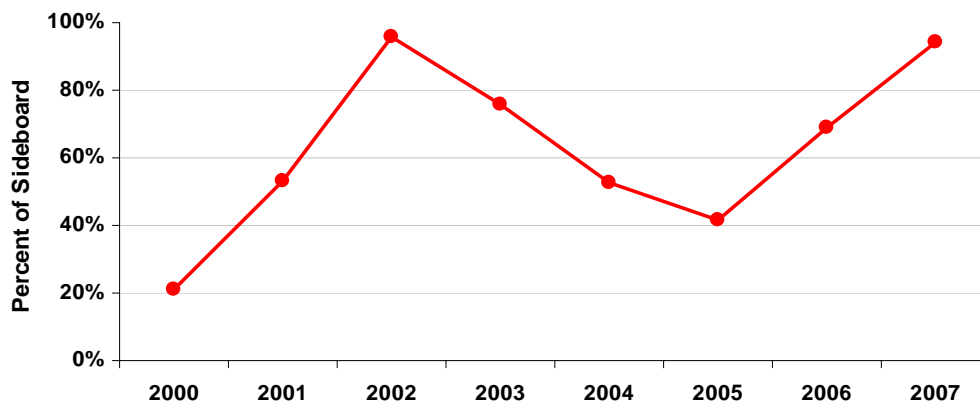


Figure 8. Non-exempt AFA CV pollock harvest in Area 620 as a percent of sideboard, 2000-2007.

Table 14 shows the relative economic importance of the Gulf of Alaska pollock fishery in Area 620 to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs as a proportion of total revenues by those vessels in all Alaska fisheries. For non-exempt AFA vessels that harvested pollock in Area 620, the revenues from those harvests accounted for 4.7% of total revenues during 2000-2007. Most of the 16 exempt AFA CVs participated in the Area 620 pollock fishery during each year, and revenues from those harvests accounted for 12.6% of total revenues during 2000-2007. For non-AFA CVs using trawl gear to harvest pollock, revenues from Area 620 pollock accounted for 13.4% of total revenues during 2000-2007. In the non-exempt AFA sector, there was substantial annual variation in the percentage of revenues derived from Area 620 pollock, ranging from 3.1% to 7.9% of revenues.

Table 14. Economic importance of Gulf of Alaska pollock fishery in Area 620 to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs during 2000 – 2007.

AFA non-exempt CVs				
Year	Vessel count	620 Pollock	All Alaska Fisheries	Percent of revenues
2000	3	*	*	4.8%
2001	6	*	*	7.9%
2002	7	\$904,602	\$16,899,190	5.4%
2003	8	\$499,989	\$13,830,517	3.6%
2004	6	\$459,151	\$10,678,752	4.3%
2005	7	\$636,647	\$20,668,742	3.1%
2006	7	\$886,702	\$17,894,032	5.0%
2007	7	\$707,671	\$12,889,354	5.5%
Total		\$4,883,008	\$104,700,458	4.7%

AFA exempt CVs				
Year	Vessel count	620 Pollock	All Alaska Fisheries	Percent of revenues
2000	14	\$1,311,286	\$14,725,229	8.9%
2001	14	\$1,743,023	\$13,806,849	12.6%
2002	13	\$1,739,793	\$13,085,334	13.3%
2003	14	\$1,419,066	\$15,640,412	9.1%
2004	14	\$1,661,618	\$14,314,028	11.6%
2005	15	\$2,518,781	\$16,648,402	15.1%
2006	14	\$2,806,978	\$15,744,149	17.8%
2007	13	\$1,688,114	\$14,158,848	11.9%
Total		\$14,888,657	\$118,123,252	12.6%

Non-AFA CVs				
Year	Vessel count	620 Pollock	All Alaska Fisheries	Percent of revenues
2000	26	\$1,367,797	\$15,920,892	8.6%
2001	38	\$2,605,174	\$21,036,269	12.4%
2002	41	\$2,190,680	\$18,521,106	11.8%
2003	25	\$1,938,394	\$15,913,361	12.2%
2004	29	\$2,351,750	\$19,238,385	12.2%
2005	26	\$4,853,255	\$21,746,398	22.3%
2006	24	\$3,579,529	\$23,756,114	15.1%
2007	19	\$1,944,830	\$19,632,861	9.9%
Total		\$20,831,408	\$155,765,387	13.4%

Source: ADFG Fish Ticket and CFEC Gross Revenues data.

*Non-AFA CVs only include CVs with trawl landings of Area 620 pollock.

Summary of non-exempt AFA CV pollock harvest in Area 630 (Kodiak)

The Area 630 annual and seasonal TACs and non-exempt AFA CV pollock harvests during 2000-2008 are reported in Table 15. Harvest data was not available for the 2008 C and D seasons. The non-exempt AFA CV fleet may harvest up to 24.38% of the Area 630 pollock TAC. During 2000-2007, harvests ranged from 3.4% of the TAC in 2006 to 15.0% of the TAC in 2000. Non-exempt AFA catcher vessels harvested 61.3% or less of their annual total sideboard for pollock in Area 630 during each year. Overall, 12,368 mt (35.5%) of the 34,791 mt total sideboard limit during 2000-2007 was harvested. The percentage of the seasonal sideboard harvested ranged between 0.7% to more than 100% when unharvested TAC from a previous season was rolled over to the following season. As in Area 610, there was no consistent pattern in the seasonality of the pollock harvests in Area 630.

Table 15. Seasonal TAC and Non-Exempt AFA CV Pollock Harvest in Area 630, 2001 – 2008

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
Area 630 Seasonal and Annual TACs (mt)									
A	8,123	7,986	1,122	2,274	3,091	4,148	4,062	3,320	3,069
B	4,060	3,991	1,122	1,031	1,413	2,021	1,861	1,753	1,709
C	9,008	8,610	3,803	3,517	4,768	6,274	6,263	4,889	4,431
D	7,506	7,175	3,803	3,517	4,768	6,275	6,262	4,889	4,431
Full Year	28,697	27,762	9,850	10,339	14,040	18,718	18,448	14,851	13,640
Non-Exempt AFA CV Catch (mt)									
A	2,202	1,475	*	6	*	*	*	*	*
B	*	232	60	*	*	233	*	*	16
C	1,355	572	995	471	452	*	210	9	na
D	*	*	*	*	*	*	*	*	na
Full Year	4,291	2,332	1,195	879	721	1,586	632	731	na

Table 16. Percent of Area 630 pollock TAC and sideboard harvested by non-exempt AFA CVs, 2000 – 2008.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
Non-Exempt AFA CV Catch as a Percent of TAC (Sideboard = 24.38% of TAC)									
A	27.1%	18.5%	*	0.2%	*	*	*	*	*
B	*	5.8%	5.3%	*	*	11.5%	*	*	1.0%
C	15.0%	6.6%	26.2%	13.4%	9.5%	*	3.4%	0.2%	na
D	*	*	*	*	*	*	*	*	na
Full Year	15.0%	8.4%	12.1%	8.5%	5.1%	8.5%	3.4%	4.9%	na
Non-Exempt AFA CV Catch as a Percent of Sideboard									
A	111.2%	75.8%	*	1.0%	*	*	*	*	*
B	*	23.8%	21.8%	*	*	47.3%	*	*	3.9%
C	61.7%	27.3%	107.3%	54.9%	38.9%	*	13.8%	0.7%	na
D	*	*	*	*	*	*	*	*	na
Full Year	61.3%	34.5%	49.8%	34.9%	21.1%	34.8%	14.1%	20.2%	na

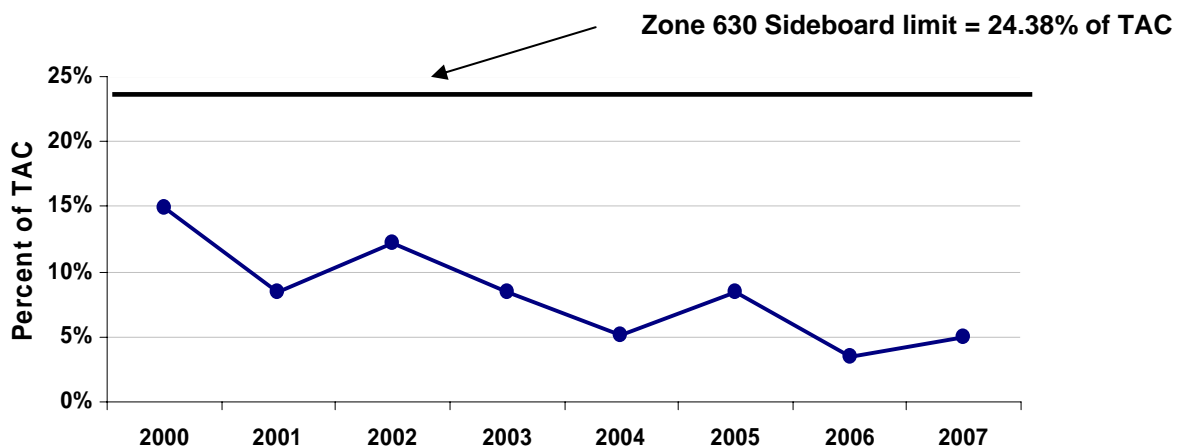


Figure 9. Non-exempt AFA CV pollock harvest in Area 630 as a percent of TAC, 2000-2007.

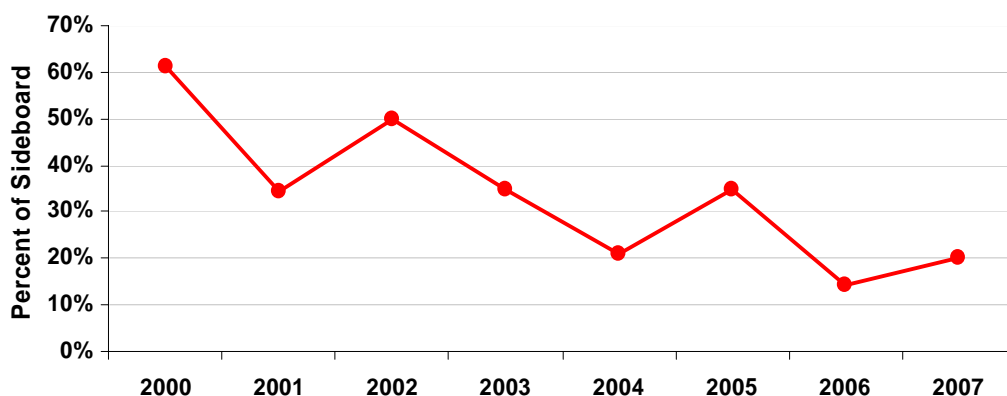


Figure 10. Non-exempt AFA CV pollock harvest in Area 630 as a percent of the sideboard, 2000-2007.

Table 17. Economic importance of Gulf of Alaska pollock fishery in Area 630 to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs during 2000 – 2007.

<u>AFA non-exempt CVs</u>				
Year	Vessel count	630 Pollock	All Alaska Fisheries	Percent of revenues
2000	9	\$1,070,416	\$15,959,973	6.7%
2001	12	\$623,405	\$15,373,607	4.1%
2002	6	\$219,285	\$9,828,898	2.2%
2003	6	\$176,645	\$9,937,060	1.8%
2004	5	\$173,679	\$8,726,393	2.0%
2005	4	\$483,771	\$9,566,898	5.1%
2006	4	*	*	2.0%
2007	3	*	*	3.9%
Total		\$3,114,081	\$83,764,768	3.7%

<u>AFA exempt CVs</u>				
Year	Vessel count	630 Pollock	All Alaska Fisheries	Percent of revenues
2000	14	\$4,752,576	\$13,760,873	34.5%
2001	14	\$1,570,700	\$12,856,656	12.2%
2002	13	\$958,489	\$13,085,334	7.3%
2003	14	\$918,445	\$14,982,664	6.1%
2004	14	\$1,618,022	\$14,601,828	11.1%
2005	15	\$1,846,371	\$16,000,367	11.5%
2006	14	\$1,921,458	\$15,290,849	12.6%
2007	13	\$1,719,464	\$14,624,272	11.8%
Total		\$15,305,526	\$115,202,844	13.3%

<u>Non-AFA CVs</u>				
Year	Vessel count	630 Pollock	All Alaska Fisheries	Percent of revenues
2000	26	\$3,404,862	\$19,881,359	17.1%
2001	38	\$3,464,552	\$22,081,717	15.7%
2002	41	\$875,756	\$14,545,203	6.0%
2003	25	\$1,302,436	\$18,501,429	7.0%
2004	29	\$2,696,374	\$18,304,044	14.7%
2005	26	\$3,401,309	\$21,102,845	16.1%
2006	24	\$3,286,035	\$23,105,519	14.2%
2007	19	\$1,735,229	\$19,272,821	9.0%
Total		\$20,166,554	\$156,794,937	12.9%

Table 17 shows the relative economic importance of the Gulf of Alaska pollock fishery in Area 630 to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs as a proportion of total revenues by those vessels in all Alaska fisheries. For non-exempt AFA vessels that harvested pollock in Area 630, the revenues from those harvests accounted for 3.7% of total revenues during 2000-2007. For exempt AFA CVs and non-AFA CVs that used trawl gear to harvest pollock, revenues from Area 630 pollock accounted for 13.3% and 12.9% of total revenues during 2000-2007, respectively. In the non-exempt AFA sector, the percentage of revenues derived from Area 630 pollock ranged from 1.8% to 6.7% of total revenues.

Summary of non-exempt AFA CV Pacific cod harvest in Western Gulf

The Western Gulf Pacific cod annual and seasonal TACs and the non-exempt AFA CV Pacific cod harvests during 2000-2008 are summarized in Table 18. Harvest data was not available for the 2008 B season analysis. The non-exempt AFA CV fleet may harvest up to 14.23% of the Western GOA Pacific cod inshore TAC. During 2000-2007, harvests ranged from 0.1% of the TAC in 2006 to 3.9% of the TAC in 2000 (Table 19). Non-exempt AFA catcher vessels harvested 27.7% or less of their annual total sideboard for Pacific cod in the Western Gulf during each year from 2000-2007. Overall, 1,422 mt (7.9%) of the 17,933 mt total sideboard limit was harvested during that period. The Pacific cod sideboard catch in the Western Gulf was concentrated in the A season, with that season accounting for 81% of the total Pacific cod sideboard harvest during 2001-2007.

Table 18. Seasonal TACs and non-exempt AFA CV Pacific Cod harvests in the Western Gulf, 2000 – 2008.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
<u>Inshore Seasonal and Annual TACs in Western Gulf (mt)</u>									
A	na	9,882	9,098	8,343	9,157	8,471	10,876	10,876	10,502
B	na	6,588	6,066	5,562	6,104	5,647	7,251	7,251	7,002
Full Year	14,850	16,470	15,164	13,905	15,261	14,118	18,127	18,127	17,504
<u>Non-Exempt AFA CV Catch (mt)</u>									
A	na	99	143	87	86	89	6	168	*
B	na	142	8	1	1	1	1	4	na
Full Year	585	241	151	89	87	90	6	172	na

Table 19. Seasonal TACs and non-exempt AFA CV Pacific Cod harvests in the Western Gulf, 2000 – 2008.

<u>Non-Exempt AFA CV Catch as a Percent of TAC (Sideboard = 14.23% of TAC)</u>									
A	na	1.0%	1.6%	1.0%	0.9%	1.0%	0.1%	1.5%	*
B	na	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	na
Full Year	3.9%	1.5%	1.0%	0.6%	0.6%	0.6%	0.1%	1.0%	na
<u>Non-Exempt AFA CV Catch as a Percent of Sideboard</u>									
A	na	7.0%	11.0%	7.4%	6.6%	7.4%	0.4%	10.9%	*
B	na	15.2%	1.0%	0.2%	0.1%	0.1%	0.1%	0.4%	na
Full Year	27.7%	10.3%	7.0%	4.5%	4.0%	4.5%	0.7%	6.7%	na

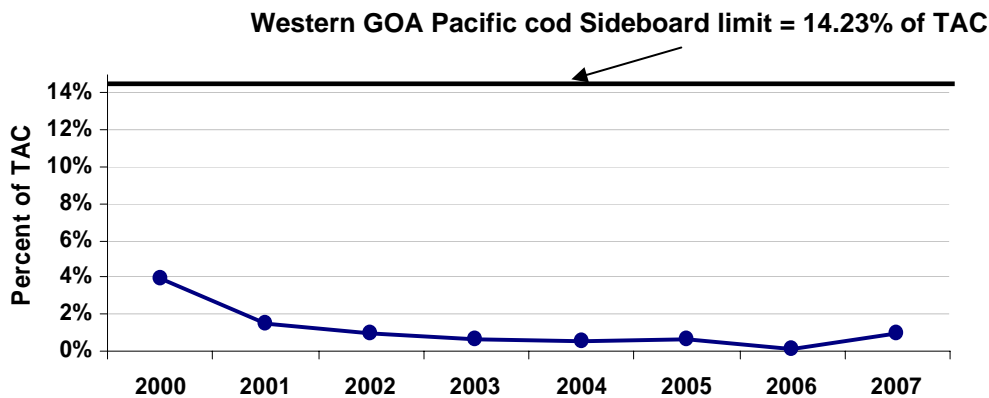


Figure 11. Non-Exempt AFA CV Pacific cod harvest as a percent of TAC in Western Gulf, 2000 – 2007

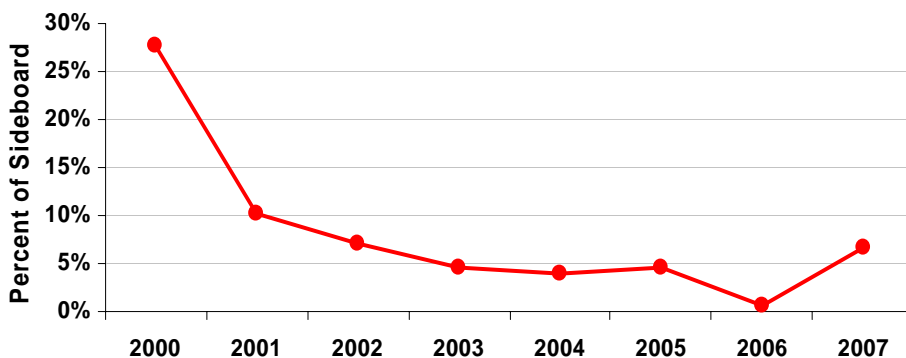


Figure 12. Non-Exempt AFA CV Pacific cod harvest as a percent of sideboard in Western Gulf, 2000 – 2007

Pacific cod is often harvested incidentally when vessels are targeting other species such as pollock. Table 20 reports directed and incidental harvests of Pacific cod in the Western Gulf by the non-exempt AFA CV fleet. During 2001–2007, 91% of Western Gulf Pacific cod harvested by non-exempt AFA catcher vessels was harvested by vessels targeting Pacific cod, while the remaining 9% was taken incidentally in other targeted fisheries.

Table 20. Directed and incidental catch (mt) of non-exempt AFA catcher vessels in the Western Gulf Pacific cod fishery, 2001 – 2007.

	2001	2002	2003	2004	2005	2006	2007	Total 2001-2007
Directed catch	235	140	45	87	81	1	170	758
Incidental catch	7	11	44	1	9	6	2	79
Total catch	241	151	89	87	90	6	172	837

Table 21 shows the relative economic importance of the Western Gulf of Alaska Pacific cod fishery to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs as a proportion of total revenues by those vessels in all Alaska fisheries. For non-exempt AFA vessels that harvested Pacific cod in the Western

GOA, the revenues from those harvests accounted for 0.9% of total revenues during 2000-2007. For exempt AFA CVs and non-AFA CVs that harvested Pacific cod using trawl gear, revenues from Western GOA Pacific cod accounted for 6.7% and 16.9% of total revenues during 2000-2007, respectively. In the non-exempt AFA sector, the percentage of revenues derived from Western GOA Pacific cod ranged from 0.2% to 2.9% of total revenues.

Table 21. Economic importance of the Western Gulf of Alaska Pacific Cod fishery to non-Exempt AFA catcher vessels, 2000 – 2007

AFA non-exempt CVs				
Year	Vessel count	WG Pacific Cod	All Alaska Fisheries	Percent of revenues
2000	9	\$363,736	\$12,744,747	2.9%
2001	11	\$122,515	\$7,866,755	1.6%
2002	7	\$65,496	\$10,986,221	0.6%
2003	7	\$30,998	\$13,235,783	0.2%
2004	6	\$21,138	\$12,157,393	0.2%
2005	7	\$28,734	\$10,515,774	0.3%
2006	4	\$38,015	\$14,863,559	0.3%
2007	7	\$172,013	\$11,893,697	1.4%
Total		\$842,645	\$94,263,928	0.9%

AFA exempt CVs				
Year	Vessel count	WG Pacific Cod	All Alaska Fisheries	Percent of revenues
2000	2	*	*	15.0%
2001	1	*	*	18.9%
2002	2	*	*	12.3%
2003	2	*	*	2.5%
2004	2	*	*	0.0%
2005	2	*	*	8.0%
2006	2	*	*	0.7%
2007	2	*	*	0.0%
Total		*	*	6.7%

Non-AFA CVs				
Year	Vessel count	WG Pacific Cod	All Alaska Fisheries	Percent of revenues
2000	47	\$6,797,471	\$22,114,905	30.7%
2001	46	\$2,770,987	\$18,733,926	14.8%
2002	37	\$2,353,863	\$15,213,043	15.5%
2003	29	\$1,917,637	\$15,878,423	12.1%
2004	24	\$1,469,599	\$15,963,783	9.2%
2005	29	\$2,463,709	\$23,010,839	10.7%
2006	29	\$4,352,588	\$24,033,288	18.1%
2007	30	\$4,756,411	\$24,208,449	19.6%
Total		\$26,882,265	\$159,156,656	16.9%

Source: ADFG Fish Tickets and CFEC Gross Revenues data.

*Non-AFA CVs only include CVs with trawl landings of Western Gulf Pacific cod.

Summary of non-exempt AFA CV Pacific cod harvest in Central Gulf

The Central Gulf Pacific cod annual and seasonal TACs and the non-exempt AFA CV Pacific cod harvests during 2000-2008 are summarized in Table 22. Harvest data for the 2008 B season was not available. The non-exempt AFA CV fleet may harvest up to 7.22% of the CGOA inshore TAC. Non-exempt AFA catcher vessels harvested 65.2% or less of their annual sideboard for Pacific cod in the Central Gulf during 2000-2007 (Table 23). Overall, 3,969 mt (28.5%) of the 13,913 mt total sideboard limit was harvested during that period. The percent of the annual sideboard harvested varied between

14.7% and 65.2%. Overall, during 2000-2007, there was slightly more sideboard catch during the A season (54%).

Table 22. Seasonal TACs and non-exempt AFA CV Pacific Cod harvests in the Central Gulf, 2000 – 2007.

Season	2000	2001	2002	2003	2004	2005	2006	2007	2008
Inshore Seasonal and Annual TACs in Central Gulf (mt)									
A	na	16,335	13,387	12,253	14,643	13,547	15,339	15,339	15,350
B	na	10,890	8,924	8,168	9,761	9,031	10,226	10,226	10,233
Full Year	24,538	27,315	22,311	20,421	24,404	22,578	25,565	25,565	25,583
Non-Exempt AFA CV Catch (mt)									
A	na	98	99	437	290	383	329	242	220
B	na	257	201	525	308	222	77	30	na
Full Year	470	355	301	961	599	606	406	272	na

Table 23. Seasonal TACs and non-exempt AFA CV Pacific Cod harvests in the Central Gulf, 2000 – 2007.

Non-Exempt AFA CV Catch as a Percent of TAC (Sideboard = 7.22% of TAC)									
A	na	0.6%	0.7%	3.6%	2.0%	2.8%	2.1%	1.6%	1.4%
B	na	2.4%	2.3%	6.4%	3.2%	2.5%	0.8%	0.3%	na
Full Year	1.9%	1.3%	1.3%	4.7%	2.5%	2.7%	1.6%	1.1%	na
Non-Exempt AFA CV Catch as a Percent of Sideboard									
A	na	8.3%	10.3%	49.4%	27.5%	39.2%	29.7%	21.9%	19.9%
B	na	32.7%	31.2%	89.0%	43.8%	34.1%	10.5%	4.0%	na
Full Year	26.5%	18.0%	18.7%	65.2%	34.0%	37.1%	22.0%	14.7%	na

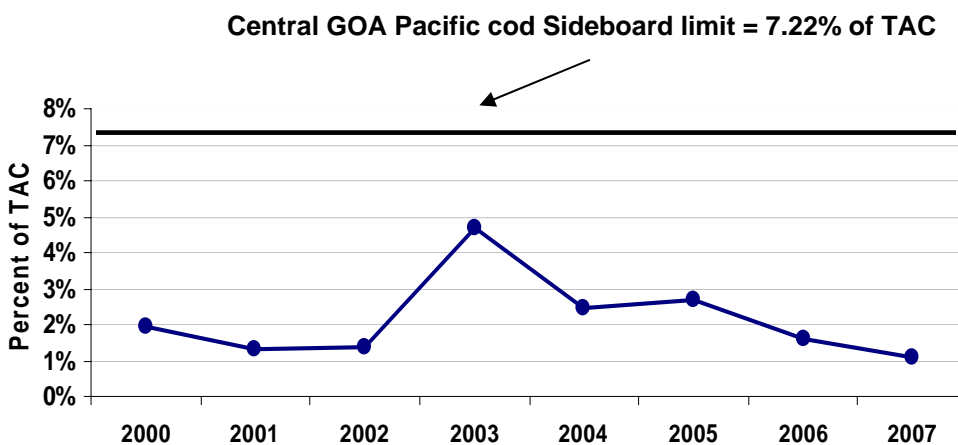


Figure 13. Non-exempt AFA CV Pacific cod harvest as a percent of TAC in the Central GOA, 2000– 2007

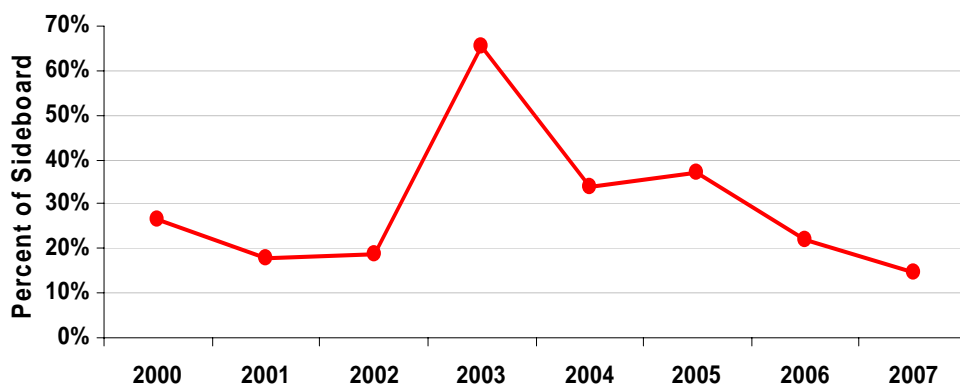


Figure 14. Non-exempt AFA CV Pacific cod harvest as a percent of sideboard in the Central GOA, 2000– 2007

Incidental catches of Pacific cod accounted for 36% of the total Pacific cod landed in the Central Gulf by non-exempt AFA catcher vessels during 2001–2007 (see Table 24). This is 4 times the incidental catch percentage in the Western Gulf.

Table 24. Directed and incidental catch (mt) of non-exempt AFA catcher vessels in the Central Gulf Pacific Cod fishery, 2001 – 2007.

	2001	2002	2003	2004	2005	2006	2007	Total 2001-2007
Directed catch	208	58	720	433	374	273	168	2234
Incidental catch	147	243	241	165	232	133	104	1266
Total catch	355	301	961	599	606	406	272	3499

Table 25 shows the relative economic importance of the Central Gulf of Alaska Pacific cod fishery to non-exempt AFA CVs, exempt AFA CVs, and non-AFA CVs as a proportion of total revenues by those vessels in all Alaska fisheries. For non-exempt AFA vessels that harvested Pacific cod in the Central GOA, the revenues from those harvests accounted for 2.2% of total revenues during 2000-2007. For exempt AFA CVs and non-AFA CVs harvesting Pacific cod using trawl gear, revenues from Central GOA Pacific cod accounted for 14.8% and 21.1% of total revenues during 2000-2007, respectively. In the non-exempt AFA sector, the percentage of revenues derived from Central GOA Pacific cod ranged from 1.1% to 4.4% of total revenues.

Table 25. Economic Importance of Gulf of Alaska Pacific cod Fishery in Central Gulf for Non-Exempt AFA Catcher Vessels, 2000 – 2007

AFA non-exempt CVs				
Year	Vessel count	CG Pacific Cod	All Alaska Fisheries	Percent of revenues
2000	9	\$326,176	\$16,074,385	2.0%
2001	10	\$211,700	\$13,044,005	1.6%
2002	8	\$133,901	\$12,390,122	1.1%
2003	7	\$481,283	\$10,853,086	4.4%
2004	8	\$333,831	\$15,584,600	2.1%
2005	6	\$375,187	\$18,052,239	2.1%
2006	7	\$326,006	\$17,894,032	1.8%
2007	5	\$260,924	\$9,263,918	2.8%
Total		\$2,449,008	\$113,156,386	2.2%

AFA exempt CVs				
Year	Vessel count	CG Pacific Cod	All Alaska Fisheries	Percent of revenues
2000	13	\$2,438,668	\$13,760,873	17.7%
2001	14	\$2,659,340	\$13,806,849	19.3%
2002	13	\$1,451,998	\$13,085,334	11.1%
2003	13	\$3,177,628	\$14,982,664	21.2%
2004	15	\$2,776,084	\$15,322,339	18.1%
2005	15	\$1,805,250	\$16,648,402	10.8%
2006	14	\$1,643,848	\$15,744,149	10.4%
2007	14	\$1,473,263	\$14,624,272	10.1%
Total		\$17,426,080	\$117,974,883	14.8%

Non-AFA CVs				
Year	Vessel count	CG Pacific Cod	All Alaska Fisheries	Percent of revenues
2000	37	\$4,918,588	\$21,896,303	22.5%
2001	49	\$6,059,794	\$25,275,355	24.0%
2002	46	\$3,309,590	\$20,098,075	16.5%
2003	35	\$5,516,863	\$20,473,216	26.9%
2004	33	\$4,610,143	\$21,162,872	21.8%
2005	27	\$3,416,445	\$22,743,677	15.0%
2006	26	\$2,844,523	\$25,355,098	11.2%
2007	20	\$6,646,149	\$19,978,848	33.3%
Total		\$37,322,094	\$176,983,444	21.1%

Source: ADFG Fish Tickets and CFEC Gross Revenues data.

*Non-AFA CVs only include CVs with trawl landings of Central Gulf Pacific cod.

Summary and discussion

In general, non-exempt AFA catcher vessels have not fully harvested their GOA pollock sideboards. During 2000-2007, these vessels harvested 30.3% of the Area 610 sideboard, 64.9% of the Area 620 sideboard, and 35.5% of the Area 630 sideboard. There was substantial annual variation in the percentage of the sideboard harvested in each management area. The pollock sideboard harvest in Area 620 tends to be highest in the B season when pollock are carrying high-value roe. The seasonality of the catches in other management areas shows no consistent pattern. For those non-exempt AFA catcher vessels that harvested Gulf of Alaska pollock, the revenues from those harvests accounted for 1% to 4% of their total revenue during 2000-2007.

Non-exempt AFA catcher vessels have also not fully harvested their GOA Pacific cod sideboards. During 2001-2007, these vessels harvested 7.9% of the Western Gulf (Area 610) sideboard and 28.5% of the Central Gulf (Area 620 and 630) sideboard. However, there is substantial annual variation in the

percentage of the Pacific cod sideboard that was harvested in each management area. In both the Western and Central Gulf the Pacific cod sideboard harvests tend to be highest during the A season. For those non-exempt AFA catcher vessels that harvested Gulf of Alaska Pacific cod, the revenue from that harvest on average accounted for 2.2% (Central Gulf) and 0.9% (Western Gulf) of their total revenue during 2000-2007.

The overall low harvest of GOA pollock and Pacific cod sideboards by non-exempt AFA catcher vessels has occurred even though the formation of fishery cooperatives under the AFA afforded co-op members opportunities to maximize their participation in non-BSAI pollock fisheries in various ways. The leasing of quota among co-op members allows excess harvesting capacity to be removed from the BSAI pollock fishery; this freed-up fishing capital can then shift to other fisheries, including the GOA pollock and Pacific cod fisheries. In addition, the apportionment of sideboard amounts among co-op members facilitates the transfer (for example, through leasing) of sufficient sideboard amounts to make participation in the GOA pollock and Pacific cod fisheries worthwhile for at least one vessel within a cooperative. Intercoop transfers of sideboard apportionments can also occur. Finally, fishery cooperatives provide vessels with greater flexibility to schedule their fishing activity because they are no longer racing for pollock at the start of every season. As a result, vessels in cooperatives have the ability to enter other fisheries, including the GOA pollock and Pacific cod fisheries, which might previously have been conducted concurrently with the BSAI pollock fishery.

Representatives of AFA vessels indicate that there are a number of reasons for the generally low GOA pollock and Pacific cod sideboard harvests:

- Steller sea lion protection measures reduced the areas available for fishing in the GOA.
- The 300,000 pound trip limits on pollock harvests in the GOA.
- The exclusive season rules for directed pollock fishing in Area 610 and the western side of Area 620 restricts fishing to either the BSAI or GOA until a subsequent season or the following year. An industry representative stated that no AFA CV will register in Area 610 if they have an opportunity to fish in the BSAI.
- The stand down rules constrain fishing effort in the GOA, especially given that fishing seasons in the GOA tend to be relatively short.

Impact of trawl LLP recency on eligibility of non-exempt AFA vessels in the GOA

In April 2008, the Council took final action on an FMP amendment that will remove Central and/or Western GOA area endorsements from trawl LLP licenses that have not made at least two trawl landings in the respective management area between 2000 and 2006. An additional option selected by the Council allows licenses with at least 20 landings in either the WG or CG during one year from 2005-2007 to retain the other area endorsement. Licenses that qualified for the Rockfish Pilot Program are exempt from the landings thresholds in the Central Gulf. To take advantage of production efficiencies (e.g., operating cost savings), some AFA LLP holders have not entered their vessels into GOA sideboarded fisheries. By allowing other cooperative vessels to fish the sideboard amounts attributed to their catch history, these LLP holders may not meet the minimum landing thresholds under the trawl LLP recency action. If this action eliminates a latent LLP area endorsement that does not have recent catch history in the GOA groundfish fisheries, the AFA vessel assigned to that license would be unable to fish its contribution to the non-exempt AFA sideboard in the future.

Currently, there are 46 Central Gulf and 69 Western Gulf trawl catcher vessel licenses assigned to the 95 non-exempt AFA catcher vessels. Therefore, only about half of the non-exempt fleet is currently eligible to fish the non-exempt AFA pollock and Pacific cod sideboards in the Central Gulf, and about two-thirds of the fleet is eligible to fish the sideboards in the Western Gulf. As shown in Table 26,

when the trawl recency action is implemented, there will be an estimated 13 Central Gulf and 12 Western Gulf licenses eligible to fish the non-exempt AFA CV pollock and Pacific cod sideboards using trawl gear in the respective management areas. However, it should be noted that an additional 7 Central Gulf and 9 Western Gulf licenses assigned to non-exempt AFA catcher vessels have non-trawl gear designations. The vessels assigned to these licenses are also eligible to fish the non-exempt AFA CV pollock and Pacific cod sideboards, but may only use fixed gear.

In sum, as a result of the trawl recency action, only licenses that meet the recency thresholds will be eligible to continue fishing in the GOA groundfish fisheries (in Federal waters) using trawl gear. No non-exempt AFA licenses that do not meet the recency requirements will be eligible to enter the GOA groundfish fisheries and fish the pollock and Pacific cod sideboards. The potential universe of non-exempt AFA vessels eligible to fish the pollock and Pacific cod sideboards using trawl gear will be limited to 13 vessels in the Central Gulf and 12 vessels in the Western Gulf. An additional 7 Central Gulf and 9 Western Gulf licenses assigned to non-exempt AFA CVs may fish the sideboards using fixed gear. The vessels assigned to these fixed gear licenses would most likely fish during the directed Pacific cod fisheries.

The total number of trawl catcher vessels, and the number of non-exempt AFA CVs that participated in the GOA pollock and Pacific cod fisheries during 2000-2007 are reported in Table 27. In general, the number of vessels participating in the sideboarded fisheries has decreased slightly from participation levels during 2000 and 2001. Overall, only a fraction of the 95 non-exempt AFA CVs has participated in the pollock and Pacific cod sideboard fisheries. Once the trawl recency action is implemented, the total number of non-exempt AFA CVs eligible to use trawl gear in the GOA will be capped at 13 in the Central Gulf and 12 in the Western Gulf.

Table 26. Trawl catcher vessel licenses assigned to non-exempt AFA CVs, and projected status after trawl recency action is implemented.

	Non-exempt AFA CV		Exempt AFA CV		Total AFA CV	
	Current number of licenses	Licenses qualified under trawl recency	Current number of licenses	Licenses qualified under trawl recency	Current number of licenses	Licenses qualified under trawl recency
Central Gulf	46	13	15	15	61	28
Western Gulf	69	12	10	7	79	19

Table 27. Number of non-exempt AFA catcher vessels participating in the GOA pollock and Pacific cod fisheries, 2000-2007.

	Pollock			Pacific Cod	
	610	620	630	Western Gulf	Central Gulf
2000	9	3	9	9	9
2001	11	6	12	11	10
2002	7	7	6	7	8
2003	7	8	6	7	7
2004	6	6	5	6	8
2005	7	7	4	7	6
2006	4	7	4	4	7
2007	8	7	3	7	5
Unique vessels, 2000-2007	25	16	18	25	19

Under current fishery conditions the above regulatory obstacles are likely to continue to constrain the harvest of GOA pollock and Pacific cod sideboards. However, a change in current conditions could result in a reentry of effort by non-exempt AFA vessels that would result in increases in sideboard catches when compared to recent years. Specifically, industry representatives stated that a large drop in the Eastern Bering Sea pollock TAC could precipitate a substantial increase in the harvest of GOA pollock and Pacific cod sideboards. An increase in the sideboard harvest would be most likely to occur under the “worst case” scenario in which the EBS pollock spawning biomass fell below $B_{20\%}$ and the directed pollock fishery in the Bering Sea would be closed.

1.3 Analysis of the Alternatives

1.3.1 Alternative 1

Alternative 1 is the no action alternative, and is the baseline alternative against which the costs and benefits of each action alternative are compared. Tables 28 and 29 summarize the GOA pollock and Pacific cod TACs, sideboards, and sideboard harvests by management area during 2001-2007.

Table 28. Status quo conditions for the non-exempt AFA CV pollock sideboards under Alternative 1.

	A season	B season	C season	D season	Total
Area 610					
Total 2001-2007 TAC (mt)	31,020	27,168	58,563	56,731	173,482
Total 2001-2007 Sideboard (mt) = 61.123% of TAC	18,960	16,606	35,795	34,675	106,037
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	5,303	1,390	10,734	13,629	31,057
Percent of Sideboard Harvested (%) during 2001-2007	28.0%	8.4%	30.0%	39.3%	29.3%
Area 620					
Total 2001-2007 TAC (mt)	64,900	68,470	25,220	24,138	182,728
Total 2001-2007 Sideboard (mt) = 14.271% of TAC	9,262	9,771	3,599	3,445	26,076
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	2,080	12,508	1,860	769	17,216
Percent of Sideboard Harvested (%) during 2001-2007	22.5%	128.0%	51.7%	22.3%	66.0%
Area 630					
Total 2001-2007 TAC (mt)	26,003	13,192	38,124	36,689	114,008
Total 2001-2007 Sideboard (mt) = 24.375% of TAC	6,338	3,216	9,293	8,943	27,790
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	2,169	593	3,020	2,294	8,077
Percent of Sideboard Harvested (%) during 2001-2007	34.2%	18.4%	32.5%	25.6%	29.1%

Table 29. Status quo conditions for the non-exempt AFA CV Pacific cod sideboards under Alternative 1.

	A season	B season	Total
Western Gulf			
Total 2001-2007 TAC (mt)	66,703	44,469	111,172
Total 2001-2007 Sideboard (mt) = 14.230% of TAC	9,492	6,328	15,820
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	678	159	837
Percent of Sideboard Harvested (%) during 2001-2007	7.1%	2.5%	5.3%
Central Gulf			
Total 2001-2007 TAC (mt)	100,843	67,316	168,159
Total 2001-2007 Sideboard (mt) = 7.220% of TAC	7,281	4,860	12,141
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	1,879	1,621	3,499
Percent of Sideboard Harvested (%) during 2001-2007	25.8%	33.4%	28.8%

1.3.2 Alternative 2

Alternative 2 would allow non-exempt AFA catcher vessels to continue to participate in the directed fisheries for GOA pollock and Pacific cod, but sideboards would be re-calculated based on retained catch by the non-exempt AFA sector during 2005-2007. Tables 30 and 31 show the estimated GOA pollock and Pacific cod sideboards limits under Alternative 2, and compare sideboard harvests during 2001-2007 to these revised sideboard limits. To comply with the annual sideboards for pollock and Pacific cod under Alternative 2, the baseline (2001-2007) pollock sideboard harvests would have been reduced by 24.7% in Area 610 and 20.8% in Area 630. In Area 620, the pollock harvest during 2001-2007 was slightly lower than the new pollock sideboard limit that would be implemented under Alternative 2. Pacific cod sideboard harvests during 2001-2007 would have been reduced by 29.2% in the Western Gulf and 19.2% in the Central Gulf. Across all management areas, the total GOA pollock harvest by the non-exempt AFA CV fleet would have been reduced by 9,361 mt if Alternative 2 had been in effect during 2001-2007 instead of the status quo alternative, while the total GOA Pacific cod harvest by the non-exempt AFA CV fleet would have been reduced by 916 mt.

When the seasonal distribution of catch is taken into account, these harvest reductions are in some cases substantially larger. For example, in Area 620 the majority of harvests during 2005-2007 occurred during the B season. If sideboards are recalculated based on annual retained catch during 2005-2007, the baseline (2001-2007) total annual sideboard harvests would not be reduced. However, if the sideboard limit is apportioned among the seasons, the Area 620 B season catch would have been reduced from 12,508 mt to 6,731 mt during 2001-2007. If the Council chooses to recalculate the non-exempt AFA sideboard limits, it may wish to take into account seasonal catch history.

Table 30. Summary of impacts of Alternative 2 on non-exempt AFA CV pollock sideboards.

Area 610					
	A season	B season	C season	D season	Total
Baseline Conditions 2001 - 2007					
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	5,303	1,390	10,734	13,629	31,057
TAC and sideboard harvests during 2005 - 2007					
Total TAC (mt) during 2005-2007	13,756	13,756	28,399	28,399	84,310
Total non-Exempt AFA CV catch (mt) during 2005-2007	2,631	993	2,587	5,195	11,406
Retained non-Exempt AFA CV catch (mt) during 2005-2007	2,602	985	2,585	5,187	11,360
Percent of TAC harvested during 2005-2007	18.9%	7.2%	9.1%	18.3%	13.474%
Projected Conditions under Alternative 2					
Revised Sideboard (mt) during 2001-2007 = 13.474% of TAC	4,180	3,661	7,891	7,644	23,375
Harvest Reductions to Comply with Sideboard (mt)	1,123	0	2,844	5,986	7,682
Harvest Reductions to Comply with Sideboard (% of catch)	21.2%	0.0%	26.5%	43.9%	24.7%
Area 620					
	A season	B season	C season	D season	Total
Baseline Conditions 2001 - 2007					
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	2,080	12,508	1,860	769	17,216
TAC and sideboard harvests during 2005 - 2007					
Total TAC (mt) during 2005-2007	30,241	36,138	9,703	9,703	85,785
Total non-Exempt AFA CV catch (mt) during 2005-2007	1,525	6,295	18	666	8,504
Retained non-Exempt AFA CV catch (mt) during 2005-2007	1,523	6,229	18	663	8,433
Percent of TAC harvested during 2005-2007	5.0%	17.2%	0.2%	6.8%	9.831%
Projected Conditions under Alternative 2					
Revised Sideboard (mt) during 2001-2007 = 9.831% of TAC	6,380	6,731	2,479	2,373	17,964
Harvest Reductions to Comply with Sideboard (mt)	0	5,777	0	0	0
Harvest Reductions to Comply with Sideboard (% of catch)	0.0%	46.2%	0.0%	0.0%	0.0%

	Area 630				Total
	A season	B season	C season	D season	
Baseline Conditions 2001 - 2007					
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	2,169	593	3,020	2,294	8,077
TAC and sideboard harvests during 2005 - 2007					
Total TAC (mt) during 2005-2007	11,530	5,635	17,426	17,426	52,017
Total non-Exempt AFA CV catch (mt) during 2005-2007	666	252	530	1,502	2,950
Retained non-Exempt AFA CV catch (mt) during 2005-2007	663	240	514	1,501	2,919
Percent of TAC harvested during 2005-2007	5.7%	4.3%	3.0%	8.6%	5.612%
Projected Conditions under Alternative 2					
Revised Sideboard (mt) during 2001-2007 = 5.612% of TAC	1,459	740	2,140	2,059	6,398
Harvest Reductions to Comply with Sideboard (mt)	710	0	881	235	1,679
Harvest Reductions to Comply with Sideboard (% of catch)	32.7%	0.0%	29.2%	10.3%	20.8%

Table 31. Summary of impacts of Alternative 2 on non-exempt AFA CV Pacific cod sideboards.

	Western Gulf		
	A season	B season	Total
Baseline Conditions 2001 - 2007			
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	678	159	837
TAC and sideboard harvests during 2005-2007			
Total TAC (mt) during 2005-2007	30,223	20,149	50,372
Total non-Exempt AFA CV catch (mt) during 2005-2007	263	6	269
Retained non-Exempt AFA CV catch (mt) during 2005-2007	263	6	269
Percent of TAC harvested during 2005-2007	0.9%	0.0%	0.533%
Projected Conditions under Alternative 2			
Revised sideboard (mt) during 2001-2007 = 0.533% of TAC	356	237	593
Harvest Reductions to Comply with Sideboard (mt)	323	0	245
Harvest Reductions to Comply with Sideboard (% of Catch)	47.6%	0.0	29.2%
Central Gulf			
	A season	B season	Total
Baseline Conditions 2001 - 2007			
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	1,879	1,621	3,499
TAC and sideboard harvests during 2005-2007			
Total TAC (mt) during 2005-2007	44,225	29,483	73,708
Total non-Exempt AFA CV catch (mt) during 2005-2007	954	329	1284
Retained non-Exempt AFA CV catch (mt) during 2005-2007	925	315	1240
Percent of TAC harvested during 2005-2007	2.1%	1.1%	1.682%
Projected Conditions under Alternative 2			
Revised sideboard (mt) during 2001-2007 = 1.682% of TAC	1696	1132	2828
Harvest Reductions to Comply with Sideboard (mt)	182	488	671
Harvest Reductions to Comply with Sideboard (% of Catch)	9.7%	30.1%	19.2%

1.3.3 Alternative 3

Alternative 3 would allow non-exempt AFA catcher vessels to continue to participate in the directed fisheries for GOA pollock and Pacific cod, but sideboards would be re-calculated based on retained catch by the non-exempt AFA sector during 2001-2005. Tables 32 and 33 show the estimated GOA pollock and Pacific cod sideboards limits under Alternative 3, and compare sideboard harvests during 2001-2007 to these revised sideboard limits. To comply with the annual sideboards for pollock and Pacific cod under Alternative 3, the baseline (2001-2007) pollock sideboard harvests would have been reduced by 7.9% in Area 620. The Area 610 and 630 pollock sideboard harvests during 2001-2007 would not have been reduced under Alternative 3. Pacific cod sideboard harvests would not have been

reduced in the Western Gulf or Central Gulf. Across all management areas, the total GOA pollock harvest by the non-exempt AFA CV fleet would have been reduced by 1,368 mt if Alternative 3 had been in effect during the 2001-2007 period instead of the no action alternative, while the total GOA Pacific cod harvest by the non-exempt AFA CV fleet would not have been reduced.

Table 32. Summary of impacts of Alternative 3 on non-exempt AFA CV pollock sideboards.

	Area 610				
	A season	B season	C season	D season	Total
Baseline Conditions 2001 - 2007					
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	5,303	1,390	10,734	13,629	31,057
TAC and sideboard harvests during 2001 - 2005					
Total TAC (mt) during 2001-2005	22,299	18,447	40,319	38,487	119,552
Total non-Exempt AFA CV catch (mt) during 2001-2005	4,346	397	8,781	10,986	24,511
Retained non-Exempt AFA CV catch (mt) during 2001-2005	4,295	397	8,769	10,934	24,395
Percent of TAC harvested during 2001-2005	19.3%	2.2%	21.7%	28.4%	20.405%
Projected Conditions under Alternative 3					
Revised Sideboard (mt) during 2001-2007 = 20.405% of TAC	6,330	5,544	11,950	11,576	35,399
Harvest Reductions to Comply with Sideboard (mt)	0	0	0	2,054	0
Harvest Reductions to Comply with Sideboard (% of catch)	0.0%	0.0%	0.0%	15.1%	0.0%
Area 620					
	A season	B season	C season	D season	Total
Baseline Conditions 2001 - 2007					
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	2,080	12,508	1,860	769	17,216
TAC and sideboard harvests during 2001 - 2005					
Total TAC (mt) during 2001-2005	46,351	46,152	19,963	18,881	131,347
Total non-Exempt AFA CV catch (mt) during 2001-2005	1,278	7,521	1,841	769	11,409
Retained non-Exempt AFA CV catch (mt) during 2001-2005	1,275	7,508	1,840	769	11,391
Percent of TAC harvested during 2001-2005	2.8%	16.3%	9.2%	4.1%	8.673%
Projected Conditions under Alternative 3					
Revised Sideboard (mt) during 2001-2007 = 8.673% of TAC	5,629	5,938	2,187	2,093	15,848
Harvest Reductions to Comply with Sideboard (mt)	0	6,570	0	0	1,368
Harvest Reductions to Comply with Sideboard (% of Catch)	0.0%	52.5%	0.0%	0.0%	7.9%
Area 630					
	A season	B season	C season	D season	Total
Baseline Conditions 2001 - 2007					
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	2,169	593	3,020	2,294	8,077
TAC and sideboard harvests during 2001 - 2005					
Total TAC (mt) during 2001-2005	18,621	9,578	26,972	25,538	80,709
Total non-Exempt AFA CV catch (mt) during 2001-2005	1,750	574	2,801	1,588	6,713
Retained non-Exempt AFA CV catch (mt) during 2001-2005	1,743	573	2,794	1,587	6,697
Percent of TAC harvested during 2001-2005	9.4%	6.0%	10.4%	6.2%	8.298%
Projected Conditions under Alternative 3					
Revised Sideboard (mt) during 2001-2007 = 8.298% of TAC	2,158	1,095	3,164	3,044	9,460
Harvest Reductions to Comply with Sideboard (mt)	12	0	0	0	0
Harvest Reductions to Comply with Sideboard (% of Catch)	0.5%	0.0%	0.0%	0.0%	0.0%

Table 33. Summary of impacts of Alternative 3 on non-exempt AFA CV Pacific cod sideboards.

	Western Gulf		
	A season	B season	Total
Baseline Conditions 2001 – 2007			
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	678	159	837
TAC and sideboard harvests during 2001-2005			
Total TAC (mt) during 2001-2005	44,951	29,967	74,918
Total non-Exempt AFA CV catch (mt) during 2001-2005	504	154	659
Retained non-Exempt AFA CV catch (mt) during 2001-2005	503	153	656
Percent of TAC harvested during 2001-2005	1.1%	0.5%	0.876%
Projected Conditions under Alternative 3			
Revised Sideboard (mt) during 2001-2007 = 0.876% of TAC	584	390	974
Harvest Reductions to Comply with Sideboard (mt)	94	0	0
Harvest Reductions to Comply with Sideboard (% of Catch)	13.9%	0.0%	0.0%

	Central Gulf		
	A season	B season	Total
Baseline Conditions 2001 – 2007			
Total non-Exempt AFA CV Catch, 2001-2007 (mt)	1,879	1,621	3,499
TAC and sideboard harvests during 2001-2005			
Total TAC (mt) during 2001-2005	70,165	46,864	117,029
Total non-Exempt AFA CV catch (mt) during 2001-2005	1,308	1,514	2,821
Retained non-Exempt AFA CV catch (mt) during 2001-2005	1,282	1,474	2,756
Percent of TAC harvested during 2001-2005	1.8%	3.1%	2.355%
Projected Conditions under Alternative 3			
Revised Sideboard (mt) during 2001-2007 = 2.355% of TAC	2,375	1,585	3,960
Harvest Reductions to Comply with Sideboard (mt)	0	35	0
Harvest Reductions to Comply with Sideboard (% of Catch)	0.0%	2.2%	0.0%

1.3.4 Alternative 4

Alternative 4 would deny non-exempt AFA catcher vessels access to the directed GOA Pacific cod and pollock fisheries. Non-exempt AFA catcher vessels would be allowed to continue to harvest GOA Pacific cod and pollock as incidental catch in other directed groundfish fisheries.

1.4 Net Benefits to the Nation

This section presents a discussion of the net economic effects under each of the alternatives.

Under the status quo (Alternative 1), the existing GOA Pacific cod and pollock sideboards for non-exempt AFA catcher vessels would be maintained. Under this alternative, the non-exempt AFA catcher vessel fleet has the potential to increase its harvests of GOA pollock and Pacific cod at some future time up to the sideboard limits. This increase could contribute to losses of production efficiency due to an increased race for fish. Costs could rise slightly if other participants in the GOA pollock and Pacific cod fisheries, including exempt AFA vessels and non-AFA vessels, perceive a need to increase rates of effort to maintain their historical share of the overall catch. The increase in effort could contribute to more aggressive fishing practices (e.g., plugging nets, less care for catch brought on board) that lower product quality. The extent of these possible effects is very difficult to predict and depends on several factors, including future TACs and market conditions.

Alternatives 2 and 3 would allow non-exempt AFA catcher vessels to continue to conduct directed fisheries for GOA pollock and Pacific cod, though at reduced levels. More restrictive sideboard limits would negatively affect entities in the non-exempt AFA CV fleet, compared to the no action alternative,

although it is uncertain whether such differences would be significant for the fleet as a whole. Reducing the sideboard limits for pollock and Pacific cod would disproportionately burden those non-exempt AFA CVs which rely to a great extent on the GOA pollock and Pacific cod fisheries.

The analysis of the likely outcomes of the alternatives presented in section 1.2 indicates that Alternative 2 would have an overall greater negative effect on entities in the non-exempt AFA CV fleet than Alternative 3. Alternative 4 would deny non-exempt AFA catcher vessels access to the directed GOA Pacific cod and pollock fisheries. The majority of sideboard catch consists of directed catch. Alternative 4 would have a significant, negative impact on the gross revenues of non-exempt AFA catcher vessels that have significant reliance on these directed fisheries.

Differences among the alternatives for revising the non-exempt AFA CV sideboards may result in distributional gains and losses across sectors. Given the open access nature of the GOA pollock and Pacific cod fisheries and the capacity that exists in other fleets, any harvest forgone by the non-exempt AFA CV fleet would almost certainly be harvested by members of the exempt AFA and non-AFA fleets. Consequently, the options to revise the non-exempt AFA sideboards essentially represent a tradeoff between AFA and non-AFA vessels. Reductions in the sideboard limits for non-exempt AFA catcher vessels under Alternatives 2, 3 and 4 would be offset, as the exempt AFA and non-AFA sectors would realize that amount of gain in the amount of harvest available to them. While relative operating costs and other factors may affect the “net” results of such trade-offs, the net benefits to the Nation would be expected to tend towards neutral. Losses experienced by the non-exempt AFA CV fleet would be offset by the gains experienced by the exempt AFA and non-AFA fleets.