

# **What is the Appropriate Pollock Incidental Catch Allowance in the Aleutian Islands?**

## **A Discussion Paper**

Prepared by the Sustainable Fisheries Division of the NMFS at the request of the North  
Pacific Fishery Management Council

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## **Executive Summary**

At its June 2004 meeting the North Pacific Fishery Management Council (Council) requested a discussion paper on future Aleutian Islands subarea incidental catch allowance (ICA) needs. The pollock ICA in the Aleutian Islands (Statistical areas 541, 542, and 543) has been 1,000 metric tons (mt) in recent years. This ICA has been exceeded in three of the five years between 1999 and 2003. The ICA has already been exceeded for 2004. Under Bering Sea and Aleutian Islands (BSAI) FMP Amendment 82, the ICA will count directly against the likely 19,000 mt pollock total allowable catch (TAC). An increase in the ICA to ensure that it exceeds likely ICA needs means that the share of the TAC available for the directed pollock fishery will be reduced.

Almost all of the pollock incidental catch in the Aleutian Islands is from the Pacific cod, Pacific ocean perch, and Atka mackerel fisheries, in that order. The average annual incidental catch of pollock in the Pacific cod fishery was 646 mt from 1999 to 2003. The annual incidental catch of pollock in the Pacific ocean perch fishery was 332 mt during the period. The annual incidental catch of pollock in the Atka mackerel fishery was 190 mt during the period. Average annual incidental catches overall were 1,169 mt during this period.

About 70 percent of the pollock incidental catch in the AI is taken in the A season (January 1 to June 10). For the years 2000 to 2004, the A season average catch was 73 percent with the least amount taken in 2001 at 414 mt (41 percent of the ICA) and the highest amount taken in 2003 at 981 mt (98 percent of the ICA).

Evidence on trawl hauls, that could be described as pollock hauls, taking place on directed fishing trips for these three species is consistent with some level of targeting of pollock for topping off purposes. The introduction of the directed pollock fishery in the region may not change fishermen's incentives for topping off. Under some circumstances, it may create incentives for the Aleut Corporation to try and control topping off with its influence over buyers of Pacific cod (otherwise, when it was possible that the full pollock TAC would be harvested, the Aleut Corporation might lose pollock royalties).

The stability of the Pacific cod, Atka mackerel and POP TACs, catch, and effort in the AI in the recent past and foreseeable future are one factor to consider in determining if the pollock incidental catch will remain consistent with past levels. An increase in the ICA may be justified, since the incidental catch amounts have exceeded the ICA in four of the last six years. The difficulty of evaluating the other variables affecting the pollock incidental catch require an ICA to be set at a conservative enough level that allows for unforeseeable fluctuations. Based on these factors NMFS recommends an ICA of 2,000 mt.

## **Introduction**

In June 2004, the North Pacific Fishery Management Council (Council) took final action on amendments to the Bering Sea and Aleutian Islands (BSAI) Groundfish Fishery Management Plan (FMP), and regulatory amendments, to make it possible to make future allocations of Aleutian Islands (AI) pollock to the Aleut Corporation. These amendments were necessary to implement requirements in the 2004 Consolidated Appropriations Act requiring that future allocations for directed pollock fishing in the AI be made to the Aleut Corporation for the purpose of the economic development of the community of Adak.

The Council's action created an AI pollock total allowable catch (TAC) of 19,000 mt if the acceptable biological catch (ABC) were equal to or greater than 19,000 mt, and a TAC less than or equal to the ABC if the ABC were less than 19,000 mt. The TAC is to provide for an Aleut Corporation directed pollock fishery, and for an incidental catch allowance (ICA) of pollock for other target fisheries that take pollock incidentally in their operations.

The directed pollock fishery in the AI (Statistical Areas 541, 542, and 543) has been closed since 1999. The only pollock harvested legally since 1999 in the AI has been taken as incidental catch in fisheries for other species, principally the Pacific cod fishery, the Pacific ocean perch (POP) fishery, and the Atka mackerel fishery. In recent years the Council has recommended, and the Secretary has adopted, ICAs of 1,000 mt of pollock.

Since the closure of the directed pollock fishery, the incidental catch of pollock has exceeded the ICA guideline several times. In 2003, the incidental catch of pollock was almost 1,700 mt. Under these circumstances, NMFS Alaska Region in-season managers have considered requesting an increase in the ICA to 2,000 mt. Under the new pollock fishing rules for the AI, an increase in the AI pollock ICA would mean a direct decrease in the directed pollock fishing allocation to the Aleut Corporation.

In light of this, at its June meeting the Council requested this discussion paper on AI pollock ICA needs.

## **Rules governing pollock incidental catch in the AI**

### *Maximum retainable amounts (MRA)*

Regulations at 50 CFR 679.20(e) establish rules for calculating and implementing MRA amounts for groundfish species or species groups that are closed to directed fishing. The MRA amount is calculated as a percentage of the retained amount of species closed to directed fishing relative to the retained amount of basis species or species groups open for directed fishing. Table 11 in 50 CFR 679 lists retainable percentages for BSAI groundfish species. For all species except arrowtooth flounder the pollock MRA is 20 percent of the basis species. This percentage was derived as a balance between three factors: the information on incidental catch rates, the intent to slow catch rates and the desire to limit regulatory discards. Amounts that are caught in excess of the MRA percentage must be discarded. Regulations limit vessels to MRA amounts at any time during a fishing trip. Under regulations implementing Amendment 49 to the FMP, vessels must retain all incidental catch of pollock and Pacific cod up to the MRA amount and discard the rest.

A final rule effective July 14, 2004, adds regulations at 50 CFR 679.20(e)(3)(iii) to make the MRA for pollock caught by non-American Fisheries Act (AFA) eligible vessels in the BSAI management area enforceable at the time of offload. This action is intended to increase the retention of pollock by non-AFA vessels in the BSAI, while not increasing the overall amount of pollock harvested. The MRA for pollock caught in the BSAI by non-AFA vessels is enforced at the time of offload rather than at any time during a fishing trip. Under these regulations, vessels will be able to choose to retain pollock in excess of the MRA as long as the amount retained at the time of offload is at the specified MRA percentage with respect to basis species or species groups retained. By allowing vessels to manage their MRA percentage for pollock on an offload-to-offload basis, additional pollock may be retained over the course of a fishing trip. For example, if a vessel operator catches pollock early in a trip in excess of the MRA amount, he or she may choose to retain the pollock and move to an area with lower incidental catch rates of pollock, thereby lowering the percentage of pollock retained, with respect to other basis species, prior to the offloading of catch. As long as the amount of pollock on board the vessel is at or below the appropriate MRA at the time of offload, the vessel operator would be in compliance.

The amount of pollock caught by non-AFA eligible vessels will continue to be well documented. Should pollock incidental catch rates or amounts increase in a manner that would require an increase in the ICA, the Council could initiate regulatory action to reduce incidental catch rates to levels closer to historical amounts. Any adjustment to the ICA would occur within the annual specification process.

#### *ICA rules and determination*

Since the implementation of the AFA in 1999, the pollock ICA has been allocated by NMFS in the specifications for the BSAI. The ICAs for the Bogoslof District and AI have been set equal to the amounts recommended by the Council and adopted by NMFS. For the Bering Sea subarea, the pollock TAC is allocated in the following order: the Community Development Quota (CDQ) reserve, the ICA, and the directed fishing allowances for the catcher processor, mothership and inshore sectors.

The Bering Sea subarea ICA is determined based on an examination of the incidental catch of pollock in non-pollock target fisheries (including non-pollock CDQ fisheries) over a range of the most current years. The ICA has ranged from 6 percent in 1999 to 3 percent in 2004. The 2004 final specifications for groundfish of the BSAI list the low, high, and average amount of pollock incidental catch over a range of years. For 2004, NMFS allocated a pollock ICA of 3 percent of the Bering Sea subarea pollock using catch from 1998 through 2003. During this 6-year period, the incidental catch of pollock ranged from a low of 3 percent in 2003, to a high of 5 percent in 1999, with a 6-year average of 3.6 percent. If the ICA has been set too high or too low, the Regional Administrator may reallocate ICA to the directed fishing allowance, or vice versa. In September or October of each year since 1999, the Regional Administrator has reallocated from the ICA to the directed fishing allowances for all the non-CDQ sectors (catcher processor, inshore and mothership). The amounts of the reallocations have ranged from 2,000 mt in 1999 to 12,000 mt in 2001. No reallocations have been made from the directed fishing allowance to the ICA.

#### **Historical incidental catch rates**

Table 1 shows that total incidental catches of pollock in the AI exceeded 1,000 mt in three of the five years between 1999 and 2003. During this period, total incidental catch ranged between 824

mt in 2001 to 1,652 mt in 2003. By September 5, 2004, total incidental harvests had reached 1,013 mt.

Table 1 shows that almost all of this incidental catch was taken in the Pacific cod, POP, and Atka mackerel fisheries. From 1999 to 2003, the Pacific cod fishery had average incidental pollock harvests of 648 metric tons, the POP fishery had average harvests of 332 mt, and the Atka mackerel fishery had average harvests of 190 mt. Incidental harvests of pollock were very small in other AI groundfish fisheries.

Table 3 summarizes the incidental catch rates for these three fisheries, broken out by statistical area within the AI, and by year. Over the period 1999 to 2003:

- The rates in the Pacific cod fishery ranged from almost nothing in Area 543 in 1999, to 0.05 mt of Pollock per mt of groundfish in Pacific cod target fisheries in Area 542 in 2003.
- The rates in the POP fishery tended to be somewhat higher than the Pacific cod rates. These ranged from 0.002 mt of pollock per mt of groundfish caught in POP target fisheries in Area 543 in 2002, to 0.075 in Area 542 in 2000 and 2003.
- The rates in the Atka mackerel fishery were lower than those in the other two fisheries. These ranged from almost nothing in Area 541 in 1999 and 2004, to 0.008 in Area 542 in 2003.

About 70 percent of the pollock incidental catch in the AI is taken in the A season (January 1 to June 10). For the years 2000 to 2004, the A season average catch was 73 percent with the least amount taken in 2001 at 414 mt (41 percent of the ICA) and the highest amount taken in 2003 at 981 mt (98 percent of the ICA).

**Table 1. Incidental pollock catches in Aleutian Islands areas 541, 542, and 543  
(Amounts in metric tons)**

Year	Area	Atka mackerel	Pacific cod	Rockfish (POP)	All other targets	Total by area	AI annual total
1998	541	1	276	4	0	282	680
	542	59	27	126	0	212	
	543	168	1	16	-	185	
1999	541	5	462	16	1	484	950
	542	72	33	255	0	361	
	543	26	-	79	-	105	
2000	541	29	567	18	2	615	1,244
	542	122	152	187	0	461	
	543	20	106	42	-	169	
2001	541	13	230	90	0	332	824
	542	66	121	199	0	386	
	543	32	37	36	1	105	
2002	541	3	704	154	1	862	1,177
	542	101	14	66	0	182	
	543	116	6	11	0	133	
2003	541	24	422	121	1	568	1,652
	542	232	338	189	0	758	
	543	86	38	201	1	326	
2004 (up to September 5)	541	2	303	0	-	389	1,013
	542	135	153	58	0	434	
	543	32	78	-	-	190	
Average (1999-2003)	541	15	477	80	1	572	1,169
	542	119	132	179	0	442	
	543	56	37	74	0	168	
	Overall	190	646	332	1		

Source: NMFS Alaska Region blend and catch accounting system

**Table 2. Total groundfish catch by target in Aleutian Islands areas 541, 542, and 543 (Amounts are in metric tons)**

Year	Area	Atka mackerel	Pacific cod	Rockfish (POP)	All other targets
1998	541	11,232	24,422	1,736	898
	542	22,576	9,341	2,442	752
	543	29,599	1,219	4,736	24
1999	541	17,072	22,074	2,850	1,482
	542	24,040	5,357	4,124	908
	543	20,895	1,568	6,995	8
2000	541	16,306	23,292	2,315	2,018
	542	26,402	9,332	2,491	1,045
	543	12,716	9,810	4,828	334
2001	541	9,079	15,862	3,390	1,99
	542	35,228	8,138	3,192	03
	543	26,115	14,293	3,228	48
2002	541	4,376	24,164	3,490	1,48
	542	24,898	6,927	3,106	648
	543	22,147	2,104	5,031	462
2003	541	5,523	24,570	4,681	1,01
	542	29,277	6,801	2,503	606
	543	21,737	2,763	5,633	94
2004 (up to September 5)	541	2,700	19,550	2,732	711
	542	24,513	4,736	2,907	404
	543	7,995	3,745	4,291	5
Source: NMFS Alaska Region blend and catch accounting system					

**Table 3. Pollock incidental catch rates in other target fisheries in Aleutian Islands areas 541, 542, and 543**

Year	Area	Atka mackerel	Pacific cod	Rockfish (POP)	All other targets
1998	541	0.000	0.011	0.002	0.000
	542	0.003	0.003	0.051	0.000
	543	0.006	0.001	0.003	0.000
1999	541	0.000	0.021	0.006	0.000
	542	0.003	0.006	0.062	0.000
	543	0.001	0.000	0.011	0.000
2000	541	0.002	0.024	0.008	0.001
	542	0.005	0.016	0.075	0.000
	543	0.002	0.011	0.009	0.000
2001	541	0.001	0.014	0.026	0.000
	542	0.002	0.015	0.062	0.000
	543	0.001	0.003	0.011	0.015
2002	541	0.001	0.029	0.044	0.001
	542	0.004	0.002	0.021	0.001
	543	0.005	0.003	0.002	0.000
2003	541	0.004	0.017	0.026	0.001
	542	0.008	0.050	0.075	0.000
	543	0.004	0.014	0.036	0.007
2004 (up to September 5 )	541	0.001	0.015	0.031	0.000
	542	0.006	0.035	0.050	0.000
	543	0.004	0.021	0.036	0.000
Average (1999-2003)	541	0.002	0.021	0.022	0.001
	542	0.004	0.018	0.059	0.000
	543	0.003	0.006	0.014	0.004

## **Are some operations targeting pollock?**

In the fisheries for Pacific cod, POP, and Atka mackerel, additional revenue may be earned by making deliveries of pollock taken incidentally in those target fisheries, so long as the pollock deliveries do not exceed the MRA. A fisherman who has not exceeded the MRA may find that it is profitable to spend part of the trip deliberately targeting pollock until the MRA is reached. The trawl gear used for these other species can also be used for pollock. Bottom gear is not a legal gear for directed pollock fishing, but as long as the trip as a whole is predominately for another target species, the fisherman would not be involved in a targeted pollock fishery if the MRA were not exceeded. Thus, there is an incentive in some circumstances for fishermen to target pollock. This may account for the large volume of pollock harvested in 2003.

A trawler taking a fishing trip for a species other than pollock may legally make individual hauls that are primarily pollock. In some instances, these hauls may be inadvertent. In others, if the fisherman had not reached his MRA, the hauls may have deliberately targeted pollock so as to “top off.” Over the period 2002 through August 20, 2004, fishermen in the AI Pacific cod fishery caught 1,114 mt of pollock in observed hauls identified as pollock hauls. During the same period, fishermen in the POP fishery caught 189 mt in observed hauls identified as pollock hauls, and fishermen in the Arrowtooth flounder fishery took 56 mt in observed pollock hauls. These volumes do not necessarily indicate topping off behavior; as noted, some hauls may be primarily pollock by accident.

As noted in Table 1, incidental pollock catches during this period were 3,842 mt. Thus, incidental pollock catches in observed hauls where the size of the pollock catch identified the haul as a pollock haul accounted for about a third of the incidental catch.

## **Will the new AI directed pollock fishery reduce topping off with pollock?**

The new directed pollock fishery in the AI gives fishermen who operate in those waters, and who want to harvest pollock, a new opportunity to do so. However, fishermen may only participate in the AI directed pollock fishery (excluding potential Community Development Quota harvests) with the permission of the Aleut Corporation. The Aleut Corporation has complete discretion over who may target AI pollock, and to whom they may be delivered. This should enable it to earn for itself the bulk of any rents or income associated with the AI pollock TAC.

A fisherman who tops off a trip on pollock while fishing for another target species, by deliberately harvesting some or all of the available pollock MRA does not have to compensate the Aleut Corporation for the pollock. A fisherman who wants access to the Aleut Corporation’s rights to the directed pollock fishery will have to do so.

If the Aleut Corporation expects to harvest the total directed pollock fishery quota during the year, it loses control over, or income from, pollock TAC to the extent that it is harvested as incidental catch in another target fishery, and is not available for the directed fishery. To the extent that firms affiliated with the Aleut Corporation provide the market for these target fisheries, the Aleut Corporation may be able to discourage incidental pollock catches. The corporation’s influence may be greatest in the Pacific cod fishery, and less in the Atka mackerel and POP fisheries because catcher/processors account for most of the effort in these fisheries. If the Aleut Corporation does not expect that the full TAC for the AI will be harvested, it may have less interest in discouraging incidental catches of pollock.

On balance, the incentives fishermen have for topping off do not appear to be changed under this program. Under certain circumstances, the Aleut Corporation may have an incentive to discourage it.

### **Implications for 2005 and 2006 incidental catch allowances<sup>1</sup>**

The Council review draft for the 2005-2006 specifications (NMFS, 2004) estimates Alternative 2 (the preferred alternative) 2005 AI TACs of 49,470 mt for Atka mackerel and 10,097 mt for POP. The specifications provide for a BSAI Pacific cod allocation of 225,500 mt (NMFS 2004, Table 2.2.2-1). The corresponding 2006 specifications TAC estimates are 44,180 mt for Atka mackerel, 10,223 mt for POP, and 220,500 mt for Pacific cod. (NMFS 2004, Table 2.2.3-1).

The stability of the Pacific cod, Atka mackerel and POP TACs, catch, and effort in the AI in the recent past and foreseeable future are one factor to consider in determining if the pollock incidental catch will remain consistent with past levels. An increase in the ICA may be justified, since the incidental catch amounts have exceeded the ICA in four of the last six years. The difficulty of evaluating the other variables affecting the pollock incidental catch require an ICA to be set at a conservative enough level that allows for unforeseeable fluctuations. Based on these factors NMFS recommends an ICA of 2,000 mt.

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<sup>1</sup> Under BSAI and GOA FMP Amendments 48/48, the Council will be making 18 month to two year specifications for the first time in the fall of 2004. This section, therefore, looks at a two year time period.

## **References**

National Marine Fisheries Service. 2004. "Council Review Draft Environmental Assessment/Initial Regulatory Flexibility Analysis for the Harvest Specifications for the Years 2005-2006 Alaska Groundfish Fisheries Implemented Under the Authority of the BSAI and GOA Groundfish Fishery Management Plans." Juneau. September 2004.