Northern Victor Fleet Cooperative C/o Icicle Seafoods, Inc. P.O. Box 79003 Seattle, WA 98119 February 1, 2010

Mr. Chris Oliver Executive Director North Pacific Fishery Management Council 605 West 4th Avenue, Suite 306 Anchorage, AK 99501-2252

Dear Chris:

Enclosed is the final 2009 annual report for the Northern Victor Fleet Cooperative.

Sincerely,

NORTHERN VICTOR FLEET COOPERATIVE

Patricia M. Hardina

President

Enclosures (as noted)

FINAL

NORTHERN VICTOR FLEET COOPERATIVE

2009 REPORT TO THE

NORTH PACIFIC FISHERY MANAGEMENT

COUNCIL

SUBMITTED FEBRUARY 1, 2010

COOPERATIVE ORGANIZATION.

A. <u>Legal Obligations</u>

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The Northern Victor Fleet Cooperative (the "Cooperative") was formed on December 20, 1999 with ten member vessels and an Agreement to Process with Icicle Seafoods, Inc., the owner of the P/V NORTHERN VICTOR. The Membership Agreement, as amended by the Membership Agreement Addendum dated as of January 30, 2006, and that First Amendment to Membership Agreement dated as of February 29, 2008, remained in effect for 2009. Icicle Seafoods, Inc. signed the 2009 Agreement to Process effective December 1, 2008 (copy attached).

B, 2009 Membership.

Member	Vessel	AFA Permit Number
Evening Star, Inc.	American Eagle	434
Evening Star, Inc.	Anita J	1913
James & Sandra Schones	Collier Brothers	2791
Evening Star, Inc.	Commodore	2657
Golden Tide, Inc.	Gold Rush	1868
Evening Star, Inc.	Half Moon Bay	249
Miss Berdie, Inc.	Miss Berdie	3679
Fury Group, Inc.	Nordic Fury	1094
Fury Group, Inc.	Pacific Fury	421
Johannessen Enterprise, Inc.	Poseidon	1164
Royal Atlantic LLC	Royal Atlantic	236
Evening Star, Inc.	Storm Petrel	1641
Evening Star, Inc.	Sunset Bay	251

C. Member Obligations.

In the Membership Agreement, each Member agrees not to exceed its allocation of pollock or its allocation of cap amounts for species in sideboard fisheries. It agrees to base allocations on pro rata catch history that each Member brings to the Cooperative, to recognize exemptions and the authorization for vessels under 99 feet to fish inside the Steller sea lion critical habitat forage area, and to recognize the right of each Member to deliver up to 10% of its annual pollock allocation to a pollock processor other than Icicle Seafoods. Each Member agrees that transfers of allocations between Members are authorized so long as notification is given to the Cooperative President, Icicle Seafoods, the Intercooperative Manager, and Sea State, Inc., the monitoring service for the Intercooperative Group.

D. Member and Board Meetings.

The Members met on January 8, 2009, in Seattle and elected the following five directors to serve as the Board of Directors for 2009: John Woodruff, Pat Hardina, Norman Johannessen, Bert Ashley, and Mike Stone. For 2009, the Members approved the extension of and changes to the Intercooperative Agreement, the Intercooperative agreement on allocations of P. cod and halibut PSC, and the Intercooperative agreement on salmon bycatch reduction.

The Board of Directors met on January 8, 2009. The Board elected the following officers: Pat Hardina as President, Norman Johannessen as Vice President, and John Woodruff as Secretary/Treasurer. The Board selected Pat Hardina as the Cooperative's designated representative for dealing with the National Marine Fisheries Service and Cooperative representative to the Intercooperative Group, and approved the selection of an on-board manager.

E. Cooperative Operations.

Prior to each of the A and B Seasons, the President prepared spreadsheets for pollock allocations to each vessel, divided into allocations inside and outside the Stellar sea lion critical habitat forage area as appropriate, and divided into the A and B Seasons. At various times during the year, the President also prepared spreadsheets allocating the Bering Sea and Aleutian Islands Pacific cod fishery to each vessel and revised both pollock and cod spreadsheets as necessary if reserves were released. The President also prepared a spreadsheet allocating to each vessel a cap for halibut PSC in the Pacific cod fishery.

On board the P/V NORTHERN VICTOR, the on-board manager worked with each of the Member vessels, providing them with information about the allocations and changes of allocations, and about the amount remaining in each vessel's allocations. The manager entered all landings into a spreadsheet that contained each vessel's quota allocation for pollock and cod, each vessel's quota subdivision into inside and outside critical habitat, and the landed pounds for each vessel. The spreadsheet was always available to vessel skippers and was emailed to the Cooperative President on a daily basis. The manager also reported all landings to the National Marine Fisheries Service and to Sea State, Inc., the Intercooperative Group's monitoring service.

During the year, transfers of pollock allocations and cod cap allocations occurred. All transfers were approved by the President and implemented by the on-board manager. At the end of each of the A and B Seasons, the manager, in consultation with the Cooperative President and the Fleet Manager, designated one or two vessels to make the last trip or trips to catch the remaining pollock quota amounts for all Cooperative vessels. This approach ensured that the Cooperative did not exceed its allocations.

Table 1, attached, shows each vessel's initial allocation, harvest, and intra-cooperative transfers of BSAI pollock and cod. Cod figures are not provided for the F/V Nordic Fury and F/V

Pacific Fury because their cod catches are reported through the Mothership Cooperative. Transfers within the Cooperative resulted in some vessels catching more or less than their original allocation, with the Cooperative as a whole remaining under its aggregate allocation.

II. SIDEBOARD FISHERY CAPS AND CATCHES.

Tables 2-8, attached, provide details on the Cooperative vessels' activity in sideboard fisheries in the Bering Sea and Gulf of Alaska in 2009. All figures shown are by metric ton (mt) or by number (n).

Table 2 shows each vessel's catch and bycatch in the Bering Sea directed Pollock fishery.

Table 3 shows each vessel's catch and bycatch in the Bering Sea directed Cod fishery.

Table 4 shows each vessel's landed and discard weight for all Bering Sea groundfish species harvested.

Table 5 shows the Cooperative's landed and discard weight for all Bering Sea groundfish species harvested.

Table 6 shows each non-exempt vessel's catch and bycatch in the Gulf of Alaska Pollock fishery.

Table 7 shows each non-exempt vessel's landed and discard weight for all Gulf of Alaska groundfish species harvested.

Table 8 shows the Cooperative's landed and discard weight for all Gulf of Alaska groundfish species harvested by non-exempt vessels.

III. PENALTY STRUCTURES.

The Cooperative's Members recognized the critical importance of strong commitments by each Member to comply with pollock allocations, cod cap allocations, and limits in all sideboard fisheries for pollock in the Gulf of Alaska, non-pollock groundfish in the Bering Sea/Aleutian Islands and the Gulf of Alaska, and crab. The Cooperative took three approaches to ensuring compliance. First, each Member made a specific commitment in the Membership Agreement to comply with all allocations and limits. Second, the practical operation of the Cooperative and the constant availability of up-to-date data on landings minimized the possibility of error. Third, the Members set forfeiture amounts, for any catches that exceed an allocation of quota or a cap amount, of 150% of the ex-vessel value for pollock, \$1,000 per metric ton for P. cod, and \$300 per metric ton for other groundfish.

IV. <u>SALMON BYCATCH.</u>

Information about the compliance audit described at 50 CFR §679.21(g)(6)(vi) and the number of salmon avoided as demonstrated by the movement of fishing effort away from the salmon savings areas is provided separately in the AFA Catcher Vessel Intercooperative Annual Report to the North Pacific Fishery Management Council, a copy of which is attached. The Cooperative has not been advised that it had any closure area compliance violations in 2009.

Table 9, attached, shows the aggregate number of salmon taken by species and season while fishing for Pollock for all vessels in the Cooperative in 2009.

Table 10, attached, shows the number of times each Cooperative vessel appeared on the weekly dirty 20 list during each of the "A" and "B" seasons for Chinook and Chum.

V. <u>CONTACT INFORMATION.</u>

Questions regarding information in this report may be directed to Pat Hardina, Icicle Seafoods, Inc., at 206-281-5372 or path@lcicleSeafoods.com.

AGREEMENT TO PROCESS

This AGREEMENT TO PROCESS is entered into as of December 1, 2008 by Icicle Seafoods, Inc., an Alaska corporation ("Icicle"), with reference to the following facts:

- A. The American Fisheries Act (the "Act") authorizes the Secretary of Commerce to reserve portions of the Bering Sea/Aleutian Islands ("BS/AI") pollock inshore directed fishing allowance for harvesting only by members of qualifying fishery cooperatives.
- B. Under the Act, a contract implementing a qualifying fishery cooperative must specify that: (i) other than as permitted under Section 210(b)(6) of the Act, the cooperative's catcher vessels will deliver pollock in the BS/AI directed pollock fishery only to the processor to which such vessels delivered more pollock than to any other AFA inshore processor in the last year in which the vessels engaged in directed fishing for pollock in the BS/AI for delivery to the inside sector, and (ii) such processor has agreed to process such pollock.
- C. The owners of eighty percent (80%) of the catcher vessels that delivered more pollock to the P/V NORTHERN VICTOR, a processing vessel owned by Evening Star, Inc., a wholly-owned subsidiary of Icicle, in the last year in which the vessels engaged in directed fishing for pollock for delivery to the inside sector have agreed, subject to the provisions of Section 210(b)(6) of the Act and related provisions in the Northern Victor Fleet Cooperative (the "Cooperative") Membership Agreement, to deliver pollock from the BS/AI directed pollock fishery only to the P/V NORTHERN VICTOR.
- D. Icicle is willing to agree to process the BS/AI directed pollock fishery harvest of the Cooperative's members' vessels, to enable the Cooperative to obtain an allocation of BS/AI pollock under Section 210 of the Act.

Now, therefore, Icicle hereby agrees to purchase and process pollock harvested in the BS/AI directed pollock fishery by the Cooperative's members' catcher vessels, on terms and conditions to be agreed upon by and between Icicle and such vessels' owners. Icicle hereby acknowledges and agrees that, pursuant to Section 210(b)(6) of the Act and subject to provisions of the Membership Agreement, such vessels may deliver up to ten percent (10%) of the Cooperative's BS/AI pollock allocation to qualified shoreside processors other than Icicle.

ICICLE SEAFOODS, INC.

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Table

Vessel Name	Initial Pollock Allocation	Pollock Harvest	Transfers	Initial Cod Allocation	Cod : ⊤ Harvest :	Fransfers
AMERICAN EAGLE	3.773	3,562	-211	909	35	490
ANITAJ	1.920	4,918	2 998	: : [-47
COLLIER BROTHERS	434	0	0	† o		0
COMMODORE	4,419	5,250	831	593	165	-354
GOLD RUSH	1,501	1,583	82	411	63	
HALF MOON BAY	1,914	0	-1,914		870	490
MISS BERDIE	2,117	854	-1,263		0	0
NORDIC FURY	. 254	431	177	唱	nfa	nía
PACIFIC FURY	203	0	-180	 	n/a	nía
POSEIDON	4,332	4,383	51	397	145	0
ROYAL ATLANTIC	4,602	4,676	74	621	27	0
STORM PETREL	4,308	5,435	1,127	490	24	45
SUNSET BAY	1,772	0	-1,772	439	830	446
TOTALS	31,549	31,092	0	4,243	2.166	0

Table 2 - BSAI Pollock

Vessel	Landed + Discards	Pollock (mt)	A season Chinook (N)	B season Chinook (N)	A season B season Other Other salmon salmon (N) (N)		Halibut mortality (mt)	King crab (N)	Bairdi (N)	Opilio (N)	Herring (mt)
AMEBICAN EAGLE	3 722	3 562	23	17		393	1	0	5	9	0
ANITA I	5.078				0	2,109	-	1	9	11	2
COMMODORE	5.396			13	0	2,434	3	1	14	10	19
GOLD RUSH	1,625		32	2	0	116	1	0	9	2	0
MISS BERDIE	934			0	0	0	1	0	2	t)	0
NORDIC FURY	437		43	0	0	_	0	0	4	2	Ō
POSEIDON	4,528	4	109	11	0	286	2	0	6		7
ROYAL ATLANTIC	4,801	4,676	53	4	0	226	1	-	8	55	0
STORM PETREL	5,572	5,435	80	3	0	1,386	3		12	•	
					\c	6.051	14		99	64	
IOIALS	32,033	260,10					-	<u>'</u>			

Table 3 - BSAl Cod

Vessel	Landed + Discards	Cod (mt)	Chinook (N)	Other	Halibut mortality	King crab Bairdi (N) (N)	Bairdi (N)	ojlido (X)	Herring (mt)
				(N)	(IMI)			7	7
AMERICAN EAGLE	122	35	0	Ð	5	>	4	•	5
ANITA	25	L.*	0	0	0	0		0	0
COMMODORE	172	165	•	0	0	O	¢	0	<u>-</u>
HOLIST CHOOL	83		¢	0	_	0	57	32	Ф
HAJ E MOON BAY	1.070		0	0	ð	0	529	586	0
POSEIDON	194		0	0	_	0	S	2	0
POSCIDOR POVAL ATT ANTIC	8		2	0	0	0	5	7	0
STORM PETRE	88	24	0	0	0	0	т		0
SUNSET BAY	1,080		_	0	<i>L</i> *	O.	570	442	0
				 			1	4 4 3 6	C
TOTALS	2,864	2,167	4	0	EL.	7	1,441	1,227	7

Table 4 - BSAI by Vessel

→ Pat Lara

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FMDAres	Veccel Name	Group/Description	Landed Wt	Discard Wt	Total Wit
BSAI	AMERICAN EAGLE	AKPlaice BSAI	0	0	0
BSAI	AMERICAN EAGLE	Arrowtooth BSAI	5	_	9
BSA	AMERICAN EAGLE	Flathead BSAI	38	2	41
BSA	AMERICAN EAGLE	Mackerel BS/541	0	0	0
BSA	AMERICAN EAGLE	Northern BSAI	0	0	0
BSA	AMERICAN EAGLE	Oflats BSAI	4	0	4
BSAI	AMERICAN EAGLE	ORockfish BS	0	0	0
BSAI	AMERICAN EAGLE	Otherspec BSAI	28	=	33
BSAI	AMERICAN EAGLE	Pcod BSAI	70	•	7.1
BSA	AMERICAN EAGLE	Poilock Al		_	_
BSAI	AMERICAN EAGLE	Pollock BS	3,621	76	3,697
BSA	AMERICAN EAGLE	POP BS	0	0	0
BSAI	AMERICAN EAGLE	Rocksole BSAI	109	80	117
BSAI	AMERICAN EAGLE	Squid BSAI	7	0	
BSAI	AMERICAN EAGLE	Turbot BS	0	0	0
BSA	AMERICAN EAGLE	Yellowfin BSAI	-	0	_ '
BSAI	ANITA J	AKPlaice BSAI	Û	0	0
BSAI	ANITA J	Arrowtooth BSAI	Q	0	9
BSAI	ANITAJ	Flathead BSAI	14	•	14
BSA	ANITA J	Mackerel BS/541	0	0	D
BSAI	ANITAJ	Northern BSAI	0	0	-
BSAI	ANITA J	Offats BSAI	-	0	7 (
BSAI	ANITAJ	ORockfish BS	0	0	0
BSA	ANITAJ	Otherspec BSAI	25	4	29
BSA	ANITAJ	Pcod BSAI	55	•	92
BSAI	ANITAJ	Pollock Al		•	
BSAI	ANITA J	Pollock BS	4,918	ω	4,926
BSAI	ANITAJ	POP BS	0	0	0 (
BSAI	ANITAJ	Rocksole BSAI	20	2	52
BSAI	ANITA J	Squid BSAI	Ф	0	D (
BSA	ANITA J	Turbot BS	0	0	Φ,
BSA	ANITAJ	Yellowfin BSAI	_	0	.
BSAI	COMMODORE	AKPlaice BSAI	0	O	o (
BSAI	COMMODORE	Arrowtooth BSAI	12		21.
BSAI	COMMODORE	Flathead BSAI	, , ,		13
BSAI	COMMODORE	Mackerel BS/541	0		

Table 4 - BSAI by Vessel

FMPArea	Vessel Name	Group/Description	Landed Wit	Discard Wit	Total Wt
BSAI	COMMODORE	Northern BSA	0	Ф	0
BSAI	COMMODORE	Offats BSA	9	0	<u>.</u>
BSA	COMMODORE	ORockfish BS	0	0	0
BSAI	COMMODORE	Otherspec BSAI	13	1	20
BSAI	COMMODORE	Pcod BSAI	205	-	206
_	COMMODORE	Pollock Al	-	•	2
	COMMODORE	Pollock BS	5,250	9	5,256
	COMMODORE	POP BS	9	0	9
	COMMODORE	Rocksole BSAI	31	5	36
	COMMODORE	Squid BSAI	19	0	19
	COMMODORE	Turbot BS	0	0	0
BSAI	COMMODORE	Yellowfin BSAI	2	0	2
BSAI	GOLD RUSH	AKPlaice BSAI		0	Ö
	GOLD RUSH	Arrowtooth BSAI	2	2	4
	COLD RUSH	Flathead BSAI	4	•	S.
BSAI	GOLD RUSH	Mackerel BS/541	0	¢	0
BSA	GOLD RUSH	Oflats BSAI	_	0	
BSA	GOLD RUSH	ORockfish BS	0	0	0 !
BSAI	GOLD RUSH	Otherspec BSAI	-	4	12
BSA	GOLD RUSH	Pcod BSAI	80	0	. 82
BSAI	GOLD RUSH	Pollock BS	1,586	.	1,597
BSAI	GOLD RUSH	POP BS	0	0	₽ ;
_	GOLD RUSH	Rocksole BSAI	8	2	,-
	GOLD RUSH	Squid BSAI	0	0	0
	GOLD RUSH	Yellowfin BSA	0	0	0
	HALF MOON BAY	AKPlaice BSAI		•	
	HALF MOON BAY	Arrowtooth BSAI	Ð	12	95 95
BSA	HALF MOON BAY	Flathead BSAI	12	17	23
BSAI	HALF MOON BAY	Mackerel BS/541		0	
	HALF MOON BAY	Northern BSAI		•	τ '
BSAI	HALF MOON BAY	Offats BSAI	5	•	י כנו
BSA	HALF MOON BAY	ORockfish Al		0	
BSA	HALF MOON BAY	ORockfish BS		0	D ;
BSAI		Otherspec BSAi	œρ	26	33
BSAI	HALF MOON BAY	Pcod BSAI	870	2	8/2
BSAI	HALF MOON BAY	Pollock Al		0	

EMDArea	Vessel Name	Group(Description	anded \Mt	Discard Wf	Total Wf
BSAI	Ŧ	Pollock BS	95	74	124
BSA	HALF MOON BAY	POP 541		0	0
BSA	HALF MOON BAY	Rocksole BSAI	~	37	38
BSA	HALF MOON BAY	Yellowfin BSAI		-	•
BSAI	MISS BERDIE	AKPlaice BSAI	0	0	Û
BSAI	MISS BERDIE	Arrowtooth BSAI	•	0	_
BSAI	MISS BERDIE	Flathead BSAI	4	0	ý.
BSAI	MISS BERDIE	Mackerel BS/541	0	0	0
BSAI	MISS BERDIE	Offats BSAI	7	0	7
BSAI	MISS BERDIE	ORockfish BS	0	0	0
BSAI	MISS BERDIE	Otherspec BSAI	∞	-	ō
BSAI	MISS BERDIE	Pcod BSAI	18	0	19
BSAI	MISS BERDIE	Pollock BS	854	0	854
BSAI	MISS BERDIE	Rocksole BSAI	45	-	47
BSAI	MISS BERDIE	Yellowfin BSAi	0	0	0
BSAI	NORDIC FURY	Arrowtooth BSAI	-	0	•
BSA	NORDIC FURY	Flathead BSAI	•	0	•
BSAI	NORDIC FURY	Oflats BSAI	0	0	0
BSAI	NORDIC FURY	Otherspec BSAI	•	0	•
BSA	NORDIC FURY	Pcod BSAI	က	0	c.
BSA	NORDIC FURY	Pollock BS	431	_	431
BSA	NORDIC FURY	Rocksole BSAI	0	0	0
BSA	NORDIC FURY	Sablefish BS	0	0	0
BSA	NORDIC FURY	Turbot BS	0	0	0
BSA	POSEIDON	AKPlaice BSAI	0	0	0
BSAI	POSEIDON	Arrowtooth BSAI	80	ო	-
BSAI	POSEIDON	Flathead BSAI	21	5	25
BSAI	POSEIDON	Mackerel BS/541	0	0	0
BSAI	POSEIDON	Northern BSAI	0	0	0
BSAI	POSEIDON	Oflats BSAI	2	0	2
BSAI	POSEIDON	ORockfish BS	0	0	0
BSA	POSEIDON	Otherspec BSAI	22	14	98
BSA	POSEIDON	Pcod BSAI	186	_	186
BSA	POSEIDON	Pollock BS	4,391	31	4,423
BSA	POSEIDON	POP BS	9	0	ø
BSA	POSEIDON	Rocksole BSAI	36	16	52

Table 4 - BSAI by Vessel

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Total Wt Discard Wi Landed Wit Group/Description Arrowtooth BSAI Mackerel BS/541 Arrowtooth BSAI Mackerel BS/541 Otherspec BSAI Arrowtooth BSAI Otherspec BSAi Rocksole BSAI Rocksole BSAI AKPlaice BSAI Yellowfin BSAl AKPlaice BSAI Flathead BSAI Yellowfin BSAI Northern BSAI ORockfish BS AKPlaice BSAI Flathead BSAI Northern BSAI rellowfin BSAI ORockfish BS Offats BSAI Offats BSAI Squid BSAI Squid BSAI Pollock BS Pcod BSAI Pollock BS **Furbot BS** Squid BSAI Pcod BSAI Pollock Al **Furbot BS** Pollock Al POP BS POP BS ROYAL ATLANTIC STORM PETREL Vessel Name STORM PETREL SUNSET BAY SUNSET BAY POSEIDON POSEIDON POSEIDON **FMPArea BSA**I **BSAI** BSAI BSAI BSAI BSAI BSAI BSAI **BSAI** BSAI BSAI BSAI BSAI BSAI **BSAI** BSAI BSA BSA BSA BSAF BSAI BSA BSA BSAI BSAI BSAI BSAi **BSAI** BSAI BSA BSA **BSAI BSA BSAI** BSA BSA

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Table 4 - BSAI by Vessel

Coo	FMPArea	Group/Description	Landed Wit	Discard Wt Total Wt	Total Wit
Northern Victor	BSAI	AKPlaice BSAI	1	1	2
Northern Victor	BSAI	Arrowtooth BSAi	59	32	91
Northern Victor	BSAI	Flathead BSAI	127	42	169
Northern Victor	BSAI	Mackerel BS/541	0	1	=
Northern Victor	BSAI	Northern BSAI	0 0	2	2
Northern Victor	BSAI	Offats BSAI	36	2	32
Northern Victor	BSAI	ORockfish Al		0	0
Northern Victor	BSAI	ORockfish BS	1	0	_
Northern Victor	BSAI	Otherspec BSAI	148	109	
Northern Victor	BSAI	Pcod BSAI	2,448	10	2,45
Northern Victor	BSAI	Pollock Al	-	7	∞
Northern Victor	BSAI	Pollock BS	31,398	417	31,815
Northern Victor	BSAI	POP 541		0	
Northern Victor	BSAI	POP BS	18	0	18
Northern Victor	BSAI	Rocksole BSAI	372	111	483
Northern Victor	BSAI	Sablefish BS	0	O	
Northern Victor	BSAI	Squid BSAI	40	0	40
Northern Victor	BSAI	Turbot 8S	0	0	
Northern Victor	BSAI	Yellowfin BSAI	5	3	8
					İ
Totals			34,648	/38	35,380

Vessel	Landed + Discards	Pollock (mt)	Chinook (N)	Other salmon (N)	Halibut mortality (mt)	King crab (N)	Bairdi (N) Opilio (N)	Opilio (N)	Herring (mt)
HALF MOON BAY	359	334	29	12	0	0	1	0)

Table 6 -GOA Pollock

HAL	FMPArea	Vessel Name	Group/Description	Landed Wt Discard Wt	Total Wf
HALF MOON BAY Flathead Western GOA HALF MOON BAY Mackerel Gulf wide HALF MOON BAY Otherspec Gulf wide HALF MOON BAY Otherspec Gulf wide HALF MOON BAY Pollock Western GOA HALF MOON BAY Pollock Western GOA HALF MOON BAY PSR Western GOA HALF MOON BAY Rex Western GOA HALF MOON BAY Sablefish Western GOA		VAG MOOM TIME	Arrowtooth Mestern GOA	0	6
HALF MOON BAY Flathead Western GOA HALF MOON BAY Mackerel Gulf wide HALF MOON BAY OtherSkate Western GOA HALF MOON BAY Otherspec Gulf wide HALF MOON BAY Pool Western GOA HALF MOON BAY POP Western GOA HALF MOON BAY PSR Western GOA HALF MOON BAY Rex Western GOA HALF MOON BAY Sablefish Western GOA	400				ř
HALF MOON BAY Mackerel Gulf wide HALF MOON BAY OtherSkate Western GOA HALF MOON BAY Otherspec Gulf wide HALF MOON BAY Pool Western GOA HALF MOON BAY POP Western GOA HALF MOON BAY PSR Western GOA HALF MOON BAY Rex Western GOA HALF MOON BAY Rex Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY SABLEFISH Western GOA HALF MOON BAY SABLEFISH Western GOA HALF MOON BAY SABLEFISH Western GOA HALF MOON BAY SABLEFISH Western GOA HALF MOON BAY SABLEFISH Western GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH WESTERN GOA HALF MOON BAY SABLEFISH GOA HALF MO	GOA	HALF MOON BAY	Flathead Western GOA	,	•
HALF MOON BAY OtherSkate Western GOA HALF MOON BAY Otherspec Gulf wide HALF MOON BAY Pool Western GOA HALF MOON BAY POP Western GOA HALF MOON BAY PSR Western GOA HALF MOON BAY Rex Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY Shaltowflats Western GOA HALF MOON BAY Shaltowflats Western GOA HALF MOON BAY Shaltowflats Western GOA HALF MOON BAY Shaltowflats Western GOA HALF MOON BAY Shaltowflats Western GOA	, acc	HALE MOON BAY	Mackerel Gulf wide	0	-
HALF MOON BAY Otherspec Gulf wide HALF MOON BAY Sablefish Western GOA HALF MOON BAY HALF MOON BAY Sablefish Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY Sablefish Western GOA HALF MOON BAY Shaltowflats Western GOA HALF MOON BAY Shaltowflats Western GOA HALF MOON BAY Shaltowflats Western GOA HALF MOON BAY Shaltowflats Western GOA	5 0		Other College Manager COA	0	-
HALF MOON BAY Otherspec Gulf wide 0 <t< td=""><td>GOA</td><td>HALF MOON BAY</td><td>Officerskate western GOA</td><td>, ·</td><td>-</td></t<>	GOA	HALF MOON BAY	Officerskate western GOA	, ·	-
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HALF MOON BAY Rex Western GOA HALF MOON BAY Sableffsh Western GOA HALF MOON BAY Shaltowflats Western GOA 359 0	GOA	HALF MOON BAY	PSR Western GOA	0	
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HALF MOON BAY Shaltowflats Western GOA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GOA	HALF MOON BAY	Sablefish Western GOA	5	3
		VALE MOON BAY	Shallowflate Mestern GOA	0	-
0	405				
	I				360
	,			·	Rounding

Code	FMPArea	Group/Description	Landed Wit	Discard Wit	Total Wt
4000 		Arrandocth Mostern COA	5	0	6
Northern Victor	£05		· '	. (٢
Northern Victor	GOA	Flathead Western GOA	_	-	•
Morton Motor	000 000	Markerel Gulf wide	0	0	0
Noticient victor		Middle Call Wide		c	
Northern Victor	GOA	OtherSkate Western GOA	D	•	,
Northern Victor	GOA	Otherspec Gulf wide	0	0	•
Morthern Victor	GOA	Pood Western GOA	80	0	∞
Northern Victor	(i) (i)	Pollock Western GOA	334	0	334
NOTIFIED VICTOR			C	ć	•
Northern Victor	GOA	POP Western GOA	0	5	, ,
Morthorn Motor	AO.	PSR Western GOA	0	0	0
	Š		•	c	_
Northern Victor	GOA	Rex Western GOA	-	•	,
Morthern Victor	GOA	Sablefish Western GOA	0	0	_
		Oberton Approprie	0	C	_
Northern Victor	£0.5	Shallownars western Goa		,	
Total	 - 		359	Ö	390
					Rounding



Table 10 - Dirty 20 List

→ Pat Lara

Vessel Name	"A" Season Chinook	"A" Season Chinook "B" Season Chinook "B" Season Chum	"B" Season Chum
AMERICAN EAGLE	ന	0	3
ANITAU	2	0	4
COLLER BROTHERS	. 0	0	0
COMMODORE			6
GOLD RUSH		0	2
HALF MOON BAY	0	0	0
MISS BERDIE	-		0
NORDIC FURY	-	. 0	0
PACIFIC FURY	0	0	0
POSEIDON	3	0	4
ROYAL ATLANTIC	_	0	2
STORM PETREL	-	0	တ
SUNSET BAY	0	0	0

Report to the North Pacific Fishery Management Council on the 2009

Bering Sea Pollock Intercooperative Salmon Avoidance Agreement

Karl Haflinger, Sea State Inc. - Intercoop Monitor John Gruver, AFA Catcher Vessel Intercooperative Manager

This report is to the North Pacific Fishery Management Council and covers the Bering Sea and Aleutian Islands Management Area (BSAI) Pollock Intercoop Salmon Avoidance Agreement ("ICA"). During the course of the fishery, the pollock Intercoop closed 25 areas to fishing in the 2009 A season and 39 areas during the 2009 B season, based on high bycatch rates of chinook or chum salmon experienced by vessels working in the area. In addition, the "Chinook Conservation Area" (approximately 735 sq. miles) was again closed during the 2009 A season. Maps of the closures are shown in Appendix 1.

Under the terms of the ICA, applicants are to submit to the Council a report analyzing:

- 1. Number of salmon taken by species during the experiment
- 2. Estimated number of salmon avoided as demonstrated by the movement of fishing effort away from salmon hot-spots.
- 3. A list of each vessel's number of appearances on the weekly dirty 20 lists for both salmon species
- 4. A compliance/enforcement report that will include the results of an external audit designed to evaluate the accuracy of the approach used by Sea State to monitor compliance with the agreement, and a report on the effectiveness of enforcement measures stipulated under the ICA in cases of non-compliance. Examination of a randomly selected subset of vessel/days representing 10% of the catch during the experiment will be used as the basis of the audit.

Number of salmon taken by species during the experiment:

For the sake of comparison we have included catch and bycatch amounts running back to 2000. These data are compiled from plant landing information for catcher vessels delivering to shoreside processors, and observer data for mothership catcher vessels and catcher-processors. The "other salmon" category includes all non-chinook salmon. Observer data for both offshore and shoreside deliveries show that only very small numbers of salmon other than chum in this category (for example, 152 unidentified, 31 pinks, and 5 silvers for the 2006B season EFP).

Table 1. Catch and bycatch of pollock and salmon in the directed pollock fishery by season and for full years, 2000 – 2009.

1991 1992	A pollock	s aim on	A chinook	B pollock	B other salmon	B chinook	Full year pollock	Full year other sa <u>imon</u>	Full year chinook
1992								30,262	48,880
. —	· · †							41,450	41,995
1993					,	<u> </u>		243.270	46,014
			l ———			,		94,548	43,821
1994	+			·		<u> </u>		21,875	23,436
1995				_		-		78,060	63,205
1996	h		 	·				66,994	50,530
<u>19</u> 97			∔ ——	_				66,612	55,431
1998			-			 		46,568	13,521
1999						<u> </u>	4 050 030		5,210
2000	418,285	235	3,418	631,765	57,22 <u>8</u>	1,793	1,050,039	57,463	
2001	538,107	1.867	16,464	813,022	50,948	13,663	1,351.130	52,815	30,126
2002	570.464	387	21,989	866,034	83,033	13,309	1.436,498	83,420	35,298
2003	576,868	3,274	30,981	876,784	170,688	13,444	1,453,651	173,963	44,425
2004	579,816	419	22,011	858,799	427,234	29,238	1,438.615	427,653	51,248
2005	573,887	574	25,678	878,518	637,957	41,499	1,452,505	638,531	68,178
	579,112	1,210	57,637	874,435	275,779	24,024	1,453,547	277,989	81,66 <u>1</u>
2006			70.845	775,261	82,641	49.020	1,319,534	90,679	119,966
2007	544,273	8,038		572,384	14,453	4,270	959,990	14.797	17,678
2008	387,606 313,763	<u>344</u> 31	13,409 10,618	469,128	38,040	2.262	782.891	38,071	12,881

Estimates of salmon bycatch for 1991-1999 are for all groundfish fisheries, including CDQ, and are available on the NOAA Fisheries, Ak Region web site.

(http://www.fakr.noaa.gov/sustainablefisheries/catchstats.htm)

Estimates for 2000 - 2009 (compiled by Sea State, Inc) are for the pollock fishery only

Estimates for 2000 - 2009 (compiled by Sea State, Inc) are for the pollock fishery only and were made using observer data when available and numbers of salmon counted at shore plants and reported on fish tickets for unobserved shoreside vessels.

Evaluation of salmon savings.

The evaluation of the number of salmon saved by the IC program is based on tracking vessels that fished in a closed area before it closed, and then comparing their subsequent bycatch to see if it was lower than expected if the area had not closed. Put more simply,

we perform a before-and-after comparison of the bycatch observed and expected from the vessels that triggered the closure. The procedure is as follows:

- 1. Extract all observer data for haul locations falling inside a closure area, for a 5 day period preceding the closure. For shoreside catcher vessels, aggregate the hauls that have the same "start fishing date" so that hauls with the same bycatch rate are not artificially repeated. As an example, if 2 hauls from the same catcher vessel trip show up in the closed area, they will have the same bycatch rate because observers pro-rate bycatch evenly across all hauls. Consider them a single observation with a value equal to the sum of the two hauls' pollock and salmon.
- 2. Consider all of independent offshore sector (C/P and mothership) hauls, and combined "trip-level" hauls to be estimates of the bycatch ratio $Ri = \sum yi / \sum xi$, where y are counts of chinook or chum salmon, and x is the pollock catch from individual hauls (offshore sector) or grouped, same-trip hauls (shoreside), and i indicates a separate closure.
- 3. Extract the same haul or "grouped" haul information, for the same vessels, for the duration of the closure (either 3 or 4 days). Their associated bycatch is available from either observer or plant delivery information. Compute their expected bycatch had they been able to stay and fish inside the now-closed area, by summing the pollock catch of all vessels in this category, and multiplying this summed pollock catch by the matching bycatch ration, *Ri* above.
- Compute the standard error of this estimated Y (overall salmon bycatch if vessels had stayed in the area and fished with bycatch rate R) treating R as a ratio estimator (Snedecor and Cochran, Statistical Methods, 8th Edition, p 452).

Avoidance results from the 2009 Intercoop Agreement

The results from these calculations for the 2009 A and B seasons are shown in tables 2a - 2c below. (Charts showing the closures issued for both seasons may be found at the end of this document. Because so many closures were issued, we have not produced a chart for each closure and instead have grouped closures by season and species on three separate charts.) During the A season there were 25 closures in addition to the full-season Chinook Conservation Area closure. Of these, there were 8 for which before- and after-closure observer data could be found from vessels fishing inside the areas before they closed. The apparent scarcity of before- and after-closure data results from two situations:

- 1. Closures may be based on deliveries from catcher vessels that did not carry observers, and thus there could be closures for which there is no observer information prior to the closure.
- 2. Closures may be extended up to two weeks in absence of any new data if we feel that bycatch rates were likely to have remained high inside an active closure.
- 3. Shoreside catcher vessels may have had an observer aboard before the closure but then delivered and come back to the grounds without an observer, thus removing the boat from before/after comparisons.

Table 2a summarizes of the results for both chinook savings resulting from these closures (Appendix Tables A1a-c show the underlying data, by closure, with associated standard errors). The results indicate that for the approximately 8,400 mt of observed groundfish associated with boats that fished inside areas before they were closed, and that also had observers after closures, 2,333 chinook were avoided. This represents a reduction of 95% from the bycatch of chinook that would have been expected had the vessels continued to fish in those closure areas for the duration of those closures. Table 2a also shows observed and expected chum numbers, but since chum bycatch during the A season is such a small part of the overall chum bycatch for the year, these numbers are not particularly significant.

Table 2b shows results obtained in a similar fashion for the B season. Thirty-nine closures were put in place during the B season, and of these, 18 closures had both preand post-closure observer data that allowed for an analysis of reductions. As with the A season, some closures were based on shoreside delivery information and VMS track inspection alone, leaving no pre-closure information for analysis. Table 2b indicates that the combination of chinook and chum closures resulted in 11,936 mt of pollock catch that could be tracked, with an associated 64% reduction in expected chinook take and 74% reduction in expected chum bycatch. Table 2c shows that for the entire year the chinook and chum reductions were 90% and 74%; thus the 2009 overall percentage reductions are among the best we have managed since the IC program received an exemption from the area closures (Table 3).

Table 2a. Summary of 2009A Chinook closure effectiveness

A season results	Chinook closures
Pollock catch (after closure)	8,373
Actual chinook bycatch (in moved tows)	117
Expected chinook bycatch	2,105)
Chinook savings	2,068
% reduction	95%
Actual chum bycatch	1
Expected chum bycatch	2
Chum savings	1
% reduction	50%

Table 2b. Summary of 2009B chinook and chum closure effectiveness

B season results	B Chinook closures	B Chum closures	ombined B closures
Pollock catch (after closure)	6,235	5,701	11,936
Actual chinook bycatch (in moved tows)	101		152
Expected chinook bycatch	314	103	417
Chinook savings	213	52	265
% reduction	68%	50%	64%
Actual chum bycatch	607	2,001	2,608
Expected chum bycatch	1,775	8,271	10,046
Chum savings	1,168	6,270	7,438
% reduction	66%	76%	74%

4

Table 2c. Full year chinook and chum closure effectiveness

Full year results (A + B)	A and B closures
Pollock catch (after closure)	20,309
Actual chinook bycatch (in moved tows)	269
Expected chinook bycatch	2,602
Chinook savings	2,333
% reduction	90%
Actual chum bycatch	2, <u>6</u> 09
Expected chum bycatch	10,048
Chum savings	7,439
% reduction	74%

Compliance/ Enforcement

One apparent violation was referred to the Akutan coop on November 2, 2009. The coop has until May 2, 2010 to resolve the issue.

An audit of Sca State compliance monitoring has again been awarded to ABR Inc of Fairbanks, Alaska. ABR is performing an independent review of 10% of the coop fishing records and associated VMS information but audit are not yet available. However, to date ABR has not found any differences from Sea State determinations for 2009.

Comments on the 2009 season

Table 3. Hot spot closure effectiveness, 2006 - 2009.

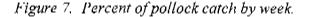
,) 	20000	20000	2000
Summary item	2006B	2007A	2 <u>007B</u>		20066	2009 <u>A</u>	2009B
Pollock harvest moved from closures	41,691	102,592	182,111	44,782	7,419	<u>8,</u> 373	11,936
% of pollock harvest affected	7%	19%	23%	12%	1%		3%
Chinook savings	1537	35,550	14,576	4,953	• 5 33	2,0 68	265
% reduction	20%	70%	64%	66%	-100%	95%	64%
Chum savings	15,419		86,410		965		7,438
% reduction	67%		70%		73%		74%
,0 100001.011				•			

During the 2009A scason, relatively little pollock effort appears to have been displaced by the IC closures (Table 3). It is incorrect to think that only 8,373 mt of pollock was directly affected by closures because many of the closures were triggered by high bycatch rates seen in the exempted fishery that was testing salmon excluders from late January to mid-February. During that time, 6 trips carried out on two test boats resulted in a bycatch of 3,236 salmon for 1,820 mt of pollock, in contrast to the commercial fishery that took 10,618 chinook in 313,763 mt of pollock. The very high bycatch rates found by the

exempted fishery provided essential supplemental information that allowed us to place closures over the highest bycatch areas without actually having vessels in the commercial fishery testing these waters. The EFP trips and associated closures are shown in Figures 1-6.

Additionally, in 2009 the timing of the pollock harvest was shifted to later in the A season and earlier in the B season (Figure 7, immediately below). The delay of operations in the A season can be attributed to several factors: some shoreside vessels remained tied up in price disputes, some shoreside vessels stood down when salmon bycatch was highest early in the season, and catcher-processors and motherships delayed operations in anticipation of a late roe season. All of these factors combined to shift the pollock harvest away from the period that is traditionally the time of highest bycatch in the A season. In contrast, B season harvest timing was moved forward as vessels found reasonable fishing on grounds to the north and were able to catch the relatively small B season TAC before chinook bycatch rates reached their traditional peak in October.

Chum bycatch rates from shoreside deliveries in the 2009B season were much higher than those seen in the last several years. However, with significant shoreside effort directed to the north, relatively little fishing effort displacement was required to keep chum bycatch at a reasonable level. Had the fleet been fishing in a pattern like those seen in 2004 - 2006, much more effort would have been displaced to respond to the apparent high abundance of chums on the grounds.



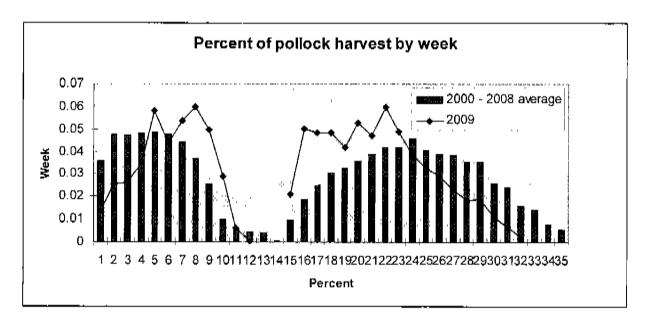


Figure 1. Pacific Prince EFP trip: 1/29/09 to 2/1/09. 269 mt pollock, 681 chinook. Closure 1/30/09 and the Chinook Conservation Area shown in red.

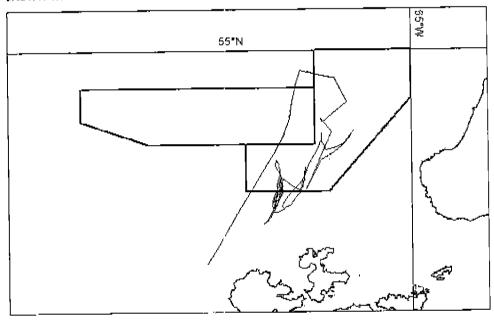


Figure 2. Pacific Prince EFP trip: 2/2/09 to 2/5/09.
306 mt pollock, 211 chinook. Closure 2/6/09 and the Chinook Conservation Area shown in red.

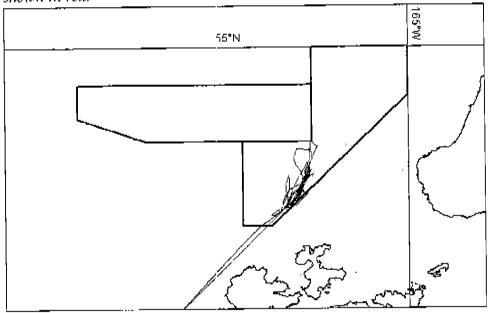


Figure 3. Pacific Prince EFP trip: 2/15/09 - 2/19/09. 128 mt pollock, 140 chinook. Closures for 2/13/09 and 2/17/09 and the Chinook Conservation Area shown in red.

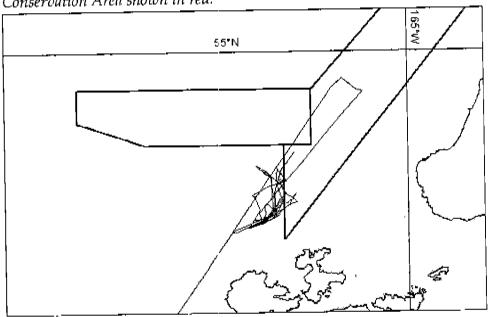


Figure 4. Pacific Prince EFP trip: 2/19/09 - 2/24/09.
393 mt pollock, 141 chinook. Closure 2/20/09 and the Chinook Conservation Area shown in red.

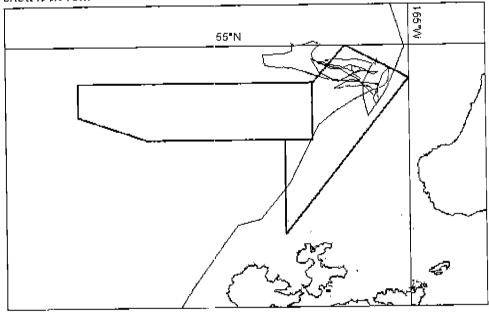


Figure 5. Pacific Prince EFP trip: 2/26/09 - 3/2/09. 350 mt pollock, 1163 chinook. Closure 2/27/09 and the Chinook Conservation Area shown in red.

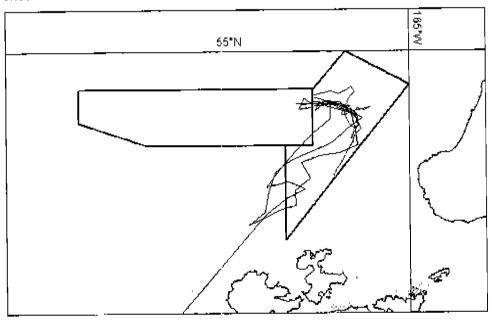
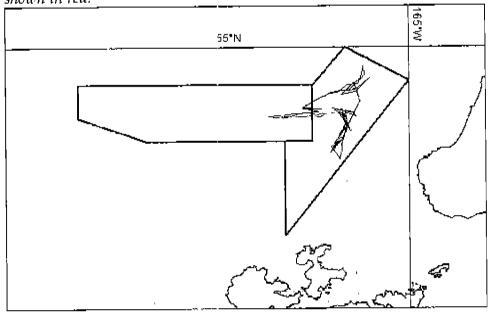


Figure 6. Starbound EFP trip: 3/9/09 to 3/11/09.
374 mt pollock, 900 chinook. Closure 3/10/09 and the Chinook Conservation Area shown in red.



Appendix 1. Before-and-after closure fishing comparisons, by closure.

Table A1a. Chinook and chum salmon closure effectiveness, 2009 A season

				Estimated		3.7	Estimated	•			
		"Alter"		clased-	Chinook		closed-	Chum		Number of	Number of
		closure	"After"	area	reduction		area	reduction		samples	samples
Closure		pollock	closure	chinook	(estimate	Std Err	chum	(estimate	Sid En	pnor to	after
Туре	Date	catch	chinook	catch	actual)	chinook	catch	actual)	chum	closure	closure
Chinook	01/30/09	2,414	44	1,011	967	79	2	2	1	12	- 6
Chinook	02/13/09	773	11	705	594	19	0	0	0	4	3
Chinook	02/20/09	147	3	47	44		0	0		1	1
Chinook	02/24/09	84	0	۵	0		0	D		1	1
Chinook	02/27/09	1,691	28	141	113	7	0	0	0	5	2
Chinook	02/27/09	315	3	0	- <u>-</u> 3		0,	-1		1	?
Chinook	03/03/09	1,860	18	200	182	14	Q	Q.	0		2
Chinook	00/27/09	1,000	10	01	71		0	O	0	7	3
Totals		B,373	117	2,185	2,068	128	2	1	1	33	20

Table A1b. Chinook and chum salmon closure effectiveness, 2009 B season, by chinook closure.

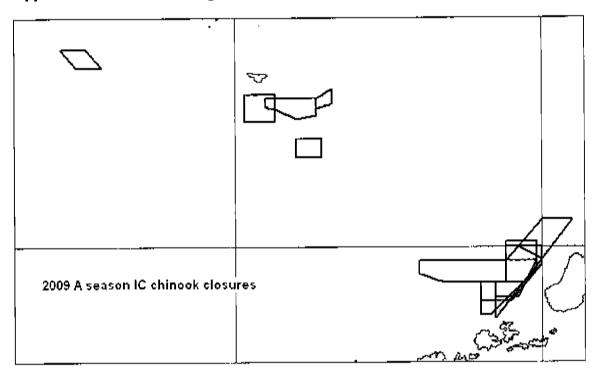
		ı		Estimated	[Estimated				
		"After"		closed-	Chinook		closed-	Chum	1	Number of	Number of
		closure	"After"	area	reduction		area	reduction		samples	samples
Closure		pollock	closure	chinook	(estimate-	Std Err	chum	(estimate-	Std Err	prior to	after
Турс	Date	catch	chinook	catch	actual))	chinook	catch	actual)	chum	closure	closure
Chinook	09/08/09	1,615	11	93	82;	4	14	-14	1	22	3
Chinook	09/11/09	915	56	35	-21	6	1,557	1,245	282	6	6
Chinook	09/11/09	3,224	3	155	152	2	0	-124	0	10	9
Chinook	09/15/09	225	22	В	14	0	40	-97	1	3	2
Chrnook	09/18/09	257	9	24	15	6	164	158	59	3	2
Totals		6,235	101	314	213	19	1,775	1,168	343	44	16

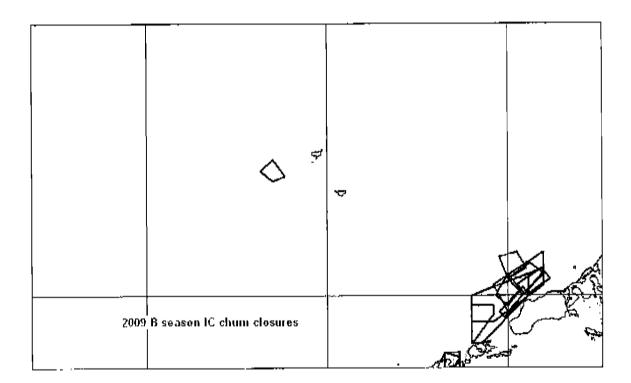
Table A1c. Chinook and chum salmon closure effectiveness, 2009 B season, by chum closure.

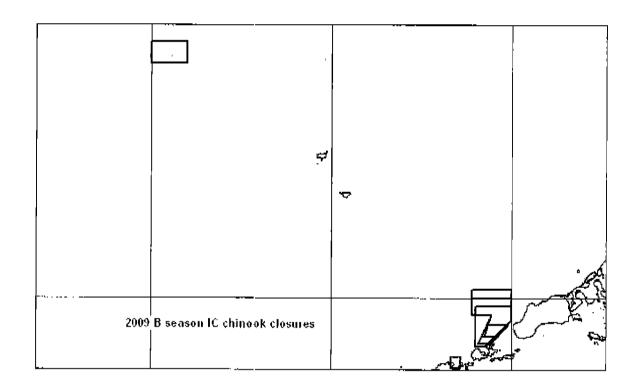
				Estimated			Estimated				
		"After"		closed-	Chinook		closed-	Chum		Number of	Number of
		closure	"After"	area	reduction		area	reduction		samples	samples
Closure		pollock	closure	chinook	(estimate-	Şid Err	chum	(estimate-	Std Err	prior to	after
Туре	Date	catch	chinook	catch	actual)	chinook	catch	actual)	chum	closure	closure
Chum	07/07/09	. 563	4	4	0	4	91	-15	47	7	9
Chum	07/10/09	275		4.	4	1	461	461	73	6	3
Chum	07/14/09	1,617	1	9	B		1,531	1,300	155	25	14
Chum	07/17/09	473	0	1	1	0	301	298	74	9	Э
Chum	07/28/09	496	0	40	40	16	1,324	1,169	237	3	4
Chum	07/31/09	88	1	1	0		365	288		1	1
Chum	08/04/09	324		0	0	0	2,293	2,293	251	3	2
Chum	08/21/09	584		0	0	0	1,484	1,442	13	3	4
Chum	08/28/09	323	2	5,	3	4	174	132	94	3	3
Chum	09/01/09	165	O	3	3	0	45	31	5	2	1
Chum	09/07/09	566	42	32	-10	10	163	-576	43	3	4
Chum	09/07/09	193		0	0		0	•573		1	1
Chum	09/00/09	<u></u>	1	5	4	. 5	29	22	9	2	1
Totals		5,701	51	103	52	42	8,271	6,270	1,001	68	50

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Appendix 2: Charts showing closures







Appendix 3: Dirty 20 list appearances

Number of times each vessel was on a 2009 Chinook weekly dirty 20 list

1	N times(1	N times	1	Nitimes
Vessel	on list	Vessel	on list	Vessel	o <u>n list</u>
A.I		GLADIATOR	4	PACIFIC CHALLENGER	3
ALASKA OCEAN	1	GOLD RUSH	1	PACIFIC EXPLORER	4
ALASKA ROSE	1	GOLDEN DAWN	4	PACIFIC FURY	0
ALASKAN COMMAND	2	GOLDEN PISCES	Ü	PACIFIC GLACIER	0
ALDEBARAN	5	GREAT PACIFIC	2	PACIFIC KNIGHT	0
ALEUTIAN CHALLENGER	1	GUN-MAR		PACIFIC MONARCH	U
ALSEA	0	HALF MOON BAY	0	PACIFIC PRINCE	2
ALYESKA	2	HAZEL LORRAINE	0	PACIFIC RAM	1
AMBER DAWN	Б	HICKORY WIND	1	PACIFIC VIKING	2 3
AMERICAN BEAUTY	3	INTREPID EXPLORER	0	PEGASUS	2
AMERICAN CHALLENGER	0	ISLAND ENTERPRISE	3	PEGGY JO	
AMERICAN EAGLE	Э	KODIAK ENTERPRISE	1	PERSEVERANCE	1
AMERICAN TRIUMPH	2	LESLIE LEE	1	POPADO II	0 3
ANITA J	2	LISA MELINDA		POSEIDON	3
ARCTIC EXPLORER	- 5	MAJESTY	3	PREDATOR	1
ARCTIC FJORD	0	MARCY J	0	PROGRESS	2
ARCTIC STORM	Э	MARGARET LYN	1	PR <u>OVIDIAN</u>	0
ARCTIC WIND	2	MAR-GUN	0	RAVEN	4
ARCTURUS	4	MARK I		ROYAL AMERICAN	3
ARGOSY	2	MESSIAH	0	ROYAL ATLANTIC	
AURIGA	1	MISS BERDIE	1	SEA STORM	Ö
AURORA	1	MISTY DAVVN	0	SEA WOLF	2
BERING ROSE	2	MORNING STAR	4	SEADAWN	0
BLUE FOX	Ō	MS AMY	0	SEATTLE ENTERPRISE	_ 1
BRISTOL EXPLORER	5	MUIR MILACH	0	SEEKER	3
CAITLIN ANN	1	NEAHKAHNIE		SOVEREIGNTŸ	4
CALIFORNIA HORIZON	1	NORDIC EXPLORER	0	STARBOUND	
CAPE KIVVANDA	Ö	NORDIC FURY	1	STARF <u>ISH</u>	1
CHELSEA K	0	NORDIÇ STAR	2	STARLITE	0
COLLIER BROTHERS	0	NORTHERN EAGLE	1	STARWARD	1
COLUMBIA	3	NORTHERN GLACIER	3	STORM PETREL	1
COMMODORE	3	NORTHERN HAWK	5	SUNSET BAY	0
DEFENDER	1	NORTHERN JAEGER		TOPAZ	0
DESTINATION	0	NCRTHERN PATRIOT	4	TRACY ANNE	0
DOMINATOR	7	NORTHWEST EXPLORER	<u> </u>	TRAVELER	1
DONA MARTITA	0	OCEAN EXPLORER	3	VANGUARD	1
ELIZABETH F	2	OCEAN HARVESTER	0	VESTERAALEN	1 0
EXCALIBUR II	0	OCEAN HOPE 3	1	VIKING	
EXODUS	<u>_</u>	OCEAN LEADER	3	VIKING EXPLORER	4
FIERCE ALLEGIANCE	O	OCEAN ROVER	4	WALTER N	0
FORUM STAR	0	OCEANIC	1	WESTERN DAWN	1 2
. 20	<u> </u>				

Number of times each vessel was on a 2009 chum weekly dirty 20 list

	N times		Numes		N times
Vessel	on list	Vessel	on list	Vessel	on list
AJ LA	0	GLA.DIATOR	1	PACIFIC CHALLENGER	3
ALASKA OCEAN	0	GOLD RUSH	2	PACIFIC EXPLORER	Ö
ALASKA ROSE	0	GOLDEN DAWN	6	PACIFIC FURY	Ō
ALASKAN COMMAND	0	GÖLDEN PISCES	4	PACIFIC GLACIER	
ALDEBARAN	5	GREAT PACIFIC	2	PACIFIC KNIGHT	†·· ·
ALEUTIAN CHALLENGER	0	GUN-MAR	0	PACIFIC MONARCH	0
ALSEA	1	HALF MOON BAY	Ö	PACIFIC PRINCE	1
ALYESKA	0	HAZEL LORRAINE	2	PACIFIC RAM	0
AMBER DAVVN	0	HICKORY WIND	0	PACIFIC VIKING	9
AMERICAN BEAUTY	3	INTREPID EXPLORER	Ō	PEGASUS	0
AMERICAN CHALLENGER	0	ISLAND ENTERPRISE	0	PEGGY JO	0
AMERICAN EAGLE	3	KODIAK ENTERPRISE	0	PERSEVERANCE	
AMERICAN TRIUMPH	- 0	LESUE LËE	3	POPADO II	0.
ANITA J	4	LISA MELINDA		POSEIDON	4
ARCTIC EXPLORER	3	MAJESTY	6	PREDATOR	Ź
ARCTIC FJORD		MARCY J	1	PROGRESS	1
ARCTIC STÖRM	Ö	MARGARET LYN		PROVIDIAN	Ö
ARCTIC WIND	1	MAR-GUN		RAVEN	Ö
ARCTURUS	5	MARKI	ō	ROYAL AMERICAN	3
ARGOSY	2	MESSIAH	Ö	ROYAL ATLANTIC	3 2
AURIGA	2	MISS BERDIE	ō	SEA STORM	ō
AURORA	2	MISTY DAWN	0	SEA WOLF	4
BERING ROSE	4	MORNING STAR	Ö	SEADAVVN	1
BLUE FOX	0	MS AMY		SEATTLE ENTERPRISE	
BRISTOL EXPLORER	2	MUIR MILACH		SEEKER	7
CAITLIN ANN	0	NEAHKAHNIE	0	SOVEREIGNTY	2
CALIFORNIA HORIZON	0	NOF DIC EXPLORER	o	STARBOUND	0
CAPE KIWANDA	1	NORDIC FURY	0	STARFISH	Ō
CHELSEA K	d	NORDIC STAR	2	STARLITE	1
COLUER BROTHERS		NORTHERN EAGLE	0	STARVVARD	1
COLUMBIA	5	NORTHERN GLACIER	0	STORM PETREL	θ
COMMODORE	 9	NORTHERN HAVVK	· · · · · · · · ·	SUNSET BAY	Ö
DEFENDER	2	NORTHERN JAEGER	0	TOPAZ	Ö
DESTINATION	2	NORTHERN PATRIOT	2	TRACY ANNE	Ō
DOMINATOR	1	NORTHWEST EXPLORER	0	TRAVELER	2
DONA MARTITA	G	OCEAN EXPLORER	3	VANGUARD	1
ELIZABETH F	1	OCEAN HARVESTER		VESTERAALEN	Ó
EXCALIBÜR II	1	OCEAN HOPE 3	1	VIKING	ō
EXODUS	Ö	OCEAN LEADER	4	VIKING EXPLORER	0
FIERCE ALLEGIANCE	1	OCEAN ROVER	-	WALTER N	Ö
FORUM STAR	Ö	OCEANIC	2	WESTERN DAWN	1
				WESTWARD I	1
		<u> </u>		1	