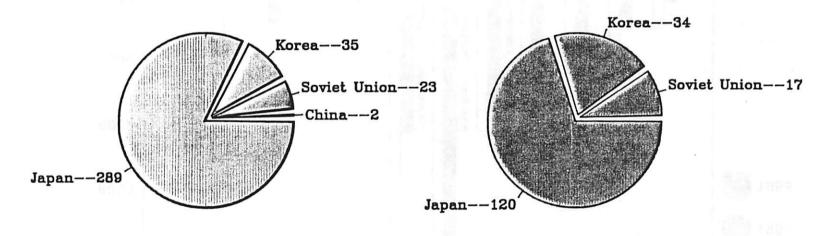
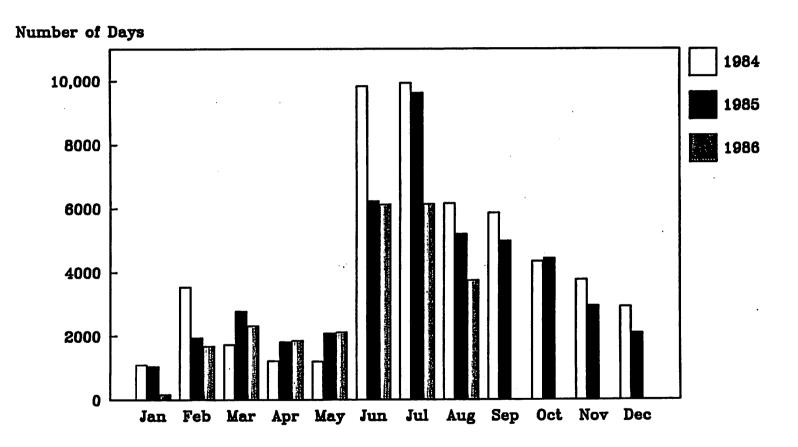
NUMBER OF FOREIGN VESSELS OFF ALASKA July and August 1986



JULY 1986 Total = 349 AUGUST 1986 Total = 171

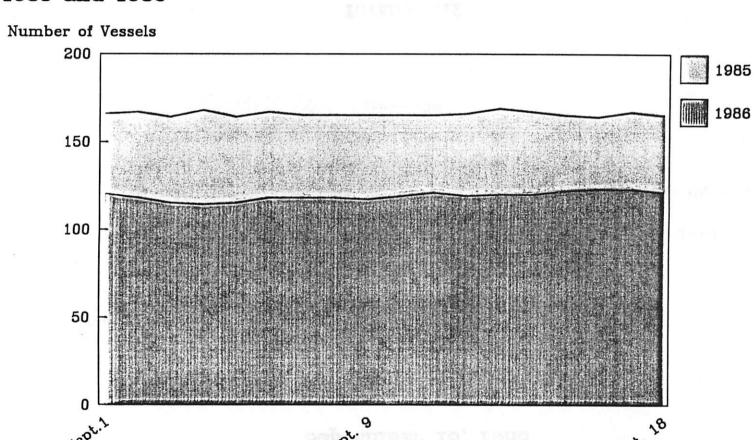
NMFS Law Enforcement - Alaska Region

NUMBER OF FOREIGN VESSEL DAYS OFF ALASKA 1984 to 1986



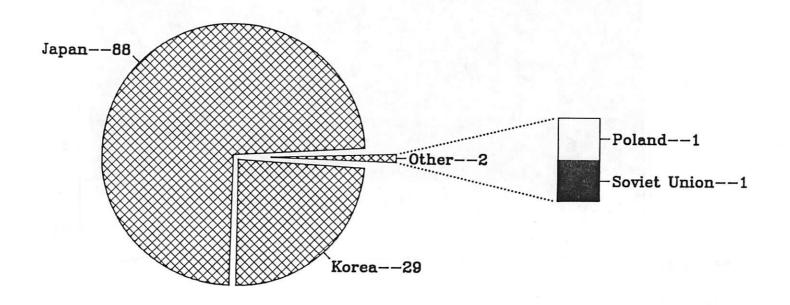
NMFS Law Enforcement - Alaska Region

DAILY NUMBER OF FOREIGN VESSELS OFF ALASKA 1985 and 1986



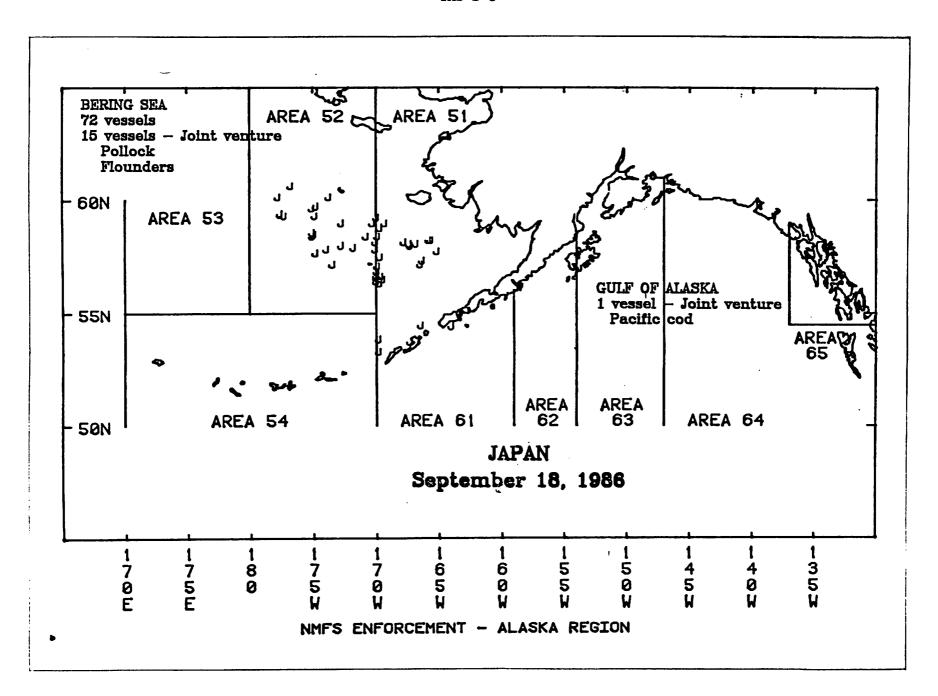
 ${\tt NMFS}$ Law Enforcement - Alaska Region

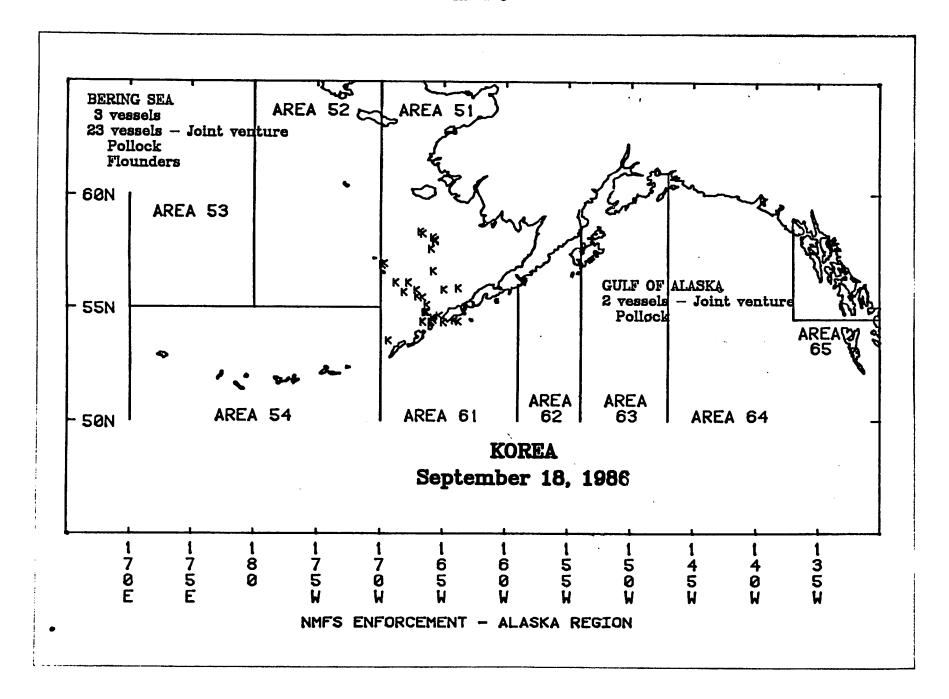
NUMBER OF FOREIGN VESSELS OFF ALASKA September 18, 1986

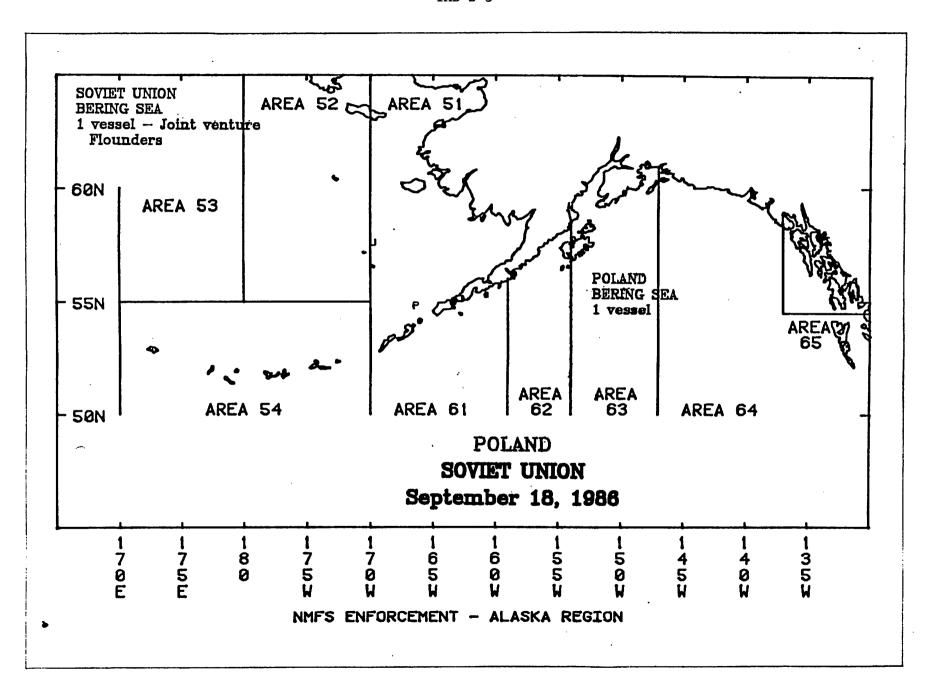


TOTAL = 119

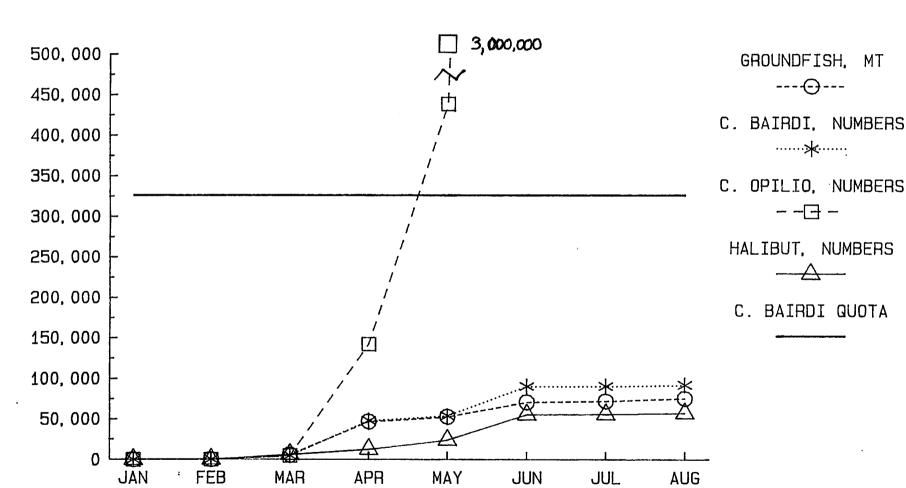
NMFS Law Enforcement - Alaska Region





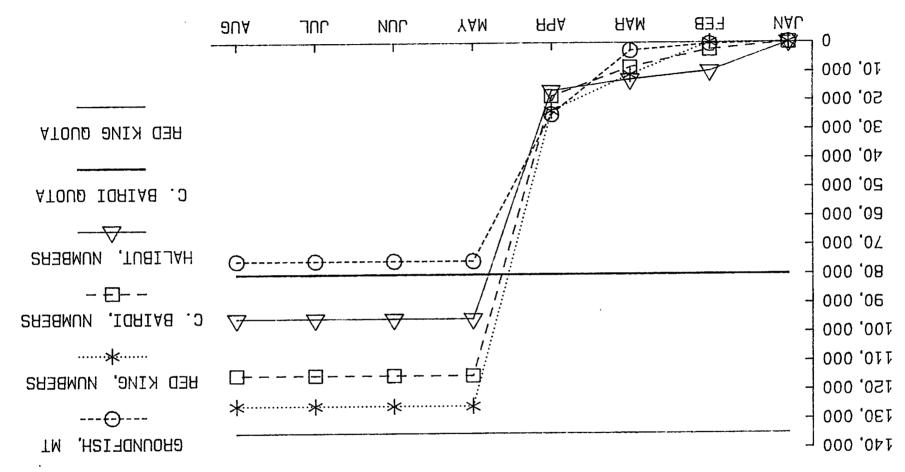


CRAB CATCH IN YELLOWFINSOLE JV FISHERY ZONE 2



isheries Management Division ational Marine Fisheries Servic uneau, Alaska September 1986

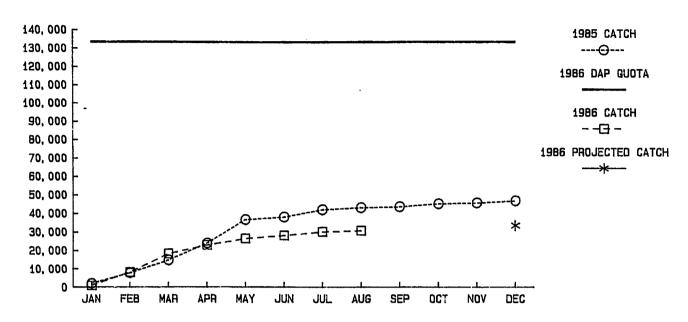
1A EISHEKA SONE 1 CKYB CYLCH IN KELLOWFINSOLE



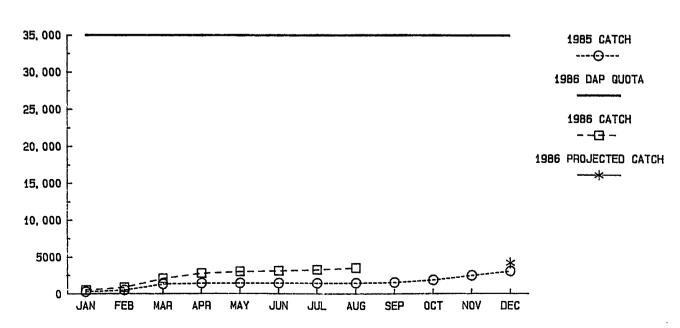
19-Sep-86 PROHIBITED SPECIES CATCHES IN BSA JOINT VENTURES

					(north pa	rt of 201	VE 3>	
FISHERY	. 2	ZONE 1	z	ONE 2	z	ONE 514		TOTAL BSA
TYPE	NO.	NO/MT	NO.	NO/MT	NO.	NO/MT	NO.	NO/MT
YELLOWFINSOLE								
GROUNDFISH (MT)	75422		77095		71855		224372	
RED KING CRAB	125546	1.66	3009	0.04	2814	0.04	131369	0.59
BAIRDI TANNER	114960	1.52	92018	1.19	13402	0.19	220380	0.98
OPILIO TANNER	54304	0.72	3014235	39.10	1500308	20.88	4568847	20.36
HALIBUT	95371	1.26	57356	0.74	101460	1.41	254187	1.13

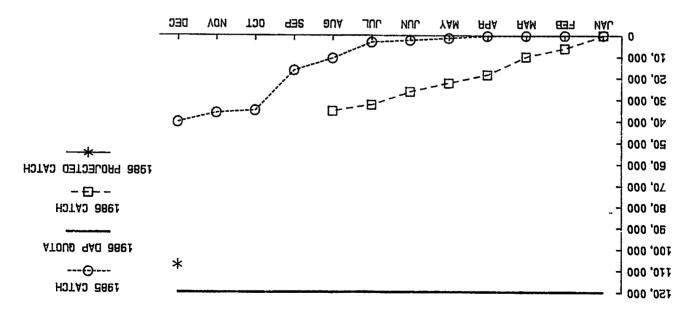
1986 PACIFIC COD DAP BERING SEA/ALEUTIANS



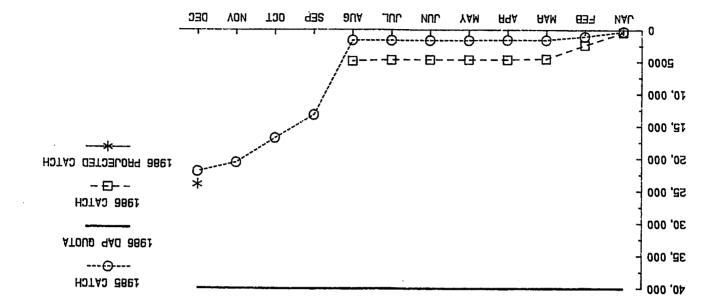
1986 PACIFIC COD DAP GULF OF ALASKA



BEKING SEV\VIENTIANS 1986 POLLOCK DAP



GOLF OF ALASKA 1986 POLLOCK DAP



19-Sep-86

1986 ALASKA GROUNDFISH CATCH (ROUND WEIGHT IN METRIC TONS)

											1986	1985	TO-DATE
		INTERNAL		WEST	CENTRAL			BERING	ALEUTIAN		TO-DATE	ANNUAL	CATCH Z
SPECIES	TYPE	WATERS	E. YAKUT.	YAKUT.	GULF	GULF	GULF	SEA	ISLANDS	BSA	ALASKA	alaska	OF 1985
SECTES.	1112												
POLLOCK	DAP	0	0	43	4837	7	4887	34505	1168	35673	40560	61680	65.8%
	JVP		•		52085	187	52272	663098	30260	693358	745630	615400	121.2%
	FORE16N	i.	•	•	41	72	113		9674	19190	19303	852888	2.37
SABLEFISH	DAP	393	3594	3640	7908	2911	18446	2810	2125	4935	23381	15538	150.5%
	JVP			•	4	0	4	76		159	163	335	48.7%
	FOREIGN				0	i	i	1	0	1	2	351	0.6%
				·	·	•	•	•	•	•	•	201	Viun
PACIFIC COD		106	132	1	289 3	404	3536	29526	1279	30805	34341	49912	68.87
	JVP		•		600	3	603	36468	6114	42582	43185	43537	99.2%
	FOREIGN	١.	•	•	3784	11573	15357	9488	148	9636	24993	66417	37.67
ALL	DAP	6	0	14	763	273	1056	4243	958	5201	6257	814	768.7%
FLOUNDERS	JVP				217	4	221	127784	348	128132	128353	175193	
	FOREIGN	i .			15	56	71	3462	0	3462	3533	148222	2.47
P.O.P.	DAP	0	0	115	132	504	751	691	5	696	1447	1681	86.17
	JVP		•	•	1	0	1	17	163	180	181	700	25.9%
	FOREIGN	,	0	•	0	0	0	1	0	i	1	82	1.2%
ROCKFISH	DAP	319	344	134	515	175	1487	80	37	117	1604	2087	76.9%
	JVP	•	•		3	1	4	21	214	235	239	63	379.4%
	FORE I GN	·	•	•	1	3	4	1	0	1	5	46	10.9%
THORNYHEADS	DAP	4	12	20	270	80	386	42	15	57	384	118	327.1%
	JVP		•		0	0	0	•		•	0	8	
	FOREIGN	١.		•	0	. 0	0	•	•		Ŏ	4	
ATKA	DAP	0	. 0	0	0	0	0	۸	٨	۸	۸	•	***
MACKEREL	JVP				0		0	0 4		0 31982	71000	70704	
	FOREIGN		•	•	0	0	0	0	0	31702	31982	39704	
			•	•	V	V	v	v	V	U	0	3	0.0%
OTHER	DAP	34	43	0	189	18	284	295	6	301	585	1530	38.2%
	JVP	•	•	•	202	7	209	2534	1457	3991	4200	8635	48.6%
	FOREIGN		•	•	59	87	146	527	4	531	677	8003	8.57
TOTAL	DAP	862	4125	3967	17507	4372	30833	72150	5578	77728	108561	133242	81.5%
	JVP		•		53112		53314			900619		883567	108.02
	FOREIGN		•			11792	15692			32822		1076012	
CUIDCEC.	1004 58	D.		ARCAC DI	NTO AO OI	- n.m. n							

SOURCES:

1986 DAP:

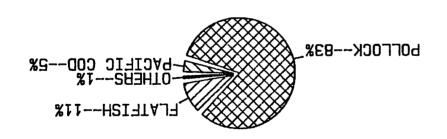
1986 JVP AND TALFF: 1985 DATA:

ADF&G RPTS AS OF 9/9; PACFIN REPORT #202, DATED 9/18 NMFS REPORTS THRU 8/30 AND 9/6, RESPECTIVELY PACFIN REPORT #209, DATED 5-12-86

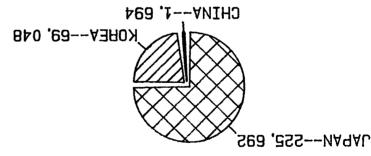
	19-Sep UPDATED THRU	12-SEPT		SABLEF	ISH CAT	TCH OFF (ALASKA	
AREA		9-SEPT	30-AUG					CLOSURE
HNEH	GEAR	ADF&G	C/P RPT	TOTAL	QUOTA	REM.	%TAKEN	DATE
BERIN	G	2646.0	164.3	2810.3	2926	115.7	96%	JULY 10*
	TRAWL	1011.0	143.8	1154.8		110.7	747.	DUL! IOA
	LL	1305.0	0	1305.0	•			•
	POT "	330.0	20.5	350.5				
ALEUT		1649.0	475. 9	2124.9	4159	2034.1	51%	
•	TRAWL	187.0	75.4 [\]	262.4				
	LL	936.0	159.2	1095.2				
	POT	526.0	241.3	767.3				
WESTE	RN							
	TRAWL	140.0	260.3	400.3	570	169.7	70%	
	LL	1724.0	0.0	1724.0			110%	JULY 3
	POT	787.0	0.0	787.0	712	-75.0	111%	JUNE 9
CENTR	AL					,		
	TRAWL	1699.0	46.0	1746.2	1230	-516.2	142%	APRIL 26
	LL	5020.0	0.0	5020.0		-1637.0	148%	MAY 26
	PÓT	823.0	245.5	1068.5	1537	468.5	70%	11111 20
EASTE	RN				1007	700.0	70%	
	TRAWL	187	587.2	666.2	299	-367.2		SEPT. 17
W. YA	KUTAT					00/12		OC1 14 17
	LL	3056.0	0.0	3056.0	2423	-633.0	126%	MAY 10
E. YA	<td></td> <td></td> <td></td> <td></td> <td>000.0</td> <td>120%</td> <td>TIMT TO</td>					000.0	120%	TIMT TO
	LL	3509.0	0.0	3509.0	. 3278	-231.0	107%	APRIL 17

*CLOSED TO DIRECTED FISHING AT 2326 MT

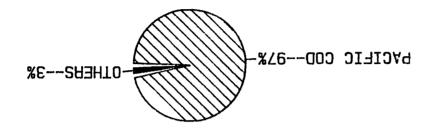
THEONGH WEEK 36 OF FISHING YEAR 1986 FOREIGN FISHING ACTIVITY



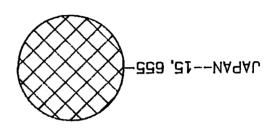
SPECIES COMPOSITION BERING SEA/ALEUTIANS



BEHING SEA CATCH TOTAL=296, 436

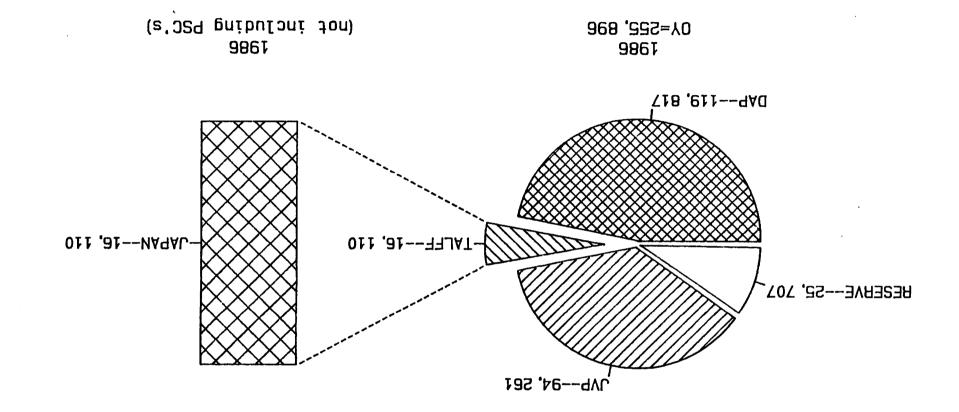


SPECIES COMPOSITION GULF OF ALASKA

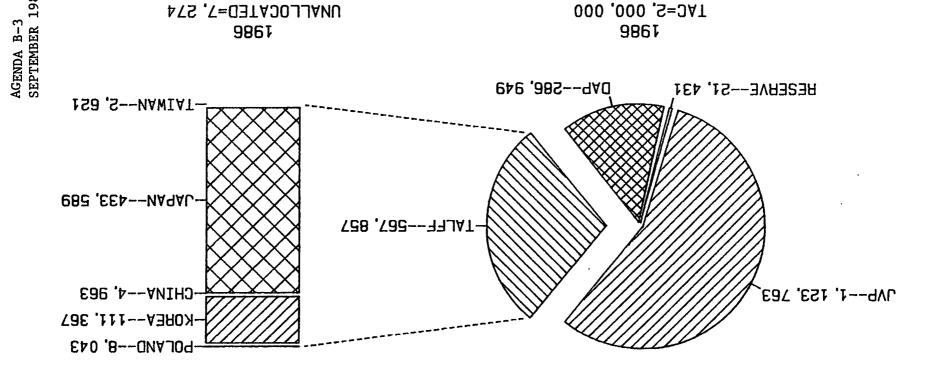


COLF OF ALASKA CATCH

WARCH REAPPORTIONS GULF OF ALASKA GROUNDFISH, 1986



SEPTEMBER 5 ALLOCATIONS SEPTEMBER 5 ALLOCATIONS BERING SEA/ALEUTIANS GROUNDFISH, 1986



ALASKA REGION, NATIONAL MARINE FISHERIES SERVICE
FY 1987 DOMESTIC (DAP) GROUNDFISH DATA COLLECTION

National Marine Fisheries Service Alaska Region P.O. Box 1668 Juneau, Alaska 99802

September 16, 1986

FY 1987 DOMESTIC (DAP) GROUNDFISH DATA COLLECTION

I. INTRODUCTION

A rapidly expanding DAP fishery combined with declining State and Federal funding make it necessary for the North Pacific Fishery Management Council (Council), the Alaska Department of Fish and Game (ADF&G), and the National Marine Fisheries Service (NMFS) to evaluate: (1) long and short term groundfish data needs for management, (2) the effects of State and Federal budget cuts on our ability to collect necessary data, and (3) what additional measures are necessary to achieve our data collection needs in the most cost effective manner. The purpose of this paper is to present to the Council a discussion of data collection needs, the current status of both State and Federal data collection programs, and a preliminary assessment of a minimally acceptable groundfish data collection program for the 1987 fishing year (January - December).

The need to quickly evaluate and plan to satisfy data needs for the DAP fisheries has arisen as a result of three events.

First, the DAP fishery has entered a period of rapid expansion.

DAP landings have increased from less than 1% of the total

groundfish landings in 1980 to over 6% (133,200 metric tons) in

1985. The DAP fishery accounted for much higher percentages of

the total catch for certain species; approximately 31% for Pacific cod, 96% for sablefish, and 81% for rockfish. The fleet of US catcher/processors is expected to double within the next two years, and at least two shoreside surimi plants will soon be in full production.

The NMFS foreign vessel observer program has provided detailed catch, bycatch, effort, and biological data from the foreign and joint venture fisheries. As long as the foreign and joint venture fisheries accounted for all but a small part of the total commercial harvest, these data have provided better information than is available from many commercial fisheries. As the foreign and joint venture fleets are displaced by the DAP fleet, which has no observer coverage, it will significantly reduce the information available to establish and monitor management measures.

Second, the rate at which the DAP fleet is now capable of taking the entire quota for certain species, such as sablefish, makes it doubtful that the ADF&G fish ticket system can function to monitor these quotas even if the ADF&G program is improved instead of reduced.

Third, declining oil revenues, which provide the majority of the State of Alaska's income, have resulted in the need for drastic budget cuts throughout all State agencies. In absorbing those cuts, the ADF&G has significantly reduced the size of its

groundfish staff and shifted the emphasis of its remaining program, which has reduced its capability to perform the same data collection functions it has in the past.

II. GROUNDFISH DATA NEEDS FROM THE DOMESTIC FISHERY

Fishery Management data needs consist of collecting, evaluating, and utilizing information to establish management regimes, evaluate their utility in achieving specific goals, and monitoring compliance with specific management measures. Groundfish data collection needs follow an annual cycle where long term data necessary to evaluate and establish management regimes precedes the need for short term data necessary to monitor compliance. The current data needs to manage the domestic groundfish fisheries off Alaska can be summarized accordingly.

- A. Data Needed to Establish and Evaluate Management Regimes
 - 1. Data for Resource Assessment
 - a. Biomass abundance
 - b. Age and sex composition
 - c. Growth rates
 - d. Recruitment
 - e. Predator/prey relationships

- f. Natural mortality rates
 - g. bycatch rates
- 2. Data to Forecast Fishery Responses to Management
 - a. Harvesting and processing cost relationships
 - b. Supply and demand relationships
 - c. Prices at various levels of production
 - d. Catch and bycatch technologies
- B. Data Needed to Monitor Compliance with Management
 Measures
 - 1. Real time catch and catch rate data for both directed and bycatch species
 - Fishing Effort (number of vessels by area)

III. STATUS OF STATE AND FEDERAL GROUNDFISH DATA COLLECTION PROGRAMS

For the purpose of evaluating the affects of recent State and Federal budget reductions and the resulting decision by the State to reduce its groundfish programs, it is necessary to know the extent to which domestic groundfish data was collected and the division of labor between ADF&G and NMFS that existed prior to the current situation.

A. FY 1986 (Prior) ADF&G Groundfish Program

The FY 1986 ADF&G groundfish program budget was \$764,900. The program funded six permanent full-time positions and 72 months of seasonal. Dedicated groundfish staff were stationed in Dutch Harbor, Kodiak, Homer/Seward, Sitka, and Petersburg. The program emphasis was inseason collection of fish tickets. Fish tickets were collected in all the major groundfish ports in Alaska, edited, and entered into the ADF&G computerized data system. This amounted to 4,900 and 5,100 fish tickets in 1984 and 1985, respectively. A data base coordinator in Juneau made summaries available to NMFS and provided data feeds to the Pacific Coast Fisheries Information Network (PACFIN).

Additional program emphasis focused on port sampling activities including the collection of biological data (age, length, weight, sex and species composition), the conduct of skipper interviews, and the collection, editing, and data entry for various logbook programs. In addition, ADF&G operated an aging laboratory in Kodiak.

In Southeast Alaska, program emphasis includes management and research of primarily sablefish and rockfish harvested in fisheries conducted mainly within State waters.

B. Alaska Region, NMFS Domestic Groundfish Program

The Alaska Region, NMFS dedicates one full-time staff position to monitoring catches from the foreign, joint venture and domestic groundfish fleets. The Region is primarily responsible for receiving and tabulating required weekly catch reports from all domestic catcher/processors and motherships holding fish on board for greater than 14 days. Catcher/processors and motherships are required to check in and out of each management area and report total harvests by species on a weekly basis. Approximately 15 vessels report.

A substantial amount of staff time is spent checking the weekly catch reports against the ADF&G fish tickets in order to prevent double counting. NMFS makes a weekly feed of the catcher/processor data to PACFIN. Domestic fishery groundfish quotas are monitored via close coordination with ADF&G who supply fish ticket data which is combined with the Regional catcher/processor data to estimate total catch.

The NMFS Regional Office has requested authorization for two additional staff positions dedicated to monitoring fishery performance. One position will be dedicated to joint venture catch monitoring while the other will be dedicated to DAP catch and effort monitoring.

C. FY 87 ADF&G Groundfish Program

The ADF&G FY 87 budget for groundfish programs totals \$428,000 a 43% reduction from the FY 86 level. Nearly \$200,000 of the FY87 budget is for a one year observer program in Kodiak.

The ADF&G groundfish staff will be reduced from the six full time permanent positions and 72 months of seasonal help to a single permanent position and 15 months seasonal help in Southeastern Alaska, a 3/4 time groundfish observer program leader in Kodiak, one 1/2 time management position in Dutch Harbor, and one 1/2 time biometrician in Juneau.

Management and research activities for Southeastern Alaska groundfish fisheries will continue as in the past, but all other State groundfish monitoring programs will be significantly reduced, primarily in the collection, editing, and timely reporting of groundfish fish tickets. ADF&G Regional staff will process groundfish fish tickets only as time away from their other duties permits. The logbook and port interview program for shoreside landings will cease. The result of these cutbacks will be lengthy delays in accounting for shoreside landings and deterioration in the accuracy of the fish ticket information. For all practical purpose, the fish ticket/shoreside landing component of the domestic catch will become useless for making inseason

management decisions relative to the achievement of harvest quotas, for preventing overfishing, or for measuring domestic fishery performance for the purpose of reserve releases and reapportionment of DAH. The remaining value of the fish ticket system will be mainly archival for the purpose of post-season analysis and the development of future regulatory regimes.

Elimination of port samplers and the aging laboratory will result in a loss of one source of resource assessment data needed to establish and evaluate management measures. Although much biological data now comes from the NMFS foreign and joint venture observer program, this source will be gradually lost as the domestic fishery displaces the foreign fisheries.

- IV. RECOMMENDATIONS FOR A DAP GROUNDFISH DATA COLLECTION PROGRAM
 AND MANAGEMENT MEASURES NECESSARY TO SUPPORT THE PROGRAM
 - A. Groundfish Data Collection Program
 - 1. A fish ticket system is still the most efficient method to monitor shoreside catch and effort throughout the year. Critical components of a fish ticket system are collection, editing, computer entry, verification, and report generation. The ADF&G fish ticket system or

- a similar system should be maintained at no less than the FY 1986 level.
- 2. A port sampling/interview program should be maintained to collect biological data to determine size and age composition of the catch. Port samplers would fulfill the dual role of biological sampling as well as being the primary collectors, editors, and data entry persons for the fish ticket system. An effective program would require full-time personnel in Dutch Harbor, Kodiak, and Sitka, and part-time personnel in Homer/Seward and Petersburg.
- 3. One full-time data coordinator and one full-time assistant will be needed in Juneau to coordinate the collection and entry of fish tickets, prepare and disseminate reports, and forecast achievement of harvest quotas.
- 4. The cost of items 1, 2, and 3 is conservatively estimated to be \$350,000.
- 5. A soft data inseason processor survey methodology is recommended to determine catch and catch rates during the short, intense sablefish seasons in the Southeast Outside/East Yakutat, West Yakutat, and Central areas of the Gulf of Alaska. No matter how

much effort is put into improving the timeliness of the fish ticket system, effort is so massive in these areas that the majority of the catch can be taken before sufficient fish ticket information is available to determine catch patterns. Preliminary analysis of landings data show that the majority of the sablefish longline catch is landed to a small number of processor which could be contacted daily for catch information.

- 6. A domestic at-sea observer program is recommended to provide catch rate, bycatch and discard information, biological data, and verification of weekly catch reports from catcher/processors and motherships. No alternative source for this data exists. Cost of a minimal (pilot) domestic observer program is \$349,000 and for an optimal program \$822,000, although costs will escalate as the size of the domestic fleet increases.
- 7. All catcher/processor and motherships must continue to check in and out of all management areas and must be required to report catches on a weekly basis regardless of how often transhipments or shore landings occur. This requirement is currently proposed as part of both GOA amendment 15 and BSA amendment 10.

- 8. Resource surveys conducted by NMFS should be continued and expanded to unsampled portions of the fishing year. Resource surveys provide vital data necessary for stock assessment that are independent of the fisheries. These data include monitoring stock abundance, recruitment, age composition, predator-prey interactions, and other characteristics of the groundfish stocks and ocean conditions. Currently the Northwest and Alaska Fisheries Center's survey activities are limited to the spring and summer months primarily because of weather conditions.
- 9. Confidentiality restrictions on data sharing between ADF&G and NMFS must be removed so that free exchange of data can occur.
- B. Management Measures Necessary to Support an Effective
 Data Collection Program

As a result of large amounts of effort, sablefish quotas are being taken from Gulf of Alaskan regulatory areas before management agencies can ascertain effort and catch levels. In 1986, for example the longline quotas for the Southeast Outside/East Yakutat, West Yakutat, and Central areas of the Gulf were taken in 17, 40, and 56 days, respectively.

Quotas in each area were exceeded by 231 mt, 625 mt, and 1642 mt, respectively. The trawl quota in the Central area was exceeded by 502 mt. Thus, regardless of how much effort is expended to maintain the timeliness of reporting via the fish ticket system, alternative means of forecasting catch and effort, such as inseason processor surveys will be necessary. However, certain changes to the management regimes for sablefish could facilitate the collection of catch and effort information and ensure that quotas are not significantly exceeded. These include the following:

- 1. Area registration and check in/out of each management area. This is necessary to provide an estimate of total effort which can be combined with catch rate information to forecast harvest quota achievement and fishery closure dates.
- 2. In addition, the Council could develop a framework process for establishing short, fixed-length, "halibut" type seasons for sablefish each year. Closed periods between openings would be long enough to assess the catch from the previous opening and adjust, if necessary, the length of subsequent openings.

The recommendations made in this paper are considered to be the minimum requirements for providing both timely and accurate information to establish, monitor, and enforce groundfish

management regimes in the North Pacific and Bering Sea and Aleutian Islands throughout the rapid period of development and Americanization now underway and into the future.

UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

National Marine Fisheries Service P.O. Box 1668 Juneau, Alaska 99802

September 18, 1986

Dear U.S. Processor,

We need your help to determine the amounts of Alaskan groundfish to be used by the U.S. fishing industry during the coming fishing year. NMFS is charged with making this determination by the regulations implementing the Groundfish Fishery Management Plans (FMPs) for the Bering Sea and Aleutian Islands and the Gulf of Alaska. We have revised our survey procedures and forms this year to improve the accuracy of our estimates of the needs of the U.S. processing industry (the "DAP" component of the allowable groundfish catch).

The results of this survey will be used in determining the initial DAP specifications under both FMPs. NMFS plans to send out at least one followup survey, mid-season, and will be continuously monitoring actual DAP performance to ensure appropriate amounts of groundfish are available for DAP fisheries throughout the year.

This survey is being sent to all U.S. processors other than those involved solely with fully-utilized groundfish species (sablefish, Pacific ocean perch and rockfish). The form requests an estimate of your actual 1986 groundfish utilization (round weight of raw material), and your projected 1987 groundfish utilization by species, management area and time period.

Please provide your best estimate for each management area. Do not include contingency amounts for other areas in expectation that fishing may be closed early in some areas. We will consult with you concerning those adjustments during the season.

If your 1987 projected utilization differs from your actual 1986 utilization in any category, please give us the reasons for the difference (in each case) on the designated form. Reasons for differences in amounts of fish should include, if appropriate, such factors as:

- (1) Changes in catching capacity such as numbers of catcher vessels, vessel size, new gear, etc.;
- (2) Changes in processing capacity such as changes in the number of lines, types of machinery, number of employees, etc.;

(3) New market arrangements such as changes in product types, new purchase agreements, etc.

Reasons for differences in areas or seasons fished should include, if appropriate, such factors as

- (1) availability of species sought
- (2) bycatch problems
- (3) gear conflicts
- (4) availability of support facilities

The above lists are not meant to be comprehensive and we are interested in any other information you can provide that will explain your 1987 production plans. As examples, we have attached two (strictly hypothetical) completed survey forms from a shoreside processor and a catcher-processor.

NMFS considers information obtained in these surveys to be confidential, and will present to the Council pooled data and general information to substantiate our estimated totals. However, if you do not object to having your individual survey return made public, you may check the indicated box.

Please take the time to accurately complete and return the survey forms in the enclosed, self-addressed envelope prior to November 14. You response will be an important factor in assuring that sufficient amounts of groundfish are reserved for domestic processing in 1987.

Sincerely,

Robert W. McVey Director, Alaska Region ALASKA BROUNDFISH UTILIZATIL. "BY U.S. PROCESSÖRS

						>	> PLEAS	E COMPL	ETE	A SEPAR	a	TE FOR	FOR E	AC	H PLAN	T OR PR	:OC	ESSING	VESSEL	<<-		7						
COMPANY							_		PR	EPRRER									RETURN	TO:			i					
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EMPLANATION AND CONNENTS

(Attach separate sheet if necessary)

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EXPLANATION AND CONNENTS

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