

# North Pacific Fishery Management Council

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NEWSLETTER

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## Preliminary Groundfish Assessments and Plan Amendments Highlight September Meeting

The North Pacific Fishery Management Council met September 24-26 in Anchorage to review the status of groundfish stocks off Alaska, set initial harvest levels for 1987, and take final action on amendments to both the Gulf of Alaska and Bering Sea/Aleutian Island groundfish plans. The Council reviewed the performance of the U.S. groundfish fisheries in 1986 and set preliminary apportionments to U.S. and foreign fisheries for 1987. These estimates will be sent out for public review in early October and final decisions will be made at the December meeting. These and other items are detailed below in this newsletter.

## Final Decisions on 1987 Groundfish Fisheries Due in December

The Council will meet the week of December 8 in Anchorage at the Anchorage Sheraton Hotel to make final decisions on groundfish harvest levels for 1987 and apportionments to U.S. and foreign fisheries. There will be a major review of foreign allocations, vessel permits, and joint ventures for next year. The Council's Scientific and Statistical Committee, Advisory Panel, and Permit Review Committee also will meet that week, possibly beginning on Sunday, December 7. A draft agenda will be available about mid-November.

## Council Elects Officers

James O. Campbell and Rudy Petersen were re-elected to serve as Chairman and Vice-Chairman of the Council for the next 12 months. Both have served in these offices since 1984. Jim Campbell, a member of the Council since 1978, now serves on the Board of the Alaska Railroad and is past President of the Alaska Division of Spenard Builders Supply, the Anchorage Chamber of Commerce, Anchorage Businessmen's Association, and the Alaska State Chamber of Commerce. Rudy Petersen hails from Seattle and has been on the Council since 1982. He is a member of the Highliners Association and has broad experience in Northwest and Alaska fisheries.

The Council also confirmed the election of Nancy Munro as Chairman pro tem of the Advisory Panel following ex-Chairman Larry Cotter's appointment to the Council. Ms. Munro, of Salt Water Productions in Anchorage, will serve as AP Chairman through the end of the year.

### Council Issues Call for AP and SSC Nominations

The Council is now calling for nominations to its Advisory Panel and Scientific and Statistical Committee. The current one-year AP terms and two-year SSC terms expire in December. Incumbents will be asked to indicate whether they wish to serve another term and may be reappointed. Resumes for persons wishing to be considered for AP or SSC membership should be received at the Council office by 5:00 p.m., November 14. Please send them to the attention of Judy Willoughby, North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, AK 99510. The Council will make new appointments to both panels in December, effective January 1987.

### NOAA Fishery Management Study

The Council received a report on the NOAA Fishery Management Study. A blue ribbon committee was convened by NOAA Administrator Calio earlier in the year to review the federal fishery management process and recommend changes. A draft report was released in August that recommended, among other things, decisions on conservation be made by NMFS in Washington, D.C., while allocation decisions remain at the Council level and, abolishment of the Western Pacific and Caribbean Councils. NOAA's Blue Ribbon Panel met to review comments on the study the week of September 15-19. The final report is to be released in October.

### MFCMA Amendment

The Council met as a workgroup on September 23 to review a proposed amendment to the Magnuson Fishery Conservation and Management Act. The proposal would replace the fishery management plan process in the Act with a straight regulatory process. The intent of the proposed change is to streamline fisheries management. Council members are to submit written comments on the proposal by October 4. The proposal will be reviewed by other Councils this fall and will be on the agenda of the Council Chairmen's meeting that will be held in December or January.

### Legislative Update

The Council received a report on various fisheries bills currently before Congress. The House passed a fisheries "package" on August 12 that, among other things, reauthorizes and substantially changes the MFCMA, creates seafood marketing councils and a NOAA estuarine programs office, authorizes the appointment of a chief scientist of NOAA, repeals the Commercial Fisheries Research and Development Act of 1964 and replaces it with an interjurisdictional fisheries research program, and redesignates the office of NOAA Administrator as the Under Secretary of Commerce for Oceans and Atmosphere. The Senate is expected to act on this legislation before they adjourn for the November elections.

The Council will send a letter to the Alaska, Washington, and Oregon Congressional Delegations as well as the House leadership expressing disappointment over the defeat in the House on August 13 of H.R. 5013, the Commercial Fishing Vessel Liability and Safety Act of 1986. That bill would set limits on liability for vessel owners and operators and require certain safety equipment on fishing vessels. The bill may be reintroduced in the next Congress.

### Reflagging of Foreign Processing Vessels

The Council heard from industry representatives, the President of the Western Alaska Municipal Conference, and representatives of Tampa Ship about their concerns over the transfer by foreign fishing companies of processing ships from foreign registry to U.S. registry. As long as such a vessel processes U.S. caught fish it would be considered a domestic operation and would get DAP priority access, even though it may be wholly foreign-owned. The Council unanimously endorsed the call for action to prevent the documentation of foreign-built vessels as U.S. vessels after September 24, 1986 for the purpose of processing U.S. harvested fish in U.S. waters.

### Agenda for Council Chairmen's Meeting

The Council discussed issues that should be on the agenda for the Council Chairmen's meeting to be held this winter. The Council proposed for the meeting a discussion of a Council liaison to Washington, D.C., the proposed change of the FMP process in the Magnuson Act to a regulatory process, the NOAA Fishery Management Study, and the reflagging of foreign processing vessels.

### Domestic Observer Program

The Council received a report from its Domestic Observer Committee and endorsed the Committee's recommendation that the Council convene a meeting of industry and agency representatives to discuss the creation of a private nonprofit foundation that could fund fishery research and data gathering, including the placement of observers on domestic vessels. The foundation would be funded by the fishing industry. The meeting will be held sometime this winter.

### Permits for U.S. Support Vessels

The Council discussed the requirement of permits on U.S. vessels supporting fishing operations in the 3-200 mile Alaskan Exclusive Economic Zone. NOAA Washington staff proposed issuance of permits to U.S. vessels transporting fishery products from foreign processors in the Bering Sea and Gulf of Alaska to U.S. ports as a means of accurately tracking this activity. Current regulations require permits on all U.S. fishing and fishing support vessels in federal waters off Alaska, but NMFS Alaska Region has not determined what operations are considered "support". The Alaska Regional Director will review the matter and recommend a course of action at the December 8-12 Council meeting.

### Report by the Alaska Crab Coalition

The Council received a report from the Alaska Crab Coalition (ACC) regarding the recent incident when Soviet ships harassed U.S. crab vessels fishing in the portion of the Bering Sea claimed by both countries. The Council endorsed ACC's request that the State Department propose to the Soviets a cooperative agreement that would allow U.S. and Soviet fishermen to fish in the disputed area subject only to management and enforcement measures of their respective governments. The Council also endorsed ACC's request that the U.S. negotiate an agreement with the Soviet Union that would provide fishery access for U.S. vessels to the Soviet portion of the Bering Sea.

### RFP For Industry Survey

The Council reviewed a draft Request for Proposals (RFP) for an industry survey of groundfish management alternatives. After requesting changes, the Council approved the RFP for release to the public. Copies of the RFP may be obtained by calling Judy Willoughby at the Council office at (907) 274-4563.

### Council Wants Public Comment on Groundfish Harvest Levels and Industry Needs

The Council heard plan team reports on the status of groundfish stocks off Alaska. The information is preliminary and will be updated by December. Most Gulf of Alaska stocks are stable with little change anticipated for next year. The pollock decline of the last few years appears to have ended and stocks should increase beginning in 1988. In 1987 a large part of the available biomass will consist of sexually immature pollock and the Shelikof roe fishery could be impacted. Sablefish abundance continues to increase. Pacific cod and flounders seem in good condition while Atka mackerel, Pacific ocean perch and other rockfish remain depressed.

Table 1 compares estimated biological harvest levels for 1987 with preliminary apportionments to domestic processors (DAP) and joint venture processors (JVP). The acceptable biological catches (ABCs) are based on biological factors only and represent the yields the stocks could safely withstand. Compared to 1986, harvest levels are increased for flounder and sablefish and decreased for Atka mackerel and other rockfish. For some species such as Pacific cod and flounders, the harvest levels probably will be decreased to hold bycatches of halibut within reasonable limits.

Table 1 has a new term, target quota (TQ), which is used much the same as last year's optimum yields (OY) for individual Gulf groundfish species. In addition to the biological factors used to determine ABC, the TQ considers social and economic factors. Except for minor technical differences in the application of the reserves, the Gulf TQs and Bering Sea total allowable catches (TAC), discussed below, are the same. Both represent retainable catches based on biological and socioeconomic considerations. The introduction of target quotas into the Gulf plan by Amendment 15 (described elsewhere in this Newsletter) will allow harvest levels to be changed annually without formal plan amendment.

Bering Sea and Aleutians groundfish stocks remain in excellent condition and the 1987 total allowable harvest is expected to be set at 2.0 million mt, the top of the optimum yield (OY) range of 1.4 to 2.0 million mt. Table 2 shows preliminary harvest levels for 1987 and estimated apportionments to U.S. and foreign fisheries. Domestic annual harvesting (DAH) is the projected total U.S. harvest needs (DAP and JVP) and initial total allowable level of foreign fishing (ITALFF) is the initial amount available to foreigners. In the Resource Assessment Document drafted last July, TACs equaled 1,955,450 mt when summed over all species. However, recent information from NMFS suggests that some species, especially Pacific cod, Greenland turbot, and Bering Sea pollock, may be increasing in abundance. If this is confirmed, the total yield from the groundfish complex would exceed 2.0 million mt and some individual species TACs would need to be reduced to stay within the plan's OY

TABLE 1

## PRELIMINARY GULF OF ALASKA GROUND FISH HARVEST LEVELS AND APPORTIONMENTS FOR 1987 (MT)

Species	Area	ABC	TQ <sup>1/</sup>	RESERVE <sup>2/</sup> 20% TQ	DAP <sup>3/</sup>	JVP <sup>3/</sup>	TALFF
Pollock	W/C	97,000	97,000	19,400	28,000	49,600	0
	Out. Shel.	n/a	50,000	10,000	0	40,000	0
	E	16,600	16,600	3,320	1	0	0
	Total	113,600	163,600	32,720	28,001	89,600	0
Pacific Cod	W	33,750	29,951	5,990	23,817	144	0
	C	70,000	33,049	6,610	24,826	1,613	0
	E	21,250	12,000	2,400	9,600	0	0
	Total	125,000	75,000	15,000	58,243	1,757	0
Flounders	W	54,400	6,900	1,380	5,448	72	0
	C	244,800	22,500	4,500	16,740	1,260	0
	E	40,800	600	120	480	0	0
	Total	340,000	30,000	6,000	22,668	1,332	0
Pacific ocean perch	W	2,800	1,316	0	1,316	0	0
	C	3,300	1,511	0	1,511	0	0
	E	4,400	875	0	875	0	0
	Total	10,500	3,702	0	3,702	0	0
Sablefish	W	3,800	3,800	0	3,800	0	0
	C	8,200	8,200	0	8,200	0	0
	W. Yakutat	3,400	3,400	0	3,400	0	0
	E. Yak. / S. E. Out.	4,600	4,600	0	4,600	0	0
	Total	20,000 -25,000	20,000	0	20,000	0	0
Atka Mackerel	W	0	250	50	100	100	0
	C	0	250	50	100	100	0
	E	0	100	20	40	40	0
	Total	0	600	120	240	240	0
Rockfish	S. E. Central Outside	600	600	0	600	0	0
	Remaining	2,100	2,100	0	2,100	0	0
	Total	2,700	2,700	0	2,700	0	0
Thornyhead	GW	3,750	3,750	750	1,500	1,500	0
Squid	GW	5,000	5,000	1,000	2,000	2,000	0
Other Species	GW	n/a	15,218	3,044	6,087	6,087	0
TOTAL			319,570	58,634	145,142	102,515	0

Predicted Halibut Catch <sup>4/</sup>  
5,666 mt      Mortality <sup>4/</sup>  
2,933 mt

Proposed 1987 Halibut PSC Mortality Limit 2,000 mt

<sup>1/</sup> The term target quota (TQ) is synonymous with the past use of optimum yield for groundfish in the Gulf of Alaska.

<sup>2/</sup> The Reserves equal 20% of the TQ.

<sup>3/</sup> Based on projected 1986 catches and/or intended apportionments.

<sup>4/</sup> Given the above groundfish harvests and apportionments.

TABLE 2

Provisional TACs and apportionments approved by the Council on 9/25/1986 for Bering Sea and Aleutian Islands Groundfish (all in metric tons). See footnotes for anticipated changes.

Species	Area	TAC <sup>1/</sup>	DAP <sup>2/</sup>	JVP <sup>3/</sup> , <sup>6/</sup>	DAH	Potential ITALFF <sup>4/</sup>	RESERVE
Pollock	BS	1,100,000	101,755	750,000	851,755	83,245	
	AI	100,000	5,500	33,804	39,304	45,696	
Pacific ocean perch <sup>5/</sup>	BS	3,000	3,000	0	3,000	0	
	AI	11,900	11,900	0	11,900	0	
Rockfish <sup>5/</sup>	BS	550	550	0	550	0	
	AI	1,900	1,900	0	1,900	0	
Sablefish	BS	5,000	5,000	0	5,000	0	
	AI	5,000	5,000	0	5,000	0	
Pacific cod <sup>7/</sup>	BSAI	265,000	33,484	50,830	84,314	140,936	
Yellowfin sole	BSAI	187,000	60	144,300	144,360	14,590	
Turbots-Greenland	BSAI	5,500	5,500	0	5,500	0	
Arrowtooth	BSAI	33,400	50	1,667	1,717	26,673	
Other flatfish	BSAI	159,700	7,247	98,850	106,097	29,648	
Rock sole	BSAI	70,500	5,966		5,966	53,959	
Other flatfish	BSAI	89,200	1,281		1,281	74,539	
Atka mackerel	BSAI	30,800	10	30,790	30,800	0	
Squid	BSAI	10,000	0	100	100	8,400	
Other species	BSAI	36,700	295	7,000	7,295	23,900	
TOTAL		1,955,450	181,251	1,117,341	1,298,592	363,541	293,318

<sup>1/</sup> TAC recommendations from 1986 Resource Assessment Document (RAD). Changes in ABC are anticipated for the following species:

		From	To
Pollock	BS	1,100,000	1,200,000
POP	BS	3,000	3,800
POP	AI	11,900	10,800
P. cod	BSAI	265,000	404,000
G. turbot	BSAI	5,000	16,500 - 30,000
Other Flatfish	BSAI	89,200	94,000

Some TACs must be reduced to bring the total down to 2.0 million.

<sup>2/</sup> DAP projected catch to the end of 1986, except for POP, Rockfish, and Sablefish (which follow the Advisory Panel's recommendation in September)  
Source: NMFS, AK Region

<sup>3/</sup> Current 1986 JVP apportionment, except as reduced so that DAP and TAC are equal.  
Source: NMFS, AK Region

<sup>4/</sup> Potential ITALFF = TAC - (DAH + Reserve)

<sup>5/</sup> POP refers to the POP complex, and the other rockfish species comprise "Rockfish"

<sup>6/</sup> Minimal allowances for JVP and TALFF bycatches will be made where DAP = TAC.

<sup>7/</sup> The Advisory Panel recommends setting DAH = TAC.

range. The Council will need advice from the industry on which species harvests should be reduced. In addition, the Council is considering dividing the Bering Sea sablefish TAC into north and south components and would like suggestions on whether this is desirable and where to make the division.

The preliminary estimates of harvest levels and apportionments for 1987 will be sent to the groundfish mailing list for a 30-day public comment period ending November 10. The public review package will have much more detailed information including a summary of the resource assessment document, and for the Gulf, bycatch rates of prohibited species and fully-U.S. utilized groundfish species. If you want this package and are not on the groundfish mailing list, please let us know and a copy will be mailed immediately.

#### Proposals Due in December for Gulf of Alaska and Bering Sea/Aleutians

Proposals for the 1987 groundfish amendment cycle are due by December 12, the end of the Council's next meeting. All proposals will be reviewed initially by the Council staff for structural completeness using the following four criteria:

1. Is the objective clearly evident and stated?
2. Is a preferred solution offered?
3. Is supporting documentation presented to explain the problem and need?
4. Does it affect the U.S. Exclusive Economic Zone?

Please be sure to indicate a contact phone so the staff can call you to gather additional information if required. The relevant plan team will then perform the initial review, assessing the technical merits of proposals against Council goals and objectives. They will be reviewed by the Council's Scientific and Statistical Committee and Advisory Panel in January. The Council will take preliminary action on the proposals in January and final action in May when public review is completed. For further information on proposal format please contact Steve Davis for Gulf of Alaska groundfish or Jim Glock for Bering Sea/Aleutian groundfish at the Council office: (907) 274-4563.

#### Council Approves Amendment 15 for Secretarial Review

The Council approved Gulf of Alaska Groundfish Amendment 15 to go forward to Secretary of Commerce review. The plan amendment makes the following five major changes:

1. Revises goals and objectives for management of groundfish. With this amendment the Council has adopted a principal management goal that the Gulf of Alaska groundfish resources will be managed to maximize economic benefits to the U.S., consistent with its resource stewardship responsibilities. To help meet this goal the Council approved seven objectives which concern the setting of harvest levels while keeping total mortality above biological thresholds, the design of management programs to account for all fishery related removals, the desire to minimize wastage of fishery resources, the intent to manage the

groundfish fishery to stimulate development of the domestic industry, the development of effort control measures only when requested by the industry, and the rebuilding of stocks only if the benefits outweigh the costs.

2. Establishes an administrative framework procedure for the annual setting of harvest levels without requiring formal plan amendment. The Council will set target quotas for individual species in the Gulf using the same basic procedure as the Bering Sea plan. Joint venture and foreign prohibited species catch limits for fully-U.S. utilized groundfish species also will be set annually.
3. Revises catch reporting requirements for at-sea processors. Those vessels that process their catch at-sea (i.e. catcher/processors, mothership/processors, etc) must provide weekly catch reports regardless of their trip length.
4. Establishes four time/area closures for nonpelagic trawling to protect king crab around Kodiak Island. The Chirikof and Barnabas areas will be closed during the king crab soft-shell period (February 15 through June 15) and the Alitak, Towers, and Marmot areas will be closed year-round (Figure 1). After three years, the Council will evaluate the effectiveness of the closures and decide if any changes are necessary.
5. Authorizes the NMFS Regional Director to close or open fisheries on the basis of all relevant information to promote fishery conservation. This improvement of existing authority allows the Regional Director to use all relevant scientific information in making inseason time/area adjustments of the fishery.

Amendment 15 will be formally submitted for Secretarial review in early October. Implementation is scheduled for early April 1987.

Four Changes to Bering Sea/Aleutians Groundfish  
Approved with Amendment 10

The Council approved Amendment 10 to the Bering Sea/Aleutian Islands Fishery Management Plan (FMP) to go forward to the Secretary of Commerce for review. The issues addressed by the amendment are summarized below.

Crab and Halibut Bycatch. The Council approved the continuation of measures first implemented as emergency regulations last June to use prohibited species catch limits (PSCs) to control bycatches of king crab and C. bairdi Tanner crab by trawl fisheries. The restrictions, which arose from industry negotiations in January and March, are summarized below (refer to Figure 2). Except as noted for cod--they apply only to yellowfin sole/other flatfish operations.

1. C. bairdi Tanner crab PSC limits as follows:

64,000 crabs for foreign fisheries in Zones 1 or 2  
80,000 crabs for domestic fisheries in Zone 1  
326,000 crabs for domestic fisheries in Zone 2



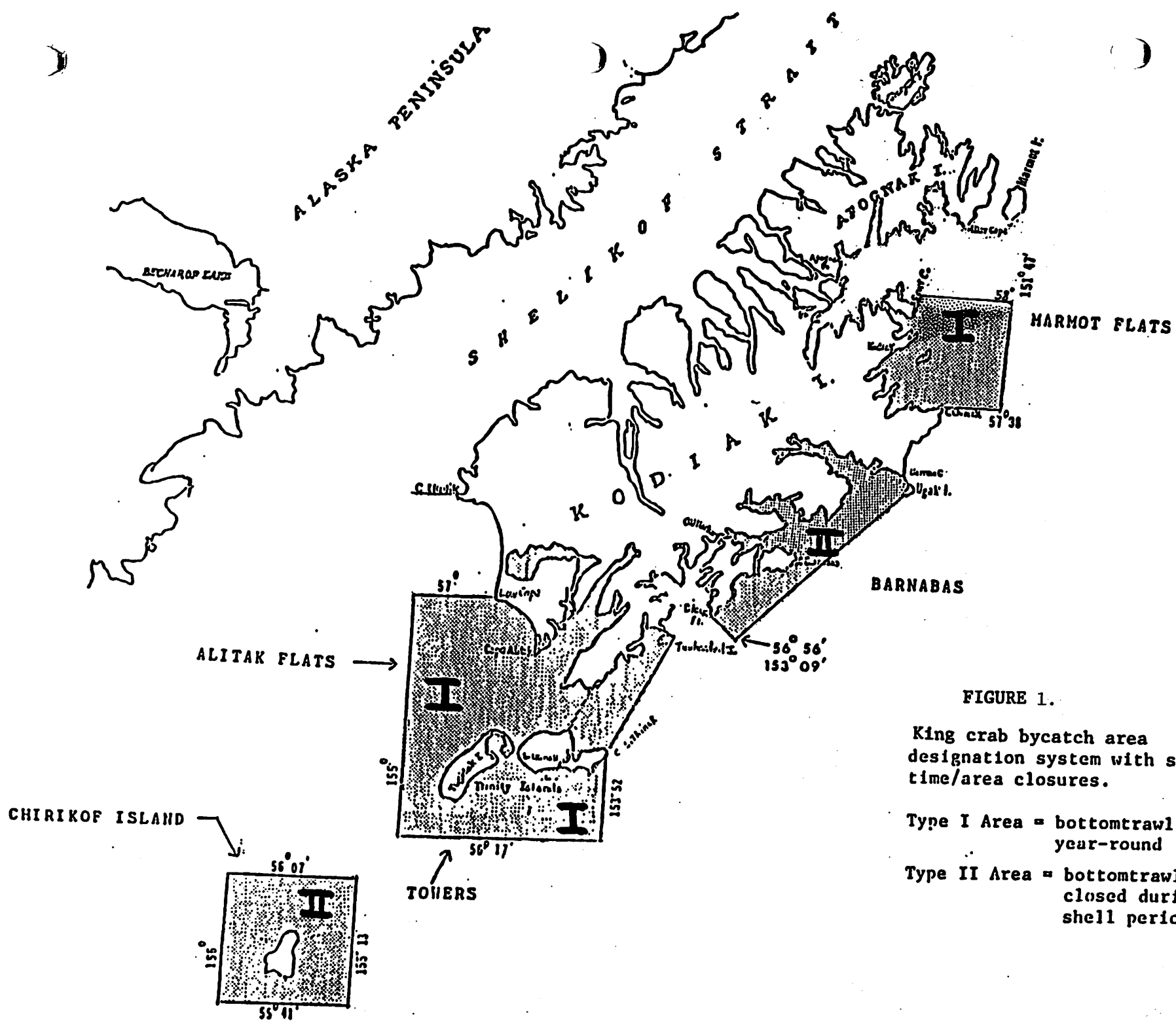


FIGURE 1.

King crab bycatch area designation system with specific time/area closures.

Type I Area = bottomtrawling closed year-round

Type II Area = bottomtrawling closed during soft-shell period

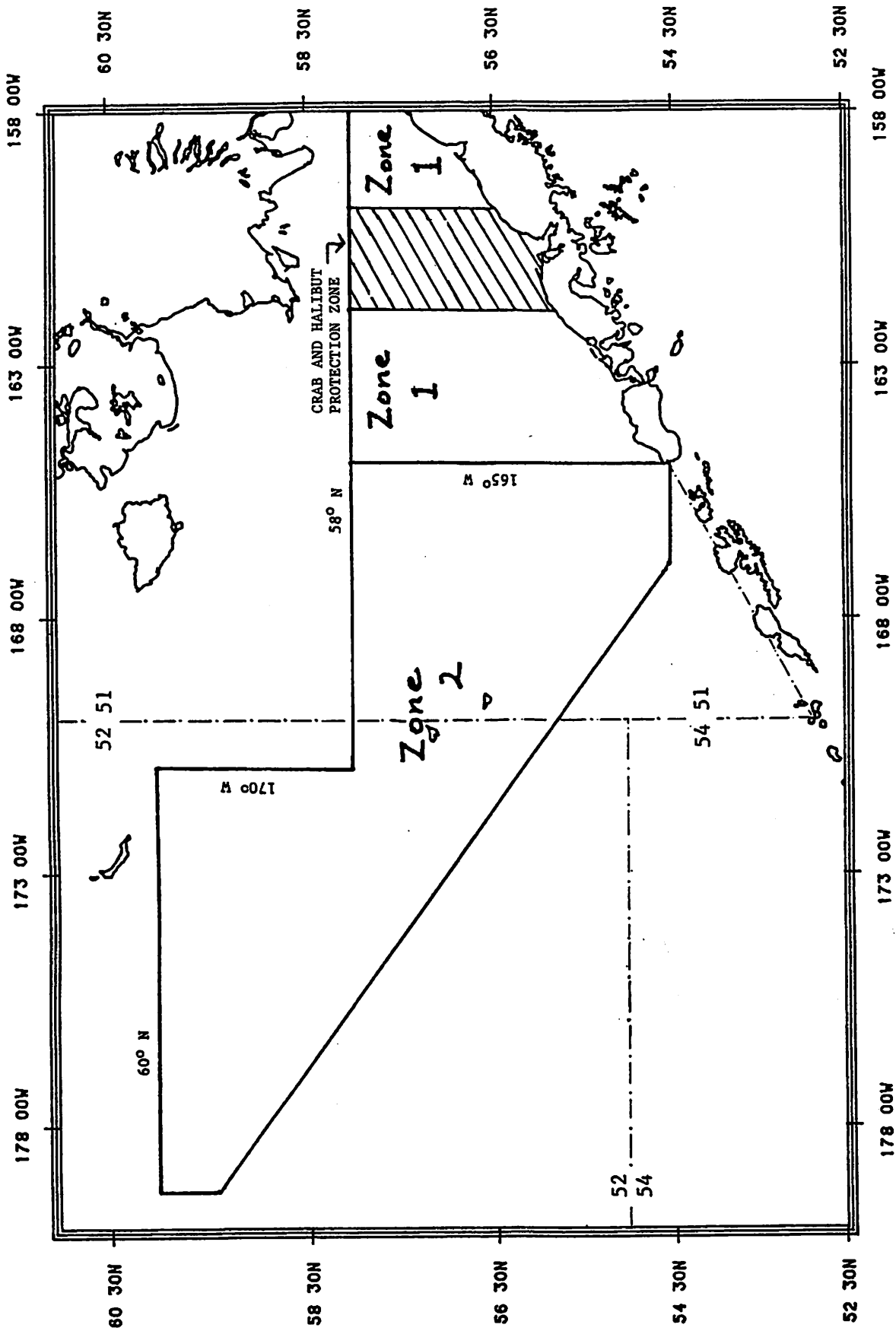


FIGURE 2. Bering Sea Restricted Areas

2. Red king crab PSC limit of 135,000 crabs for domestic operations in Zone 1. Zone 1 foreign fisheries will end when domestic fisheries are closed.
3. Pacific halibut PSC limit of 828,000 fish for joint ventures in the Bering Sea and Aleutians, which, upon being reached, will close Zone 1 to those joint ventures.
4. Domestic trawling for Pacific cod may be allowed in the southern portion of the Crab and Halibut Protection Zone provided there is a data gathering program approved by NMFS. Trawl operations will be limited in that zone by a 12,000 red king crab PSC limit.

The Council also indicated their intent to continue development of a framework to allow adjustment of PSCs on an annual basis without going through the FMP amendment procedure.

At-Sea Processor Reporting Requirements. At-sea processors will now be required to report their catches weekly whether or not they land their catch within 14 days.

Reapportionment of DAP and JVP. The FMP has been revised to include the DAH reapportionment language from the Gulf of Alaska FMP, which explicitly allows the Regional Director to reapportion unneeded DAP to JVP and unneeded JVP to DAP rather than to TALFF.

Inseason Management. Amendment 10 establishes authority to adjust TACs and PSCs to address biological emergencies that may arise inseason. NMFS indicated that this is intended to be used only for emergencies or in cases where new information indicates that a TAC or PSC was misspecified.

#### Council Turns Down Japanese Cod Request

Japanese longliners requested the Council to release 10,000 mt of Pacific cod for a directed fishery later this year. Last December the Council earmarked 37,500 mt cod (15,520 mt in the Gulf and 21,980 mt in the Bering Sea) to the longliners for the 1986 fishing year. At last week's meeting, a representative of the North Pacific Longline Association of Japan argued that Bering Sea cod stocks were very healthy and increasing in abundance and that there would be major shortfalls in the U.S. cod harvest this year compared to earlier projections.

U.S. industry representatives argued against further directed allocations because of potential price impacts on U.S. cod exports to Japan and the growing needs of the U.S. groundfish fleet.

After listening to both sides and considerable discussion, the Council voted against any further directed Pacific cod allocations to the Japanese this year.

### Crab Management Workgroup Appointed

The Council reviewed three alternatives for its involvement in managing Tanner crab, including withdrawing the fishery management plan (FMP), delegating management to the State of Alaska, or revising the FMP to increase its effectiveness. The Council voted last March to suspend federal Tanner crab regulations because of problems with inseason management and the setting of harvest guidelines.

A discussion paper was circulated during the summer to gather industry comment on the Council's future role in crab management. Based on these comments and the recommendations of its Advisory Panel, the Council established a broad-based industry workgroup charged with developing a comprehensive management framework. The workgroup has complete freedom to explore all mechanisms that will provide for effective management of the crab resources while complying with provisions of the Magnuson Fishery Conservation and Management Act. The workgroup will meet before the Council's December meeting to develop initial recommendations. In the meantime, State of Alaska regulations will continue to manage the king and Tanner crab fisheries.

The workgroup will be chaired by Larry Cotter and has the following Council and non-Council members: Lloyd Cannon, Don Collinworth, Bob McVey, Rudy Petersen, Thorn Smith, Jeff Stephan, Arni Thomson, John Winther and Bill Woods.

### No C. Bairdi Fishing for 1986

The Bering Sea C. bairdi Tanner crab fishery has been closed since 1985 due to the poor condition of the resource. Last March the Council unanimously adopted a recommendation of an AP industry workgroup that a 1986 C. bairdi fishery should be considered if the results of the NMFS summer trawl survey established a Bering Sea C. bairdi population of 72 million crab or more, even though it might be below a level capable of producing MSY.

The workgroup reconvened last week to review the status of C. bairdi stocks and recommended no directed fishery this fall. The subcommittee also recommended that to better assess the stocks for 1987 and beyond, a self-funding pot survey using chartered private vessels be organized and implemented in consultation with the Northwest and Alaska Fisheries Center, ADF&G, and the Alaska Crab Coalition.

The Council unanimously accepted these recommendations. NMFS and ADF&G will further review crab stock status before deciding on a 1987 fishery.

### Status of Crab Stocks

The following is excerpted from a summary of crab stock status presented by Brad Stevens (NMFS) at the Council meeting.

Red King Crab. The NMFS summer trawl survey of the Eastern Bering Sea showed legal males to be sparsely distributed in Bristol Bay. They were over twice as abundant as last year, primarily because of growth of pre-recruits and decreased mortalities. Other segments of the male population did not change much. Not many juveniles were recruited to the population, so the fishery may

not improve in the next few years. Females in Bristol Bay were less abundant than last year, and, from observations of molting patterns, it appears that about half of the mature females reproduced successfully and most of the rest were late in molting. The Bristol Bay fishery will open September 25, 1986 with a guideline harvest range of 6.0 to 13.0 million pounds. The harvest is expected to be in the middle of the range and the fleet is expected to average 6 to 11 crabs per pot lift.

Pribilof Islands Blue King Crab. Legal males were found primarily to the northeast of the islands and their abundance increased slightly from last year. However, very few pre-recruits were caught and their abundance decreased by 87%. Size-frequency data show that almost all segments of the male population declined over the past three years. Abundance of mature females apparently increased. Female abundance is very difficult to estimate because of their preference for rocky habitat which is not sampled well by trawls. The 1986 fishery will open September 25 with a guideline harvest of 0.3 to 0.8 million pounds. The fleet average is expected to be 1 to 3 crab per pot lift.

St. Matthew Island Blue King Crab. Legal males occur mostly south and west of the island. Their distribution was similar to last year, but their abundance declined by 64% from last year. Pre-recruit abundance did not change. Very few adult females were encountered by the survey, probably because they occur almost exclusively in rocky nearshore habitat. No significant changes were evident for any portion of the female population. Size-frequency data show very little recruitment of juvenile crab and indicate that the population probably will continue to decline, although there are indications of successful larval settlement during the past two or three years. The 1986 fishery opened on September 1 with a guideline harvest of 0.2-0.5 million pounds. About 1.0 million pounds were landed by 37 vessels in a one-week season; crabs had an average weight of about 4.4 pounds and the average CPUE was 11 crabs per pot lift. In 1985, 79 vessels landed 2.4 million pounds; the average CPUE was 9 crabs per pot lift.

Tanner Crab (*Chionoecetes bairdi*). Legal males were distributed sparsely throughout Bristol Bay and the continental slope. The highest abundance was in inner Bristol Bay. The estimated abundance of legal males has been declining since 1975 and is now at an historic low. Over the past year legal males declined by 30%, but pre-recruits increased by 33%. Although large mature females did not change in abundance, immature females increased by about 75% over 1985. Despite increased juvenile abundance, near-term recruitment to the fishery shows no signs of improvement. Due to the low estimated abundance of C. bairdi in 1985, the Bristol Bay fishery was not opened in 1986.

Tanner Crab (*C. opilio*). Large males were concentrated north and west of the Pribilof Islands, with high abundance found in the extreme northwestern portion. The distribution of pre-recruits was similar to that of large males except that their areas of highest abundance were slightly to the north. Before 1986 there was very little fishing north of 58°N latitude, and estimates of abundance probably included all portions of the fished stock. An unknown portion of the commercially exploitable stock may be north of the survey area. The estimated mean abundance of both pre-recruit and recruit male C. opilio remained stable over the past year. The estimated abundance of

juvenile males and juvenile and adult females increased. Size frequency data indicate that recruitment to the fishery will probably not improve greatly in the near-term. In the past, large populations of juveniles have been estimated which subsequently failed to recruit (e.g. 1984-85). Recruitment to this stock is unclear because it seems to occur both through localized production and by immigration from unsurveyed areas. Therefore, the current situation must be interpreted conservatively. The 1986 fishery was extended to August 24 in the Northern District. A record high of over 100 million pounds was landed and CPUE averaged 140 crabs per pot lift in the combined Bristol Bay and Pribilof Districts, a 50% increase over 1985 when 75 vessels landed 66 million pounds and averaged 120 crabs per pot. Currently there is an estimated 140 million pounds of exploitable stock within the survey area and catch rates in 1987 could exceed 100 crabs per pot. No guideline harvests for 1987 have been determined.

More detailed information on this crab survey may be obtained from the Northwest and Alaska Fisheries Center, NMFS/NOAA, 7600 Sand Point Way N.E., Building 4, BIN C15700, Seattle, Washington 98115.

#### U.S. Processed Groundfish

The amounts of groundfish harvested and processed by U.S. industry was about 109,000 mt through mid-September, including 77,599 mt in the Bering Sea and Aleutians and 31,784 mt in the Gulf of Alaska. The catch included 40,560 mt pollock, 34,368 mt Pacific cod, 23,156 mt sablefish, 6,253 mt flatfish, and 4,391 mt rockfish. U.S. processed catch is projected to reach about 200,000 mt by the end of the year, up 50% over last year's harvest of 133,000 mt off Alaska.

#### Joint Venture Update

The total joint venture catch off Alaska through August 30 as reported by NMFS was 1,025,735 mt, including 53,319 mt in the Gulf of Alaska and 972,416 mt in the Bering Sea and Aleutians. The catch was made up of about 745,000 mt pollock, 52,000 mt Pacific cod, 32,000 mt Atka mackerel, 54,000 mt flatfish, and 134,000 mt yellowfin sole. The number of U.S. trawlers on the grounds peaked out at 102 vessels in August. The annual joint venture catch is expected to reach about 1.2 million metric tons, up 36% over last year's joint venture harvest of 884,000 mt.

#### Foreign Fisheries Update

By September 15, foreign fleets off Alaska harvested 289,409 mt of groundfish. Foreign fisheries in the Gulf of Alaska are finished for 1986 and the catch totals 15,700 mt, almost all Pacific cod caught by the Japanese longliners. In the Bering Sea and Aleutians foreign fleets harvested 273,717 mt, including 225,459 mt pollock, 31,762 mt flatfish, and 14,724 mt Pacific cod.

The number of foreign vessels off Alaska increased to 349 in July and then declined to 171 in August. On September 18 there were 119 foreign vessels including 88 from Japan, 29 from Korea, and one each from the Soviet Union and Poland.

Coast Guard Reports on Enforcement Activities

On August 3 the Coast Guard sighted the Japanese vessel HOKO MARU NO. 31 illegally fishing for Tanner crab in the Bering Sea. A week later the vessel was sighted fishing within the Bering Sea area claimed by both the U.S. and the Soviet Union. The Coast Guard Cutter MIDGETT intercepted and attempted to board; however, the HOKO MARU NO. 31 fled west of the 1867 U.S./U.S.S.R. Convention Line. The MIDGETT returned east of the Convention Line after 14 hours of pursuit and surveillance and, within 12 hours, again intercepted the Japanese vessel as it re-entered the Exclusive Economic Zone (EEZ) to resume crabbing operations. Repeated attempts to board were unsuccessful, with the HOKO MARU NO. 31 claiming they were authorized by the Soviets to fish for Tanner crab in that area. A lengthy diplomatic process was begun which resulted in the HOKO MARU NO. 31 retrieving its gear, returning all crab to the sea, and submitting to a Coast Guard boarding. Numerous violations were issued for infractions of the Magnuson Act.

The Coast Guard also reported expending 34 cutter patrol days and 14 C-130 flights in monitoring the Japanese landbased salmon fleet, but found no infractions. In July the South Korean squid vessel No. 1 JIN HEUNG was boarded outside the U.S. EEZ and found to have 59 frozen chum salmon and 8 frozen fur seals in the vessel's holds. The State Department immediately filed a complaint with the Korean government, which responded that the vessel had violated Korean regulations and would be prosecuted.

A Taiwanese gillnet vessel, the CHAN HORNG NO. 1, was found operating in an area closed to squid gillnet vessels. Repeated attempts to board the Taiwanese vessel were ignored and the boarding attempt was aborted. In August the Coast Guard sighted seven Japanese squid gillnet vessels fishing north of the area authorized by Japanese regulations. Several other Japanese squid vessels that were boarded in authorized areas had logbook entries indicating they had fished too far north.