FOREIGN FISHING ACTIVITIES BERING SEA AND GULF OF ALASKA 1971

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL MARINE FISHERIES SERVICE

ENFORCEMENT AND SURVEILLANCE DIVISION

JUNEAU, ALASKA

October 4, 1973

FOREIGN FISHING ACTIVITIES BERING SEA AND GULF OF ALASKA, 1971

ERRATA

Please make the following changes:

Soviet Fishing Operations, Pacific Ocean Perch Fishery page 21 delete the last paragraph.

Summary of 1971 Soviet Operations, Pacific Ocean Perch Fishery page 31 correct last sentence to read as follows - The 1971 ocean perch catch totaled 43,589 metric tons-- about half the 1970 catch.



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> Juneau, Alaska August, 1973

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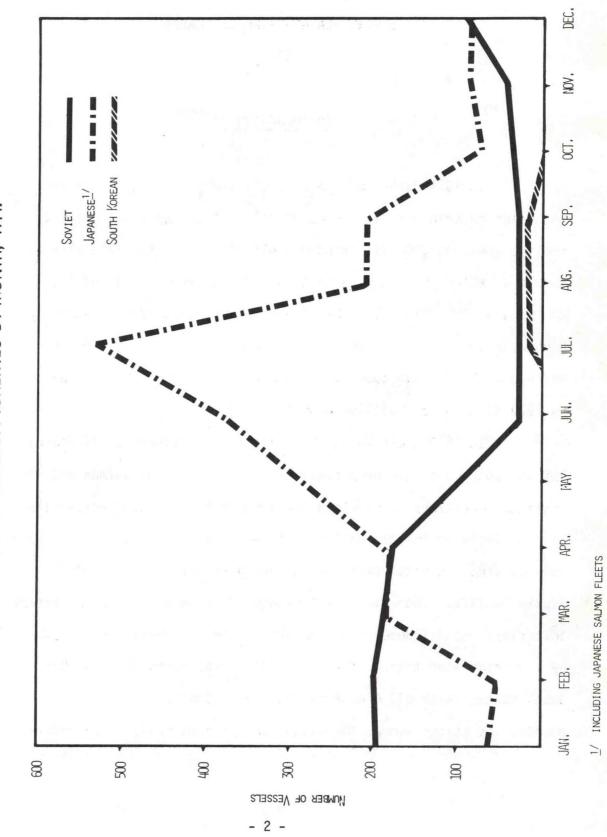
FOREIGN FISHING ACTIVITIES BERING SEA AND GULF OF ALASKA 1971

INTRODUCTION

In 1971 Japan and the U.S.S.R. continued their massive fisheries covering Alaska's Continental Shelf. The two countries employed nearly 1,300 different vessels off Alaska in 1971. The number of ships present simultaneously varied from a high of 549 to a low of 107 (Fig. 1). The effort by each country was generally higher in 1971 than in 1970, but the total catch of fish, shellfish and whales by the two countries dropped from over 3.9 billion pounds in 1970 to about 3.7 billion pounds in 1971.

In 1971 South Korea again engaged in fisheries off Alaska but in contrast to the previous year did not fish for salmon and confined operations to trawling for groundfish. Fishing activities were entirely in the Bering Sea centered primarily around the Pribilof Islands area. A total of 17 South Korean vessels operated off Alaska in 1971. Those vessels included 13 ships comprising a factory ship fleet and 3 independently operating stern trawlers supported by 1 refrigerated transport vessel. It is estimated that in 1971 South Korean catch off Alaska totaled approximately 11 million pounds. As stated above, the catch consisted entirely of groundfish,

FIGURE 1. - - ESTIMATED NUMBER OF VESSELS IN SOVIET, JAPANESE, AND SOUTH KOREAN FISHERIES BY MONTH, 1971.



mostly Alaska pollock. About the same amount of groundfish was taken by the South Koreans off Alaska in the Bering Sea in 1970.

Throughout 1971 the U.S. Coast Guard and the National Marine Fisheries Service (NMFS) continued intensive joint patrols to enforce U.S. fisheries laws and regulations, to police the fisheries subject to international fishery agreements, and to maintain surveillance of the extra-treaty foreign fisheries.

UNITED STATES FISHERY PATROL ACTIVITIES

United States fishery patrols off of Alaska in the North Pacific Ocean and Bering Sea in 1971 covered more than 89,000 miles by ships and 236,000 miles by aircraft (Appendix Figs. 1-7). As in past years, these patrols performed a dual mission: (1) maintaining surveillance of foreign fisheries contiguous to Alaska and (2) enforcing the following international fishery agreements and associated U.S. laws:

- A. International Convention for High Seas Fisheries of the North Pacific Ocean (commonly known as the INPFC) of 1953 involving Japan, Canada, and the United States.
- B. Convention between the United States and Canada for Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea (commonly known as the IPHC) of 1953.
- C. Convention for the Protection of North Pacific Fur Seals of 1957 involving Japan, Canada, the U.S.S.R., and the United States.
- D. International Convention for the Regulation of Whaling of 1946 involving the major whaling nations of the world.
- E. U.S.-U.S.S.R. Agreement Relating to King and Tanner Crab Fishing in the Northwestern Pacific Ocean.
- F. U.S.-Japan Agreement Relating to King and Tanner Crab Fishing in the Northeastern Pacific Ocean.
- G. U.S.-U.S.S.R. Agreement Establishing Areas of Fixed Fishing Gear off Kodiak Island.

- H. Public Law 88-308 an act of 1964 prohibiting foreign fishing in the territorial waters of the United States.
- I. Public Law 89-658 an act of 1966 establishing U.S. jurisdiction within a contiguous fishery zone extending nine miles seaward of the 3-mile territorial sea.
 - (1) U.S.-U.S.S.R. Agreement implementing Public Law 89-658.
 - (2) U.S.-Japan Agreement implementing Public Law 89-658.
 - (3) U.S.-Canada Agreement implementing Public Law 89-658.

Aerial patrols were conducted by HU-16E (Grumman Albatross) piston-powered aircraft from the Coast Guard Air Station on Annette Island and by C-130H (Lockheed Hercules) turbo-prop-powered aircraft from the Coast Guard Air Station on Kodiak Island. Surface patrols were conducted by the Alaska-based Coast Guard Cutters CONFIDENCE, STORIS, BALSAM, BITTERSWEET, CLOVER, SEDGE, SORREL, CITRUS, IRONWOOD, and SWEETBRIER, and by the Cutters PONTCHARTRAIN, RESOLUTE, and YOCONA, which were assigned to the Alaska area on a rotational basis.

A total of 69 boardings were made on foreign fishing vessels off of Alaska in 1971 (Appendix Table 7). These included 58 boardings of Japanese vessels, 8 boardings of Soviet vessels, 1 boarding of a South Korean vessel, and 2 boardings of Canadian vessels. Forty-five boardings were for enforcement purposes and 25 were courtesy boardings.

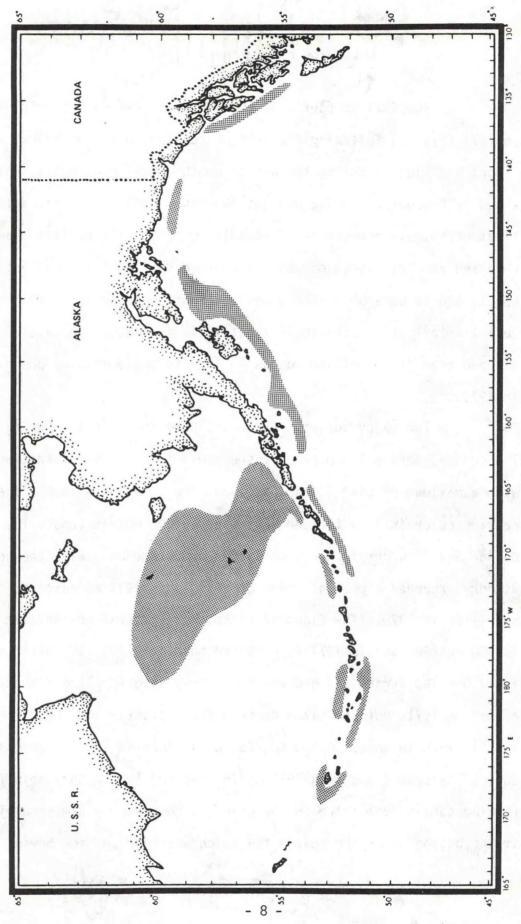
In 1971 two Soviet trawlers and one Japanese longline vessel were seized for fishing within the U.S. contiguous fishery zone, and one Canadian vessel was seized for fishing within U.S. territorial waters. The Canadian vessel was also found in apparent violation of the Pacific Halibut Fishery Regulations and documentation of that violation was furnished to the Canadian Government for use in prosecution. Details of the intrusions into the U.S. territorial waters and the U.S. Contiguous Fishery Zone are presented in Appendix Tables 8 and 9. Details of Violations of International Agreements are presented in Appendix Table 10.

SOVIET FISHING OPERATIONS

The Soviets continued their extensive fisheries off Alaska in 1971 (Fig. 2) following the same pattern as in recent years. Effort was highest during the winter months peaking at nearly 200 ships in February. Spring brought the usual decline and the Soviet fleet off Alaska dropped to 18 vessels by July. The pattern then reversed and the number of vessels climbed continuously reaching nearly 100 in December. There was a slight increase in overall Soviet effort off Alaska in 1971 but it is estimated the catch dropped from 760.3 million pounds in 1970 to 584.5 million pounds in 1971.

The major Soviet effort continued to be in the Bering Sea. The central Bering Sea herring fishery was the largest expedition with a maximum of over 110 ships, about the same as in 1970. The herring catch in 1971 totaled just over 60,000 metric tons. The eastern Bering Sea flounder fishery, conducted simultaneously with the herring fishery, reached a peak of about 80 vessels in 1971 as compared to nearly 60 in 1970. The flounder catch, however, was an estimated 70,000 metric tons in 1971 as compared to nearly 100,000 metric tons in 1970. The Bering Sea groundfish fishery also involved a greater effort in 1971, but the catch dropped from slightly over 60,000 metric tons in 1970 to an estimated 42,000 metric tons in 1971. The eastern Bering Sea crab fishery in 1971 again involved two factory ship fleets fishing tangle nets. Ice on the crab ground severely hampered fishing at the beginning of the season the catch was short of the Soviet quota.

FIGURE 2. - - SOVIET FISHING AREAS OFF ALASKA, 1971.



The ocean perch fishery in the Gulf of Alaska and along the Aleutian Islands, once the largest and most productive Soviet fishery off Alaska in 1971, was again only a minor expedition.

The Soviet Gulf of Alaska shrimp fishery was at about the same level in 1971 as in 1970 but the 1971 catch was 4,700 metric tons, 500 tons more than the 1970 catch. Soviet whaling in 1971 remained far off shore in the North Pacific.

In 1971, 469 Soviet vessels were identified in the fisheries off Alaska. As in past years most of the ships involved were trawlers, primarily SRTM and SRT side trawlers and BMRT stern trawlers.

Support vessels included large factory ships, refrigerated processing and transport ships, cargo ships, tankers, tugs, and passenger liners. Identity by class of the individual ships engaged in the fisheries off Alaska in 1971 is listed in the appendix.

SRT--Sredniy Rybolovnyy Trauler, or medium fishing trawler.
SRTM--Sredniy Rybolovnyy Trauler Morozilnyy, or freezing medium trawler.

BMRT--Bolshoy Morozilnyy Rybolovnyy Trauler, or large freezer fishing trawler (commonly called stern or factory trawler).

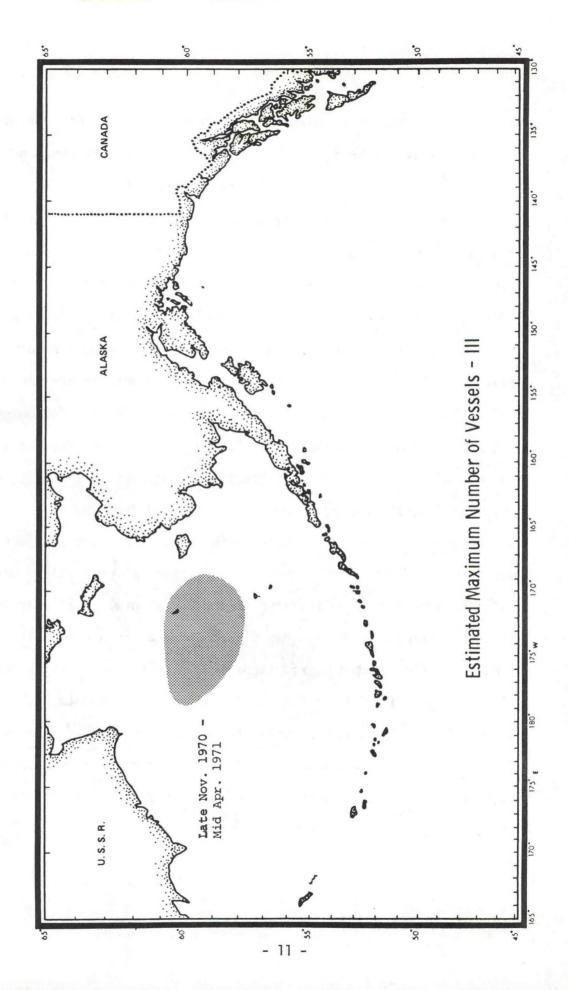
Herring Fishery

The Soviet herring fishery (Fig. 3) was the largest Soviet expedition off Alaska in 1971. The herring fishery is a winter expedition on the Continental Shelf north and west of the Pribilof Islands in the central Bering Sea. The 1971 fishery involved a maximum fleet of over 110 vessels and caught just over 60,000 metric tons of herring. That effort in 1971 and 1970 was about equal but the 1971 catch dropped more than 30,000 metric tons from 1970.

The 1971 herring fishery was begun in late November 1970 by a dozen reconnaissance trawlers. Within a month the fleet increased to about 70 trawlers and over a dozen support ships. The expedition continued to expand and reached its peak in early January. Involved were over 50 stern trawlers (mostly BMRT's), 35 SRTM's, 5 SRT's, nearly 10 factory ships, 8 refrigerated transports and a couple of tugs and tankers. The fleet dropped slightly to about 100 ships in February and then dropped sharply to about 50 ships by the end of March. Some of the trawlers shifted emphasis to fishing for Alaska pollock in March. The fleet dropped to about 40 vessels in early April. About mid-April the herring expedition ended when the vessels from the herring fishery joined the vessels of the eastern Bering Sea flounder fishery. The consolidated fleet shifted to on and along the edge of the Continental Shelf near the Pribilof Islands and fished for Alaska pollock and flounder.

The 1972 herring fishery was begun by a reconnaissance fleet involving about two dozen trawlers in late November 1971. The expedition increased steadily and by the end of the year involved nearly 80 ships.

FIGURE 3. - - SCVIET HERRING FISHING AREA, 1971.

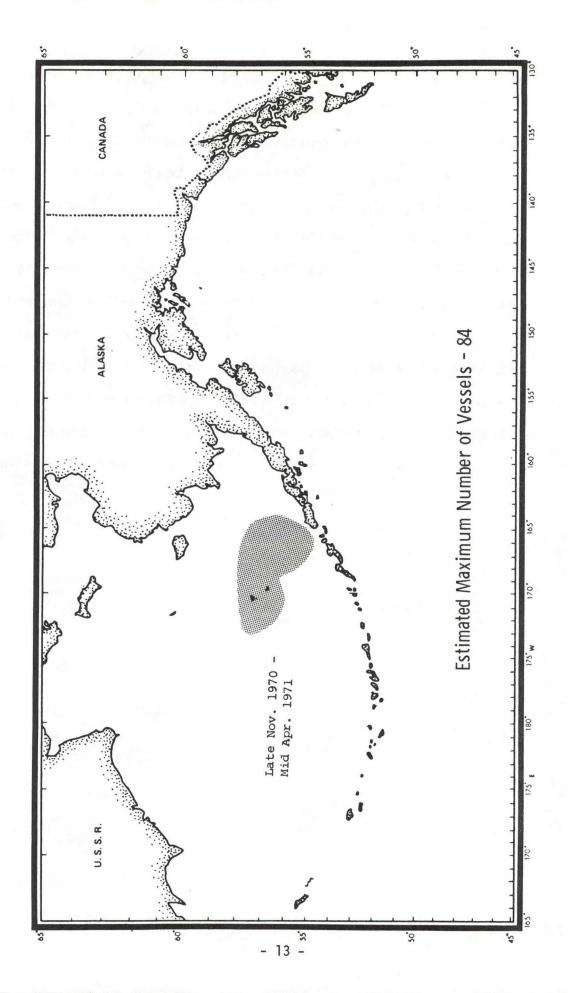


Flounder Fishery

The Soviet flounder fishery (Fig. 4) is a winter expedition on the Continental Shelf north of Unimak Island in the eastern Bering Sea. It is the Soviets second largest fishery off Alaska, surpassed only by their herring fleet in number of vessels. Operations of the flounder fleet were expanded in 1971 when, late in the season, it merged with the herring fleet, shifted to near the Pribilof Islands and, in addition to flounder, sought other species - primarily Alaska pollock.

The 1971 fishery began with the arrival of six reconnaissance trawlers on the eastern Bering Sea fishing grounds in late November 1970. The number of vessels increased to 40 during the following two week period and by the end of December 1970 there were about 50 vessels on scene. The size of the fleet continued to increase through the winter months rising to over 60 vessels in January, over 70 vessels in February and over 80 vessels in March. In April the flounder fleet was joined by vessels from the herring fishery and operations were shifted to on and along the edge of the Continental Shelf near the Pribilof Islands. Emphasis was placed on catching Alaska pollock and flounder. The fleet numbered about 125 vessels in the latter half of April and the first week of May. The expedition began to disband the second week of May and was terminated by the end of May. The 1971 flounder catch was approximately 70,000 metric tons, considerably smaller than the 1970 catch of 97,773 metric tons. The 1971 flounder fleet, however, was the largest fleet since 1968.

FIGURE 4. - - SCVIET FLCUNDER FISHING AREA, 1971.



In 1971, seven trawling violations of the U.S.-U.S.S.R. crab agreement of 1971 were substantiated. The seven violations were committed by Soviet trawlers inside the pot sanctuary north of Unimak Island. All of the violations occurred between mid-February and late March and were undoubtedly committed by ships operating in the flounder fishery. The loss of crab pots to Soviet trawlers is an annual complaint of U.S. crabbers operating in the pot sanctuary.

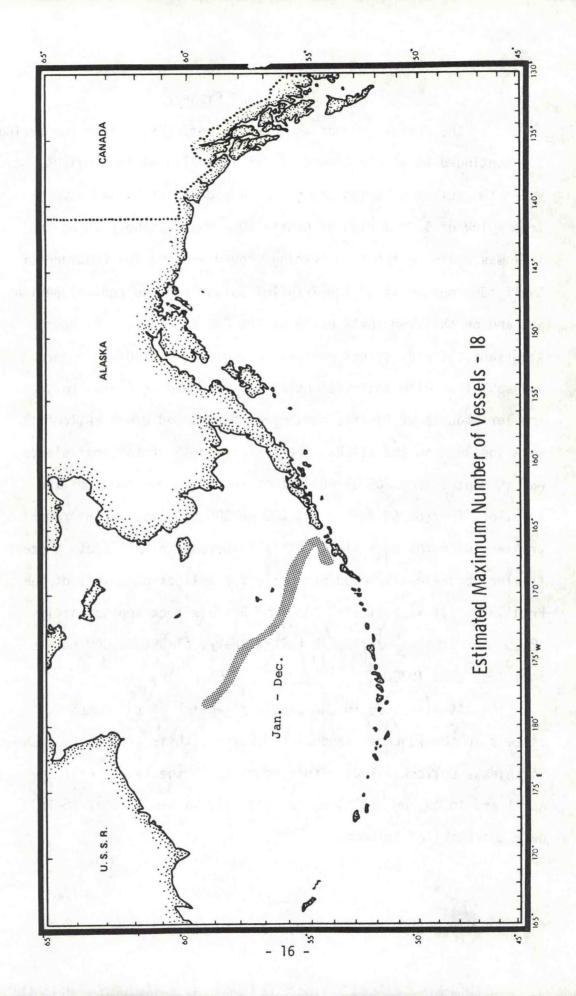
By mid-October 1971, more than a month earlier than normal, six reconnaissance stern trawlers began fishing for flounder north of Unimak Island. The number of trawlers remained constant through November. In December the number of vessels increased and by the year's end there were 30 vessels in the 1972 flounder expedition.

Groundfish Trawl Fishery

The Soviet groundfish trawl fishery (Fig. 5) in the Bering Sea continued as a year around effort in 1971. As in previous years the number of ships engaged at any one time varied widely from a low of 6 to a high of nearly 20. Most of the fishing in 1971 was again on two main fishing grounds--along the Continental Shelf edge northwest of the Pribilof Islands in the central Bering Sea and on the deep shelf north of the Fox Islands in the eastern Aleutians. Steady effort was maintained on arrowtooth flounder and sablefish with intermittent strong pressure on Alaska pollock. Smaller amounts of Pacific cod, ocean perch, and other bottomfish were included in the catch. The fishery north of the Fox Islands was in depths from 100 to 600 fathoms and that northwest of the Pribilofs in from 60 fathoms to 200 or 300 fathoms. SRTM freezer trawlers were the main stay of this fishery with BMRT factory stern trawlers occasionally used primarily for pollock northwest of the Pribilofs. It is estimated that the Soviets took approximately 42,000 metric tons of fish in this fishery, almost 20,000 metric tons less than 1970.

As discussed in the previous section of this report, vessels in the flounder expedition expanded their efforts to fishing for Alaska pollock. That effort occurred in the latter half of April and in May on and along the edge of the Continental Shelf near the Pribilof Islands.

FIGURE 5. - - SOVIET GROUNDFISH TRAWL FISHING AREA, 1971.



The rather steady effort for sablefish and arrowtooth flounder by SRTM freezer trawlers has never appeared to be a particular productive fishery. Catches are light, averaging between 1 and 4 tons per drag. The drags are long, usually 2 to 4 hours each depending upon the depth of water and the weather. Both species are gutted and in some cases the sablefish are headed, and then frozen and packed in standard 35 kg. brown paper cartons.

In January and February the fleet consisted of seven SRTM freezer trawlers with one refrigerated transport on the shelf north of the Fox Islands. Fishing was primarily from 200 to 500 fathoms. The fleet increased in March and April to 15 SRTM's and 1 RT and remained north of the Fox Islands. The number of SRTM's in that area dropped to twelve in May. In June the fleet divided with 6 SRTM's fishing north of the Fox Islands and 6 SRTM's fishing northwest of the Pribilof Islands in the central Bering Sea. In July six SRTM's continued fishing northwest of the Pribilofs but the effort north of the Fox Islands dropped to two SRTM's. The fleet increased in August to 10 trawlers and 1 support ship northwest of the Pribilofs and three SRTM's north of the Fox Islands. The fishery continued to grow through September when by mid-month 15 medium trawlers and three stern trawlers were northwest of the Pribilofs. That area was soon abandoned and by the end of the month seven SRTM's and three BMRT's off the Fox Islands were the only ships involved in this fishery. The fishery continued to fluctuate in October from eight SRTM's, two BMRT's and one support

ship to six SRTM's at mid-month and up again to 14 SRTM's by the end of October. Most of the fishing was north of the Fox Islands. Effort stabilized in November to 10 SRTM's north of the Fox Islands and with minor fluctuations remained at about this level through the end of the year.

Pacific Ocean Perch Fishery

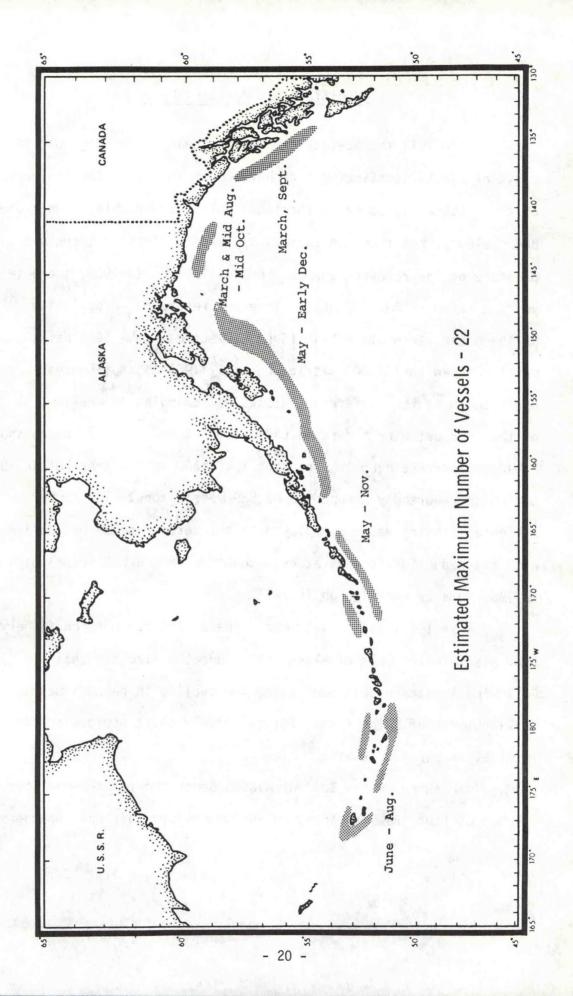
In 1971 the Soviets fished for ocean perch (Fig. 6) off the coast of Alaska, continuing a fishery begun in 1960. The history of this fishery is somewhat short but quite predictable. The fishery began slowly, but then the Soviets applied an alarming increased pressure on the resource during the mid 1960's. In 1965, the peak year, a catch of 382,032 metric tons was recorded. A depletion of the ocean perch stocks was first reflected in the 1966 catch which dropped to 135,000 metric tons. By 1969 the total ocean perch catch by the Soviets off Alaska had dwindled to one-twelfth of the 1965 catch or a mere 44,640 metric tons. The 1970 catch showed a modest increase over 1969 raising to 81,590 metric tons but in 1971 the catch reportedly dropped to 43,589 metric tons. The number of Soviet fishing vessels employed in the perch fishery has declined with the reduction in fish stocks, tumbling from a 200 vessel high in 1965 to a 19 vessel high in 1971.

In 1971, as in past years, the Soviet ocean perch fishery took place in the Gulf of Alaska and along the Aleutian chain.

Following a pattern developed since the decline in perch stocks, small numbers of ships fished for relatively short periods of time in widely separated areas.

Fishing in the Gulf of Alaska began about mid-March when a group of four trawlers appeared in the eastern Gulf near southeastern

FIGURE 6. - - SCVIET PERCH FISHING AREAS, 1971.



Alaska. The fishery was expanded to the Yakutat grounds and then at the end of March was temporarily halted. In early May fishing was resumed by four trawlers in the western Gulf. Fishing was expanded to off Kodiak in the central Gulf in June. By the end of July, eleven trawlers were fishing the western and central Gulf, primarily on Albatross and Portlock Banks and west of Chirikof Island. The fishery continued in these areas, varying in intensity through November. Short forays to the Yakutat grounds in eastern Gulf were made by a few vessels between mid-August and mid-October. September was the month of maximum effort in the Gulf with 16 ships present. Perch fishing in the Gulf ended the first week of December.

Along the Aleutians, perch fishing began in May and continued through November. The Soviet effort was divided between two general areas -- one in the western Aleutians and the other along the Fox Islands in the eastern Aleutians with the major effort in the latter area. BMRT's were the principal type trawlers employed along the Aleutians and the number varied between 1 and 6.

The total 1971 Soviet catch is estimated at 80,000 metric tons. That compares closely with the 1970 catch of 81,590 metric tons.

Crab Fishery

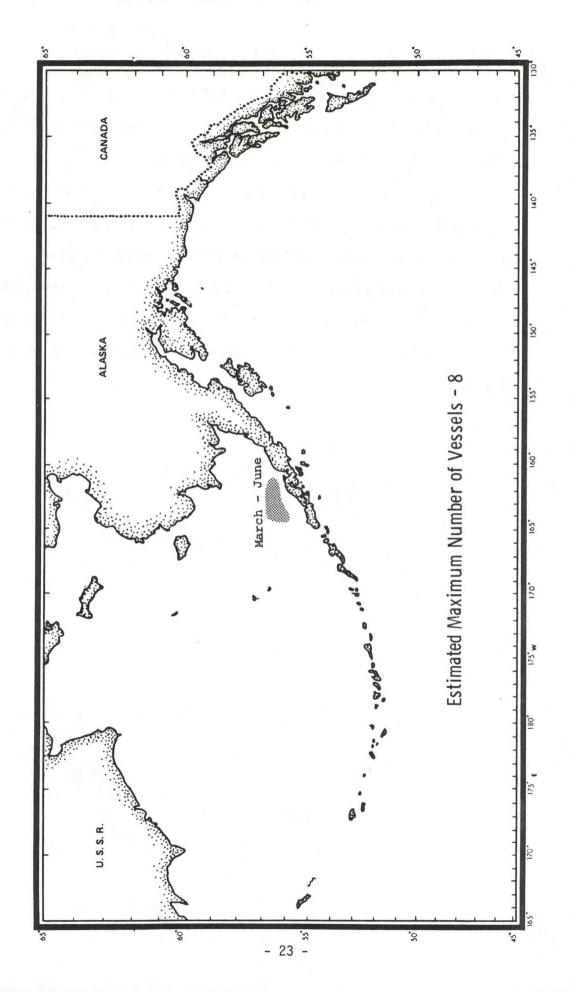
The 1971 Soviet eastern Bering Sea crab fishery (Fig. 7) was conducted by two <u>Zakharov</u> factory ships with six accompanying SRT's serving as tangle net setters. Both fleets arrived on the fishing grounds in March; one stayed until early May and the other remained until June.

Persistent pack ice in the eastern Bering Sea severely hampered and restricted crab fishing until mid-April. Because of the ice conditions Soviet officials aboard one of the factory ships requested, from a U.S. boarding party who visited the factory ship in early April, permission to fish for crab on Davidson Bank south of Unimak Island, or off the Pribilof Islands. The Soviets were advised they could fish off the Pribilof Islands outside of the Contiguous Zone but the terms of the U.S.-U.S.S.R. agreement covering crab fishing prohibited their fishing in the Gulf of Alaska.

Although the Soviets have verbally conceded to U.S. pressure to terminate their tangle net fishery by the end of 1973 they have not yet started the change to a pot fishery. Their continued reliance on tangle nets meant they could not fish in the Crab Pot Sanctuary north of Unimak Island which was relatively free of ice when they arrived on the grounds in March.

The 1969-70 U.S.-U.S.S.R. Crab Agreement set the quota for the Soviet crab catch at 52,000 cases (48 half pound cans per case) of king crab and 40,000 cases of tanner crab. This was nearly

FIGURE 7. - - SOVIET CRAB FISHING AREA, 1971.



50 percent less than the quota in the 1967-68 agreement. The 1971-72 U.S.-U.S.S.R. agreement imposed a further reduction to 23,000 cases of king crab and 35,000 cases of tanner crab.

Unlike the Japanese the Soviets fell short of their king crab quota. One of their factory ships departed the area in late April while the second remained until early or middle June. The 1971 Soviet crab catch off Alaska totaled 264,994 king crab (10,694 cases) and 4,204,231 tanner crab (27,390 cases). Statistics on the Soviet eastern Bering Sea crab fishery for 1959-71 are given in Appendix Table 12.

Shrimp Fishery

The Soviet shrimp fishery in the Gulf of Alaska (Fig. 8) was a month longer in 1971 than in 1970, but the catch in both years was about equal. The 1971 expedition began in early January, about a month earlier than the 1970 expedition. The fishery ended in early May in both 1971 and 1970. The 1971 catch totaled 4,700 metric tons -- 500 tons more than the 1970 catch. The peak number of trawlers was 20 in 1971, the same as in previous years. SRTM medium freezer trawlers were again the type of fishing vessels employed in the fishery.

A fleet of six SRTM's began fishing on the Continental Shelf near Lighthouse Rocks east of the Shumagin Islands in early January. By mid-January the number of trawlers had increased to 16 and a refrigerated transport vessel joined the fleet. The fishery remained centered in the Lighthouse Rocks area until the second week of February when 8 of the 16 SRTM's shifted east to Portlock Bank off Kodiak Island. In late February and early March there was a shifting of vessels back and forth between the Lighthouse Rocks area and Portlock Bank area. In mid-March the effort was stabilized with 12 SRTM's fishing on Portlock Bank and 4 fishing in the Lighthouse Rocks area. The fleet remained so distributed until the second week of April when the pattern was reversed with 12 SRTM's fishing in Lighthouse Rocks area and 4 fishing on Portlock Bank. About mid-April the peak strength occurred with 16 SRTM's fishing in the Shumagin Islands and 4 in Portlock Bank area. In

CANADA Estimated Maximum Number of Vessels - 21 U. S. S. R. - 26 -

FIGURE 8. - - SOVIET SHRIMP FISHING AREAS, 1971.

the third week of April the 16 SRTM's in the Shumagin Islands area was joined by one Zakharov class canning factory ship. At the same time the number of SRTM's fishing on Portlock Bank dropped from four to one with three vessels departing the Alaskan area. In the last week of April the effort dropped to six SRTM's all in the Shumagin Islands area and the fishery ended the first of May.

In 1971 the Soviets cooperated with the NMFS and Alaska Department of Fish and Game (ADF&G) in a coordinated shrimp fish research study in the Kodiak Island area. The Soviet SRTM research trawler <u>Kirl</u> fished outside of the U.S. CFZ around Kodiak Island around February 15 to April 15 and was accompanied by NMFS and ADF&G scientists.

Whaling

In 1971 the Soviet North Pacific whaling expedition involved two whaling factory ships, same number as in the previous year, but employed a total of 28 whale killer vessels, 7 less than in the previous year. Whaling began in June and ended in October. The Soviet's continued to follow the pattern of whaling as in past years by remaining well off shore and in 1971, the second consecutive year, no Soviet whaling was conducted within Alaska area.

The Soviet North Pacific whale kill totaled 6,635 whales in 1971 as compared to 9,826 in 1970 and 9,882 in 1969. Again, in 1971 the vast majority (83 percent) of whales taken by the Soviets were sperm whales. Complete statistics on the Soviet North Pacific whale kill are presented in the Appendix Table 14.

At its 23rd Annual Meeting held in Washington, D.C. from June 21-25, 1971, the International Whaling Commission reduced by 20 percent the 1972 North Pacific Whale quota. The Soviet quota was reduced from 9,943 in 1971 to 7,955 in 1972. As pointed out above, the Soviet 1971 kill totaled 6,635 whales or only about 67 percent of the Soviet quota.

SUMMARY OF 1971 SOVIET OPERATIONS

The Soviets continued their widespread fisheries off Alaska in 1971. Fishing effort increased slightly over the previous year and the trend of employing larger trawlers and support ships continued. The catch, however, decreased by almost 13 percent dropping from over 760 million pounds in 1970 to about 584 million pounds in 1971. The major drops occurred in the flounder fishery, the crab fishery, and the groundfish trawl fishery. The fishing pattern was the same as it has been for the past several years with the peak effort in the winter and lowest effort in the summer.

Herring fishery

The 1971 Soviet herring expedition in the central Bering Sea increased for the fourth consecutive year. The fishery began in late November 1970 and increased to 70 trawlers and a dozen support ships by the end of the year. It peaked during the first two weeks in Januarywhen over a 110 ships were involved—about the same as in 1970. The estimated 1971 catch was just over 60,000 metric tons, about 30,000 metric tons less than in 1970.

Flounder fishery

The 1971 Soviet eastern Bering Sea flounder fishery on the Continental Shelf in the eastern Bering Sea was the largest flounder expedition since 1968. The fishery began in November and increased steadily during the winter reaching over 80 vessels in March. In April the flounder fleet was joined bby vessels from

the herring fishery and the consolidated fleets totaled 125 ships. At that time fishing was shifted northwest to west of the Pribilof Islands and emphasis was placed on fishing for Alaska pollock as well as flounder that marked a second year of such a shift of fishing area and expansion of effort to fishing for Alaska pollock. The expedition began to disband in early May and ended by the end of May. In spite of the increased effort it is estimated the 1971 catch was down some 27,000 metric tons from the 1970 catch of over 97,000 metric tons.

Groundfish trawl fishery

The Soviet groundfish trawl fishery in the Bering Sea continued as year-round operation in 1971. The number of trawlers, primarily SRTM medium freezer trawlers varied between 6 and 20. Fishing was mostly on accustomed grounds along the Continental Shelf edge northwest of the Pribilof Islands and on the deep shelf north of Fox Islands in the eastern Aleutian Islands. Pollock, sablefish and arrowtoothed flounder were the primary species caught and lesser quantities of Pacific cod, ocean perch and other bottomfish were taken. It is estimated the groundfish trawl fleet 1971 catch totaled about 42,000 metric tons--almost 20,000 metric tons less than the 1970 catch.

In addition to the groundfish trawl fleet, vessels of the winter flounder expedition in the eastern Bering Sea also fished for Alaska pollock in 1971. Such fishing occurred in the latter half of April and in May, along the Continental Shelf edge near the Pribilof Islands.

Pacific Ocean perch fishery

The Soviet ocean perch fishery followed the same pattern as in recent years with fishing widely scattered through the Aleutians and along the Gulf of Alaska Continental Shelf rim. Small numbers of ships fished for short periods of time and in widely separated areas. Many of them apparently spent only a few days fishing for ocean perch as they moved between major fishing or while enroute to or from their home port. It is estimated the 1971 ocean perch catch totaled about 80,000 metric tons—the same as their 1970 catch.

Crab fishery

The Soviet eastern Bering Sea crab fishery was conducted by two factory ship fleets in 1971, as it has been since 1969. Each fleet consisted of a <u>Zakharov</u> class canning factory ship accompanied by three tangle net setting SRT side trawlers. The fleets arrived in the fishing area about mid-March as is usual, but fishing was severely hampered until mid-April because of heavy pack ice. One of the fleets left the end of April and the second remained until the first half of June when it departed for the Soviet Union. Even though the bilateral agreement between the U.S. and the U.S.S.R., that was signed in January 1971, reduced the Soviet crab quota to 23,000 cases of king crab and 35,000 cases of tanner crab (48 one-half pound cans) the catch did not reach this figure. The 1971 Soviet catch totaled 264,994 king crabs (10,694 cases) and 4,204,231 tanner crab, (27,390 cases).

Shrimp fishery

The Soviet shrimp fishery began in the Gulf of Alaska in early January, 1971, five weeks earlier than in 1970. It ended in early May, the same time as in 1970. The number of vessels remained approximately the same as in 1970 with a peak of 20 SRTM trawlers and one factory ship. Again most of the effort was near the Shumagins, except for a short period when most of the fleet moved to Portlock Bank near Kodiak Island. The catch increased from 4,200 metric tons in 1970 to 4,700 metric tons in 1971. The Soviet research ship <u>Kirl</u> worked in conjunction with U.S. scientists and the U.S. research ship <u>Oregon</u> in a coordinated shrimp study around Kodiak Island from February to April.

Whaling

The U.S.S.R.'s North Pacific whaling fleets remained well off shore in 1971, as in 1970, and were not sighted near Alaska's coast line.

JAPANESE FISHING OPERATIONS

Japan continued her all encompassing fisheries off Alaska in 1971 (Fig. 9) in much the same pattern as in 1970 and 1969. The most intensive effort continued to be in the eastern Bering Sea with lighter pressure along the Aleutian Islands and in the Gulf of Alaska. Again, the peak effort occurred during the summer months but there were extensive Japanese fleets off the coast during the entire year.

The Japanese fish in the same areas as the Soviets off In addition they conduct a very large high seas salmon fishery, one that the Soviets do not exploit in the Alaska region. The Japanese fishery off Alaska is four times as productive as that of the Soviets, catches estimated 3.1 billion pounds of fish, shellfish and whales in 1971 as compared to a Soviet catch of 584 million pounds. Japanese fishing effort increased slightly in 1971, not with a great many more ships but by constant improvement in equipment and ships. Large factory stern trawlers of over 5,000 gross tons entered the Japanese fleet and many of the smaller vessels, such as the Danish seiners and pair trawlers used by most of the Bering Sea groundfish factory ship fleets, were new, larger and equipped with better gear than in the past. In spite of the vessel and gear advances it is estimated that the 1971 Japanese catch off Alaska was about 81 million pounds less than the 1970 catch. The reduction is attributable mainly to decreases in the king crab and tanner crab quotas established by

- 34 -

FIGURE 9. - - JAPANESE FISHING AREAS OF F ALASKA, 1971.

the U.S.-Japan Crab Agreement, a lower high seas salmon quota established by the U.S.S.R.-Japan Crab Agreement, and a shorter than usual winter herring fishery.

Groundfish fleets including factory ship fleets and independent factory stern trawlers fishing for pollock and yellowfin flounder were present in the Bering Sea throughout the year. The Bering Sea groundfish catch off Alaska in 1971 is estimated at approximately the same as in 1970 -- 2,644,800,000 pounds.

The Gulf of Alaska trawl fishery, primarily for ocean perch along the Continental Shelf edge, continued as a year-round operation by independent stern trawlers. The fishery was widespread in the Gulf and the catch reached an estimated 80,000 metric tons, about the same as the previous year.

The Japanese longline fishery for sablefish continued at about the same level of effort. Twenty-two longliners believed to have been licensed by the Japanese Fishery Agency fished in the Gulf of Alaska; six others that were probably not licensed were observed in the Gulf. Recent information has raised estimates of the catch for this fishery considerably over our previous estimates and it now appears that the 1971 catch exceeded 50 million pounds and the 1970 catch was in the neighborhood of 60 million pounds.

The winter herring fishery by trawlers in the central

Bering Sea was cut short by storms and pack ice and produced approximately

35,200 metric tons as compared to 52,000 metric tons in 1970. The

spring herring fishery produced approximately 2,300 metric tons of matured herring. This fishery was also held back by unusually heavy pack ice conditions.

Eleven factory ship fleets fished for salmon on the high seas in 1971, taking 37,236 metric tons of which only about 17 percent was reported as red salmon. The rest of the catch was mostly pink and chum salmon.

Two factory ship fleets fished for king and tanner crabs in the eastern Bering Sea, operating from March to the end of September to take their quota of 37,500 cases (48 one-half pound cans) of king crab and 14,600,000 tanner crabs (plus 10 percent allowance). In addition a fleet of four catcher boats and one processing ship and five more independent catcher/processor boats fished for tanner crab northwest of the Pribilofs. Most of them operated only a short time and their catch is unknown.

One new fishery was developed by the Japanese off Alaska in 1971 when 10 ships were identified fishing for sea snails. This fishery occurred in the central Bering Sea and utilized small conical pots similar to those used by the Japanese for tanner crabs.

The 1971 North Pacific whaling expedition was again comprised of three fleets which operated from May into September. As in past years most of the whaling was for offshore and only about 13 percent of the total kill was within the Alaska area.

The number of different Japanese vessels identified in fisheries off Alaska in 1971 exceeded 800. The identities by type of vessels sighted in 1970 are shown in the appendix.

Groundfish Trawl Fishery

Japanese groundfish trawl fisheries in the Bering Sea and along the Aleutian Islands (Figs. 10 & 11). The estimated 1971 catch of 1,200,000 metric tons just equals the 1970 catch and ends a period of increase that has seen the catch rise some 300 per cent since 1965. As in past years the fishery was conducted predominately in the eastern and central Bering Sea and to a lesser extent along the Aleutian Islands. Eighty to eighty-five per cent of the catch was Alaska pollock with the remainder comprised of flat fish and other species.

The fishery is divided into two distinct methods of operations; (1) factory ships operating in conjunction with fleets of smaller trawlers --either stern, side, or pair--and (2) independent stern trawlers. The fishery is conducted year round with peak periods in May through September. The peak effort involved 6 factory ship fleets and 36 independent stern trawlers in 1971.

Factory ship fleet operations

Japanese factory ship fleet operations for groundfish in 1971 were similar to those of previous years. The catches were used to manufacture fish meal, oil, surimi (a minced fish product used to make fish sausage and hams) and were frozen for human consumption.

FIGURE 10. - - JAPANESE GROUNDFISH TRAWL FISHING AREA, 1971 -FACTORY SHIPS

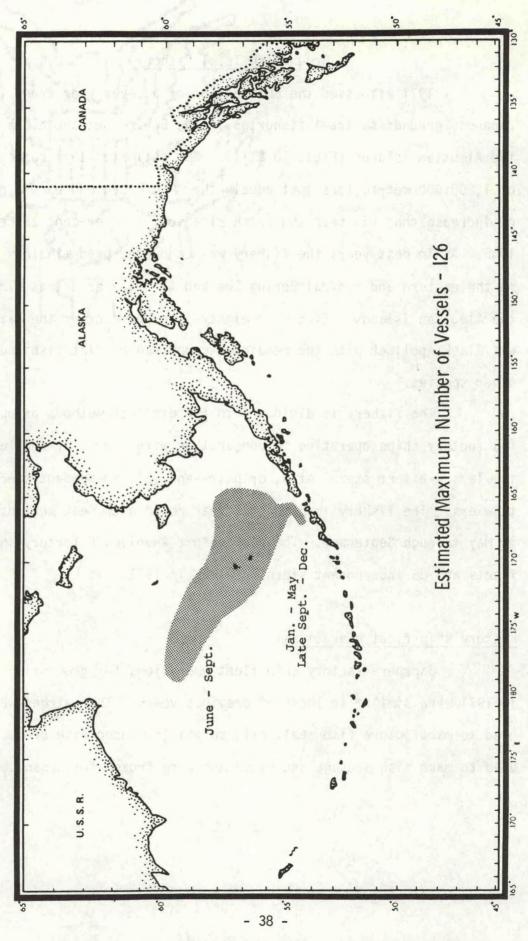
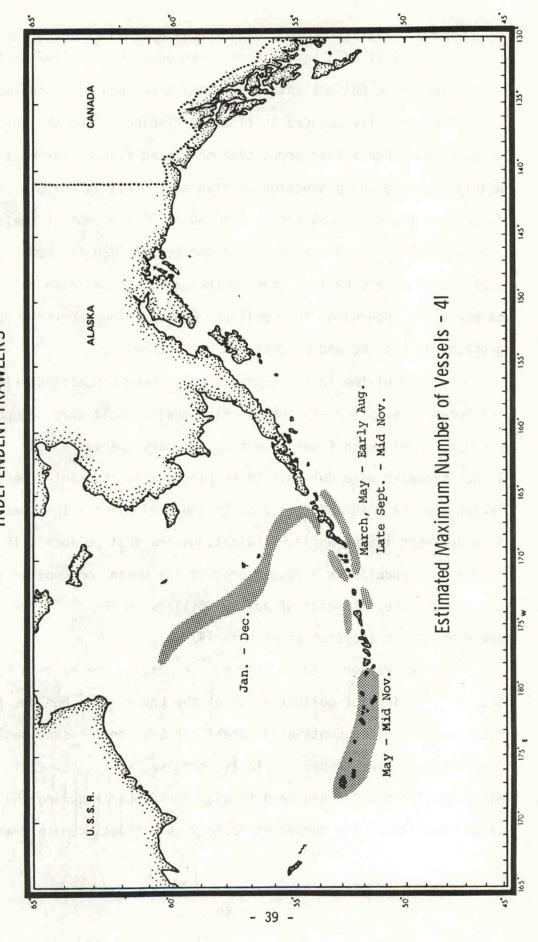


FIGURE II. - - JAPANESE GROUNDFISH TRAWL FISHING AREAS, 1971 -INDEPENDENT TRAWLERS



In 1971 NMFS agents made seven boardings on five factory ships processing pollock into surimi and three boardings on two factories primarily engaged in flounder fishing. From the information obtained it appears that production of minced fish or surimi is nearly equal to the production of fish meal. Alaska pollock continues to provide the fish meal fleets with 80 to 85 per cent of their raw material. A tendency to freeze the better fish for human consumption seems to be more prevalent than in the past. It was also noted on one of the boardings that pollock roe was being recovered for processing, but the end product was not determined.

Two of the factory ships boarded were processing primarily for human consumption and surimi, fish meal and oil were secondary products. Yellowfin flounder was the primary species sought. The larger flounder were cut into three pieces with the center section frozen and the head and tail sent to the meal plant. The smaller flounder were frozen whole. Indications are that pollock will become more popular as a frozen product for human consumption in the near future. Imports of pollock fillets to the U.S. from Japan are expected to increase greatly in 1972.

Two factory fleets started the year in the eastern Bering
Sea, one fishing for pollock north of the Fox Islands and one fishing
for flounder on the Continental Shelf north of the Alaskan peninsula.
In early March the number of fleets increased to six but in late
March the fleet which had been fishing for flounder during the
winter departed. The number of factory ship fleets remained at five

until early October except for parts of May, June and September when there were six fleets present. In most of October only one fleet fished. In late October two additional fleets arrived and the number remained at three the rest of the year.

Unimak Pass to well northwest of the Pribilof Islands, varying with the fish concentrations. Catches per day per factory ship were reported to average approximately 900 metric tons. Individual trawlers in the fleets were reportedly taking from 6 to 15 metric tons per one hour drag depending upon the size and style of the catcher vessel. Factory fleet operations were serviced constantly by a large fleet of support vessels including tankers, refrigerated ships and dry cargo vessels.

Independent trawler operations

Fishing for groundfish by independent Japanese stern trawlers in the Bering Sea and along the Aleutian chain continued at approximately the same level as in 1970. The ships involved in this fishery were considerably larger than trawlers working with the factory ships with some exceeding 5,000 gross tons. All of the vessels had some fish processing capability and the larger ones were equipped to produce surimi and fish meal, as well as to sharp freeze fillets and whole fish. As with the factory operations, the majority of fish taken were Alaska pollock with flounder, ocean

perch and other species second in importance. A substantial percentage of the varied catch was frozen either filleted or headed and gutted for human consumption. Emphasis on production of minced fish or surimi continued to increase in 1971. Production of fish meal and oil occurred in lesser quantities.

The Bering Sea independent stern trawler fleet included 10 trawlers in January. In February the fleet doubled to twenty and remained at that number through June. An increase to a peak of 30 vessels occurred during July, and then the fleet began to decline dropping to 25 in August, 20 in September, and 15 in October. In November and December only about 10 trawlers fished the Bering Sea.

The Bering Sea independent trawlers fished primarily along the Continental Shelf edge south of the Pribilofs during the first two months of 1971. In March the fisheries extended along the shelf edge to the central Bering Sea northwest of the Pribilofs, and continued along this entire area until early October. The fishery then was concentrated north of the Fox Islands in November and December.

Fishing by independent stern trawlers along the Aleutian Islands began in March when a fleet of up to 5 trawlers fished south of eastern Aleutians. The Aleutians were void of fishing activity in April and then in May operations were resumed. From May through September the number of trawlers varied from 2 to 6.

In October the fleet increased to 10 trawlers. The fleet dropped

to 8 in early November and fishing ended around mid-November. Fishing along the Aleutians was primarily in Seguam-Amukta Passes area in the central Aleutians and off Rat and Near Islands in the western Aleutians.

A possibility of a decline in pollock stocks was again displayed in 1971. Catch reports from independent trawlers early in the year were down to 40 metric tons or less per day and seemed to indicate a reduction in stocks might be occurring. However, catches increased during the summer and individual ships were reported taking 100 metric tons or more per day. With pollock becoming more important as a source of frozen fillets as well as continuing to provide a primary source of valuable minced fish and fish meal, the monitoring of catches and the resource in general will undoubtedly be accelerated by Japan, the U.S.S.R. and the U.S., the countries most concerned.

Gulf of Alaska Trawl Fishery

The Japanese trawl fishery in the Gulf of Alaska in 1971 (Fig. 12) continued as a year-round fishery by independent stern trawlers catching primarily ocean perch along the Continental Shelf edge.

The major fishing areas were off the coast of southeastern Alaska and off the Yakutat grounds in the eastern Gulf. Fishing areas of secondary importance to the Japanese in the Gulf of Alaska were off Portlock and Albatross Banks in the central Gulf. Fishing areas of lesser effort were near Middleton Island in the central Gulf and between Chirikof Island and Unimak Pass in the western Gulf. The Gulf fishery was conducted at about the same level in 1971 as in 1970. The number of trawlers in both years varied from a low of one or two in the winter to a high of 15 in the late summer. The catch decreased slightly dropping from an estimated 85,000 metric tons in 1970 to an estimated 80,000 metric tons in 1971.

The number of trawlers during the first half of 1971

varied from two to six. The fishery during that period was centered

primarily in the eastern Gulf except during April when the major

effort was off Portlock Bank in the central Gulf. The number of

trawlers began to increase in July and reached a peak of 15 in

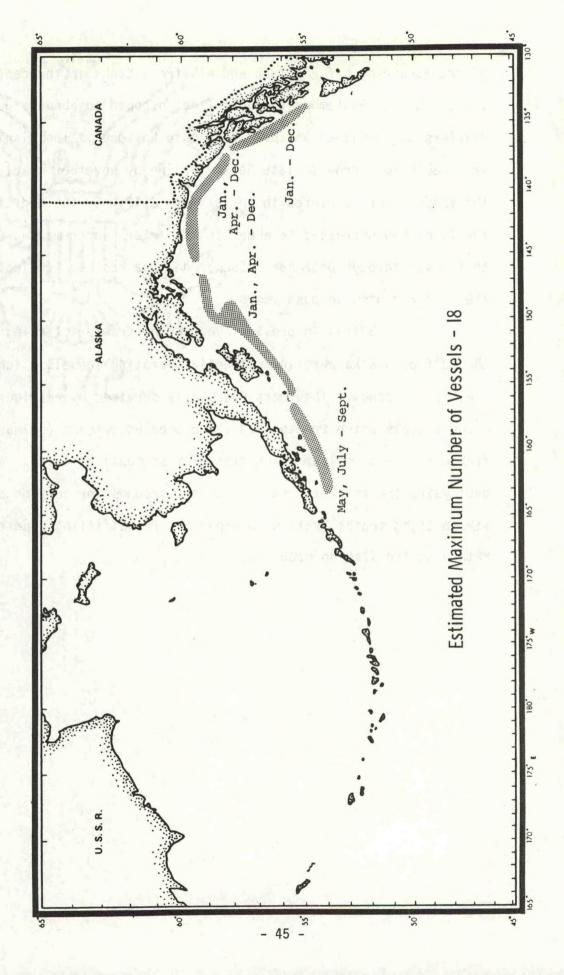
August. The fishery remained at that level until late September.

The vessels were widespread during the summer months from off southeastern

Alaska in the eastern Gulf to near Unimak Pass in the western Gulf.

The major effort remained in the eastern Gulf with the second largest

FIGURE 12. - - JAPANESE GULF OF ALASKA TRAWL FISHING AREAS, 1971.



effort occurring off Portlock and Albatross Banks in the central Gulf. In late September the Gulf fleet dropped to about a dozen trawlers and remained at that level into November. The fishing area began to narrow in late September and by November nearly all the vessels were centered in the eastern Gulf. By the end of November the fleet had decreased to about four trawlers and remained at that level through December. Such a decline has been typical during the winter months in past years.

In 1971 as in previous years, the trawlers fishing in the Gulf of Alaska were independently operating vessels which processed their own catches. They were frequently serviced by refrigerated cargo vessels which transported the processed catches (primarily frozen fish and smaller quantities of fish meal) to Japan. As in past years the trawlers remained on the grounds for periods of six to eight months, return to Japan for re-outfitting, and then return to the fishing grounds.

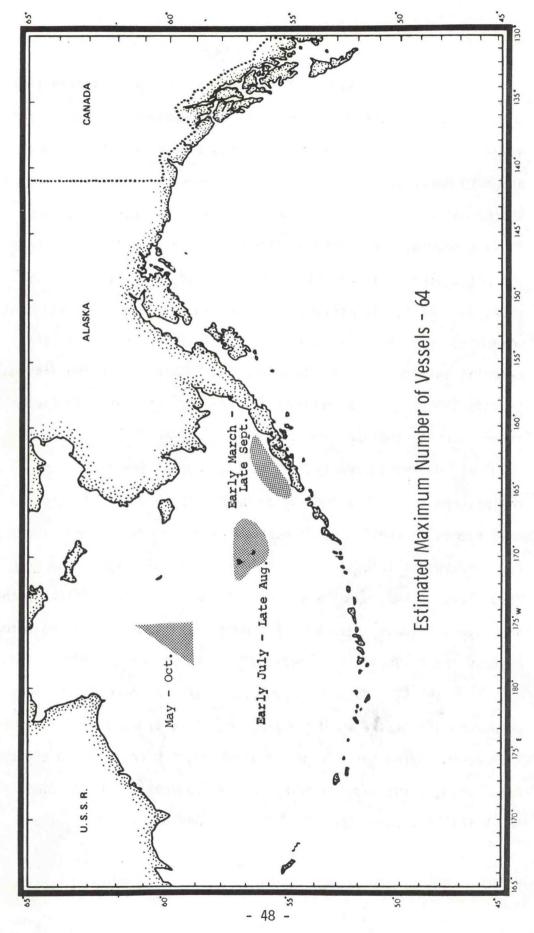
Crab Fishery

The 1971 Japanese eastern Bering Sea crab fishery (Fig. 13) demonstrated a continued interest by the Japanese in tanner crab as well as king crab. Two factory ship fleets, the KEIKO MARU and KOYO MARU, were licensed by the Japanese Government to operate in the eastern Bering Sea. Accompanying each factory ship were 18 side trawler type vessels rigged for fishing both tangle nets and pots. The small kawasaki boats carried aboard the factory ships and previously utilized to pick and retrieve the tangle nets were used only as utility boats in 1971 with each factory ship carrying only two such boats. Both fleets arrived on the fishing grounds in early March and both returned to Japan in late September after reaching the Japanese quota.

During the early part of the season, ice conditions in the eastern Bering Sea and the outer Bristol Bay area forced the crab fleets to confine their operation to the crab pot sanctuary north of Unimak Island. From early July to late August the Koyo Maru fleet fished the area immediately west of the Pribilof Islands, a change from past years when a single crab fleet usually operated east of the Pribilofs from early or mid-May to early or mid-June.

In 1971, as in past years, other crab expeditions were conducted off Alaska in the Bering Sea. One processing ship with four accompanying pot fishing vessels and five combination processing-pot fishing ships were observed on the Continental Shelf between the Pribilof Islands and 175°W in September and October. These

FIGURE 13. - - JAPANESE CRAB FISHING AREAS, 1971.



vessels were not elements of the two fleets licensed by the Japanese to fish in the eastern Bering Sea. It is believed these vessels were from the Japanese tanner crab pot fishery which since 1968 has been conducted west of 175°W and north of latitude 58°N in the central Bering Sea. That fishery in 1971 involved a total of 25 ships which caught 3,086,000 tanner crab.

The Japanese fleets expanded use of conical pots for tanner crab in 1971. In addition they experimented fishing with larger pots for king crab. These pots were similar to, but lighter than, those used in the U.S. king crab fishery. The increased use of pots for king crab was probably an outgrowth from the last U.S.-Japan king crab agreement negotiations (Dec. 11, 1970) when Japan verbally agreed to eliminate the use of tangle nets by the end of 1973. Use of the traditional tangle net gear in 1971 was greatly reduced from previous years.

Quotas for king crab and tanner crab were reduced again by the 1970 agreement. The Japanese annual king crab quota in 1971 and 1972 was set at 37,500 cases (48 half-pound cans per case), down 47,500 cases from the previous quota. The 1971 and 1972 annual tanner crab quota was set at 14,600,000 crabs (with an overage allowance of 10%), down 1,400,000 crabs from the previous quota. The reductions reflect a continued concern by the United States about the crab stocks in the Bering Sea.

The two crab fleets achieved the quota for both species in 1971. Detailed statistics of the Japanese eastern Bering Sea

crab fishery for 1964-71 are presented in Appendix Table 13. Of interest in 1971 was the changing of the processing of king crab. In past years, the majority of king crab has been canned with only a limited amount being frozen. In 1971, there was 25,352 cases of frozen meat, 3,240 cases of frozen in shell and 8,908 cases canned king crab. Due to this change in processing, a formula was developed and put into effect in 1971 with the conversion factor being 24.5 crabs per case (48 half-pound cans per case) or 13.270 kg. of meat per case to compensate for the freezing rather than canning. Tanner crab continued to be processed as in past years with the majority of the crab being processed as frozen half sections.

Salmon Fishery

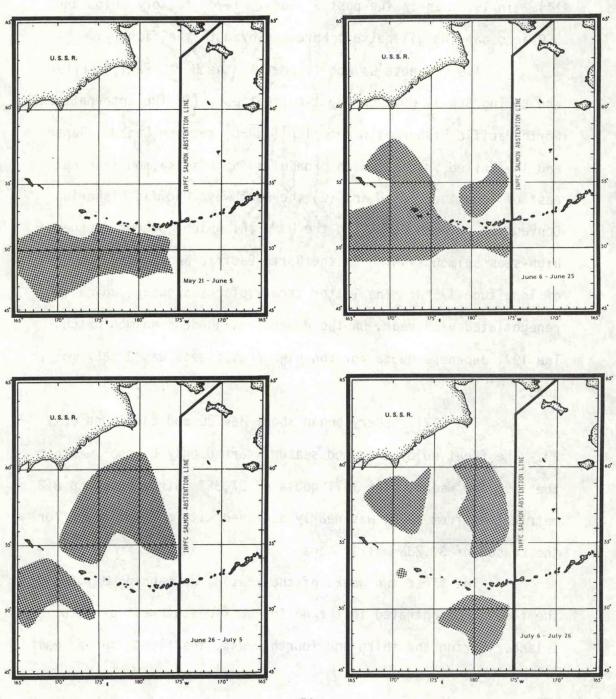
1971 was the twentieth consecutive year of Japanese highseas salmon fishing in the North Pacific Ocean and Bering Sea (Fig. 14). In 1971, as in the past 9 years, eleven factory ships and 369 accompanying gillnetters were employed in the fishery.

The Japanese salmon fishery in the North Pacific Ocean and Bering Sea is governed by two treaties: (1) the International North Pacific Fisheries Convention (INPFC) between Canada, Japan and the United States, which prohibits Japanese salmon fishing east of longitude 175°W and (2) the Northwest Pacific Fisheries Convention between Japan and the U.S.S.R. which governs Japanese high-seas salmon fishing in the North Pacific and Bering Sea west of longitude 175°W. The latter treaty places a quota, which is renegotiated each year, on the Japanese high-seas salmon catch. The 1971 Japanese quota for the high seas fleets was 37,357 metric tons.

The 1971 fishery began about May 20 and concluded July 20. The fleet enjoyed a good season, marred only by poor weather the last few weeks. The 1971 quota of 37,357 metric tons, up 812 metric tons from 1970, was nearly achieved with a total catch for the season of 37,236 metric tons.

The first two weeks of the season, commencing May 20, the fleets concentrated in the North Pacific southwest of Attu Island. During the third and fourth weeks, the fleets spread east

FIGURE 14. - - JAPANESE HIGH SEAS SALMON FISHING AREAS, 1971.



in the Pacific through the corridor between 175°E. and 175°W., to the Abstention Line at 175°W. By June 11, the fleets had separated into three segments and most had moved north through the Aleutians into the Bering Sea. One fleet fished the corridor, both north and south of the Aleutians until the end of June. By July 1st several fleets were centered in the corridor north of the Aleutians and by July 6th all the fleet except two had moved into the Bering Sea. The entire fishery was in the Bering Sea for the remainder of the season except for two fleets which remained in the corridor south of the Aleutians fishing for immature Bristol Bay red salmon.

The catch of Bristol Bay Red Salmon by the Japanese high-seas fleet in 1971 is estimated at 800,100 mature and 640,000 immature fish. Red Salmon were caught by all eleven fleets in fairly equal amounts as were all species except silver salmon, which were taken by only five of the fleets.

The 62 day season, two days longer than in 1970, resulted in a season catch 682 metric tons greater than in 1970. Following is the 1971 catch by species:

Species	Metric Tons	Percent (By Weight) of total catch
Chum	19,056	51
Pink	10,242	28
Red	6,436	17
Silver	1,070	03
King	432	01

Longline Fishery

The Japanese longline fishery (Fig. 15) off Alaska in 1971 continued as a year-round operation for independent vessels fishing primarily in the Gulf of Alaska. The vessels remained on the grounds for periods of 2 to 4 months until reaching maximum cargo of up to 500 metric tons and then returned to Japan.

The Japanese longline fishery for sablefish in the Gulf of Alaska was slightly more intense in 1971 than in 1970. The increased effort in 1971 (about 15 higher than in 1970) resulted in a catch increase from 54.8 million pounds in 1970 to 56.8 million pounds in 1971. In January and February up to five ships worked the customary grounds with the greatest pressure exerted off the coast of southeastern Alaska. By the middle of March thirteen Japanese vessels were working the Gulf of Alaska to as far west as Kodiak. During April, May, June and part of July, the number of vessels varied from two to seven as some of them switched to the herring gillnet fishery in the Bering Sea in May and June. From about mid-July through late September the vessels ranged throughout the Gulf and numbered from a low of five to a high of eleven. By the end of September the number had decreased to eight and fishing was confined to the eastern and central Gulf. During the remainder of the year the number of ships slowly decreased declining to four by the middle of December - three off southeastern Alaska and one off Middleton Island.

Again in 1971 longlining along the Aleutian Islands and in the Bering sea was very limited. One vessel fished off the Pribilofs in January, one to two vessels fished north of the eastern Aleutians

65 CANADA Jan. FIGURE 15. - - JAPANESE LONGLINE FISHING AREAS, 1971. April - Dec. Estimated Maximum Number of Vessels - 14 ALASKA March - May Jan. U. S. S. R. °≈ 55 –

for periods of a few weeks in March, April and May, and up to three vessels fished south of the eastern Aleutians in May.

Information from the Japanese Fishery Agency indicates that 22 longline vessels were licensed to fish in the Gulf of Alaska in 1971. Joint Coast Guard-NMFS patrols identified 28 different longliners from a total of 299 sightings. Twenty of the vessels identified were on a list of longliners the Japanese Government reported were licensed to fish in the Gulf. Repetitive sightings of 2 of the other 8 ships indicate these two vessels may have been licensed by the Japanese Government, but were omitted from the list furnished to NMFS. The other 6 vessels were apparently either not licensed or possibly were misidentified.

No violations of the INPFC Agreement by the Japanese were detected during 1971. Twenty-six enforcement boardings of Japanese longliners were made by NMFS agents in the Gulf of Alaska. None of the ships were found to be in possession of halibut.

One Japanese longliner was apprehended off southeastern Alaska in November for fishing in the Contiguous Fisheries Zone. The captain was fined \$30,000 and a civil suit against the ships was settled for \$85,000, for a total of \$115,000.

It appears that earlier NMFS estimates of the Japanese longline catch of sablefish in the Gulf of Alaska have been too low. Recent catch figures reported by the Longline and Gillnet

Fisheries Association of Japan gave the 1970 catch of sablefish by the 22 boats in the organization as 60,814,600 pounds (27,643 M.T.). As in 1971 there were also boats other than the 22 belonging to the association that fished in the Gulf of Alaska, bringing the total catch of hook and line caught sablefish to considerable over 60,000,000 pounds for 1970. It now appears that this fishery has been taking considerably more tonnage of sablefish than the combined U.S.-Canadian hook and line halibut fishery has taken of halibut for at least the past two years. This hook and line catch, combined with a burgeoning Japanese and Soviet trawl catch of sablefish in the Gulf of Alaska, indicates that total catch of this species now exceeds the best years of the Pacific halibut fishery in landed weight. Sablefish are becoming increasingly valuable both in Japan and the United States. The reduced Japanese catch in 1971 was worth more than the higher 1970 catch.

Herring Fishery

In 1971 the Japanese conducted two herring fisheries (Fig. 16) off Alaska, a winter trawl fishery north and west of the Pribilof Islands and a spring gillnet fishery along the coast of the eastern and northern Bering Sea. Similar expeditions of about the same or somewhat higher magnitudes have been conducted in past years.

The winter trawl fishery is for fat herring in the early stages of egg formation. The herring are schooled in tight groups in an apparently semi-dormant state. The Japanese fishery is in the same area and at the same time as a very intensive Soviet fishery for the same fish stocks. The 1971 Japanese fishery began in late November 1970 by 2 - 3 reconnaissance trawlers and remained at that level until late December when additional vessels began to arrive. Approximately 20 Japanese stern trawlers fished for herring during January northwest of the Pribilof Islands, but late in the month about half of them withdrew because of poor fishing caused by stormy weather. A total of five Japanese fishery firms were involved in this winter fishery that continued until the middle of February but then ceased due to winter storms and drifting ice. The catch totaled slightly over 35,000 metric tons (77,175,000 pounds) for the Japanese fleet.

The Japanese inshore gillnet herring fishery in the eastern
Bering Sea is on stocks of migrating spawning herring that spawn
along the coast from Togiak Bay in northern Bristol Bay to Norton

CANADA FIGURE 16. - - JAPANESE HERRING FISHING AREAS, 1971. Estimated Maximum Number of Vessels - 23 ALASKA Jan. - Mid Feb. U. S. S. R. ∵ - 59 -

Sound. Although the Japanese ships either freeze or salt the whole fish, the primary aim of this fishery is the herring roe, an item of great value on the Japanese domestic market.

The 1971 gillnet fishery began in early May off Togiak
Bay by three gillnetters. The number of ships increased to 15
by mid-May. Nine of the 15 vessels were longliners also licensed
to fish sablefish in the Gulf of Alaska but converted to gillnetting
for the relatively short herring operation. Two stern trawlers
and at least one side trawler also gillnetted herring. By the
end of the third week in May most of the ships had moved to the
Kuskokwim Bay-Nunivak Island area and a few days later nine of
them moved north into Norton Sound as the ice receded. The rest
of the ships apparently quit the fishery at that time.

By the end of May the Norton Sound fishery had still not materialized due to pack ice and lack of fish in the open water areas. Most of the gillnetters left the Sound, but during the first week in June five ships returned and by mid-June ten were present. The fishery ended in late June. Based on information gathered during surveillance of this fishery by NMFS and Coast Guard personnel and reports of the Japanese Longline & Gillnet Association it is estimated the spring gillnet fishery caught between 2,300 and 3,000 metric tons (5.06 to 6.6 million pounds) of mature herring.

Sea Snail Fishery

The Japanese initiated a fishery for sea snails in the Bering Sea (Fig. 17) early in 1971. The snails, 4 - 6 inches long and resembling the Oregon triton, are primarily of the genus Neptunea. Five separate species have been identified among Japanese catches in 1971 but the list is not necessarily complete. This fishery is of particular interest since snails may meet the legal definition describing creatures of the Continental Shelf and thus become subject to U.S. claims of fishery jurisdiction.

Snail vessels are not licensed under the same Japanese government requirements as are vessels from most other fisheries, including tanner crab. Since tanner crab and snails can be, and at times are, fished and processed with identical equipment, the snail vessels are a matter of some priority for U.S. patrol and fisheries surveillance effort.

Vessels in the 1971 fishery, generally 350 to 700 gross tons, were independent, single unit, operations representing various fishing companies. Fourteen different vessels were identified. The fishery was conducted on the Continental Shelf primarily around the Pribilof Islands but also northwest of the Pribilofs in the central Bering Sea. Fishing began in mid-March and continued until late June. Operations were conducted again in late July and early August and then again in September and early October. The maximum fleet strength was about a half dozen vessels.

CANADA Estimated Maximum Number of Vessels - 6 ALASKA Mid March - June Late July - Early Aug. Sept. - Early Oct. U. S. S. R. - 62 -

FIGURE 17. - - JAPANESE SEA SNAIL FISHING AREA, 1971.

The fishing gear consisted of conical, top entry pots set on ground lines which were anchored and buoyed at each end. The ground lines were 2000 meters long with a pot every 10 meters. This gear and method of fishing is virtually identical to the Japanese tanner crab fishery. The snails were cracked and cooked, and the meat was separated for freezing into blocks. Snail meat retails as an expensive delicacy on Japan's home market.

Whaling

The 1970 Japanese North Pacific whaling expedition (Fig. 18) involved three fleets, the same number as in the preceding 9 years. In 1971, as in 1970, a total of 26 whale killer vessels were involved. Whaling began the first of May and extended through September. The Japanese, like their Soviet counterpart, followed the pattern of operations in past years by concentrating their whaling efforts in the areas far off shore. In 1971 the three Japanese whale fleets killed a total of 4,874 whales and of that number only 622 or about 13 percent were taken in the Alaska area. Nearly half the whales toxin by the Japanese were sei whales. Most of the remainder of the kill was composed of sperm whales. Complete statistics on the Japanese North Pacific whale kill are given in Appendix Table 15.

As mentioned in the Soviet whaling section, the International Whaling Commission reduced by 20 percent the 1972 North Pacific whale quota. The Japanese quota was reduced from 9,460 in 1971 to 7,568 in 1972. The Japanese 1971 kill by factory ship fleets totaled 4,874 whales or only about 52 percent of the Japanese quota. The Japanese also whale in the North Pacific from land stations and it is doubtful that the kill from those operations was sufficient to reach the Japanese 1971 North Pacific quota.

Estimated Maximum Number of Vessels - 36 U. S. S. R. - 65 -

FIGURE 18. - - JAPANESE WHALING AREA, 1971

SUMMARY OF 1971 JAPANESE OPERATIONS

Japan continued her all encompassing fisheries off Alaska in 1971 in much the same pattern as in previous years. The most intensive effort remained in the Bering Sea with lighter pressure along the Aleutian Islands and in the Gulf of Alaska. The Japanese fleets off of Alaska reached a peak of 531 vessels in the summer months and a minimum of about 51 vessels in the winter months. Similar numbers were reached during the same periods in 1970. It is estimated that the Japanese catch of fish, shellfish and whales off Alaska dropped from 3.17 billion pounds in 1970 to 3.1 billion pounds in 1971.

Groundfish trawl fishery

The Japanese groundfish trawl fishery in the Bering Sea and along the Aleutian Islands again involved factory ships operating in conjunction with fleets of smaller trawlers and independently operating stern trawlers. The 1971 fishery marked a culmination of a 7-year trend of increased catches. It is estimated the 1971 catch totaled 1.2 million metric tons--the same as the 1970 catch.

Japanese factory ship operations in 1971 were similar to those of previous years. The catches were used to manufacture fish meal, oil and surimi (minced fish meat) and were also frozen for human consumption. Fishing was continued with two fleets fishing in the winter months and at least five fleets and sometimes six

fishing from early spring through the fall. As in previous years, operations were centered in the eastern Bering Sea in the winter months and then expanded northwest into the central Bering Sea in the summer.

Fishing for groundfish by independent Japanese stern trawlers in the Bering Sea and along the Aleutian Island chain continued at approximately the same level in 1971 as in 1970. As with the factory ship operations the majority of fish taken by independent trawlers were Alaska pollock, with flounder, ocean perch and other species second in importance. Emphasis on production of minced fish meat or surimi by the stern trawlers continued to increase in 1971. The number of stern trawlers fishing in the Bering Sea varied from a low of ten in the winter to a high of 30 in the summer. Fishing occurred from just north of Unimak Pass in the eastern Bering Sea to well northwest of the Pribilof Islands in the central Bering Sea. Independent stern trawlers fished along the Aleutian Islands from March through mid-November. The number of vessels varied from two to ten and the primary areas of operation were in the Seguam-Amukta Pass area in the central Aleutians and off the Rat and Near Islands in the western Aleutians.

Gulf of Alaska trawl fishery

The Japanese trawl fishery in the Gulf of Alaska continued as a year-round operation by independent stern trawlers catching

primarily ocean perch along the Continental Shelf edge. The fishery in 1971 was conducted at about the same level as in 1970, with the number of trawlers varying from a low of one or two in the winter to a high of 15 in the summer. The greatest effort occurred in the eastern Gulf and the other areas of importance were off Albatross and Portlock Banks in the central Gulf. It is estimated the Japanese Gulf of Alaska trawl catch declined from 85,000 metric tons in 1972 to about 80,000 metric tons in 1971.

Crab fishery

The 1971 Japanese eastern Bering Sea crab fishery demonstrated a continued interest by the Japanese in tanner crab as well as king crab. As in past years, two factory ship fleets were employed in the fishery. Each factory ship was accompanied by 18 side trawler type vessels rigged for fishing both tangle nets and pots. The fishery began in early March and ended in late September when the Japanese quota of 37,500 (48 half pound cans per case) of king crab and 14,600,000 tanner crab (with an overage allowance of 10 percent) was reached.

In 1971, as in past years, other crab expeditions were conducted off Alaska in the Bering Sea. One processing ship with four accompanying pot fishing vessels and five combination pot fishing-processing vessels were observed on the Continental Shelf between the Pribilof Islands and 175°W longitude in September and October. These vessels were not elements of the two fleets licensed

by the Japanese to fish in the eastern Bering Sea. It is believed they were vessels from the Japanese tanner crab pot fishery which since 1968 has been conducted west of 175°W longitude and north of 58°N latitude in the central Bering Sea.

Salmon fishery

In 1971, as in the past nine years, 11 factory ships and 369 accompanying gillnetters were employed in the Japanese high seas salmon fishery in the North Pacific Ocean and Bering Sea. The fishery began in late May and ended in late July, about the same period of operations as in previous years. The 1971 quota of 37,357 metric tons, up 812 metric tons from 1970 was nearly achieved with the total catch for the season being 37,236 metric tons. The fleets followed a similar pattern of fishing as in previous years. Operations in May were centered southwest of the western Aleutians, spread eastward along the Aleutian Island chain in June and then into the Bering Sea in late June or early July. The catch consisted of 51 percent chum salmon, 28 percent pink salmon, 17 percent red salmon, 3 percent silver salmon, and 1 percent king salmon.

Japanese longline fishery

The Japanese longline fishery off Alaska continued to be an independent vessel operation centered in the Gulf of Alaska. Sablefish remained the dominant species with very small quantities of rockfish also being caught. As in previous years the number

of vessels varied from a low of two or three to a maximum of about 14. The vessels remained on the grounds for a period of two to four months until achieving maximum of cargos of up to 500 metric tons and then returned to Japan. The primary fishing areas were again off southeastern Alaska, the Fairweather ground, and the Yakutat grounds in the eastern Gulf, with lesser efforts extending westward to off Kodiak Island in the central Gulf and off the Shumagin Islands in the western Gulf. It is estimated that the Japanese longline catch of sablefish approached 60 million pounds in 1971.

Japanese herring fishery

Japanese herring fishery off Alaska in 1971 included a winter trawl fishery in the central Bering Sea and a spring gill net fishery in the eastern and northern Bering Sea. The winter trawl fishery again involved over 20 trawlers but because of bad weather and heavy ice flows the fishery was terminated in mid-February, at least one month earlier than in previous years. It is estimated that the trawlers took about 35,000 metric tons in the central Bering Sea. The Japanese gill net fishery began in early May off Togiak Bay in the eastern Bering Sea and then progressed northward to Kuskokwim Bay-Nunivak Island and Norton Sound in June. The gillnetters were hampered by heavy ice flows and operations were temporarily suspended in early June. It is estimated the Japanese gill net fishery took a maximum of 3,000 metric tons in 1971.

Sea snail fishery

The Japanese initiated a fishery for sea snails in the Bering Sea in 1971. The vessels involved in this fishery were independently operating units of 350 to 700 gross tons and were from various small fishing companies. Fourteen different vessels were identified. The area of fishing was on the Continental Shelf primarily off the Pribilof Islands but also northwest of the Pribilofs in the central Bering Sea. Fishing operations was conducted from mid-March until late June and from late July to early October. The vessels fished small conical top entry pots similar to those used for tanner crab. The snail pots like the tanner crab pots were rigged on a groundline.

Whale Fishery

The Japanese employed three whaling fleets in the North Pacific in 1971, the same number as in the preceding nine years. Whaling began in May and extended through September. As in previous years, most of the whaling occurred far off shore. The two Japanese fleets killed a total of 4,874 whales. Only 622 or about 13 percent were taken in the Alaskan area.

SOUTH KOREAN FISHING OPERATIONS

Fishing by the Republic of Korea off Alaska in 1971 (Fig. 19) did not increase over that of the two previous years.

They did not field any salmon fleets and confined their efforts to groundfish, primarily Alaska pollock, in the Bering Sea. The fleet consisted of a 7,000 ton factory ship with 10 attendant trawlers and 2 supporting refrigerator ships, and 3 independent stern trawlers serviced by one refrigerator transport.

In 1971 a South Korean trawl fleet again centered around the factory ship <u>Tae Yang 11</u> (ex <u>Shin Hung</u>). The trawlers included 10 of the 130 ton vessels used for both dragging and gillnetting in 1969 and 1970. Two refrigerated transport ships, the <u>Tae Yang No. 12</u> and <u>No. 15</u> (ex <u>Shin Hung No. 201</u> and <u>No. 301</u>) provided support for the fleet.

A NMFS-Coast Guard party that visited the <u>Tae Yang 11</u> two days after its arrival on the fishing grounds west of the Pribilofs was told the fleet expected to take 100 tons a day and to have 6,000 tons when it left for home approximately September 15. Later observations and reports indicate the fleet was not able to maintain this production and the final catch was probably nearer 4,500 to 5,000 tons. The catch was predominantly Alaska pollock, processed by freezing in the round in 10 kilo blocks. Incidental species were discarded judging from the activity observed during the single

Estimated Maximum Number of Vessels - 16 ALASKA Late June - Sept. U. S. S. R. - 73 -

FIGURE 19. - - SOUTH KOREAN FISHING AREA, 1971

boarding of the factory ship. The <u>Tae Yang 11</u> arrived on the fishing grounds on June 21 and departed with its fleet approximately September 22. Most of the fleet's fishing was northwest of the Pribilof Islands with a small effort taking place south of the Pribilofs.

The <u>Tae Yang</u> fleet, formerly owned by the Sam Yang Company, was taken over by the Korean Government in April 1971, and reorganized as the Korean Marine Development Corporation (KMIDC). Although Chairman Choung of the Sam Yang Company was removed from control entirely, several of the chief fleet personnel retained their positions with the KMIDC.

In addition to the <u>Tae Yang</u> fleet at least 3 independent stern trawlers operated in the eastern and central Bering Sea from July through September. Two of them, the <u>Cheog Yang Ho</u> and <u>Gae Yang Ho</u> each 3,000 gross tons belonging to the Konyo Fishing Company, were supported on at least one occasion by the 1,650 g.t. refrigerated transport <u>Chilbosan No. 5</u> belonging to the same company.

The third stern trawler, a smaller ship of approximately 500 gross ton was observed only once during the year and was not identified. The sighting of that vessel occurred in the central Bering Sea west of the Pribilof Islands.

FOREIGN INTERFERENCE WITH U.S. FISHERIES

Twelve instances of U.S. gear losses allegedly caused by foreign fishing vessels (Appendix Table 11) were reported to the National Marine Fisheries Service in 1971. Eight of the 12 instances involved U.S. crab fishermen whose losses totaled 126 pots. The other four instances were reported by U.S. halibut fishermen who lost a total of 16 skates of longline gear.

All eight instances of crab pot losses occurred in the Bering Sea -- 7 in the pot sanctuary north of Unimak Island and one just outside the pot sanctuary -- between mid-February and late March. In 7 of the 8 instances, Soviet trawlers were observed in the vicinity of the losses and in the other instance foreign trawlers, nationality not specified, were reported in the vicinity of the loss.

Two of the four halibut gear losses occurred in the Bering Sea in March. Both losses were attributed to Soviet trawlers and included a total of eight skates. The other losses occurred in the Gulf of Alaska. They involved a total of 8 skates of longline gear and were attributed to Soviet trawlers.

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TABLE 1. -- ESTIMATED COMPOSITION AND DISTRIBUTION OF SOVIET FISHING FLEETS BY MONTH, 1971.

GRAND	TOTAL	188	961	179	165	98	23	18	24	27	34	41	93
	TOTAL	6	80	14	16	17	12	9	9	80	9	13	10
70	Support	1	1	1	-	1	4	4		1			1
ALEUTIAN ISLANDS	Other Trawlers	80	7	13	15	12	9	2	4	3	3	10	10
ALEUT	Stern Trawlers	1	, ,		1	5	9	4	2	4	3	ю	1
	Factory Ships	1	,	,	1		1	-	4		1	•	
	TOTAL	163	171	145	133	67	11	9	6	80	12	15	81
	Support	21	21	20	19	11	1	1	1	1	1	1	80
BERING SEA	Other Trawlers	69	87	73	99	32	10.	9	8	8	9	2	45
BEI	Stern Trawlers	65	55	45	40	20	1	ı			5	æ	23
	Factory Ships	80	8	7	80	4	1	1		1		1	2
	TOTAL	16	18	20	16	2	1	9	6	11	16	13	2
	Support	73	1		1		1_	i	1	1	2	1	1
GULF OF ALASKA	Other Trawlers	14	17	18	15	1	1	1	1	1		7	1
GULF	Stern Trawlers	70		2	1	1	-10	9	7	10	14	10	1
	Factory		T,		1	1	1	1	- - - -	1		,	1
MONTH		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.

TABLE 2. -- ESTIMATED COMPOSITION AND DISTRIBUTION OF JAPANESE FISHING FLEETS BY MONTH, 1971.

GRAND	TOTAL	9	51	185	181	286	390	531	213	211	73	83	83
	TOTAL	1	1	2	1	78	123	75	4	4	00	٣	1
	Support	1	:	1	1	2	2	2	1	i.	:	:	:
NDS	Salmon Gillnetters			:		89	102	99	1		1	:	1
ALEUTIAN ISLANDS	Whale	1	1,	:	1	÷	6	;	1,	1	1	1	1
ALEUT	Longline Vessels		1	1	1	9	:		:		3 54 	1	1
	Stern	:	:	3	:	3	3	5	4	4	80		1
	Factory		1	1	1	2	4	2	1	1	:	1	1
	TOTAL	53	45	167	167	199	258	438	183	187	43	63	74
	Ships	9	4	9	6	10	11	19	12	11	8	∞	12
SEA	Salmon Gillnetters	:	;	;	1	:	99	236	1	1	1	1	1
BERING SEA	Other Trawlers	15	14	133	131	161	151	139	139	145	22	25	25
	Stern	30	25	20	20	20	21	30	.25	24	16	27	34
	Factory	2	2	80	1	80	6	14	7	7	2	3	8
1	TOTAL	7	9	13	13	6	6	18	26	20	22	17	6
ALASKA	Support	1	r	1	1	1	1	1	2	1	1	1	1
GULF OF ALASKA	Longline Vessels	6	7	0	æ	6	3	80	6	9	6	7	4
	Stern	3	2	3	7	5	2	6	15	13	12	6	4
-	MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.

1/ Includes pot and tangle net vessels and longliners.

TABLE 3. -- ESTIMATED NUMBER OF SOVIET VESSELS BY MONTH, 1963-71.

MONTH	1963	1964	1965	1966	1967	1968	1969	1970	1971
JAN.	119	155	163	151	160	109	120	156	188
FEB.	186	160	181	204	170	116	160	198	196
MAR.	155	188	194	246	180	110	163	178	179
APR.	172	211	205	165	130	82	94	108	165
MAY	186	207	212	154	90	34	51	61	86
JUNE	200	200	216	102	80	28	22	19	23
JULY	211	99	182	30	75	23	15	14	18
AUG.	157	76	178	44	60	27	13	12	24
SEP.	75	55	169	36	40	33	17	17	27
OCT.	44	40	128	20	25	29	12	17	34
NOV.	4	44	105	23	20	33	22	31	41
DEC.	57	97	121	75	60	72	99	119	93
						and the second	a more and transfer out	In the second	- 1-1-

TABLE 4. -- ESTIMATED NUMBER OF JAPANESE VESSELS BY MONTH, 1963-71.

MONTH	1963	1964	1965	1966	1967	1968	1969 ² /	1970 <u>2/</u>	1971 2/
JAN.	16	5	8	19	20	52	38	43	60
FEB.	23	15	17	27	30	56	34	50	51
MAR.	23	33	29	52	65	94	116	165	185
APR	63	72	49	67	100	135	128	196	181
MAY	152	167	130	124	155	159	250	408	286
JUNE	221	178	149	203	180	153	471	547	390
JULY	221	129	145	208	200	166	301	304	531
AUG.	191	103	151	206	165	176	189	234	213
SEP.	129	114	106	81	130	171	159	198	211
ост.	34	16	22	17	25	50	44	51	73
NOV.	16	15	7	12	10	37	43	48	83
DEC.	10	9	12	18	35	40	35	65	83

 $[\]frac{1}{2}$ / Excluding salmon fleets. $\frac{2}{2}$ / Including salmon fleets.

TABLE 5. -- SUMMARY OF U. S. VESSEL FISHERIES PATROLS, 1971.

	U. S. PATROL VESSELS		NUMBER OF		LINGS OF FC	SIGHTINGS OF FOREIGN VESSELS	S
NAME	PERIOD OF PATROL	MILES	JAPANESE	SOVIET	SOUTH	CANADIAN	TOTAL
Storis	Jan. 18 - Nov. 20	16,717	323	06	50	16	449
Confidence	Jan. 4 - Aug. 27	14,205	272	75	0	28	375
Balsam	June 24 - July 2	1,772	15	2	2	-	20
Bittersweet	Jan. 25 - Feb. 4	1,757	7_	0	0	0	-
Clover	Apr. 27 - Aug. 21	2,222	14	-	0	0	15
Sedge	May 27 - June 26	5,213	21	6	2	2	34
Sorrel	Feb. 23 - Nov. 17	2,607	19	16	0	0	35
Citrus	Sept. 9 - Oct. 18	4,988	30	20	4	1.	55
Ironwood	Mar. 22 - June 26	10,845	138	88	0	4	230
Pontchartrain	Apr. 13 - May 28	8,563	153	74	0	1	228
Resolute	May 17 - July 14	199'9	28	2	7	10	47
Yocona	June 29 - Aug. 12	7,635	589	16	20	2	327
Sweetbrier	Mar. 8 - Oct. 2	3,236	56	7	0	2	35
TOTALS	11840	89,421	1,329	400	55	29	1,851

TABLE 6. -- SUMMARY OF U. S. AERIAL FISHERIES PATROLS, 1971.

TOTAL		2,659	615	3,274	
	Canadian	23	43	99	
NUMBER OF FOREIGN SHIPS SIGHTED	South Korean	18	0	18	
NUN FOREIGN	Soviet	1,007	66	1,106	
	Japanese	1,611	473	2,084	
MILES		145,763	90,476	236,239	
HOURS		902	699	1,375	
ORTIES		122	133	255	
NUMBER OF SORTIES		Kodiak Air Station	Annette Air Station	TOTALS	

TABLE 7. -- BOARDINGS OF FOREIGN FISHING VESSELS, 1971.

Date	Vessel	Location	Remarks	40,44
1/9	Japanese Longliner Shoyu Maru No. 5	Sitka	THE MANAGEMENT OF THE PARTY OF	18 11
1/9	Japanese Stern Trawler Kongo Maru	Central Bering 57-14N 170-16W	Sea daire and the land the land	
1/12	Japanese Longliner Matsuei Maru No. 72	Kodiak		
1/13	Japanese Longliner Ryusho Maru No. 17	Sitka	Contract to the second	
1/22	Japanese Longliner Yoshu Maru No. 2	Sitka		
2/10	Soviet Trawler SRTM 8484	Gulf of Alaska 55-44N 157-42W	Seized for violation of the CFZ.	
2/24	Japanese Longliner Kiyo Maru No. 51	Kodiak		
2/25	Japanese Longliner Ebisu Maru No. 88	Sitka		
3/4	Japanese Factory Ship Kashima Maru	Eastern Bering 54-51N 165-16W	Sea	
3/9	Japanese Longliner Fukuyoshi Maru No. 75	Gulf of Alaska 57-12N 136-18W		
3/16	Japanese Longliner Shintoku Maru No. 3	Gulf of Alaska 55-50N 134-45W		
3/16	Japanese Longliner Ryusho Maru No. 5	Gulf of Alaska 55-30N 135-30W		
4/2	Soviet Tug Orel	Central Bering 59-30N 178-00W		
4/5	Japanese Factory Ship Mineshima Maru	Eastern Bering 55-34N 166-07W	Sea	
4/5	Japanese Factory Ship Nisshin Maru No. 2	Eastern Bering 55-35N 166-13W	Sea	

TABLE 7. -- BOARDINGS OF FOREIGN FISHING VESSELS, 1971 (cont'd)

Date	Vessel	Location	Remarks
4/8	Japanese Longliner Shintoku Maru No. 3	Kodiak	ott ter i kraverst i de de la successión
4/9	Soviet Factory Ship Konstantin Sukhanov	Eastern Bering Sea 55-57N 163-28W	Particular and the second seco
4/10	Japanese Factory Ship Shikishima Maru	Eastern Bering Sea 55-45N 167-22W	
4/10	Japanese Factory Ship Gyokuei Maru	Eastern Bering Sea 55-52N 166-49W	1 Continational Dis
4/15	Soviet Factory Ship Aleksandr Kosarev	Gulf of Alaska 55-40N 158-03W	
4/20	Japanese Stern Trawler Takachiho Maru	Gulf of Alaska 60-01N 144-29W	
4/27	Japanese Factory Ship <u>Keiko Maru</u>	Eastern Bering Sea 55-19N 164-21W	
4/27	Japanese Factory Ship Koyo Maru	Eastern Bering Sea 54-54N 165-23W	
4/29	Japanese Longliner Shintoku Maru No. 3	Gulf of Alaska 55-12N 134-14W	
5/10	Soviet Factory Ship Konstantin Sukhanov	Eastern Bering Sea 56-40N 162-00W	
5/14	Soviet BMRT Taman	Kodiak	
5/23	Japanese Factory Ship Soyo Maru	Eastern Bering Sea 56-19N 168-52W	uit aboil eanung. prvi
5/23	Japanese Gillnetter (Herring)- <u>Hatsuei Maru</u> <u>No. 28</u>	Eastern Bering Sea 60-44N 166-56W	
5/23	Japanese Gillnetter (Herring)- <u>Fukuyoshi</u> Maru No. 55	Eastern Bering Sea 60-48N 166-54W	1003418

TABLE 7. -- BOARDINGS OF FOREIGN FISHING VESSELS, 1971 (cont'd)

6/2	Japanese Snail Pot Boat Myoho Maru No. 12	Eastern Bering Sea	The same accompanies
6/2		57-26N 167-18W	
6/2			
	Japanese Longliner Yusho Maru No. 2	Kodiak	
		Name Day (61)	
6/6	Japanese Patrol Ship Kyo Maru No. 17	North Pacific Ocean 51-30N 175-04W	
(17	I Character Character	Kodiak	
6/7	Japanese Stern Trawler Tomi Maru No. 81	Kodlak	
	Tomi Maru No. 81		
6/10	Japanese Longliner	Gulf of Alaska	
	Fukuyoshi Maru No. 85	57-47N 137-17W	
	# F		
6/15	Japanese Longliner	Gulf of Alaska	
	Ryusho Maru No. 7	55-40N 136-02W	
		C 1 P-1- C-	
6/23	South Korean Factory	Central Bering Sea 57-31N 172-04W	
	Ship - Tae Yang No. 11	57-31N 1/2-04W	
6/26	Japanese Factory Ship	North Pacific Ocean	
0/20	Shinano Maru	55-23N 178-20W	
6/26	Japanese Patrol Ship	North Pacific Ocean	As all and mark
	Konan Maru No. 10	56-15N 177-15W	
132		34 St. 18 A.	
6/27	Japanese Factory Ship	North Pacific Ocean 57-14N 177-00W	
	Kizan Maru	37-14N 177-00W	
7/3	Soviet Trawler	Eastern Bering Sea	
113	SRTM Brigadir	54-16N 166-34W	
	Dilli Brigati	This serve	
7/7	Japanese Stern Trawler	Kodiak	
A. Lea	Daishin Maru No. 23		
		14 1 1 1 1 1 21	by a range of the ATAG
7/9	Canadian Longliner	Gulf of Alaska	Seized for viola-
	All Star	55-47N 134-23W	ting U.S. territorial waters.
7/1/	Japanese Longliner	Gulf of Alaska	
7/14	Fukuyoshi Maru No. 75	57-17N 136-23W	

TABLE 7. -- BOARDINGS OF FOREIGN FISHING VESSELS, 1971 (cont'd)

Date	Vessel	Location	Remarks
7/20	Japanese Snail Vessel	Central Bering S	Sea
	Eikyu Maru No. 20	57-35N 171-13W	
7/20	Japanese Factory Ship Shikishima Maru	Central Bering S 59-05N 172-36W	Sea
7/20	Soviet Trawler BMRT Ivan Panov	Dutch Harbor	The Carl Andrews College
8/1	Japanese Longliner	Gulf of Alaska	
0/1	Tune Maru No. 31	57-29N 150-06W	
8/2	Japanese Longliner Hatsuei Maru No. 38	Gulf of Alaska 59-28N 145-30W	
8/3	Japanese Longliner Fukuyoshi Maru No. 75	Gulf of Alaska 57-49N 137-15W	
8/3	Japanese Factory Ship Koyo Maru	Eastern Bering S 56-55N 170-43W	Sea
8/4	Canadian Longliner El Paso	Gulf of Alaska 56-06N 134-45W	into the subspace of the
8/8	Japanese Stern Trawler Yoshi Maru No. 22	Gulf of Alaska 58-02N 137-01W	and backuping backs
8/13	Japanese Longliner Shoyu Maru No. 5	Kodiak	
8/15	Japanese Longliner Sintoku Maru No. 3	Gulf of Alaska 58-19N 139-15W	
8/26	Japanese Stern Trawler Hoken Maru No. 18	Kodiak	
9/12	Japanese Snail Boat Chiyoda Maru	Central Bering S 56-52N 170-44W	ea

TABLE 7. -- BOARDINGS OF FOREIGN FISHING VESSELS, 1971 (cont'd)

Date	Vessel	Location	Remarks	
9/13	Japanese Snail Boat Syoryu Maru	Central Bering Se 58-36N 172-32W	a	1
9/14	Japanese Longliner Yusho Maru No. 2	Sitka		
9/18	Soviet SRTM Vodolaz	Eastern Bering Se 54-22N 166-08W	a Vessel seized fishing in US	
9/25	Japanese Snail Boat Hoko Maru No. 30	Central Bering Se 58-24N 174-28W	a	
9/26	Japanese Stern Trawler Daishin Maru No. 22	Gulf of Alaska 56-07N 135-31W		
9/26	Japanese Longliner Hakkai Maru No. 8	Seward		
9/28	Japanese Longliner Tenyo Maru No. 25	Gulf of Alaska 59-39N 143-49W		
10/15	Japanese Factory Ship Soyo Maru	Eastern Bering Se 54-46N 165-46W	a	
11/2	Japanese Longliner Ryusho Maru No. 5	Gulf of Alaska 57-33N 136-56W	Vessel seized fishing in US	
11/2	Japanese Longliner Ryusho Maru No. 5	Sitka		
11/3	Japanese Longliner Hakkai Maru No. 8	Sitka		
11/15	Japanese Factory Ship Chiyo Maru	Eastern Bering Se 56-00N 165-54W	ea The second	
11/16	Japanese Factory Ship Kashima Maru	Eastern Bering Se 56-07N 165-31W	ea	

TABLE 8. -- VIOLATIONS OF U. S. TERRITORIAL WATERS, 1971.

		230		-
Date	Reported by	Alleged Offenders	Location	Losses and Remarks
		CRAB GEAR	EAR	
2/17-27	F/V Sea Spray	Unidentified Soviet Trawlers	Unimak Crab Pot Sanctuary 54-53N 165-00W	10 pots lost. Observed 10-15 Soviet side trawlers in vicinity of pots.
2/27	F/V Oceanic	Unidentified Soviet Trawlers	Unimak Crab Pot Sanctuary 54-47N 164-59W	3 pots lost. Observed Soviet trawlers in vicinity of pots.
2/28	F/V Viking King	Soviet SRT Trawlers Kayum and Pavlograd	Unimak Crab Pot Sanctuary 54-54N 165-06W	20 pots lost. Observed named Soviet trawlers in vicinity of pots on 2/27.
3/2	F/V Viking Queen	Unidentified Soviet Trawlers	Unimak Crab Pot Sanctuary 54-47N 165-15W	3 pots lost. Observed 15 Soviet side trawlers in vicinity of pots.
3/3	F/V Viking Queen	Unidentified Soviet Trawlers	Unimak Crab Pot Sanctuary 54-33N 165-16W	3 pots lost. Observed Soviet trawlers fishing near pots.
3/20	F/V Viking King	Soviet SRT Trawlers <u>Lag</u> and <u>Plastun</u>	Unimak Crab Pot Sanctuary 54-59N 165-00W	20 pots lost. Observed named Soviet trawlers in vicinity of pots.
3/22	F/V Sea Spray	Soviet SRT Trawler Salatsgriva, SRT# 4538	Unimak Crab Pot Sanctuary 55-10N 164-33W	25 pots lost. Observed named Soviet vessel trawl through pots.

TABLE 8. -- VIOLATIONS OF U. S. TERRITORIAL WATERS, 1971 (cont'd)

	Date	Nationality	Vessel	Location	Remarks
- 13	May 16	Canadian	Longliner Anthony J	2.2 miles SSW of Bean Island (west of Cape Chacon) 54-39N 132-08W	Coast Guard aircraft on May 15 sighted halibut gear in the position shown. A Coast Guard Cutter maintained surveillance until the Anthony J began retrieving the gear. The Cutter advised the Anthony J that she was fishing in waters of U.S. jurisdiction and that upon completion of hauling her gear she was being seized (weather prohibited boarding). The Anthony J continued hauling and then got underway abandoning the remainder of her gear and escaped seizure by fleeing into Canadian waters.
-	May 21	Japanese	Snail pot vessels Fuku Maru No. 3 Fuji Maru No. 1	1.5 miles off St. George Island 56-33N 169-23W	Coast Guard aircraft with NMFS Agent aboard sighted subject vessels anchored in the position shown. Message blocks advising the vessels they were in U.S. territorial waters were dropped and the vessels got underway out of U.S. waters.
C	9 ding	Canadian	Longliner All Star	2.0 miles SW of Coronation Island	A Coast Guard aircraft sighted the All Star hauling halibut longline gear in position shown. The aircraft maintained

a NMFS Agent arrived and seized the All Star. The master was taken to U.S. District Court in Anchorage where the civil suit against the vessel was settled with forfeiture of 12,242 pounds of halibut and three skates of halibut

longline gear and the criminal charge against the master was dismissed.

contact until a Coast Guard Cutter with

TABLE 8. -- VIOLATIONS OF U. S. TERRITORIAL WATERS, 1971 (cont'd)

Date	Nationality	Vessel	Location	Remarks
August 23	Soviet	Unidentified Soviet Vessels	1.5 miles off Martin Islands, mouth of Copper River	A U.S. fishing vessel reported Soviet vessels were transshipping and fishing in position shown. A Coast Guard aircraft investigated the report within four hours and found the area void of foreign vessels.
August 29	Canadian	Longliner Masset Maid	1.5 miles SW of Nunez Rocks, Dixon Entrance, 54-38N 132-06W	An ADF&G vessel reported the Masset Maid fishing halibut longline gear in position shown and an ADF&G Protection Officer in a float plane confirmed the violation, landed and boarded the vessel, and arrested the master. The Masset Maid got underway, abandoned the remainder of her gear, and with the Protection Officer aboard fled to Prince Rupert putting her in waters outside U.S. jurisdiction (the Protection Officer disembarked in Prince Rupert and flew to Ketchikan).
September	September 12 Japanese	Unidentified	2.3 miles off Cape St. Elias	U.S. fishing vessel reported subject vessels trawling in position shown. Coast Guard aircraft with two NMFS Agents

investigated the report and found two Japanese vessels nested in an area off Kayak Island where a U.S.-Japan Fisheries Agreement authorizes Japanese transshipping.

TABLE 8. -- VIOLATIONS OF U. S. TERRITORIAL WATERS, 1971 (cont'd)

	18	
Remarks	U.S. tug reported subject vessels in position shown. The Coast Guard aircraft which investigated the above report also investigated this report with the same findings.	U.S. fishing vessel reported subject vessels in position shown. No patrol units were available to investigate the report (a U.SU.S.S.R. Fisheries Agreement allows Soviets to transship in an area inside the U.S. CFZ near Kavak Island)
Location	Off Cape St. Elias	2 miles W of Kayak Island
Vessel	2 unidentified Japanese vessels	Unidentified factory ship and 2 unidentified Soviet trawlers
Nationality	Japanese	Soviet
Date	September 12	September 17

TABLE 9. -- VIOLATIONS OF THE U. S. CONTIGUOUS FISHERY ZONE, 1971.

Date	Nationality	Vessel	Location	Remarks
January 9	Japanese	Stern Trawler Kongo Maru and Cargo vessel Taisei Maru No. 39	6.6 miles off St. Pauls Island, 54-14N 170-16W	Coast Guard Cutter Confidence with a NMFS Agent aboard detected the subject vessels transshipping in the position shown. The vessels were boarded, advised transshipping was prohibited in that area, and complied with an order to depart the U.S. Contiguous Fishery Zone.
February 10 Soviet	Soviet	SRTM 8484	9.8 miles off Lighthouse Rocks 55-44N 157-42W	Coast Guard Cutter Confidence with a NMFS Agent aboard sighted subject vessel fishing in the position shown. The vessel was seized and in U.S. District Court in Anchorage the master was fined \$20,000 and a civil suit against the vessel was settled with payment of \$30,000
May 21	Japanese	Herring Gillnetter Hatsuei Maru No. 28	9 miles off Kuskokwim Bay 59-40N 164-26W	A Coast Guard aircraft with a NMFS Agent aboard sighted the subject vessel in the position shown. The distance of the nearest surface patrol unit precluded apprehension of the Japanese vessel.
May 25	Canadian	Troller <u>Takla</u>	11.5 miles south of Cape Yakataga 59-53N 142-25W	A Coast Guard aircraft sighted the subject vessel trolling in the position shown. Via radio the aircraft advised the Takla that Canadian trolling in the U.S. Contiguous Fishery Zone was prohibited and the vessel complied with an order to depart the CFZ.

TABLE 9. -- VIOLATIONS OF THE U. S. CONTIGUOUS FISHERY ZONE, 1971 (cont'd)

Date	Nationality	Vessel	Location	Remarks
May 29	Japanese	Longliner Ryusho Maru No. 7	7 miles off Salisbury Sound 57-30N 136-10W	A U.S. fishing vessel reported the subject vessel fishing in position shown. A Coast Guard aircraft investigated the report and sighted the vessel fishing 13 miles (one mile beyond the outer limits of U.S. CFZ) offshore.
August 10	Japanese	Unidentified Longliner	9.4 miles off Porcupine Rock off Chichagof Island 57-41N 136-38W	A Coast Guard Cutter with a NMFS Agent aboard detected Japanese longline gear markers in the position shown. Surveillance was maintained for the next 3 days but no ships attempted to retrieve the gear. The gear was seized by the Coast Guard Cutter on Aug. 14 and transferred to the Bureau of Customs for disposal.
September 18	Soviet	SRTM Vodolaz	9 miles NW of Akutan Island 54-21N 166-08W	A Coast Guard Cutter with 2 NMFS Agents aboard detected the subject vessel fishing in the position shown. The vessel was seized and in U.S. District Court in Anchorage the master was fined \$20,000 and a civil suit against the vessel was settled with payment of \$30,000.
November 1	Japanese	Longliner Ryusho Maru No. 5	9.8 miles off White Sisters Island off Chichigof Island 57-33N 136-31W	A Coast Guard aircraft with a NMFS Agent aboard sighted the subject vessel fishing in the position shown. Contact was maintained until a Coast Guard Cutter arrived and seized the vessel. In U.S. District Court in Anchorage the master was fined \$30,000 and a civil suit against the vessel was settled with payment of \$85,000.

TABLE 10. -- VIOLATIONS OF INTERNATIONAL FISHERIES AGREEMENTS, 1971.

	The state of the s				
Vessel Na	Nationality	Type	Violation	Date	Remarks
Trawlers Kayum, Pavlograd and two unidentified trawlers	Soviet	Crab Agreement	Trawling within Unimak Island pot sanctuary	Feb. 27	A Coast Guard aircraft dropped message blocks to Soviet vessels informing them of the violation and ordering them to refrain from trawling in the sanctuary.
Trawlers Sargassa, Ninase, Kayum, Andriyan Nikolaev Bulduri, Kit, Salatsgriva, Sozla and one unidentified trawler	Soviet	Crab Agreement	Trawling within Unimak Island pot sanctuary	Mar. 3	A Coast Guard aircraft dropped message blocks to Soviet vessels informing them of the violation and ordering them to refrain from trawling in the sanctuary.
Trawlers <u>Losos</u> and <u>Shtil</u>	Soviet	Crab Agreement	Trawling within Unimak Island pot sanctuary	Mar. 8	Sighted by surface patrol vessel.
Trawler <u>Uzhgorod</u>	Soviet	Crab Agreement	Trawling within Unimak Island pot sanctuary	Mar. 12	A Coast Guard aircraft dropped message blocks to Soviet vessel informing her of the violation and ordering her to refrain from trawling in the sanctuary.
Trawlers <u>Lag</u> and <u>Plastun</u>	Soviet	Crab Agreement	Trawling within Unimak Island pot sanctuary	Mar. 20	Reported by a U.S. fishing vessel

TABLE 10. -- VIOLATIONS OF INTERNATIONAL FISHERIES AGREEMENTS, 1971 (cont'd)

Vessel	Nationality	Type	Violation	Date	Remarks
Trawler <u>Bulduri</u>	Soviet	Crab Agreement	Trawling within Unimak Island pot sanctuary	Mar. 20	A Coast Guard aircraft dropped message blocks to Soviet vessel informing her of the violation and ordering her to refrain from trawling in the sanctuary.
Trawler <u>Salatsgriva</u>	va Soviet	Crab Agreement	Trawling within Unimak Island pot sanctuary	Mar. 22	Reported by a U.S. fishing vesse U.S. patrol unit not available to investigate.
Factory ship Konstantin Sukhanov	Soviet	Crab Agreement	Undersized tangle net*	May 10	During a boarding, a NMFS Agent observed undersized tangle net on the ship. Documentation forwarded to Washington, D.C., for possible protest to the U.S.S.R.
Longliner <u>Auk</u>	u.s.	Halibut Convention	Fishing in closed area	Nov. 1	A Coast Guard aircraft with a NMFS Agent aboard directed the vessel to retrieve her gear and to proceed to Ketchikan. Receipt from sale of the halibut was forfeited to U.S. Government in settlement of charges against the vessel.

* Undersized tangle net was observed but there was no evidence that such nets had been fished.

TABLE II. -- DAMAGE TO U. S. FISHING GEAR BY FOREIGN FISHING VESSELS, 1971.

Date	Reported by	Alleged Offenders	Location	Losses and Remarks
		CRAB GEAR	AR	
3/22	F/V Endeavor	Unidentified foreign trawlers	Unimak Crab Pot Sanctuary	42 pots lost. Reported in a letter from a fishing company to Senator Stevens and attributed to foreign trawlers. No other documentation received.
		HALIBUT GEAR	EAR	
- 02 - 3/24	F/V <u>Zenith</u>	Unidentified Soviet Trawler	Eastern Bering Sea 54-22N 166-29W	4 skates halibut gear lost. Observed Soviet vessel trawl through gear.
3/27	F/V <u>Chelsea</u>	Unidentified Soviet Stern Trawlers	Central Bering Sea 56-32N 172-28W	4 skates halibut gear lost. Observed 2 Soviet stern trawlers trawl through gear.
7/22	F/V Constitution	Soviet BMRT Stern Trawler <u>Luchegorsk</u>	Gulf of Alaska 56-38N 152-29W	2 skates halibut gear lost. Observed named Soviet vessel trawl through gear.
9/24	F/V Symphony	Soviet BMRT Stern Trawlers <u>Terney</u> , Seroglaska and <u>Pakhacha</u>	Gulf of Alaska 58-59N 148-15W	6 skates halibut gear lost. Observed named Soviet vessels near gear.

TABLE 12. -- SOVIET EASTERN BERING SEA CRAB FISHERIES STATISTICS, 1959-71.

			3	The second secon					
Year	Factory Ships	Picker Boats	Net Boats	King Crab <u>2/</u> Catch (Number)	Case of 1/ King Crab (Number)	King Crab ^{2/} Per Case (Number)	Tanner Crab Catch (Number)	Cases of 1/ Tanner Crab (Number)	Tanner Crab Per Case (Number)
1959	-	80	E I	620,406	15,922	39.0			
1960		10	e	1,995,006	75,444	26.4			
1961	2	21	9	3,441,314	146,308	25.6			
1962	2	22	9	3,019,211	144,320	24.4			
1963	8	33	9	3,019,417	152,738	22.7			
1964	e	33	6	2,799,620	144,208	21.7			
1965	e	33	6	2,225,567	90,020	24.7	000,599	4,000	166
1966		33	6	2,559,598	104,734	24.4	000,599	4,000	166
1967	8	33	6	1,592,427	069,89	23.2	3,390,000	20,400	166
1968	2	22	9	548,713	22,442	24.4	3,490,000	21,000	166
1969	2	22	9	369,420	9,834	24.4	6,242,950	37,558	166
1970	2	22	9	320,414	12,790	25.1	5,724,113	38,416	149
1971	2	22	9	264,994	10,694	24.8	4,204,231	27,390	153
			-			The state of the s		The state of the s	

1/ 24 pound cases

King crab catch data not available for 12,000 cases in 1961, 20,780 cases in 1962, 19,976 cases in 1963, and 15,370 cases in 1964. Approximately 129,000 crabs were frozen in 1969. 77

TABLE 13. -- JAPANESE EASTERN BERING SEA CRAB FISHERIES STATISTICS, 1964-71.

Tanner Crab Processed (Number)	220,000	1,030,000	1,490,000	8,600,000	11,980,000	17,600,000	טטט טטר טר
King Crab Per Case (Number)	25.1	22.8	22.7	23.1	23.6	24.4	2 V E
Cases of 1/ King Crab (Number)	235,000	185,000	185,000	163,000	163,000	85,000	85,000
King Crab Catch (Number)	5,895,380	4,215,860	4,206,260	3,764,200	3,853,300	2,072,920	2,080,390
Pot/Net Boats	12	10	10	10	16	30	40
Picker Boats	17	17	19	19	17	10	2
Factory Ships	2	2	2	2	2	2	2
YEAR	1964	1965	9961	1961	1968	1969	1970

1/ 24 pound cases

^{8,908} cases were canned; the equivalent of 28,592 cases was processed by freezing. 77

TABLE 14. -- U. S. S. R. NORTH PACIFIC WHALE PRODUCTION 1959-71 (in Number of Whales).

Year	Factory Ships	Catcher Boats	Blue	Fin	Humpback	Sei	Sperm	Others	Total
1959	-	6	22	132	74	93	1,560	Ī	1,881
1960	-	6		128	22	69	2,228	f	2,472
1961	-	15_7	2	79	314	54	1,868	F	2,317
1962	2	28	19	438	1,213	303	1,955	1	3,928
1963	4	46	347	1,060	2,242	514	5,125		9,288
1964	4	46	77	2,500	242	595	5,432	1 3	8,847
1965	4	49	72	1,492	243	969	8,196	-	10,698
9961	4	42	1	1,318	İ	1,510	9,439	1	12,267
1961	4	35	Î	1,188	-	1,997	9,430		12,615
1968	m	32	Ĺ	1,062	1	1,100	9,526	1	11,688
1969	က	35	Î	593	1	1,091	8,198		9,882
1970	2	35	1	412	1	781	8,567	/ * 99	9,826
1971	2	28	Ī	190	1	596	5,512	637	6,635
TOTAL	4L		539	10,592	4,385	880,6	77,036	704	102,344

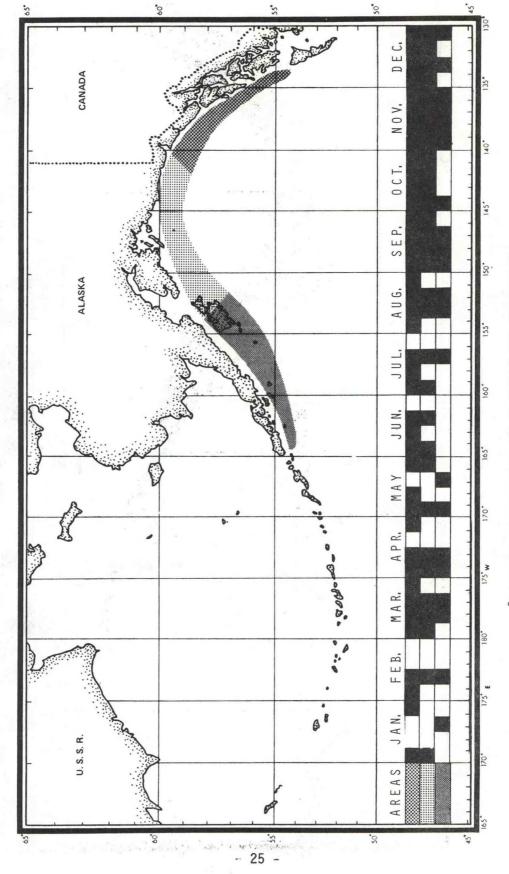
The Norwegian Whaling Gazette, No. 7, July, 1965, Sandefjord, Norway. The Norwegian Whaling Gazette, No. 6, June, 1966, Sandefjord, Norway. The Norwegian Whaling Gazette, No. 3, May/June, 1967, Sandefjord, Norway. Includes seven catchers which operated from Kuril Islands. Includes two catchers which operated from Kuril Islands. Right whale taken for scientific purposes. Brydes whale.

TABLE 15. -- JAPANESE NORTH PACIFIC WHALE PRODUCTION, 1959-71 (in Number of Whales).

Total	3,352	3,466	3,338	4,043	4,760	5,043	5,353	6,464	7,318	7,549	7,177	6,462	4,874	66,199
Others		1	3-	-I _E ,	3	1	1	1	1		/ ₂ LL	10 7	111	141
Sperm	1,800	1,800	1,800	2,549	2,700	2,461	2,460	3,000	3,000	3,000	3,000	2,700	1,802	32,072
Sei	32	203	4	260	945	1,533	1,398	2,208	3,474	3,820	3,590	3,234	2,419	23,120
Humback	-	ı	6	-17	10	1	40	Ì	1	J	ľ	1	l	9/
Fin	1,450	1,393	1,452	1,166	1,045	1,007	1,406	1,256	844	729	929	518	542	13,384
Blue	70	70	70	48	27	42	49	1	I	1	I	-	1	406
Latcher Boats	17	15	15	21	21	21	25	28	33	30	30	56	56	
ractory Ships	2	2	2	8	က	n	8	e	8	e	က	8	က	
Year	1959	1960	1961	1962	1963	1964	1965	9961	1961	1968	1969	1970	1971	TOTAL

^{1/} Right whales 2/ Minke whales 3/ 2 Minke and 109 Bryde whales 3/ 2 Minke and 109 Bryde whales The Norwegian Whaling Gazette, No. 7, July, 1965, Sandefjord, Norway. The Norwegian Whaling Gazette, No. 6, June, 1966, Sandefjord, Norway. The Norwegian Whaling Gazette, No. 3, May/June, 1967, Sandefjord, Norway.

FIGURE 1. -- AERIAL PATROLS OF THE GULF OF ALASKA, 1971



SHADED BLOCKS INDICATE QUARTERS OF MONTH THAT THE AREAS WERE PATROLLED

FIGURE 2. -- SURFACE PATROLS OF THE GULF OF ALASKA, 1971.

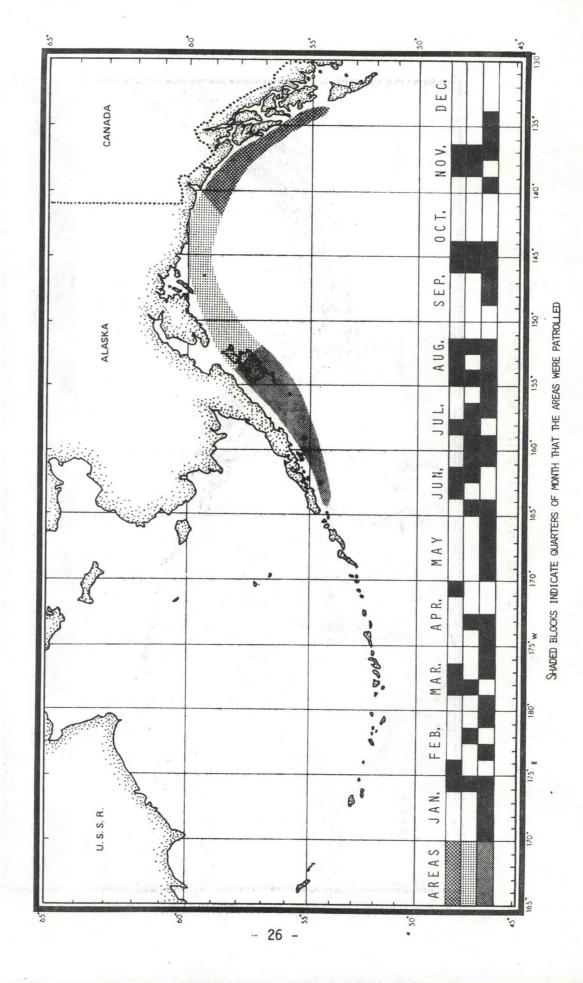


FIGURE 3. -- AERIAL PATROLS OF THE BERING SEA, 1971.

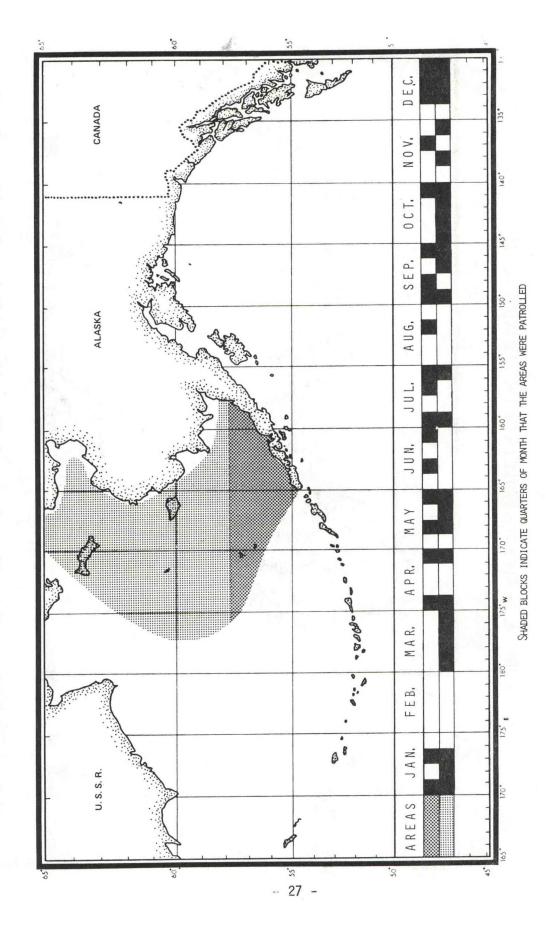
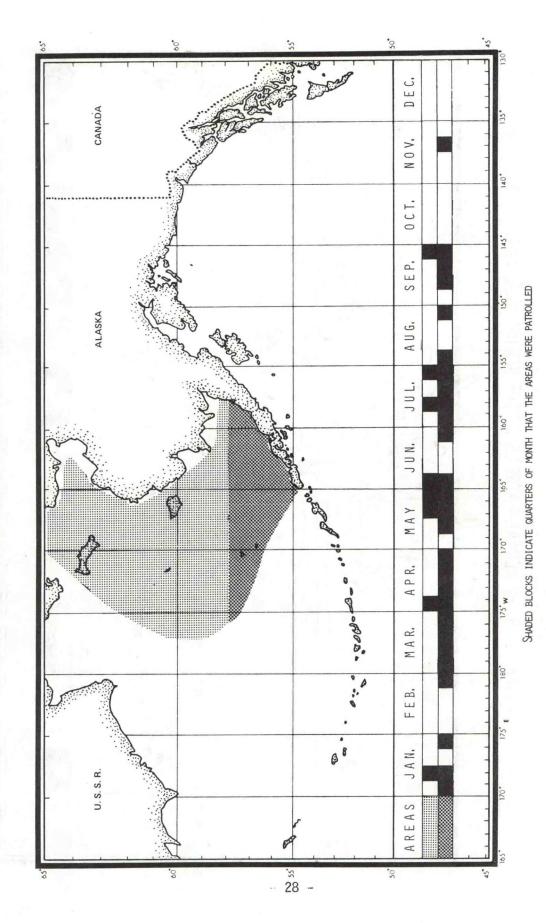


FIGURE 4. -- SURFACE PATROLS OF THE BERING SEA, 1971.



5. -- AERIAL PATROLS OF THE ALEUTIAN ISLANDS, 1971. FIGURE

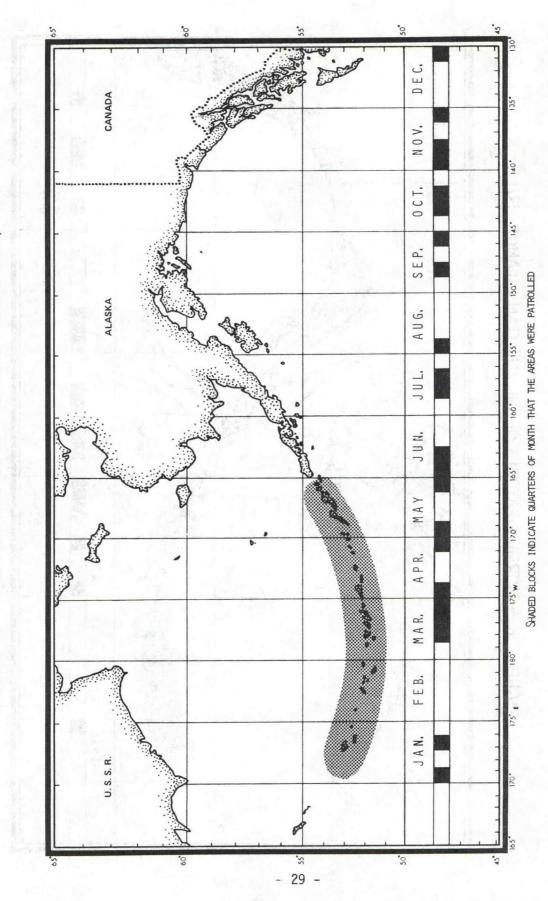


FIGURE 6. -- SURFACE PATROLS OF THE ALEUTIAN ISLANDS, 1971.

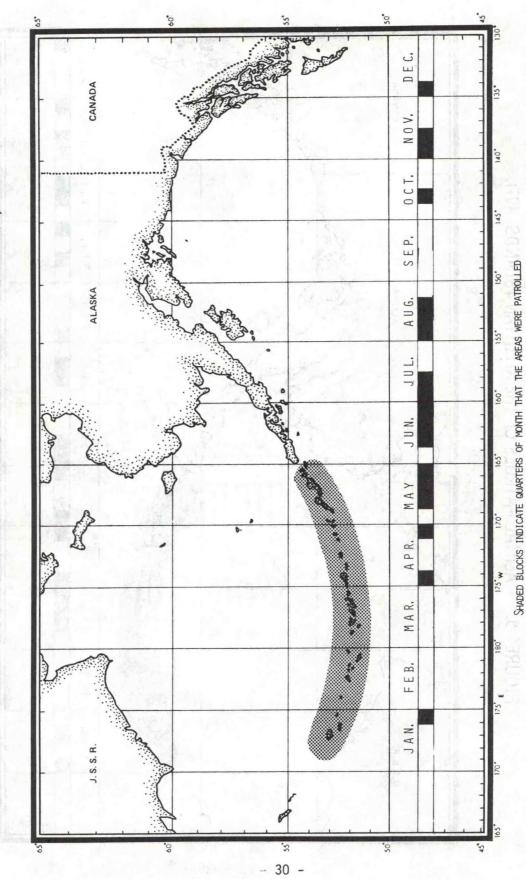
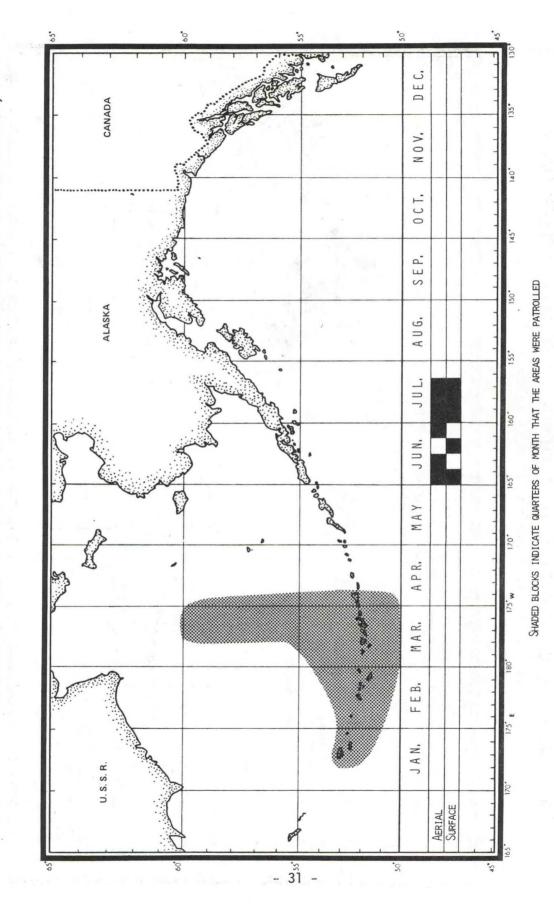
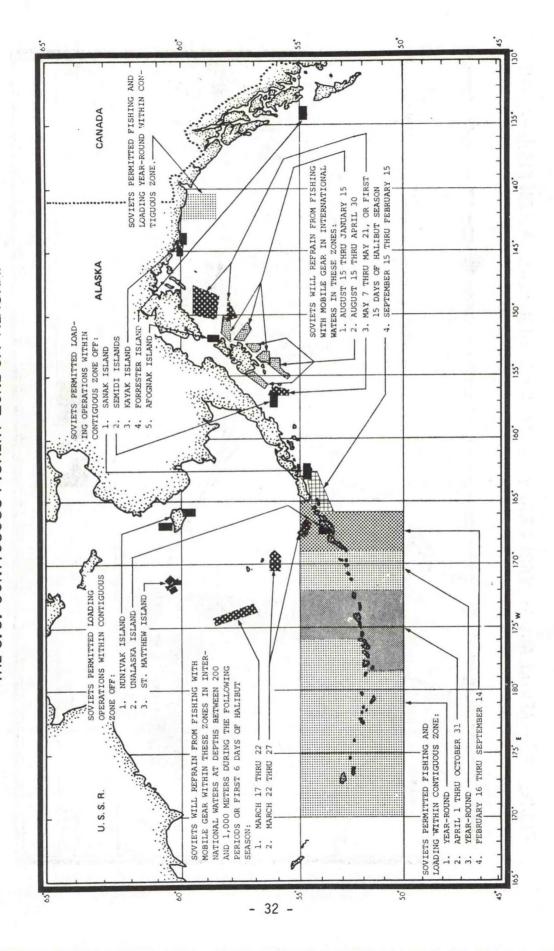


FIGURE 7. -- AERIAL AND SURFACE PATROLS OF JAPANESE HIGH SEAS SALMON FISHERY, 1971.



8. -- U. S. -U. S. S. R. FISHERIES AGREEMENTS OF FEBRUARY 1971 CONCERNING THE U.S. CONTIGUOUS FISHERY ZONE OFF ALASKA. FIGURE



THE U.S. CONTIGUOUS FISHERY ZONE OFF ALASKA DECEMBER 1970 FIGURE 9. -- U.S. -JAPAN FISHERIES AGREEMENTS CONCERNING

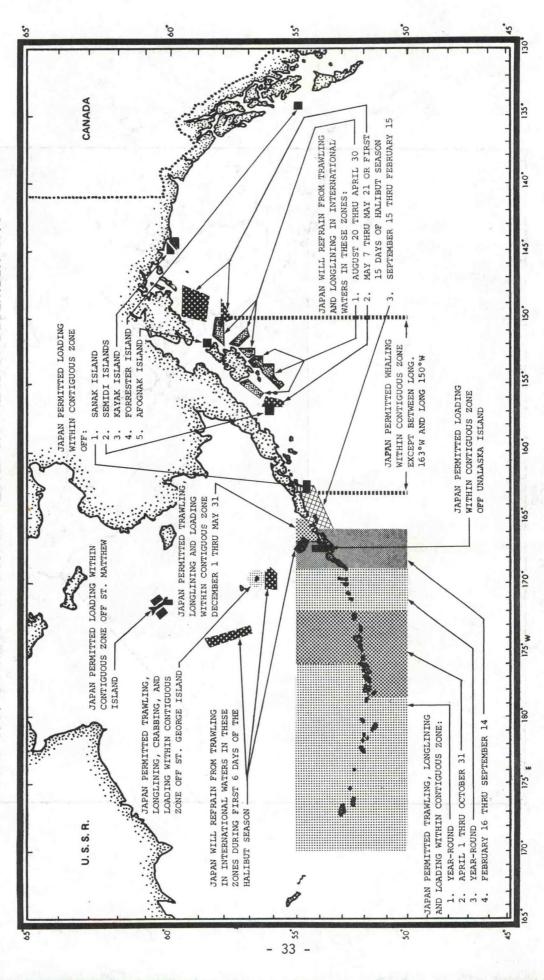


FIGURE 10. -- EASTERN BERING SEA CRAB POT SANCTUARY ESTABLISHED BY U. S. - JAPAN 1 5 7 AND U. S. - U. S. S. R. AGREEMENTS. 5 5-5 4 N W 4-17 M 5 5-1 6 N 166-104 20 0 20 34 -

LIST OF

SOVIET FISHING AND SUPPORT VESSELS

OPERATING OFF ALASKA IN 1971

	NUMBER	FLEET NO.	HUL	L NO.	HOME PORT
FACTORY SHIPS					
Fish Factory Ships					
Lamut Class - GRT-4,982, Leng	th-362', Bea	m-53'			
Lamut			TP	0960	Petropavlovsk
Professor Baranov Class - GRT	T-13,571-14,3	40, Length-53	88',	Beam-70'	
Kaliningradskiy Komsomolets		# G 15 1 /		0003	Vladivostok
Marshal Sokolovskiy Novaya Kakhovka				0007 0013	Petropavlovsk
Novaya Ladov Severnyy Polyus				0013	Charles (
Sovetskoye Zapolyarye Tomsk				0014 0005	Nevelsk Vladivostok
Yulian Markhlevskii				0013	Nevelsk
Spassk Class - GRT-18,000, Le	ength-572', B	eam-79'			
Sukhona				3872 3868	Vladivostok Vladivostok
Sulak Suzdal			FF	3000	Vladivostok
Severodvinsk Class - GRT-10,0	36, Length-5	10', Beam-66'			
Arman		DD 0710		8801	Detuenaulevak
Chukotka Sovetskaya Kamchatka		PP 0710 PP 0708	IP	0011	Petropavlovsk Petropavlovsk
Sovetskaya Sakhalin		91.			
Zakharov Class - GRT-12,675,	Length-532',	Beam-66'			JAM SM
Aleksandr Kosarev Aleksandr Obukhov			PZ	2715 2708	Vladivostok Vladivostok
Ieronim Uborevich Konstantin Sukhanov				2717 2709	Vladivostok Vladivostok

	NUMBER FLEET NO.	HULL NO.	HOME PORT
FACTORY SHIPS (cont'd)			
Zakharov Class (cont'd)			
Korablestroitel Klopotov Kronid Korenov Pavel Chebotnyagin		SZ 0718 PZ 2706	Vladivostok Vladivostok
BASE SHIPS			
Sovetskaya Arktika			
PROCESSING REFRIGERATED SHIPS	532.4		
Angara Class - GRT-945, Len	gth-202', Beam-32'		
Donets			
Aktyubinsk Class - GRT-5,21	7, Length-424', Beam-55'		
Ivan Stepanov Kamenogorsk Kramatorsk		PT 0467 0477	Nakhodka
Kurgan Titaniya	VV 0262	PT 3466 S 0388	Vladivostok 466
Tselinograd Volochayevsk Yaroslavl Zelenogradsk	VK 0363	PT 3464	Vladivostok Vladivostok 473 Vladivostok 480
Baltiysk Class - GRT-3,553,	Length-376, Beam-46		
Baltiysk Chernyakhovsk Gvardeysk Zelenogorsk			Nakhodka 209 Nakhodka Nakhodka 197 Vladivostok
Bratsk Class - GRT-2,288, L	ength-270', Beam-43'		
Elton No. 34	PR 8008	PR 3008	Vladivostok
Khanka No. 31 Khasan No. 29 Kizi No. 27	PR 8006 PR 8007 PR 8004	PR 3004	Vladivostok 550 Vladivostok 543

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
OCESSING REFRIGERATED SHIPS	(cont'd)			
Converted Medium Trawlers Cla	ass - GRT-2	265, Length-125	5', Beam-24'	
Milkovo	RR			
Khabarov Class - GRT-650, Lei	ngth-152',	Beam-27'		
Amgun		22.0774	TT 0000	h.
Koryaki Razdolnoe		PP 0774 PP 0916	TT 0920	Petropavlovsk
Sobolevo		PP 0923		Vladivostok
Kustanay Class - GRT-1,756, I	Length-260	', Beam-41'		
Magadan				
Magadan				
Pervomaysk Class - GRT-3,321	, Length-3	11', Beam-47'		
Pervomaysk No. 20 Primorsk No. 19			PR 3765	Vladivostok 40 Vladivostok 49
Priboy Class - GRT-9,660, Len	ngth-497',	Beam-67'		
Altaiskie Gory			PT 3088	Vladivostok 68
Kamchatskie Gory				Vladivostok Vladivostok
Ostrov Shmidta Ostrov Shokalskogo			PT 3109	Vladivostok
Ostrov Ushakova				Vladivostok
Sakhalinskie Gory			SB 0870	Vladivostok 86
Sevastopol Class - GRT-5,527	, Length-38	87', Beam-55'		
Arsenyev No. 22			PR 3532	Vladivostok 51
Churkin			PR 3534	Vladivostok 60
Volchansk			PR 3583	Vladivostok
Sibir Class - GRT-6,133, Leng	gth-429', I	Beam-55'		
Arkhip Kuindzhi			P 9429	Vladivostok 60
Ivan Kramskoy			PT 3022	Vladivostok
Khudozhnik Deyneka Khudozhnik S Gerasimov			PT 3038	
Sibir				Vladivostok
Viktor Vasnetsov				Vladivostok 30
Zolotoi Rog				Vladivostok 10

	NUMBER	FLEET NO.	HULL NO.	HOME PORT	
PROCESSING REFRIGERATED SHIP	S (cont'd)	5 /44 1 20			
Tavriya Class - GRT-3,230-		326'. Beam-46	ets (web Face)		
Tavi iya ciass	o,ooo, Lengun (,20 , 500 10			
Altair No. 25	RR 0035		PR 3035		
Boevoi *Boyevoy*	RR 0054		PR 3052	Vladivostok	
Dmtrii Chasovitin No. 32	RR 0029			Vladivostok	569
Gutsu1	RR 0048		PR 3048	Vladivostok	
Ishim	RR 0042			Vladivostok	
Iskona	RR 0044		PR 3043	Vladivostok	644
Kosmonavt	RR		PR 3059	Vladivostok	
Molodezhnyy	RR 0057				
Mongol	RR 0051			Vladivostok	743
Morekhod	RR		PR 3058	Vladivostok	107
Namangan	RR		PR 3060		
Nanayets	RR 0049		PR 3049	Vladivostok	718
Sibir	RR 0033				
Sukhinichi	RR 0046		PR 3045		
Veteran	RR 0052		PR 3055		
Vitaliy Bonivur No. 23	RR 0024		PR 3024	Vladivostok	525
Yana Class - GRT-3,782, Le	ngth-365'. Bear	n-48'			
14114	A STATE OF THE PARTY OF THE PAR				
Indigirka				Vladivostok	
Kuloy			PT 3515	Vladivostok	275
Uman				Vladivostok	
Miscellaneous Class					
Icha					
Tauysk				Vladivostok	
CARGO SHIPS					
Donbass Class - GRT-3,858,	Length-355',	Beam-48'			
Arkhangelsk Daugan					
The state of the s					

Miscellaneous Class

Anatoliy Serdv Feliks Dzerzhinskii General Bagration Omsk Sovetaskoye Primorye

Vladivostok

HOME PORT NUMBER FLEET NO. HULL NO. CARGO SHIPS (cont'd) Miscellaneous Class (cont'd) Vladivostok PKH 0068 Sovetskaya Gavan Svirsk Ussuri PASSENGER SHIPS Mikhalail Uritskiy Class - GRT-4,720-4,871, Length-401', Beam-53' Maria Ulyanova FUEL & WATER CARRIERS Pevek Class - GRT-3,330, Length-345', Beam-48' Vladivostok Abagur TM 0137 Erebus Miscellaneous Class Maksim Gorkii **Vladivostok** Sungari **TANKERS** Biryusa Vladivostok TM 0434 Narymneft PI 0075 Omsk Tyuman Neft Ukhta TUGS PCH 0265 **Vladivostok** Besstrashniy SCH 0021 Bulat Petropavlovsk Ispolnitelnyi Vladivostok 455 PCH 0235 Ore1 Reshitelnyy Vladivostok Steregushii

NUMBER FLEET NO. HULL NO. HOME PORT

STERN TRAWLERS

BMRT Mayakovskiy Class - GRT-3,170, Length-278', Beam-46'

A d = = =	DMDT	0400			DD	0000	N. C. Just
Adimi		0486				0986	Nakhodka
Aleksandr Maksutov		0475	20	0007		0975	Petropavlovsk
Aleksei Makhalin		0456	PP	0837		0956	Petropavlovsk
Amursk		0323				0823	Nakhodka 155
Aralsk		0324				0824	Nakhodka 376
Arkovo		0362	KV	0559		0861	Korsakov
Askold		0367				0867	Nakhodka 408
Baikal		0335				0835	Nakhodka 404
Barabash		0347	KV	0552		0847	Korsakov
Barabinsk		0336				0836	Nakhodka 109
Basargin		0343				0843	Nakhodka 376
Boris Gorinskii		0450		1018		0950	Petropavlovsk
Braslav		0341	PP	0726		0841	Petropavlovsk
Danko		0461				0961	Nakhodka 502
Diomid	BMRT	0372	KV	0567	SB	0872	Korsakov
Ekvator	BMRT	0482			PB	4982	
Fyodor Kraynev	BMRT	0449			SB	0949	Korsakov
Ikhtiolog	BMRT	0279	SG	1418	TB	1279	Petropavlovsk
Illarion Rybakov	BMRT	0470	PP	0741	TB	0970	Petropavlovsk
Itelmen	BMRT	0399	PP	0732	TB	0899	Petropavlovsk
Ivan Chernopyatko	BMRT	0445			PB	0945	Nakhodka 461
Ivan Panov	BMRT	0423	KV	0582		0923	Korsakov
Ivan Sereda		0479		0743		0979	Petropavlovsk
Kamchatskaya Pravda		0485		0745		0985	Petropavlovsk
Kamyshin		0285		0758		0285	Petropavlovsk
Kanguaz		0359				0859	Nakhodka 399
Karagat	BMRT						
Kargopol	BMRT						
Katangli		0491			SB	0991	Korsakov
Kazakhstan		0387				0887	Nakhodka 431
Kazalinsk		0290	PP	0754		0290	Hannouna 101
Kazatin		0291		0,01		0291	
Khingan		0354	PP	0727		0853	Petropavlovsk
Klyuchevskoy	BMRT			0,2,	10	0000	i e ei opa v i ovsk
Kolyvan		0288	PP	0750	TR	0288	Petropavlovsk
Kommunist		0476		0,00		0976	Nakhodka
Kommunist Ukrainy		0492				1992	Vladivostok 1100
Krechet		0303				0303	VIGGIVOS CON TIOO
Kuba		0385	PP	0730		0885	Petropavlovsk
Kulunda		0293		0753		0293	Petropavlovsk
Kushka		0292		0752		0292	recropaviovsk
Leninets		0494		1486		1994	Potronaulousk
Lett He C2	DITE	0434	FF	1400	ID	1334	Petropavlovsk

	NUMB	ER	FLI	EET NO.	HULL NO.	HOME PORT
RN TRAWLERS (cont'd)						
MRT Mayakovskiy Class (con	t'd)					
Lesoborsk	BMRT	0483	KV	0553	SB 0983	Korsakov 362
Lotus	BMRT	0496			PB 0996	Nakhodka
Luchegorsk	BMRT	0254			TB 0254	Petropavlovs
Malki	BMRT	0265	PP	0805	TB 0265	
Mark Reshetnikov	BMRT	0455			PB 0955	Nakhodka
Markovo	BMRT				SI 0137	
Matematik		0260			TB 0260	Petropavlovs
Medik		0261			KHB 0261	3 may 15 f
Meteorolog		0262			KHB 0262	
Mgachi		0370	NV	0449	SB 0870	Nevelsk 648
Nadezhdinsk		0495	3		PB 0995	Nakhodka
Nakhodka		0376			PB 0876	Nakhodka 416
Nikolai Ostrovski		0371	PP	0731	TB 0871	Petropavlovs
		0466		0539	SB 0966	Korsakov
Novaya Era		0339		0728	TB 0866	Petropavlovs
Opala		0278		0720	PB 0278	recropation.
Ozyornii Kluchi		0481	DD	0744	TB 0981	Petropavlovs
Pakhacha		0460		0606	SB 0960	Korsakov 606
Pasionariya		0302		0759	TB 0302	Petropavlovs
Paudzha		0363	FF	0/39	PB 0863	Nakhodka 407
Pechenga		0287			TB 0287	Makiloaka 407
Perm					TB 1967	Petropavlovs
Petr Ilichev		0467	DD	1016	TB 0948	Petropaviovs
Petr Ovchinikov		0448	PP	1016	PB 0287	recropaviov:
Pogranichnik Strelnikov	BMRT	0256			PB 0854	Nakhodka 392
Posyet		0356			PB 0968	Nakilouka 33
Revolyutsioner	-	0468	IN	0500	SB 0883	Nevelsk N280
Sakhalin		0383		0590		
Samara		0289	KV	0468	SB 0289	Korsakov
Samarga		0357			PB 0856	Nakhodka 396
Seroglazka		0435	D.D.	0740	TB 1935	Petropavlovs
Shturman Yelagin		0469	PP	0740	TB 0969	Petro 759
Sibiryak		0458			PB 0958	Nakhodka 493
Sidimi	BMRT	0348			PB 0848	Nakhodka 382
Sovetskaya Gavan	14.50	45			DD 0004	W 11 W
Sovgavan		0484			PB 0984	Nakhodka
Sovietskiye Profsoyuz	The second of th	0281			TB 0281	Petropavlovs
Soyuz 3 *Tri*	BMRT			landa.		
Soyuz 4 *Chetyre*		0283		0747	TB 0283	Petropavlov
Soyuz 5 *Pyat*	BMRT	0284	KV	0525	SB 0284	Korsakov 383
Suifun	BMRT	0358			PB 0857	Nakhodka 398
Svetlaya	BMRT	0480	KV	0455	SB 0980	Korsakov 360
Tadzhikistan	BMRT	0391			PB 0891	Nakhodka 442

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
STERN TRAWLERS (cont'd)				
BMRT Mayakovskiy Class (con	<u>t'd)</u>		· 基一直42	
Tagil Taishet Taman Tekhnolog Terney Tigil Tikhvin Tretyakovo Trudovye Rezervy Tymovsk Uzbekistan Valentin Kotelnikov Vasiliy Vinevitin Voskhod Yubilei Oktyabrya Yunost Zarubino 15 Sezd Vlksm 50 Let Vlksm	BMRT BMRT 0421 BMRT 0397 BMRT 0280 BMRT 0487 BMRT 0304 BMRT 0428 BMRT 0426 BMRT 0440 BMRT 0449 BMRT 0449 BMRT 0442 BMRT 0446 BMRT 0446 BMRT 0464 BMRT 0462 BMRT 0463	SG 1419 SG 0001 KV 0531 KV 0547 PP 0729 KV 0566 KV 0456 PP 0835 PP 0836 PP 0746 PP 0735	PB 0921 SB 0897 TB 1280 PB 0987 SB 0911 PB 0928 PB 0926 TB 0940 SB 0998 TB 0880 SB 0942 SB 0946 TB 0937 PB 0964 TB 0962 TB 0999 TB 0997	Nevelsk Nakhodka 443 Korsakov Petropavlovsk Nakhodka 561 Korsakov Nakhodka 448 Petropavlovsk Korsakov Petropavlovsk Korsakov Petropavlovsk Petropavlovsk Petropavlovsk Petropavlovsk Petropavlovsk Petropavlovsk Petropavlovsk Petropavlovsk
Akustik	RTM 7108		P 7108	Nakhodka
Skpyplev Class - GRT-4,699,	Length-337'	, Beam-53'		
Davydov Lokator Pelengator			PA 2795 PA 0826 P 0508	Vladivostok Vladivostok 580
Skryplev SRTM Zeleznyi Potok Class -	GRT-775 Le	ngth-180' Rea		110000000000000000000000000000000000000
Optomist Zheleznyi Potok	SRTM 1297 SRTM 1295		Turky Thomas	Nakhodka
SIDE TRAWLERS				
SRTM Mayak Class - GRT-700,	Length-178'	, Beam-31'		
Amurskiy Partizan Apparatchik Argali Armaturshchik	SRTM SRTM SRTM 8450 SRTM 8456	PP 0782 GK 8124	PI 0049 PI 2099 TI 0145 PI 1047	Nakhodka 623 Petropavlovsk Nakhodka

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
SIDE TRAWLERS (cont'd)				
SRTM Mayak Class - cont'd				
Blagoveshchensk	SRTM		PI 1052	Vladivostok
Botsman	SRTM 1319	KHO 4627	SI 0101	Nevelsk
Bratstvo	SRTM 1300		PI 0002	
Brigadir	SRTM		PI 2100	Vladivostok
Bylina	SRTM 8485		PI 2090	Vladivostok
Chelikhgra	SRTM 8436		PI 0801	Nakhodka
Chigrin	SRTM		TI 0162	
Chu1ym	SRTM	KHO 4631	SI 0124	Neve1sk
Dalnevostochnik	SRTM	NP 5275	SI 0134	
Dmitriy Levin	SRTM 8608	KHO 6757	SI 0109	
Doblest	SRTM 1302	PB 14098	PI 0006	
Doker	SRTM	D4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SI 0133	Nevelsk
Domenshchik	SRTM	NP 5277	01 0100	
Dubrava *Poisk*	SRTM 8486	111 3277		Petropavlovsk
	SRTM		AR 6052	Vladivostok
Dzhigit	SRTM 1315		TI 0142	TIGGITOSCOR
Evekun	SRTM 1313	NP 5229	SI 0106	Nevelsk 40
Garpuner	SRTM	KHO 4850	SI 0105	Nevelsk
General Lvov	SRTM	PP 0791	1316	Petropavlovsk
Geograf		PB 14006	PI 0005	recropaviovsk
Gornovoy	SRTM SRTM 8462	PB 14000	PI 2080	Vladivostok
Iskra		DD 0705	F1 2000	VIAUIVOSCOK
Kedrovka	SRTM 0004	PP 0795	CT 1122	Nevelsk
Khabarovskii Komsomolets	SRTM	KHO 4463	SI 1133	Nevelsk
Kitoboy	SRTM	NP 5206	SI 0101	
Krylaty	SRTM	PB 14012	PI 0013	Nakhodka
Laminariya	SRTM 8497		CT 0100	
Leninskoye	SRTM	CD 0500	SI 0136	
Lunniy	SRTM 8469	SD 0502	PI 1049	
Markovo	SRTM	KHO 4701	SI 0137	
Mars	SRTM 8601		SI 0111	V2 10 11 1
Molniya	SRTM 8465		PI 2083	Vladivostok
Motorist	SRTM 1289		DT 0004	No. 1 to Charles
Nakhodka	SRTM 8422		PI 0034	Nakhodka
Nevelskii Komsomolets	SRTM	55 14674	SI 0164	Nevelsk 32
01ga	SRTM	PB 14074		
Opolot Mira	SRTM 1306	KHO 4630	SI 0114	
0re1	SRTM	100001	TI 0138	Petropavlovsk
Orianda	SRTM 8454	PP 0783	TI 0146	Petropavlovsk
Ossorka	SRTM	ALL WILLIAM	PI 2095	Vladivostok
Pauzhetka	SRTM 8487	PP 0736	TI 0149	Petropavlovsk
Pavel Butov *Bykov*	SRTM	KHO 6792	SI 0115	
Plankton	SRTM		NM 6517	

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
SIDE TRAWLERS (cont'd)				
SRTM Mayak Class (cont'd)				
Pogranichnik Abbasov	SRTM 8418		PI 2062	Vladivostok 672
Pogranichnik Buinevich Pogranichnik Denisenko Pogranichnik Dergach	SRTM 8401 SRTM 8413	VK 0764	PI 2052	Vladivostok 642 Vladivostok 665
Poisk	SRTM 8414	PP 0780	TI 0137	Petro 740
Pogranichnik Dushnikov Pogranichnik Ermolyuk Pogranichnik Gayunov	SRTM 8405 SRTM 8410 SRTM 8406	VK 0766 PP 0778	PI 2055 TI 0110 PI 2056	Vladivostok 676 Petropavlovsk Vladivostok
Pogranichnik Gladyshev	SRTM 8407	VV. 0000	PI 2057	Vladivostok
Pogranichnik Golovin Pogranichnik Korzhukov Pogranichnik Mankovskii	SRTM 8404 SRTM 8409 SRTM 8403	VK 0998 NP 7613 VK 0765	PI 2054 PI 2091 PI 2053	Vladivostok 641
Pogranichnik Vetrich Pogranichnik Yurin	SRTM 8412 SRTM	NP 5191	SI 0116 PI 2058	Nevelsk 1107
Pogranichnik Zmeev Rakheta	SRTM 8411 SRTM 8447	PP 0779	TI 0136 PI 2081	Petropavlovsk Vladivostok Vladivostok
Rassvet Ravenstvo Sargassa	SRTM 8463 SRTM 1279 SRTM		PI 0023 PI 2336	Nakhodka Vladivostok
Schastye Seymchan	SRTM 1277 SRTM	NM 6507	PI 1051	Vladivostok 1071
Shimanovskiy Shiveluch	SRTM SRTM 1291	PP 1502	SI 0135 TI 1502	Nevelsk Petropavlovsk
Shkotovo Shubertovo	SRTM 8441 SRTM 0002	NP 7617	SI 0808	Nevelsk
Sikhoteh-Alin Sofiysk	SRTM SRTM	PB 14103 PP 0789	TI 0139	
Solnechniy Sozvezdie Sretensk	SRTM 8472 SRTM 8464 SRTM	NP 5222 VK 0794	SI 0121	Nevelsk Vladivostok 747
Stroitelnii Sudovoditel	SRTM 8429 SRTM 1316	PP 0780 PP 0739	PI 2069 TI 0140	
Svetozar Svoboda	SRTM 1269 SRTM	KHO 4633 PB 14014	SI 0125 PI 0026	Nevelsk
Svobodnyy Tayvaza Tetyukhe	SRTM SRTM 0003 SRTM	AR 6021 PP 0794 PB 14100	NM 6508 TI 0159 PI 0030	Vladivostok
Tikhirka Topol	SRTM SRTM 8495 SRTM 1274	NP 5304	SI 0123 PI 2092 PI 1274	Vladivostok 1098 Nakhodka 59
Trud Tsunami Tunets	SRTM 8470 SRTM 8602	VK 0790	PI 2085 SI 0122	Vladivostok Petropavlovsk
Turgen Uala	SRTM SRTM 1292	PP 0742 SG 1503	TI 0150 TI 1156	

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
SIDE TRAWLERS (cont'd)				
SRTM Mayak Class (cont'd)				
Uelen	SRTM		PI 0050	Nakhodka
Ulibka	SRTM 8488	NP 7618	SI 0125	Nevelsk
Uasyugan	SRTM	KHO 4631	SI 0102	
Verabelik	SRTM	KHO 6756	SI 1264	Nevelsk
Verkholaz	SRTM	PP 0998	TI 1154	Petropavlovsk
Verkhoyansk	SRTM	PYA 6619	PI 1053	
Voditel	SRTM		SI 1132	
Vodolaz	SRTM	PP 1071	TI 1155	Petropavlovsk
Vysotnik	SRTM			
Vzryvnik	SRTM	PB 14061	PI 0003	
Yakutsk	SRTM		PI 0058	
Yaroslavskiy Komsomolets		VK 0805	PI 2091	Vladivostok
Zadzernyi	SRTM 8438	PP 0981	TI 0803	Petropavlovsk
Zarevo	SRTM 8466	PP 0784	TI 0147	Petropavlovsk
Zvezdnii	SRTM 8471		PI 2086	Vladivostok
	SRTM 8408		P 0108	Vladivostok 680
	SRTM 8415		PI 2060	Nakhodka
	SRTM 8419	VK 777	PI 2063	Vladivostok 677
	SRTM 8420	4.10	PI 2064	Vladivostok
	SRTM 8423	VK 719	PI 2066	Vladivostok 645
	SRTM 8426	VK 776	PI 2067	Vladivostok
	SRTM 8427	VK 208	PI 2068	Vladivostok
	SRTM 8428	VK 778	PI 0269	Vladivostok
	SRTM 8430	VK 782	PI 2071	Vladivostok
	SRTM 8431	VK 702	P 8431	Vladivostok 679
	SRTM 8433		PI 2075	Vladivostok
	SRTM 8434		P 8434	Nakhodka 454
	SRTM 8435		PI 2074	Vladivostok
	SRTM 8437	NP 7638	SI 128	Nevelsk
	SRTM 8438	PP 781	01 120	Petropavlovsk
	SRTM 8439	701	P 439	
	SRTM 8442		PI 0807	Nakhodka
	SRTM 8448		PI 39	Nakhodka 459
	SRTM 8449		11 33	Makilouku 103
	SRTM 8451		PI 2015	Vladivostok
	SRTM 8453		11 2013	VIGGIVOSCOR
	SRTM 8455			
	SRTM 8456	VK 790	PI 2076	
	SRTM 8457	VK /30	PI 2077	Vladivostok
	SRTM 8457	VK 790	PI 2078	Vladivostok
	SRTM 8460	VK 791	PI 2079	Vladivostok 737
	SRTM 8461	VK /91	PI 4045	VIAUIVUS LUK 737
			SI 130	Nevelsk
	SRTM 8480		31 130	Neversk

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
IDE TRAWLERS (cont'd)				Top with this
SRTR Okean Class - GRT-50	05, Length-167',	Beam-29'		
Andromeda	SRTR 9162	KHO 4713	SI 0339	Kholmsk
Komandor	SRTR 9043	KHO 6814		Kholmsk
Ochakov	SRTR 9021	KHO 6813	SI 0345	Kho1msk
01guya	SRTR 9089	KHO 6774		Kho1msk
Omega	SRTR 9022	KHO 4633	SI 0342	Kholmsk
Onor	SRTR 9088	KHO 4676	SI 0343	Kholmsk
Yuri Gagarin	SRTR 9164	NP 1153	PI 0323	/==140 E
SRT Medium Trawlers - GR	Γ-265-335, Lengt	h-125', Beam-2	24'	
Abakan	SRT 1027	VK 0300		
Agat	SRT 1048	PB 14038	PI 0452	Nakhodka 193
Akademik Knipovich	SRT	PP 0777	PI 0452	
Aksaut	SRT 1032	PB 14032	P 1032	Nakhodka N120
Andriyan Nikolaev	SRT	PP 0822	T 0201	Petropavlovsk
Angren	SRT 1053	PB 14034	PI 0462	Nakhodka 42541
Avacha	SRT 1040	PB 1511	PI 0451	Nakhodka 136
Azov	SRT 1030	NP 42525	PI 0459	
Barguzin	SRT 1060	NP 1054	12 0105	
Baykonur	SRT 1102	AR 6044	PI 1324	Vladivostok 66
Belgorod	SRT 1059	NP 42546	P 1059	Traditios con ee
Berezino	SRT 4405	PB 42564	PI 0470	Nakhodka 202
	SRT 0656	VK 0323	P 0656	Vladivostok
Blagoveshchensk		NP 42558	PI 2513	Nakhodka 90
Bogatyr	SRT 4333		P1 2313	Nakilouka 90
Bronnitsa	SRT 0419	VK 0326		Vladivostok 20
Buinsk	SRT 0433	VK 0318	D 3057	
Bukhtarminsk	SRT 1057	PB 15113	P 1057	Nakhodka 227
German Titov	SRT	PP 0843	TI 0397	Petropavlovsk
Ikla	SRT 0222	PP 1918	SK 0222	Nevelsk 972
Indra	SRT 1170	AR 6050	PK 1170	
Izvalta	SRT 1169	GK 8102	PI 1326	
Kambalnyy	SRT 4456	PP 0778	TI 0576	Petropavlovsk
Kamchatskiy Pioner	SRT	SG 1412	TK 0231	
Kamennyy	SRT 4458	PP 0814	T 4453	Petropavlovsk
Kansk	SRT	PP 0997	TI 0416	Petropavlovsk
Karaga	SRT 4392	PP 0837	T 4392	
Karymskiy	SRT 1173	SG 1463	P 1173	Petropavlovsk
Kayum	SRT 4460	PP 0819	TI 0400	
Kerch	SRT 0219	M 0219	TK 0219	Petropavlovsk
Khama1	SRT 1128	PB 14014	PI 0319	Nakhodka 415
Kievsky Komsomolets	SRT 1122	NP 3260	S 1122	Nevelsk
Kit	SRT 0214	PP 0783	T 0214	Petropavlovsk
Klin	SRT	PP 0826	TI 0401	Petropavlovsk

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
E TRAWLERS (cont'd)				
RT Medium Trawlers (cont	<u>'d)</u>			
Kombayner	SRT			
Konus	SRT	PP 0791	T 0205	
Korosten	SRT 4177	PP 0847	TI 0412	Petropavlovsk
Kosmonaut Egorov	SRT 1101	UN 6503	PI 1327	
Kostroma	SRT 0124	PP 0787	TI 0395	Vladivostok 55
Krasnodar	SRT	UK 1700	TI 0241	UST Kamchatsk
Krasnodon	SRT	UK 1760	T 0260	UST Kamchatsk
Krater	SRT	PP 0792	TI 0403	Petropavlovsk
Krilon	SRT	PP 0820	TI 0413	Petropavlovsk
Kroton	SRT	PP 0832	TI 0399	Petropavlovsk
	SRT 4393	PP 0810	TI 0572	Petropavlovsk
Krutoy	SRT	SG 1411	TK 0232	Petropavlovsk
Kuban	SRT 1039	PB 14035	PI 0470	(Jeef Specification)
Kundzha	SRT 0208	PP 0889	TI 0405	Petropavlovsk
Kuzachin	SRT 1136	NP 5213	SI 0349	Nevelsk
Lag	SRT 1130	NP 5214	SI 0351	Nevelsk
Lazo		NP 7538	TI 0352	Nevelsk
Legenda	SRT 1143		S 1144	Nevelsk
Lena	SRT 1144	NP 7550		
Leshch	SRT	PP 0813	TI 0409	Petropavlovsk
Linza	SRT 1145	PP 5220	SI 0355	Nevelsk
Losos	SRT 0121	PP 0830	T 0125	Petropavlovsk
Mekhanik Lesovoy	SRT 0388	PP 0824	T 0388	Petropavlovsk
Mintay	SRT 1131	PB 15006	P 1131	Nakhodka 313
Mirakh	SRT 0225	TF 8024	PI 0308	Nakhodka 370
Montazhnik	SRT		1.00	Participant I
Nalim	SRT 4204	PB 15112	P 4334	Nakhodka
Neptun	SRT 4293	NP 7590	4.18hg?	Nevelsk 1733
Nerpa	SRT 4528	NP 9639	SG 1411	"organical" or particular
Ninase	SRT 0210	OZ 5567	SI 1391	Korsakov
Nord	SRT 4527	NP 7574	SI 0540	Nevelsk
Pankara	SRT 1067	NP 14039	P 1067	Nakhodka 267
Pavel Popovich	SRT 0239	GK 8101	PI 1329	Nakhodka 406
Pavlovsk	SRT 1117	NP 4411	SI 1607	Nevelsk
Pertominsk	SRT 1107	MN 6582	1107	Vladivostok
Pioner	SRT			PRINCIPLE IN
Plastun	SRT 1110	NP 5221	SI 0361	Nevelsk
Plyavinsk	SRT 1103	CHK 4437	SI 1607	Nevelsk 1927
Povenets	SRT 1118	NP 5228	SI 0362	Nevelsk 1057
Reguldi	SRT 0220	GK 8104	PI 1331	Nakhodka 438
Rokhuneeme	SRT 0219	PYA 6657	PK 0219	Vladivostok 6
Salatsgriva	SRT 4538			
		PB 14031	PI 0487	Nakhodka

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
SIDE TRAWLERS (cont'd)				A CHARLES
SRT Medium Trawlers (cont'	<u>d)</u>	AND A		and the state of
Sedanka	SRT 0234	MN 6501	PI 2340	Vladivostok 559
Shelf	SRT 1166			Nevelsk
Shkiper	SRT 1140	NP 7540	SI 0382	Nevelsk
Shti1	SRT 0123	PP 0793	T 0123	Petropavlovsk
Shturman	SRT 1123	NP 7535	S 1123	Nevelsk
Sofia	SRT			All of the same of the file
Som	SRT 4408	PP 0779	TI 1600	Petropavlovsk
Sozla	SRT 0209	PR 5087	SI 1388	July of Action 18 18
Sulin	SRT 0720	NP 0301	P 0720	Nakhodka 630
Tokmak	SRT 0019	NP 7634		
Ussuriysk	SRT 1154	NP 7556	S 1154	Nevelsk
Utes *Utio*	SRT 1167			
Uzhgorod	SRT 1161	NP 5237	SI 0379	Nevelsk
Valeriy Bykovskiy	SRT 4395	PP 0809	T 4395	
Varzuga	SRT 1022	PB 14065	PI 0475	
Vishera	SRT 1124	NP 5210	SI 0347	
Yubileinyi	SRT		TI 0151	
RESEARCH SHIPS				
Adler *Tinro*	RT 0218		PG 4059	Vladivostok
Akademik Lets	SRT 0344	VK 0310	PI 2491	Vladivostok 196
Avtogenshchik *Tinro*	SRTM		PI 0058	Vladivostok
Bulduri *Tinro*	SRT	PP 1481	TI 1605	
Gornostay *Tinro*	SRTM	KHO 4631	SI 0107	Nevelsk
Iskatel *Tinro*	SRTM 8425		PI 4009	Vladivostok
Kosmicheskii *Tinro*	SRTM 8474		PI 4011	Vladivostok
Kril *Tinro*	SRTM		PI 4012	Vladivostok
Muzhestvo *Tinro*	SRTM		PI 1293	
Ogon *Tinro*	RT 0204			Vladivostok
Olenyok *Tinro*	SRTM		PI 2096	
Oriana *Tinro*	SRTM 8459			Vladivostok
Orlan	SRTR 9085	NP 7599		Nevelsk 1100
Sadgorod	SRTM	1 7 7 7 A.	PI 4025	
Tavrichanka *Tinro*	SRTM 8444	PP 0785	TI 0144	Petropavlovsk
Valdemrpils *Tinro*	SRT 4555	PP 1483	TI 1585	Petropavlovsk
ATROL SHIPS	100			
	1/	- B		111111111111111111111111111111111111111
Boikii	WK	VK 0404	PK 2047	Vladivostok
Flotinspektsiya l	SRTM		PI 4002	

1/ Whale Killer

	NUMBER	FLEET NO.	HULL NO.	HOME PORT
TYPE UNKNOWN				
Askold Narval			PL 0604	Nakhodka 456

LIST OF

JAPANESE FISHING AND SUPPORT VESSELS

OPERATING OFF ALASKA IN 1971

	REGISTRY NUMBER	REMARKS
FACTORY SHIPS		
Fish		
Chiyo Maru	TK1-232	Groundfish and Salmon
Gyokuei Maru	TK1-333	Groundfish
Jinyo Maru	TK1-293	Salmon
Kashima Maru	TK1-182	Groundfish
Kizan Maru	TK1-432	Salmon
Kyokusan Maru	TK1-185	Salmon
Meisei Maru	TK1-370	Salmon
Meisei Maru No. 2	TK1-518	Salmon
Meiyo Maru	TK1-381	Salmon
Mineshima Maru	TK1-716	Groundfish
Miyajima Maru	TK1-137	Salmon Salmon
Nisshin Maru No. 2	TK1-280	Groundfish
Nojima Maru	TK1-302	Salmon
Ohtsu Maru	TK1-334	Sa 1 mon
Shikishima Maru	TK1-648	Groundfish
Shinano Maru	TK1-189	Salmon
Soyo Maru	TK1-330	Groundfish
Crab		
Keiko Maru	HK1-157	
Koyo Maru	TK1-163	
Nogo Hara	1111 100	
Whale		
Kyokuyo Maru No. 3	TK1-427	
Nisshin Maru No. 3	TK1-406	

		REGISTRY NUMBER	REMARKS
	1/		
1	[RAWLERS]		
	Akashi Maru No. 18	YG1-239	
	Akashi Maru No. 19	YG1-240	
		YG1-256	
	Akashi Maru No. 56 Akashi Maru No. 57	YG1-257	
	Akashi Maru No. 58	YG1-259	
	E-CONTROL OF AUGUST AND AUGUST AN	YG1-260	
		YG1-261	
	Akashi Maru No. 61		
	Akashi Maru No. 62	YG1-262	
	Akashi Maru No. 63	YG1-266	
	Akashi Maru No. 65	YG1-267	
	Akashi Maru No. 66	YG1-273	
	Akashi Maru No. 67	YG1-275	
	Akashi Maru No. 68	YG1-280	
	Akashi Maru No. 69	YG1-281	
	Akashi Maru No. 71	YG1-289	
	Akashi Maru No. 72	YG1-290	
	Akashi Maru No. 73	YG1-299	
	Akashi Maru No. 75	YG1-300	
	Akashi Maru No. 76	YG1-304	
	Akashi Maru No. 77	YG1-305	
	Akatuki Maru	HK2-10814	
	Akiho Maru	NS1-430	
	Aoba Maru	NS1-492	
	Awagi Maru No. 20	HK2-11240	S AND MADE AND A SECOND
	Awazi Maru No. 50	HK2-11109	
	Chitose *Titose* Maru	HK2-11757	
	Chuyo Maru No. 7	HK1-139	
	Daiei Maru No. 8	HK2-11968	
	Daiei Maru No. 12	HK2-11687	
	Daihiko Maru No. 18	HK2-11883	
	Ebisu Maru No. 11	HK2-11831	
	Ebisu Maru No. 21	HK1-383	
	Eifuku Maru No. 21	MG2-2541	to the same that I want
	Eiyo Maru	NS1-310	
	Fuyo Maru	F01-125	
	Hakurgi Maru	NS1-534	
	Hakurie Maru No. 2	TK1-71	
	Heikiu Maru No. 15	HK2-11517	
	Hiyo *Shiyo* Maru Hokkai Maru	NS1-232	
	Hokko Maru No. 12	NS1-535 HK2-8983	
	HOKKO Maru NO. 12	UKZ-8383	

 $\underline{1}/$ Side Trawlers, pair trawlers and Danish Seiners

	REGISTRY NUMBER	REMARKS
TRAWLERS (cont'd)		
Hokuetso Maru No. 21	HK1-270	
Hokushin Maru	NS1-537	
Hokuto Maru	NS1-538	
Hokutou Maru No. 3	HK1-241	
Hokuyou Maru	F01-279	
Hokoyou Maru No. 38	HK2-11718	
Hoyo Maru	F01-124	
Hukuyou Maru	F01-279	
Jinei Maru	HK2-11366	
Junyou Maru	F01-257	
Kaiho Maru No. 8	HK2-11756	
Kaiun Maru No. 18	HK2-10920	
Kaiun Maru No. 25	HK2-11794	
Kaiyo Maru	FS2-2134	
Kaiyo Maru	HK2-13516	
Katori Maru	NS1-485	The state
Katuki Maru	NS1-486	
Katura Maru No. 21	HK2-11967	
Kiyo Maru	F01-156	
Kofuku Maru No. 38	HK2-11758	
Kouyou Maru	FS1-278	
Kouyou Maru	NS1-296	
Koyo Maru	F01-278	
Kurgha Maru	F01-294	
Kyuho Maru No. 5	HK2-11961	
Mitsu Maru No. 25	AM2-3022	
Mitu Maru No. 28	AM2-3104	
Mizuho Maru	NS1-429	
Myoken Maru No. 1	HK2-71960	
Nissei Maru No. 8		
Nitto Maru No. 5	HK1-227	
Nitto Maru No. 57	HK2-11467	
Oheko Maru No. 18	HK2-11883	
Otoha Maru	F01-293	
Rakuyo Maru	F01-261	
Riuyou Maru	NS1-297	
Ryuyo Maru		
Seiho Maru No. 8	HK2-11750	
Shoei Maru No. 15	HK2-9468	
Shoken Maru	HK2-10715	
Shunyo Maru	F01-260	
Syoken Maru	MG1-345	
Syoken Maru	HK2-10715	

	REGISTRY NUMBER	REMARKS
TRAWLERS (cont'd)		
Syosei Maru No. 5 Syoyo Maru Syuyo Maru Taiyo Maru No. 32 Tenyo Maru Tokuyo Maru No. 31 Toyo Maru Tsushima Maru Wakaba Maru Wayou Maru Yashima Maru Yosi Maru No. 35 Yuro Maru No. 30 Yuryo Maru No. 30 Yuryo Maru No. 30 Yuyo Maru Zenei Maru No. 21 Zenei Maru No. 15 Unidentified	HK2-11311 F01-155 F01-284 TK1-641 MG1-510 FS2-2185 HK2-11681 NS1-420 NS1-493 NS1-419 FS2-2186 AM2-3416 IT2-2265 NS1-233 HK2-13589 HK2-11946 F01-257 F01-258 F01-275 HK2-8462 HK2-11787 MG1-265 MG1-327 NS1-296 NS1-297 NS1-297 NS1-451 NS1-486 NS1-493	
STERN TRAWLERS		
Akebono Maru No. 11 Akebono Maru No. 12 Akebono Maru No. 15 Akebono Maru No. 16 Akebono Maru No. 17 Akebono Maru No. 20 Akebono Maru No. 21 Akebono Maru No. 22 Akebono Maru No. 27 Akebono Maru No. 52	HK1-196 TK1-620 YG1-298 TK1-635 HK1-206 YG1-367 TK1-644 TK1-688 TK1-729 TK1-429	

Akebono Maru No. 71 Akebono Maru No. 72 Aso Maru Chidori Maru No. 61 Chuyo Maru No. 7 Daian Maru No. 118 Daiei Maru No. 12 Daishin Maru No. 12 Daishin Maru No. 23 Daito Maru No. 70 Eikyu Maru No. 25 Eikyu Maru No. 81 Fuji Maru		REGISTRY NUMBER
Akebono Maru No. 72 Aso Maru Chidori Maru No. 61 Chuyo Maru No. 7 Daian Maru No. 118 Daiei Maru No. 12 Daishin Maru No. 12 Daishin Maru No. 23 Daito Maru No. 23 Daito Maru No. 25 Eikyu Maru No. 25 Eikyu Maru No. 81 Fuji Maru Fuji Maru Fuji Maru Fuji Maru Fuji Maru No. 2 Fukuho Maru No. 2 Fukuho Maru No. 2 Fukuho Maru No. 2 Fukushin Maru No. 2 Fukushin Maru No. 2 Gyoan Maru No. 15 Haruna Maru Hoko Maru No. 31 Hokkou Maru No. 37 Hokutou Maru No. 37	STERN TRAWLERS (cont'd)	
Hokutsh Maru No. 7 Honken Maru No. 18 Ishikari Maru Kaiko Maru No. 2 Kaiko Maru No. 3 Kaiun Maru No. 52 Kakudai Maru No. 25 Kashima Maru No. 11 Kashima Maru No. 15 Katata Maru Kitakami Maru Kitakami Maru Kohoku Maru No. 6 Kohoku Maru No. 8 Kongo Maru Kotobuki Maru No. 31 Kotoshiro Maru No. 11 Koyo Maru No. 2 Kurgha Maru Kotoluki Maru Kotoluki Maru No. 21 Kurgha Maru Kotoluki Maru Kotoluki Maru No. 21 Koyo Maru Kotoluki Maru No. 21 Kurgha Maru Kotoluki Maru Kotoluki Maru No. 21 Kurgha Maru Kotoluki Maru Kotoluki Maru No. 21 Kurgha Maru Kotoluki M	Akebono Maru No. 72 Aso Maru Chidori Maru No. 61 Chuyo Maru No. 7 Daian Maru No. 118 Daiei Maru No. 2 Daishin Maru No. 12 Daishin Maru No. 23 Daito Maru No. 70 Eikyu Maru No. 25 Eikyu Maru No. 81 Fuji Maru Fuji Maru No. 10 Fukuho Maru No. 2 Gyoan Maru No. 21 Gyofuku Maru No. 21 Gyofuku Maru No. 37 Hoko Maru No. 31 Hokkou Maru No. 37 Hokutou Maru No. 37 Hokutou Maru No. 3 Hokutsh Maru No. 7 Honken Maru No. 18 Ishikari Maru Kaiko Maru No. 3 Kaiun Maru No. 52 Kakudai Maru No. 15 Katata Maru Kitakami Maru Kohoku Maru No. 5 Kohoku Maru No. 6 Kohoku Maru No. 6 Kohoku Maru No. 8 Kongo Maru Kotobuki Maru No. 8 Kongo Maru Kotoshiro Maru No. 31 Kotoshiro Maru No. 11 Koyo Maru No. 2 Koyo Maru No. 2	TK1-496 F01-81 MG1-566 HK1-139 HK1-257 IK1-152 TK1-466 TK1-555 HK1-238 MG1-421 HK1-281 F01-167 IG1-230 FS1-171 FS1-137 FS1-144 MG1-521 FS1-177 F01-220 HK1-156 HK1-308 HK1-241 HK1-241 HK1-241 HK1-241 HK1-202 F01-151 HK1-165 HK1-389 AT1-15 MG1-411 MG1-526 TK1-684 F01-132 HK1-170 HK1-171 HK1-215 F01-221 MG1-567 KM1-505 TK1-629 TK1-640

REMARKS

	REGISTRY NUMBER	REMARKS
STERN TRAWLERS (cont'd)		
Kyowa Maru No. 5 Kyowa Maru No. 8 Kyuei Maru No. 1 Mito Maru No. 30	FS1-141 FS1-151 AM1-10 AM1-103	
Mito Maru No. 52 Mutsu Maru No. 52 Myoei Maru No. 30 Nitaka Maru	HK1-218 HK1-184 AM1-85 F01-168	
Nitto Maru No. 71 Ohtori Maru Oreient Maru No. 2 Rikuzen Maru	HK1-137 TK1-759 MG1-488 TK1-755	
Ryoei Maru No. 38 Ryokuei Maru	MG1-602	
Ryoun Maru No. 5 Ryuho Maru No. 11 Ryuho Maru No. 32	HK1-210 MG1-416 MG1-420	
Ryuyo Maru Shinei Maru No. 8	TK1-546 FS1-150	
Shinnichi Maru No. 31 Shoei Maru No. 2 Shotoku Maru No. 35	TK1-673 TK1-743 HK1-224	
Shoyo Maru Shunyo Maru No. 18	HK1-188 HK1-258	
Shyo Maru Soho Maru No. 83 Soho Maru No. 32	HK1-221 AM1-127 AM1-78	
Taisei Maru No. 51 Taisei Maru No. 56 Taiyo Maru No. 51	HK1-183 HK1-266	
Taiyo Maru No. 82 Takachiho Maru		
Teisho Maru No. 18 Tenyo Maru Tidori Maru No. 61	YG1-370	
Tomi Maru No. 81 Tone Maru No. 15	HK1-350 HK1-213	
Tora Maru No. 18 Yahata Maru No. 31 Yamasan Maru No. 61	HK1-213 AM1-131 HK1-169	
Yamasan Maru No. 67 Yamato Maru Yashima Maru No. 3	HK1-230 F01-280	
Yoshi Maru No. 22		

		REGISTRY NUMBER	REMARKS
ST	ERN TRAWLERS (cont'd)		
	Zenpo Maru No. 25 Zuiho Maru No. 8 Zuiyo Maru Zuiyo Maru No. 2 Zuiyo Maru No. 3 Unidentified	HK1-179 TK1-609 TK1-503 TK1-568 TK10685 AM1-147 FS1-131 HK1-262 HK1-282 HK1-282 HK1-440 IK1-53 MG1-462 TK1-608	
TAI	NGLE NET & POT FISHING VESSELS		
	Chiyo Maru No. 1 Ebisu Maru No. 47 Fuji Maru No. 7 Fukuyo Maru No. 8 Hakuho Maru Heiyo Maru Hokuyo Maru No. 36 Houn Maru No. 38 Katura Maru Keiko Maru No. 2 Keiyo Maru No. 7 Kofuku Maru No. 8 Konpira Maru No. 10 Konpira Maru No. 20 Kousei Maru No. 21 Kosho Maru Koyo Maru No. 28 Koyo Maru No. 30 Koyokuyo Maru No. 18 Kyokko Maru No. 18 Matsu Maru No. 11 Mutsu Maru No. 11 Mutsu Maru No. 11 Myojin Maru No. 5 Nitto Maru No. 68 Ryokai Maru No. 15 Sakae Maru No. 7	IT2-2100 HK2-10974 TK2-794 HK2-11974 AM2-2350 NS1-451 HK2-10700 HK2-10680 HK2-9903 HK2-9446 HK2-11077 YM2-490 MG2-2045 AM2-2701 MG2-2003 HK2-11971 AM2-2458 CB2-2985 AM2-3835 HK1-129 FS2-1486	
	Seiei Maru No. 28 Shotoku Maru No. 68 Suwa Maru No. 31	HK2-11973 IG2-1905 HK1-390	

REGISTRY NUMBER

REMARKS

TANGLE NET & POT FISHING VESSELS (cont'd)

Taichu Maru No. 15	HK2-10575
Taiyo Maru No. 32	TK1-641
Tenryu Maru	F01-1
Tokuyo Maru No. 23	FS2-1483
Toyo Maru No. 58	HK2-10787
Vochi Maru No 18	FS2-1675
Zenpo Maru No. 37	HK2-11975
Unidentified	HK1-387
Unidentified	MG2-4085
Unidentified	NS1-451
Unidentified	NS1-450

INDEPENDENT CRAB VESSELS

Chiyoda Maru	
Eikyu Maru No. 20	YM1-7
Hoko Maru No. 30	TK1-473
Kensho Maru	HK2-10606
Koyo Maru No. 1	MG1-536
Mituea Maru No. 11	YG1-161
Mituea Maru No. 12	YG1-162
Taisan Maru No. 1	IT1-73
Tidori Maru No. 18	
Unidentified	HK2-13737
Unidentified	HK1-276
Unidentified	HK2-10696 or 10690

SNAIL POT VESSELS

Anyo Maru	KN1-387
Chiyoda	
Eikyu Maru No. 20	YM1-7
Fuji Maru No. 1	TK1-489
Fuku Maru No. 3	HK1-387
Hoko Maru No. 30	TK1-473
Kensho Maru	HK2-10606
Mituea Maru No. 11	YG1-161
Myoho Maru No. 12	HK1-396
Syoryu Maru	KN1-311
Unidentified	MG1-361
Unidentified	HK2-13737

ŧ				
		4.	REGISTRY NUMBER	REMARKS
HERRING	GILL-NETT	ERS		
Eiky Eish Fuku Haku Hats Koto Mito Ryuh Shin Teny Teny Tomi	u Maru No u Maru No in Maru N yoshi Mar rei Maru uei Maru uei Maru Shiro Mar Maru No o Maru No ko Maru No o Maru No o Maru No u Maru No u Maru No Maru No Maru No	. 82 o. 30 u No. 55 No. 2 No. 28 No. 38 u No. 28 82 . 17 o. 3 . 18 . 25 . 37 55	HK1-308 HK1-311 HK1-227 HK1-189 IK1-7 HK1-147 HK1-313 KN1-260 HK1-298 MG1-547 HK1-318 MG1-547 HK1-378 HK1-378	
LONGLINE	RS			
Ebis Eiky Fuku Fuku Hakk Hats Kiyo Koto Mats Mito Ryuh Ryus	i Maru No u Maru No u Maru No yoshi Mar yoshi Maru N ai Maru N ai Maru No. Maru No. Maru No. shiro Maru to Maru No. Maru No. Maru No. Maru No. Maru No. O Maru No.	. 88 . 82 u No. 75 u No. 85 o. 8 o. 17 No. 28 No. 38 51 2 u No. 28 o. 5 No. 72 38 82 . 17 o. 2	IK1-31 HK1-308 HK1-311 HK1-254 HK1-343 NG1-233 HK1-147 HK1-313 HK1-274 TK1-392 KN1-260 HK1-278 HK1-153 HK1-298 MG1-547 TK1-541	
Ryus Shin Shin	ho Maru N ho Maru N ko Maru N toku Maru o Maru No	o. 7 o. 3 No. 3	TK1-656 TK1-758 HK1-318 HK1-296 TK1-713	

REGISTRY	
NUMBER	REMARKS

LONGLINERS (cont'd)

Sumiyoshi Maru No. 33	HK1-287
Tenyo Maru No. 25	MG1-502
Tenyu Maru No. 37	MG1-473
Tune Maru No. 31	HK1-378
Yusho Maru No. 2	TK1-479
Unidentified	HK1-247
Unidentified	IK1-30
Unidentified	TK1-650

SALMON GILL-NETTERS

Shinano Maru Fleet Kofuku Maru No. 58 Sanyo Maru No. 27 Taihei Maru No. 35 Kaiun Maru No. 8 Shintoku Maru No. 5 Shoei Maru No. 51 Hokugyo Maru No. 18 Hokushin Maru No. 31 Chiyoki Maru No. 31 Chiyoki Maru No. 51 Oto Maru No. 18 Nichiren Maru Kosei Maru No. 18 Nichiren Maru Kosei Maru No. 25 Mangyo Maru No. 18 Daikichi Maru No. 12 Ryujin Maru No. 2 Nitto Maru No. 38 Hokusen Maru No. 38 Hokusen Maru No. 8 Ohbayashi Maru No. 5 Ryoyo Maru No. 2 Sankichi Maru No. 5 Kofuku Maru No. 58 Zenei Maru No. 18	
Sankichi Maru No. 8 Yahiko Maru No. 5 Kofuku Maru No. 58 Zenei Maru No. 18 Tora Maru No. 22 Yahiko Maru No. 25 Ebisu Maru No. 5 Hokuetsu Maru No. 18 Fukujin Maru No. 11	HK2-11903 HK2-11777 HK2-11202 HK2-13671 HK2-13593 HK2-11667 HK2-11679 HK2-13666
Fukujin Maru No. 8	HK2-11588

	REGISTRY NUMBER	REMARKS
SALMON GILL-NETTERS (cont'd)		
Shinano Maru Fleet (cont'd)		
Hosei Maru No. 8 Tohaya Maru No. 35 Katsu Maru No. 3 Daikichi Maru No. 25	CB2-6076 CB2-3437 CB2-3395 MG2-2403	
Chiyo Maru Fleet		
Daito Maru No. 58 Taian Maru No. 78 Yamasan Maru No. 88 Hokuyu Maru No. 18 Taisei Maru No. 21 Mutsu Maru No. 62 Kinjo Maru No. 58 Tomi Maru No. 32 Tenyu Maru No. 15 Kaiyo Maru No. 30 Ryokai Maru No. 25 Kotobuki Maru No. 21 Kinei Maru No. 51 Naka Maru Shofuku Maru No. 51 Naka Maru Shofuku Maru No. 28 Koei Maru No. 36 Aioi Maru No. 36 Aioi Maru No. 18 Shoichi Maru No. 3 Ojima Maru No. 15 Shinsei Maru No. 3 Daikichi Maru No. 3 Taihei Maru No. 3 Shinei Maru No. 3 Shinei Maru No. 57 Hakuo Maru No. 15	HK2-11428 HK2-11502 HK2-13735 HK2-11076 HK2-11584 HK2-13585 HK2-11807 AM2-3768 AM2-3768 AM2-3768 AM2-3806 IT2-2173 IT2-2482 IT2-2249 MG2-2922 MG2-2980 MG2-2980 MG2-2980 MG2-2640 MG2-2893 MG2-3012 MG2-3012 MG2-3107 MG2-3107 MG2-3095 MG2-2408 YM2-625	A LEST ON A LEST OF THE PARTY O
Kyotoku Maru No. 8 Chokyu Maru No. 32	FS2-2206	
Kyoei Maru No. 18 Daiki Maru	IG2-1941 IG2-1690	
Sanyo Maru No. 12 Kyokuko Maru No. 23 Shinsei Maru No. 1	MG2-2/03	
Yamasen Maru No. 31	IG2-1858	

SALMON GILL-NETTERS (cont'd)

Chitose Maru No. 35 Monju Maru No. 21

Konpira Maru No. 2

Nojima Maru Fleet	HK2-11545
Kaiun Maru No. 21	HK2-11666
Nitto Maru No. 23	HK2-11802
Hokko Maru No. 3	HK2-11602
Hokuyo Maru No. 88	IT2-2735
Shoun Maru No. 20	MG2-2558
Minato Maru No. 5	MG2-2505
Kintoku Maru No. 11	MG2-2415
Koei Maru	
Jinmei Maru No. 51	MG2-3156
Kasuga Maru No. 32	FS2-2142 FS2-2194
Koyo Maru No. 85	FS2-194 FS2-1925
Nikko Maru No. 38	FS2-2200
Tatsumi Maru No. 22	FS2-1837
Kaiyo Maru No. 28 Koun Maru No. 28	FS2-2092
Suwa Maru No. 21	FS2-2048
Meiji Maru No. 21	FS2-2143
Tenyo Maru No. 23	FS2-1929
Zuiho Maru No. 38	FS2-2205
Sakae Maru No. 21	FS2-2021
Daitei Maru No. 32	FS2-1931
Kanei Maru No. 18	IG2-1950
Kiya Maru No. 25	IG2-1426
Kanei Maru No. 3	IG2-1530
Nakayoshi Maru No. 25	IG2-3167
Akita Maru No. 31	AT2-797
Kofuku Maru No. 18	YM2-640
Kiyo Maru No. 2	NG2-975
Tateyama Maru No. 18	TY2-888
Toyama Maru No. 20	TY2-925
Hokichi Maru No. 58	TY2-953
Kogyo Maru No. 32	TY2-926
Daiei Maru No. 18	TY2-926
buter hard no. 10	
Meisei Maru No. 2 Fleet	
Kikaku Maru No. 12	FS2-99184
Kosei Maru No. 2	FS2-1935
Choei Maru No. 7	FS2-1938
01.1. 11 11 05	FC0 0300

FS2-2192

FS2-2215

FS2-2105

REGISTRY	
NUMBER	REMARKS

SALMON GILL-NETTERS (cont'd)

Meisei Maru No. 2 Fleet (cont'd) Asahi Maru No. 10 Yayoi Maru No. 21 Fudo Maru No. 2 Teiko Maru No. 28 Kiku Maru No. 35 Kaiyo Maru No. 38 Taisei Maru No. 21 Tokuei Maru No. 28 Tokuei Maru No. 31 Hokushu Maru No. 25 Hokushu Maru No. 28 Kiccho Maru No. 31 Choei Maru No. 31 Choei Maru No. 31 Choei Maru No. 58 Taiyo Maru No. 58 Taiyo Maru No. 18 Daitei Maru No. 18 Daitei Maru No. 18 Daitei Maru No. 18 Coshu Maru No. 18 Daiichi Maru No. 18 Daiichi Maru Jugo Obata Maru No. 18 Shinnichi Maru No. 12 Gyofuku Maru No. 12 Gyofuku Maru No. 13 Shinnichi Maru No. 32 Kinsei Maru No. 21 Eiwa Maru No. 25 Tenyu Maru No. 5	FS2-1803 FS2-2040 FS2-1829 FS2-1941 FS2-2024 FS2-1930 FS2-2017 FS2-2050 FS2-2088 FS2-2020 FS2-2128 FS2-2128 FS2-2128 FS2-214 FS2-1937 FS2-1937 FS2-1999 FS2-2022 IG2-1943 FS2-2010 IG2-1908 IG2-1945 IG2-1945 IG2-1945 IG2-1945 IG2-1997 NS2-8891 FS2-1798 YM2-673 NG2-1213 TY2-927 MG2-3056
Jinyo Maru Fleet Shoichi Maru No. 5 Shunyo Maru No. 36 Sachi Maru No. 18 Koei Maru No. 2 Ishikari Maru No. 12 Daiichi Maru Hachigo (No. 8) Kofuku Maru No. 32 Daikichi Maru No. 18 Tokichi Maru No. 11 Zuiho Maru No. 10 Heian Maru No. 21 Tokoro Maru No. 18	HK2-13599 HK2-13657 HK2-13555 HK2-11540 HK2-13684 IG2-1525 MG2-2321 HK2-11981 HK2-10738 HK2-13501 HK2-11731 HK2-11604

SALMON GILL-NETTERS (cont'd)

Hosho Maru No. 11

Tenyu Maru No. 28

Tenyu Maru Rogo

Jinyo Maru Fleet (cont'd) Hoken Maru No. 28 Ohbayashi Maru No. 8 Rinko Maru No. 8 Hokutaku Maru No. 2 Rausu Maru No. 15 Keikyu Maru No. 61 Hanasaki Maru No. 52 Kinsho Maru No. 15 Mito Maru No. 88 Tomi Maru No. 35 Kinei Maru No. 3 Tokai Maru No. 52 Kiya Maru No. 15 Niikappu Maru Taisei Maru No. 15 Niikappu Maru Taisei Maru No. 28 Noboribetsu No. 2 Kyoshin Maru No. 18 Kinpo Maru No. 28 Kohoku Maru No. 51 Komai Maru No. 8 Eifuku Maru No. 11	HK2-13704 HK2-13548 HK2-13576 HK2-13702 HK2-13702 HK2-13600 HK2-13577 HK2-13738 HK2-13518 FS2-1661 HK2-11052 IG2-1428 HK2-13550 HK2-13543 HK2-13543 HK2-13543 HK2-13653 IG2-1763 MG2-3150
Kizan Maru Fleet Seiki Maru No. 18 Choko Maru No. 25 Chidori Maru No. 57 Narita Maru No. 1 Kosho Maru No. 8 Uratomi Maru No. 11 Myojin Maru No. 3 Konpira Maru No. 18 Myojin Maru No. 21 Yakushi Maru No. 35 Kaiho Maru No. 8 Eikyu Maru No. 28 Koyo Maru No. 11 Kotobuki Maru No. 1	HK2-13612 MG2-2943 MG2-2895 MG2-3018 MG2-3051 IT2-1851 MG2-3007 MG2-2941 MG2-2141 MG2-2687 MG2-3011 MG2-2928 MG2-3063 MG2-2807

MG2-2808 MG2-2688

MG2-2881

	REGISTRY NUMBER	REMARKS
SALMON GILL-NETTERS (cont'd)		
Kizan Maru Fleet (cont'd) Hakko Maru No. 35 Taikei Maru No. 25 Seisho Maru No. 27 Kashima Maru No. 12 Koei Maru No. 51 Koei Maru No. 25 Sachi Maru No. 21 Yakushi Maru No. 11 Mutsu Maru No. 18 Fukuyoshi Maru No. 31 Daikichi Maru No. 22 Tairyu Maru No. 2 Yae Maru No. 10 Tairyu Maru No. 7 Choun Maru No. 11 Gyoei Maru No. 18	MG2-2480 MG2-2690 MG2-2981 MG2-2711 MG2-3153 MG2-2300 MG2-2906 MG2-2685 AM2-3890 CB2-4060 MG2-2977 MG2-2265 MG2-3058 MG2-3141 MG2-2328 MG2-3087 MG2-3105	
Meiyo Maru Fleet Ryuho Maru No. 5 Tomi Maru No. 15 Kashima Maru No. 21 Tomi Maru No. 12 Eifuku Maru No. 21 Zenho Maru No. 30 Heikyu Maru No. 21 Matsu Maru No. 18 Tomi Maru No. 36 Seiki Maru No. 31 Hakucho Maru No. 21 Heiun Maru No. 18 Matsu Maru No. 18 Matsu Maru No. 18 Ume Maru No. 18 Ume Maru No. 15 Yugyo Maru No. 15 Yugyo Maru No. 50 Seiki Maru No. 5 Sakae Maru Kakudai Maru No. 31 Chokyu Maru No. 10 Giho Maru No. 21	HK2-11817 HK2-11715 MG2-3128 HK2-13586 FS2-1815 HK2-11966 HK2-11969 FS2-1800 AM2-3027 FS2-1812 AM2-3632 IT2-2221 IT2-2220 IT2-2638 MG2-3088 MG2-3088 MG2-3001 FS2-6 MG2-3086 AT2-839 FS2-23 AT2-721	

		REGISTRY NUMBER	REMARKS
SALMON GILL-NETTERS (co	ont'd)		
Meiyo Maru Fleet (co Junyo Maru No. 18 Shinei Maru No. 51 Taikoku Maru No. 3 Tomi Maru No. 5 Shosei Maru No. 12 Habomai Maru No. 3 Habomai Maru No. 5 Toyo Maru No. 8 Toyo Maru No. 10 Kinpu Maru No. 18 Tsuneo Maru No. 36 Koyo Maru No. 35		NG2-1053 MG2-2878 TT2-1077 HK2-13687 HK2-11965 HK2-11078 HK2-11618 HK2-11329 HK2-13502 HK2-11868 HK2-11830 HK2-13578	
Kyokusan Maru Fleet Kumano Maru No. 36 Kumano Maru No. 8 Kaiun Maru No. 38 Koyo Maru No. 28 Eifuku Maru No. 28 Eifuku Maru No. 28 Chokyu Maru No. 25 Seisho Maru No. 25 Seisho Maru No. 28 Ryujin Maru No. 1 Kashima Maru No. 1 Taki Maru No. 108 Takoshima Maru No. 18 Taki Maru No. 108 Takoshima Maru No. 18 Taki Maru No. 108 Takoshima Maru No. 18 Taiyo Maru No. 18 Taiyo Maru No. 17 Kogyo Maru No. 12 Kumano Maru No. 12 Kumano Maru No. 12 Shotoku Maru No. 31 Taisei Maru No. 31 Yawata Maru No. 35 Kyosei Maru No. 55	51 56	CB2-6138 CB2-3168 FS2-1872 FS2-2212 FS2-2096 FS2-7 FS2-2213 FS2-2201 FS2-1877 FS2-8 MG2-2900 MG2-2692 MG2-2933 IK2-3033 IK2-2750 IK2-2888 YM2-575 FS2-1740 HK2-11803 HK2-13736 CB2-2980 HK2-13736 CB2-2980 HK2-13736 CB2-2980 HK2-13736 CB2-2980 HK2-13504 HK2-13504 HK2-13504	

2 to Atom	REGISTRY NUMBER	REMARKS
SALMUN GILL-NETTERS (cont'd)		
Kyokusan Maru Fleet (cont'd) Kinsei Maru No. 23 Choyo Maru No. 37 Daichu Maru No. 25 Hosho Maru No. 8	HK2-13601 HK2-11475 HK2-13621 HK2-12000	
Otsu Maru Fleet Seiho Maru No. 12 Toka Maru No. 2 Tenyo Maru No. 21 Gyoei Maru No. 10 Ohbayashi Maru No. 25 Koei Maru No. 3 Kaneo Maru Kashima Maru No. 20 Ryuho Maru No. 35 Fukucho Maru No. 12 Sankichi Maru No. 38 Seiei Maru No. 28 Koyo Maru No. 53 Kaiun Maru No. 25 Kichi Maru No. 28 Eiyo Maru No. 35 Inari Maru No. 28 Eiyo Maru No. 35 Inari Maru No. 37 Geinichi Maru No. 31 Geinichi Maru No. 31 Geinichi Maru No. 53 Nitto Maru No. 55 Showa Maru No. 55 Showa Maru No. 55 Kyokko Maru No. 21 Kinei Maru No. 53 Kyosho Maru No. 21 Kinei Maru No. 3 Hachiryu Maru No. 28 Myojin Maru No. 11 Kinei Maru No. 28 Yuei Maru No. 23 Mito Maru No. 23 Mito Maru No. 25 Minato Maru No. 63 Daito Maru No. 63 Daito Maru No. 12 Chidori Maru No. 53	HK2-13741 MG2-2405 MG2-2938 MG2-2630 MG2-3145 MG2-2538 MG2-2401 MG2-3047 MG2-3041 MG2-3041 MG2-2848 FS2-2210 FS2-2101 FS2-2105 FS2-2102 FS2-2102 FS2-2102 FS2-2102 FS2-1926 TY2-928 HK2-11989 HK2-11100 HK2-10686 AM2-3002 IT2-2637 MG2-3127 MG2-2840 MG2-3113 FS2-1843 FS2-1843 FS2-1924 HK2-13658 AM2-3584 MG2-3143 MG2-2810	

	REGISTRY NUMBER	REMARKS
SALMON GILL-NETTERS (cont'd)		
Miyajima Maru Fleet Jinei Maru No. 11 Nitto Maru No. 3 Katsura Maru No. 38 Zenryu Maru No. 35 Choei Maru No. 50 Tokichi Maru No. 18 Sachi Maru No. 25 Ryu Maru No. 18 Kifuku Maru No. 25 Yawata Maru No. 21 Kinsei Maru No. 53 Gyokichi Maru No. 7 Koshin Maru No. 7 Koshin Maru No. 38 Fukuyoshi Maru No. 32 Fukuyoshi Maru No. 32 Fukuyoshi Maru No. 38 Kasuga Maru No. 32 Fukuyoshi Maru No. 38 Kasuga Maru No. 31 Shunyo Maru No. 8 Matsu Maru No. 8 Zensei Maru No. 8 Zensei Maru No. 18 Akita Maru No. 18 Akita Maru No. 18 Shincho Maru No. 18 Yuko Maru No. 18 Yuko Maru No. 18	FS2-1876	
Meisei Maru Fleet Choei Maru No. 50 Choyo Maru No. 51 Benten Maru No. 28 Keikyu Maru No. 55 Shoei Maru No. 23 Yae Maru No. 8 Wakashio Maru No. 31	HK2-11445 HK2-11662 HK2-11068 HK2-11566 HK2-13506 MG2-3137 HK2-13505	

	REGISTRY NUMBER	REMARKS
SALMON GILL-NETTERS (cont'd)		
Meisei Maru Fleet (cont'd) Kiyo Maru No. 35 Taisei Maru No. 53 Kingyo Maru No. 15 Shunyo Maru No. 12 Keiyo Maru No. 5 Benten Maru No. 31 Kyoshin Maru No. 8 Kichi Maru No. 3 Taiho Maru No. 35 Kaiko Maru Kiku Maru No. 18 Seishin Maru No. 18 Seishin Maru No. 18 Takakiyo Maru No. 18 Takakiyo Maru No. 5 Seifuku Maru No. 21 Ebisu Maru No. 21 Ryu Maru No. 26 Kuromori Maru No. 25 Kinsei Maru No. 35 Shoichi Maru No. 35 Shoichi Maru No. 5 Inari Maru No. 8 Kinei Maru No. 8 Kinei Maru No. 56 Tenyu Maru No. 21 Konpira Maru No. 22 Takaya Maru No. 18	HK2-11945 HK2-11906 HK2-11075 HK2-11638 HK2-13708 HK2-1372 AM2-3900 FS2-2196 MG2-2727 AM2-3635 AM2-3535 AM2-3540 AM2-3540 AM2-3539 AM2-3549 IT2-2714 IT2-2669 IT2-2671 IT2-2753 IT2-2753 IT2-2753 IT2-2753 IT2-2724 IT2-2180 IT2-2180 IT2-2326 IT2-2488	
WHALE KILLERS		
Fumi Maru No. 18 Konan Maru No. 17 Konan Maru No. 21 Konan Maru No. 22 Konan Maru No. 23 Konan Maru No. 25 Konan Maru No. 26 Konan Maru No. 27 Kyo Maru No. 10 Kyo Maru No. 11 Kyo Maru No. 12 Kyo Maru No. 15 Kyo Maru No. 21	TK1-254 TK1-207 TK1-268 TK1-272 TK1-276 TK1-286 TK1-289 TK1-299 TK1-188 TK1-200 TK1-219 TK1-219 TK1-351	

	REGISTRY NUMBER	REMARKS
WHALE KILLERS (cont'd)		
Kyo Maru No. 23 Kyo Maru No. 25 Kyo Maru No. 27 Ryuho Maru No. 3 Ryuho Maru No. 7 Seki Maru No. 17 Taka Maru Toshi Maru No. 11 Toshi Maru No. 12 Toshi Maru No. 15 Toshi Maru No. 16 Toshi Maru No. 16 Toshi Maru No. 17 Toshi Maru No. 18 Toshi Maru No. 25	TK1-209 TK1-211 TK1-712 TK1-346 TK1-151 TK1-265 TK1-359 TK1-507 TK1-278 TK1-287 TK1-287 TK1-297 TK1-298 TK1-300 TK1-449	
RESEARCH VESSELS		
Hokko Maru Iwaki Maru Wakashio Maru	HK1-300 FS1-157 HK1-148	
PATROL VESSELS		
Katsu Maru No. 2 Konan Maru No. 10 Konan Maru No. 18 Kyo Maru No. 17	TK1-252 TK1-146 TK1-217	
CARGO SHIPS - REFRIGERATED & DRY H	HOLD	
Abugawa Maru Asagawa Maru	YG1-176	
Banshu Maru No. 16 Banshu Maru No. 31 Chichibu Maru Chichibu Maru No. 2 Chiyoda Maru	YG1-176 TK1-361 TK1-413 KN1-449 TK1-366	
Chiyoda Maru No. 7 Daien Maru No. 22 Daien Maru No. 28 Daien Maru No. 28	TK1-637 S01-478 S01-684	

		REGISTRY NUMBER	REMARKS
CARGO SHIPS - REFRIGERAT	ED & DRY HOLD	(cont'd)	
Daiho Maru		TK1-623	
Eiho Maru		TK1-355	
Eiho Maru		TK1-336	
Eiko Maru		TK1-38	
Eishin Maru		TK1-400	
Eiyo Maru		TK1-65	
Harukaze Maru		TK1-653	
Hokodate Maru No. 2		HK1-185	
Hoyo Maru		TK1-639	
Itsukushima Maru		TK1-155	
Juyo Maru		,,,,	
Kamashima Maru		TK1-665	
Kazushima Maru		TK1-437	
Koan Maru		TK1-739	
Koei Maru		TK1-764	
Koei Maru No. 2			
Kokayisa Maru		HK1-254	
Koyo Maru No. 35		IK1-50	
Kurishima Maru		TK1-215	
Kyokko Maru		KN1-425	
Musashino Maru		TK1-676	
Matsukaze Maru		TK1-763	
Nichiwa Maru		TK1-588	
Nikkai Maru		TK1-718	
Nipponham Maru No. 1		HS1-1	
Sachikaze Maru		TK1-695	
Sakashima Maru		TK1-709	
Seiko Maru		TK1-813	
Seiko Maru		TK1-418	
Seiyol Maru No. 7			
Shoan Maru		TK1-696	
Shoyo Maru		TK1-404	
Shuyo Maru		TK1-592	
Sumiyoshi Maru No. 3	3	KN1-350	
Sumiyoshi Maru No. 6		KN1-648	
Taiho Maru			
Taisei Maru No. 2			* 1
Taisei Maru No. 16		ME1-361	
Taisei Maru No. 18			
Taisei Maru No. 39		ME1-327	
Taisei Maru No. 41			
Taisei Maru No. 65		ME1-262	
Taisin Maru No. 1		IT1-73	

REGISTRY NUMBER

REMARKS

CARGO SHIPS - REFRIGERATED & DRY HOLD (cont'd)

Tamagawa Maru	YG1-167
Toko Maru	TK1-415
Tokuei Maru	TK1-667
Tonichi Maru	HG1-11
Tosa Maru	TK1-414
Tsukishima Maru	TK1-191
Tsushima Maru	TK1-659
Yoho Maru	TK1-689
Yuyo Maru	TK1-388
Unidentified	KN1-441

TANKERS

Kakuyo Maru	TK1-727
Koyo Maru	IK1-50
Nisshin Maru	
Tenryo Maru	
Uko Maru	
Unidentified	TK1-343

REPAIR SHIP

Fukuyo	Maru	No.	1	F01-279

LIST OF

SOUTH KOREAN FISHING AND SUPPORT VESSELS OPERATING OFF ALASKA IN 1971

	REMARKS
Tae Yang No. 11	Factory Ship
Chilbosan No. 5	Cargo Ship
Tae Yang No. 12	Cargo Ship
Tae Yang No. 15	Cargo Ship
Cheog Yang Ho	Stern Trawler
Gae Yang Ho	Stern Trawler
Unidentified	Stern Trawler
Tae Yang No. 101 Tae Yang No. 102 Tae Yang No. 103 Tae Yang No. 106 Tae Yang No. 108 Tae Yang No. 110 Tae Yang No. 112 Tae Yang No. 115	Trawler Trawler Trawler Trawler Trawler Trawler Trawler Trawler Trawler
Tae Yang No. 117	Trawler
Tae Yang No. 118	Trawler

GENERAL CHART OF AREAS REFERRED TO IN TEXT

