AGENDA D-1
February 1981

M E M O R A N D U M

TO: Council, SSC, and AP Members

FROM: Jim H. Branson
Executive Director

DATE: February 20, 1981

SUBJECT: Japanese High Seas Salmon Gillnet Fishery and the Dall Porpoise Problem

Following renegotiation of INPFC in 1978 the Japanese were granted a three-year exemption from the incidental take permit requirements of the Marine Mammal Protection Act for their high seas salmon gillnet fishery within the United States FCZ. That exemption expires June, 1981.

ACTION REQUIRED

1. *Comment on the Draft Environmental Impact Statement on the incidental take of Dall porpoise in the Japanese salmon fishery.*

2. *Recommendations on course of action to NMFS.*

3. *Review of 1980 Japanese high seas mothership salmon fishery, particularly as it relates to the take of chinook salmon.*

BACKGROUND

NMFS is currently exploring two alternatives for action:

1. Allow the Japanese to continue to take marine mammals in the FCZ

   (a) by granting a permit under the Marine Mammal Protection Act to take marine mammals incidental to their salmon fishery in the FCZ;

   (b) recommend legislative action to extend the permit exemption under the Marine Mammal Protection Act to the Japanese salmon fishery.

2. Not allow continued take of marine mammals by the Japanese salmon fishery within the FCZ. No action need be taken.

NMFS has received an application from Japan for a permit to allow the incidental take of marine mammals and will hold a hearing on that permit application in Seattle on March 5.

Alternative 2, not allowing the continued take of marine mammals incidental to the salmon fishery in the FCZ, will stop the salmon fishery within the U.S. 200-mile zone. The implications of that move are not clear. Obviously it will not change the fishery in the "triangle" north of the Aleutian chain where the bulk of western Alaska chinook salmon are taken. It may, depending on what action Japan takes, change the pattern of the fisheries south of the Aleutians. If they withdraw from INPFC, their fishery would be essentially unrestricted outside 200 miles and they could, by moving only a short distance further east, again heavily impact runs of Alaskan and North American salmon that they now fish either very lightly or not at all.

A copy of the Federal Register notice announcing the hearing on the marine mammal exemption permit is included as item D-1(a). Copies of the Environmental Impact Statement referred to are available from NMFS.

While not directly related to the Dall porpoise problem, the 1980 catch of chinook salmon by the Japanese mothership salmon fleets was extremely high -- much higher than in the past. Those figures are available from NMFS. Attachment D-1(b) is a summary of incidental catch of chinook salmon by foreign fisheries other than the directed salmon fishery off Alaska. The incidental catch, which also was very high, combined with the increase in catch by the mothership fishery, obviously will have a direct bearing on the attitude of many of the people involved with this resource toward the issuance of a permit to the Japanese.

the Commission or oral presentation required by the Commission.

Federal Communications Commission.

Henry L. Baumann,

Chief, Policy and Rules Division. Broadcast Bureau.

Appendix

1. Pursuant to authority found in Sections 4(i), 5(d)(1), 303 (g) and (r), and 307(b) of the Communications Act of 1934, as amended, and § 0.281(b)(6) of the Commission's Rules, IT IS PROPOSED TO AMEND the FM Table of Assignments, § 73.202(b) of the Commission's Rules and Regulations, as set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached.

2. *Showings Required.* Comments are invited on the proposal(s) discussed in the *Notice of Proposed Rule Making* to which this Appendix is attached. Proponent(s) will be expected to answer whatever questions are presented in initial comments. The proponent of a proposed assignment is also expected to file comments even if it only resubmits or incorporates by reference its former pleadings. It should also restate its present intention to apply for the channel if it is assigned, and, if authorized, to build a station promptly. Failure to file may lead to denial of the request.

3. *Cut-off Procedures.* The following procedures will govern the consideration of filings in this proceeding.

(a) Counterproposals advanced in this proceeding itself will be considered, if advanced in initial comments, so that parties may comment on them in reply comments. They will not be considered if advanced in reply comments. (See § 1.420(d) of the Commission's Rules.)

(b) With respect to petitions for rule making which conflict with the proposal(s) in this *Notice,* they will be considered as comments in the proceeding, and Public Notice to this effect will be given as long as they are filed before the date for filing initial comments herein. If they are filed later than that, they will not be considered in connection with the decision in this docket.

(c) The filing of a counterproposal may lead the Commission to assign a different channel than was requested for any of the communities involved.

4. *Comments and Reply Comments; Service.* Pursuant to applicable procedures set out in §§ 1.415 and 1.420 of the Commission's Rules and Regulations, interested parties may file comments and reply comments on or before the dates set forth in the *Notice of Proposed Rule Making* to which this Appendix is attached. All submissions by parties to this proceeding or persons acting on behalf of such parties must be made in written comments, reply comments, or other appropriate pleadings. Comments shall be served on the petitioner by the person filing the comments. Reply comments shall be served on the person(s) who filed comments to which the reply is directed. Such comments and reply comments shall be accompanied by a certificate of service. (See § 1.420 (a), (b) and (c) of the Commission's Rules.)

5. *Number of Copies.* In accordance with the provisions of § 1.420 of the Commission's Rules and Regulations, an original and four copies of all comments, reply comments, pleadings, briefs, or other documents shall be furnished the Commission.

6. *Public Inspection of Filings.* All filings made in this proceeding will be available for examination by interested parties during regular business hours in the Commission's Public Reference Room at its headquarters, 1919 M Street, NW., Washington, D.C.

[FR Doc. 81-4165 Filed 2-3-81; 8:45 am]

BILLING CODE 6712-01-M

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 216

Taking of Marine Mammals Incidental to Commercial Fishing Operations

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of Receipt of Permit Application; Notice of Formal Hearing; Notice of Formal Hearing Procedures; Notice of Proposed Regulation.

SUMMARY: On January 19, 1981, the National Marine Fisheries Service received an application from The Federation of Japan Salmon Fisheries Cooperative Association for a permit under the Marine Mammal Protection Act to take Dall's porpoise and other marine mammals incidental to commercial fishing operations. This notice announces the formal hearing to consider certain scientific aspects of the permit request, the procedures to govern the formal hearing, and the proposed regulation to accompany a permit if granted.

DATE: NOAA/NMFS has scheduled a formal hearing to consider the population status of Dall's porpoise. It will begin at 9:30 a.m. local time on Thursday, March 5, 1981 in Seattle, Washington.

ADDRESSES: The formal hearing will be held in the Federal Building, Room 2866, 915 2nd Avenue, Seattle, Washington, 98174.

FOR FURTHER INFORMATION CONTACT: Georgia Cranmore, Office of Marine Mammals and Endangered Species, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce, Washington, D.C. 20235. Telephone: 202/634-1792. Office location: Room 414B, Page Building 2, 3300 Whitehaven Street, N.W., Washington, D.C.

SUPPLEMENTARY INFORMATION:

Background

Marine Mammals, primarily the Dall's porpoise, *Phocoenoides dalli,* are taken in the course of commercial salmon gill net operations by Japanese fishing vessels within and outside the U.S. fishery conservation zone (FCZ) in the North Pacific and Bering Sea. A three-year exemption from the incidental take permit requirements of the Marine Mammal Protection Act of 1972 (MMPA) granted the Japanese salmon fishery in the North Pacific Ocean, and implemented by 1978 amendments to the North Pacific Fisheries Act of 1954, will expire in June 1981.

A cooperative research program was begun in 1978 to assess the status of the Dall's porpoise, the extent of incidental take, and methods to minimize such taking. Reports on the research conducted through 1980, are now available.

Receipt of Permit Application

On January 19, 1981 the Federation of Japan Salmon Fisheries Cooperative Associations, 9th Floor, San Kaido Building, 9-13, Akasaka 1-Chome, Minato-ku, Tokyo, Japan submitted an application for an incidental take permit, Category 5, "Other Gear," salmon drift gill net. The permit application requests a three (3) year term (1981-1983) and estimates that the maximum number of marine mammals expected to be incidentally taken on a yearly basis by the Japanese salmon fishery in the U.S. Fishery Conservation Zone (FCZ) is as follows: Dall's porpoise, 5,500; harbor porpoise (*Phocoena phocoena*), 50; Pacific white-sided dolphin (*Lagenorynchus obliquidens*), 25; killer whale (*Orcinus orca*), 25; Steller sea lion (*Eumetopias jubatus*), 25; and northern fur seal (*Callorhinus ursinus*), 450.

Copies of the application are available for review in the following offices: Office of Marine Mammals and Endangered Species, National Marine Fisheries Service, 3300 Whitehaven Street, NW, Room 414B, Washington, D.C.; Regional Director, Northwest Region, National Marine Fisheries Service, 1700 Westlake Avenue, North, Seattle, Washington 96109; and Regional Director, Alaska Region, National Marine Fisheries Service, P.O. Box 1668, Juneau, Alaska 99802. Interested persons may submit written views on this application on or before (30 days hence) to the Office of Marine Mammals and Endangered Species, NMFS.

Regarding the applicant's request to take Dall's porpoise, the Agency has determined that the best available scientific data about its population status must be reviewed in a formal hearing before an Administrative Law Judge (ALJ). The specific issues that need to be addressed in the formal hearing are noted in a subsequent section of this preamble.

A formal administrative hearing is not required to review the applicant's other requests. Steller sea lion and northern fur seal have already been subject to scientific reviews and findings as required by the Marine Mammal Protection Act of 1972, as amended (MMPA). For example, see 44 FR 2540, January 11, 1979; 45 FR 21844, December 10, 1980. However, as noted above, written views on the applicant's request for a permit covering these two species are solicited by the Agency.

The applicant's request for a permit covering harbor porpoise, Pacific white-sided dolphin, and killer whales cannot be processed. The Agency cannot grant permits to incidentally take these animals because the supporting documentation in the permit application and in the scientific literature is not sufficient to warrant a review at this time.

MMPA Requirements

With limited exceptions, the MMPA establishes a moratorium on taking of marine mammals in the United States FCZ. One of these exceptions provides for a permit to take marine mammals incidental to commercial fishing operations.

Section 104(h) and the Regulations Governing the Taking and Importing of Marine Mammals (50 CFR Part 216) require that a general permit be obtained and that a Certificate of Inclusion be on board any vessel which takes marine mammals in the course of commercial fishing operations within the FCZ. Before issuing general permits, the Secretary of Commerce, on the basis of the best scientific evidence available, must assess the optimum sustainable population (OSP) of the affected stocks and determine whether the proposed incidental take will disadvantage these stocks.

In order to make the disadvantage determination, the first question is whether the subject marine mammal stock is at its optimum sustainable population (OSP) level. If the stock is not at OSP, an incidental take permit may not be issued. If a stock is determined to be at OSP, the disadvantage test further requires assurances that the takings will not be harmful to the stock. This requires some projection as to the effect of the proposed incidental takings on the stock and whether the stock will be at OSP after the takings.

If it is determined that a species will not be disadvantaged by allowing an incidental take, the next question is whether a lower quota is technologically feasible. This is in furtherance of the MMPA objective that "it shall be the immediate goal that the incidental kill or incidental serious injury of marine mammals permitted in the course of commercial fishing operations be reduced to insignificant levels approaching zero mortality and serious injury rate."

Notice of Formal Hearing; Formal Hearing Procedures

The formal hearing will begin at 9:30 a.m. local time on Thursday, March 5, 1981 at the Federal Building, Room 2866, 915 2nd Avenue, Seattle, Washington, 98174. It will last for two days.

In general, the procedural rules for the formal hearing are those found in 50 CFR 216.70–216.90. However, the 60–day notice provision of 50 CFR 216.73(b)(6) will not be followed so that a permit, if it is to be granted, may be granted in May 1981 before the start of this year's fishing season. Therefore, it is for good cause found that the advance notice, public procedures, and delayed effectiveness provision of 5 U.S.C. 553 are impracticable and contrary to the public interest and that the adjustment to the procedural rules just noted is effective immediately.

The Assistant Administrator for Fisheries of NOAA and The Federation of Japan Salmon Fisheries Cooperative Association are made automatic parties to the hearing. For other interested parties, notices of intent to participate as an active party in the formal hearing must be submitted to the Assistant Administrator for Fisheries no later than February 16, 1981.

Any written direct expert testimony for the hearing must be prepared in advance and submitted to all parties no later than February 27, 1981.

The docket number assigned to this case is MMPAH 1981–1. All notices, copies of written evidence, and other documents to be filed or submitted should be sent to the following address and bear the designated docket number: Presiding Officer MMPAH 1981–1, c/o Assistant Administrator for Fisheries, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce, Washington, D.C. 20235.

Records and documents relative to the proposal will be maintained in the offices of the National Marine Fisheries Service, and may be reviewed during normal working hours, 8 a.m. to 4:30 p.m. in the Page Building 2, Room 414B, 3300 Whitehaven Street, NW., Washington, D.C.

Issues to be Considered at the Formal Hearing

The hearing will be limited to the following issues and facts: (a) estimates of existing population levels of Dall's porpoise; and (b) the expected impact of the proposed regulations on the optimum sustainable population (OSP) of Dall's porpoise. These issues necessarily involve consideration of whether the scientific evidence is sufficient to make any of the required MMPA findings, future scientific research needs, and the means available to the applicant to further reduce the mortality of Dall's porpoise. Evidence relevant to other issues may be submitted at the hearing subject to the rulings of the presiding officer on the relevance and materiality of such issues.

The permit applicant contends that the stock of Dall's porpoise is at OSP and will be at OSP after the proposed three year incidental taking regime. In the formal hearing, the applicant must present evidence to support this contention.

The Agency believes that the allegations in the permit application are such that it is obligated under the MMPA to provide the setting for the evidence to be considered. However, the Agency takes no position at this time as a proponent or opponent of the requested permit. The Agency will act according to the record developed in the hearing. If a permit is granted, the Agency will promulgate a regulatory quota limiting the incidental take of Dall's porpoise in this fishery.

Prehearing Conference

A prehearing conference will be held on February 18, 1981 at 10:00 a.m. in Room 6705, Main Department of Commerce Building, 14th Street and

Constitution Avenue, NW, Washington, D.C. Only parties may participate in the prehearing conference. The conference will consider the issues of fact to be presented in the hearing; the witnesses who will testify and the object of their testimony; other alterations to the hearing rules that may be required; the need for oral argument, if any; the briefing schedule; and the timing of the ALJ's Recommended Decision and the Administrator's Final Decision.

Required Statements

Section 103(d) of the MMPA requires the publication of the following statements: (a) estimated existing levels of the species and population stocks of the marine mammals concerned; (b) a statement fo the expected impact on the optimum sustainable population (OSP) [1] of such species or population stocks; (c) a statement describing the evidence before the agency; and (d) any studies made by or for the agency and any recommendations made by or for the agency or the Marine Mammal Commission, if any. The first two required statements are satisfied by the following table:

Stock	Present population	Present OSP status	OSP status at the end of 1983
Dall's porpoise.	580,000 to 2,300,000.	Within.....	Within.

The second two statements are satisfied by the following list:

Boucher, G.C., L.D. Consiglieri and L.L. Jones. 1980. Report on the distribution and preliminary analysis of the abundance of Dall's porpoise. INPFC Document 2267. 27 pp.

Jones, L.L. 1980. Estimates of the incidental take of Northern fur seals in Japanese salmon gill nets in the North Pacific 1975–1978. Background Paper, submitted to the 23rd Annual Meeting of the Standing Scientific Committee of the North Pacific Fur Seal Commission, April 7–11, Moscow, U.S.S.R.

Leatherwood, S. and R. Reeves. 1978. Porpoise and dolphins, in Marine Mammals of the Eastern North Pacific and Arctic Waters. D. Haley (ED.), Pacific Search Press, Seattle, Washington.

National Marine Mammal Laboratory. 1980. Progress report on Dall porpoise research, Annual Report to the INPFC, Northwest and Alaska Fisheries Center, Seattle, Washington. 13 pp.

Ridgway, S.H. (ED.) 1972. Mammals of the Sea, Biology and Medicine. Charles C. Thomas, Publisher, Springfield, Illinois. p. 115.

U.S. Department of Commerce. 1979. Annual Report on Dall Porpoise—Salmon Research. A report to Congress.

U.S. Department of Commerce. 1980. Final Environmental Impact Statement on the Interim Convention on Conservation of North Pacific Fur Seals.

U.S. Department of State. 1978. Final Environmental Impact Statement on the Renegotiation of the International Convention for the High Seas Fisheries of the North Pacific Ocean.

Draft Environmental Impact Statement (DEIS)

On January 23, 1981, the Environmental Protection Agency announced the availability of a DEIS describing the Japanese high seas salmon fishery and the incidental take of Dall's porpoise in this fishery. The DEIS is available from the NMFS Office of Marine Mammals and Endangered Species at the above noted address and contains much detail regarding the history of this fishery and the International North Pacific Fisheries Commission (INPFC) that regulates the fishery.

Ex Parte Communications

Section 4 of the Government in the Sunshine Act (Pub L. 94–409), dealing with ex parte communications, is applicable to this hearing. The following persons are those employees of the Agency who may reasonably be expected to be involved in the decision process of the proceeding, and are, therefore, hereby identified to all interested persons outside the agency in order that the provisions of Section 4 can be complied with:

Code, Name, and Title

DOC—Malcolm Baldrige, Secretary of Commerce.
A—James P. Walsh, Acting Administrator, NOAA.
EE—Martin H. Belsky, Director, Office of Ecology and Marine Conservation, NOAA.
GC—Eldon V.C. Greenberg, General Counsel, NOAA.
GCF—Jay Johnson, Assistant General Counsel—Fisheries, NOAA
F—Terry L. Leitzell, Assistant Administrator for Fisheries, NOAA.
F—William H. Stevenson, Deputy Assistant Administrator for Fisheries, NOAA.
Fx3—Robert K. Crowell, Acting Executive Director, NMFS.
F/MM—Richard B. Roe, Acting Director, Office of Marine Mammals & Endangered Species, NMFS.
F/MM—Robert B. Brumsted, Office of Marine Mammals and Endangered Species, NMFS.
F/CM—William G. Gordon, Director, Office of Resource Conservation & Management, NMFS.
F/IA—Carmen J. Blondin, Director, Office of International Affairs, NMFS.
F/NWC—William Aron, Director, Northwest and Alaska Fisheries Center, NMFS.
F/AKR—Robert W. McVey, Director, Alaska Region, NFMS.

Ex parte communications relevant to the scientific issues to be considered in the formal hearing between the above named persons and any interested person outside the Department of Commerce are prohibited from the date of this notice until the date the Final Decision resulting from the hearing is published in the **Federal Register.** Section 4 provides mechanisms for enforcing this prohibition, including (1) the requirement that an employee making or receiving prohibited communications disclose them and all responses to them for the public record of the proceeding; and (2) authorization of dismissal or other adverse action against the claim of the party to the proceeding who makes or causes prohibited communication. "Ex parte communication" means an oral or written communication not on the public record with respect to which reasonable prior notice to all parties is not given, but it shall not include requests of status reports on the matter of proceeding.

Drafting Information

The principal author of these regulations is Ronald S. Naveen, Office of the Assistant General Counsel-Fisheries, NOAA, with the participation of the NMFS Office of Marine Mammals and Endangered Species and the NMFS Office of International Affairs.

(Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361–1407))

Dated: January 30, 1981.

Robert K. Crowell,

Acting Executive Director, National Marine Fisheries Service.

Proposed Regulation

PART 216—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

The proposed amendment to 50 CFR Part 216 is as follows:

§ 216.24 [Amended]

1. 50 CFR 216.24(d)(5) is amended by adding a new subparagraph (vii) reading as follows:

* * * * *

(d) * * *

[1] Optimum sustainable population (OSP) of the species and stocks involved is defined as a population which falls in a range from the population level which is the largest supportable within the ecosystem to the population that results in maximum net productivity. (see 41 FR 55536, December 21, 1976). Maximum net productivity (MNP) is the greatest net annual increment in the population due to reproduction and growth less losses due to natural mortality. Maximum net productivity is interpreted as being the lower limit of the range of optimum sustainable population. the lower bound of OSP (or MNP) is considered to be 60 percent of initial unexploited populations (45 FR 72178, October 31, 1980). It is a population size that will produce the maximum number of animals that can be added to the ecosystem.

(5) * * *

(vii) The number of Dall's porpoise (*Phocoenoides dalli*) killed or seriously injured by Japanese vessels shall be limited to 5,500 animals per year. Any permit issued under this regulation shall indicate the measures by which the permit holder shall comply with the reporting requirements of paragraph (d)(5)(v) of this section. Any incidental take permit issued under this regulation shall allow retention of marine mammals for scientific research purposes and not require a separate permit under paragraph (d)(5)(iv).

[FR Doc. 81-4155 Filed 2-3-81; 8:45 am]

BILLING CODE 3510-22-M

Agenda D-1(b)
February 1981

M E M O R A N D U M

TO: Council, SSC, and AP

FROM: Jim H. Branson
Executive Director

DATE: February 20, 1981

SUBJECT: Incidental Catch of Salmon by Foreign Trawlers

ACTION REQUIRED

Information only.

BACKGROUND

The incidental catch of salmon by foreign trawl fleets in the Bering Sea and Gulf of Alaska is summarized below. Gulf of Alaska data is broken out by species and area.

Bering Sea - chinook

1977	44,000
1978	39,000
1979	100,000

Gulf of Alaska

		Western	Central	Eastern
1978	chinook	32,346	9,693	418
	coho	556	166	7
1979	chinook	11,508	5,116	255
	coho	376	167	8

1980 data will be available in mid-March.

FEB/S

1980 SALMON CATCH AND EFFORT BY THE JAPANESE MOTHERSHIP GILLNET FLEET AND ESTIMATED INTERCEPTIONS OF WESTERN ALASKA SALMON

The Japanese mothership fishery is authorized to gillnet for salmon according to specific provisions of the International Convention for the High Seas Fisheries of the North Pacific Ocean (INPFC). The convention, originally negotiated in 1952, was renegotiated by the U.S., Canada, and Japan in 1977-78 after passage of the U.S. 200 mile law (the Magnuson Fishery Conservation and Management Act). The new convention authorizes Japanese mothership gillnetting for salmon inside the U.S. FCZ in return for limitations on the mothership fishing effort beyond the U.S. 200 mile zone. Figure One shows the authorized fishing areas and opening dates under the provisions of the revised agreement as well as the fishing area between 175° W. and 175° E. longitude and south of 56° N. latitude authorized by the original convention but now closed to fishing. A primary purpose of the agreement is to allow Japan the opportunity to continue their traditional harvest of salmon of Asian origin, primarily chum salmon, while minimizing the interceptions of North American salmon, especially Bristol Bay sockeye.

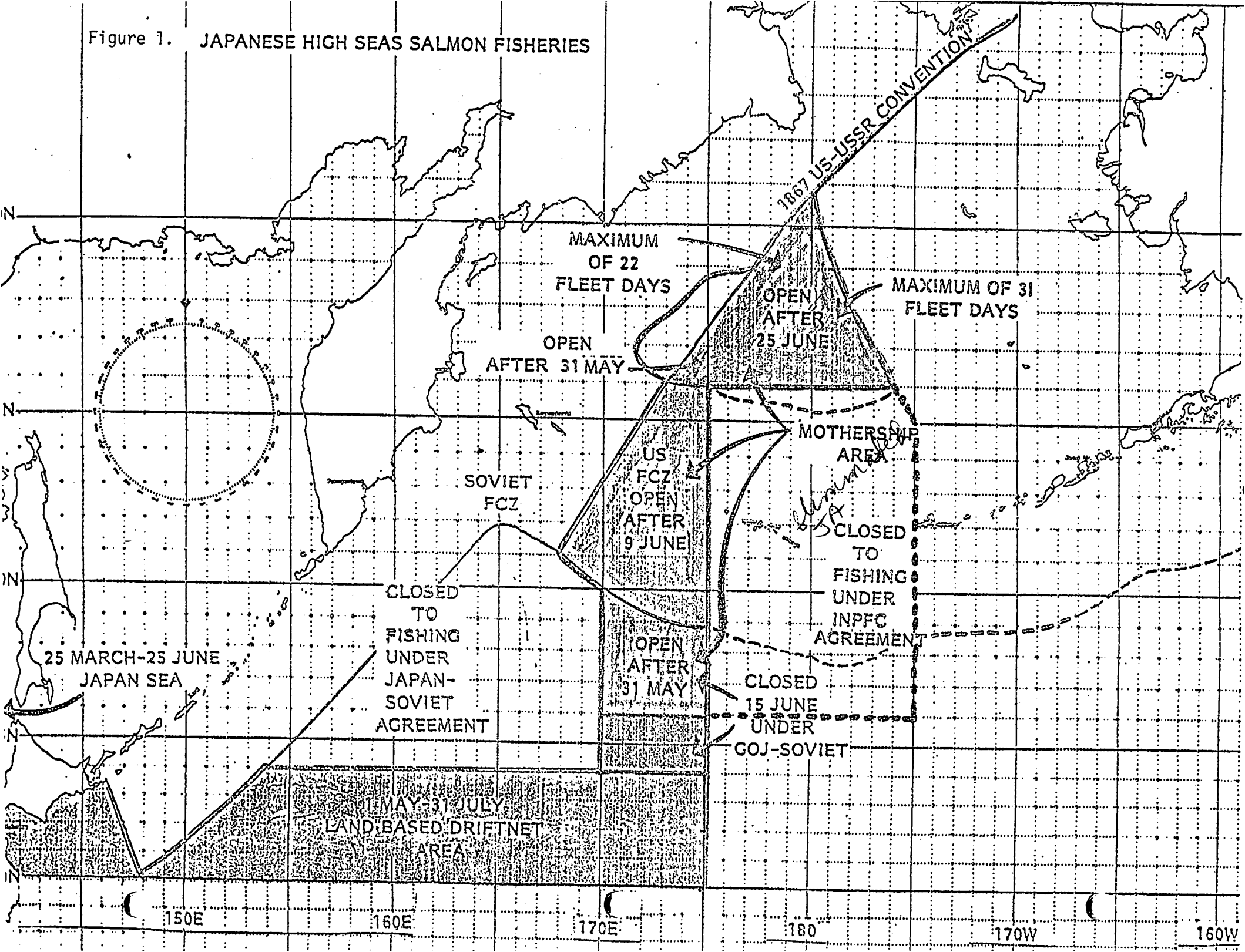
The source for the 1980 catch and effort statistics is INPFC document 2378. The analysis of these data and the estimates of interceptions of western Alaska salmon stocks were conducted by Dr. Michael Dahlberg, NMFS.

Table One shows the 1980 Japanese mothership catches by species and general area of catch.

Table 1. Catch of Salmon by the Japanese Mothership Salmon Fishery in 1980.

	CATCH IN THOUSANDS OF FISH					
	Sockeye	Chum	Pink	Coho	Chinook	Total
ALL AREAS	2,412	3,098	561	656	704	7,431
INSIDE FCZ	1,935	1,863	338	528	265	5,029
OUTSIDE FCZ	477	1,235	223	28	439	2,402
South of FCZ	391	414	58	28	16	907
Bering Sea	86	821	165	0	423	1,495
W of 180°	40	441	51	0	205	736
E of 180°	46	380	114	0	218	758

Figure 1. JAPANESE HIGH SEAS SALMON FISHERIES



The total 1980 sockeye and chum salmon catch of 2.4 and 3.1 million fish, respectively, were of the same general magnitude as the 1978 and 1979 catches, whereas the 1980 pink salmon catch was only 17 percent of the 1979 and 30 percent of the 1978 pink catches. The 1980 catch of 704,000 chinook salmon, on the other hand, represents a 460 and 580 percent increase over the respective 1979 and 1978 chinook salmon catches and is the largest total chinook catch since the initiation of the convention in 1953. The total 1980 mothership catch of 7.4 million salmon is less than either the 1978 or 1979 catches due primarily to the poor catch of pink salmon.

Four Japanese motherships and 172 catcher boats fished 3.1 million tans of gillnet in 1980, slightly more than either of the previous years.

Since 1956, United States Scientists have estimated the interceptions of North American salmon by the Japanese mothership salmon fleet. Since the negotiated agreement eliminated fishing in sectors east of 175° E. longitude and south of 56° N. latitude, virtually all North American salmon intercepted are of western Alaska origin. The estimates are derived from several different types of information: age composition data for sockeye salmon; tag recovery data for pink, chum, and coho salmon; and scale patterns for chinook salmon.

Table Two shows the estimated interceptions of western Alaska salmon by species and year since 1975. The Japanese mothership fleet intercepted 864,000 western Alaska (primarily Bristol Bay) sockeye during 1980. This catch was greater than either the 1978 or 1979 sockeye interceptions but below the 20-year (1956-77) average catch of 2.4 million, and far below the average catch of 4.0 million during the previous Bristol Bay peak cycle years (1960, 65, 70, 75). On the average, the 1978-80 level of sockeye interception represents about a 75 percent reduction in Japanese mothership interceptions of Bristol Bay sockeye.

Table 2. Interceptions (in thousands of fish) of Western Alaska Salmon by the Japanese Mothership Salmon Fishery, 1975-80.

Year	Sockeye	Chum	Pink	Coho	Chinook	Total
1975	864	126	4	4	109	1,107
1976	1,001	218	224	32	168	1,643
1977	868	223	2	0	65	1,158
1978	360	8	*	*	31	399
1979	478	43	*	*	65	586
1980	861	39	*	*	388	1,288

* indicates that species was assumed not present in the mothership fishing area.

Perhaps the clearest example of the effect of removing the Japanese mothership fleet from most of the area east of 175° E. longitude is the resulting reduction in the catch of maturing Bristol Bay sockeye. The average interception of maturing Bristol Bay sockeye declined by 94 percent from nearly 2 million during 1956-77 to 111,000 during 1978-80 (Table 3), while the interception of immature sockeye was of the same general magnitude before and after the renegotiated treaty. Thus, the reduction in total western Alaska sockeye interceptions can be traced to the reduction in maturing sockeye which directly benefits U.S. inshore sockeye fisheries during the same year.

Table 3. Estimated Catch (thousands of fish) of maturing and immature age .2 sockeye salmon of Bristol Bay origin by the Japanese salmon mothership fishery, 1956-1980.

	Catch by Maturity Category		
Year	Maturing	Immature	Total
1956	2,431	905	3,336
1957	6,444	11	6,455
1958	366	33	399
1959	565	87	652
1960	3,640	310	3,950
1961	5,819	127	5,946
1962	833	72	905
1963	929	60	989
1964	254	843	1,097
1965	6,100	404	6,504
1966	1,531	56	1,587
1967	866	21	887
1968	864	791	1,655
1969	1,240	517	1,757
1970	3,451	1,207	4,658
1971	842	592	1,434
1972	710	214	924
1973	625	259	884
1974	251	708	959
1975	645	222	867
1976	779	228	1,007
1977	540	328	868
Total	39,725	7,995	47,720
Average	1,986	400	2,386
1978	124	236	360
1979	68	410	478
1980	180	681	861
Total	332	1,327	1,699
Average	111	442	566

A further reflection of the impact of the revised convention is the dramatic reduction in the interceptions of North American chum salmon. Chum interceptions averaged 152,000 fish during 1956-77 but only 30,000 fish during 1978-80. We have no direct evidence that North America pink or coho salmon are found in the present mothership fishing area.

The percentage of western Alaska chinook salmon in the mothership catches is estimated from scale characteristics. Because scale samples for making such estimates are frequently small within any one year, the data have been pooled over several years (1966-72) to estimate the percentages of western Alaska chinook salmon in various $2^{o} \times 5^{o}$ statistical areas by month. The averages of the monthly percentages provide estimates of the annual interceptions of western Alaska chinook salmon. This is the method used by the U.S. National Section for estimating chinook salmon interceptions since 1956.

According to the previously described method, 388,400 chinook salmon from a total catch of 704,000 chinook salmon were estimated to be of western Alaska origin.

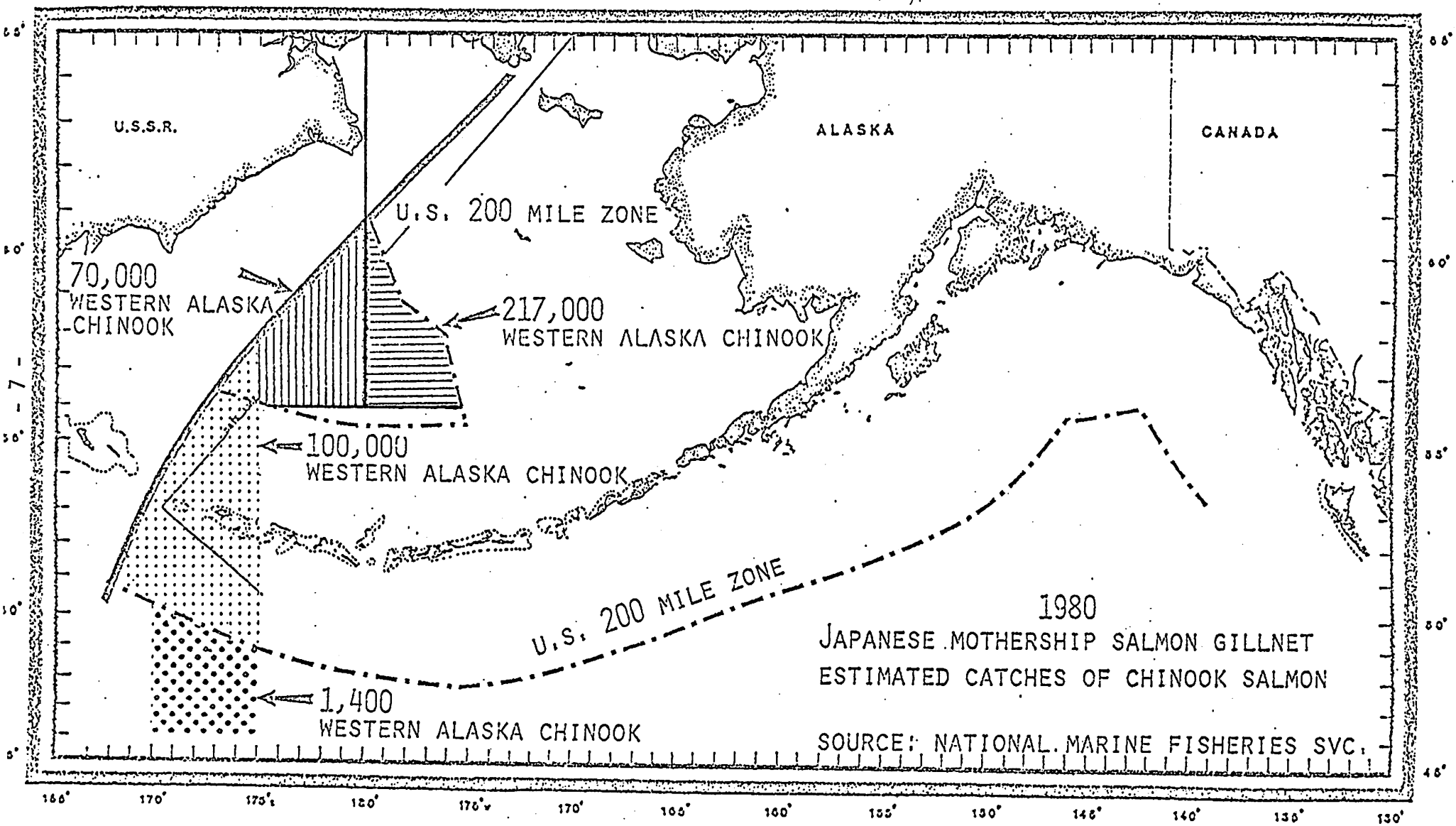
This is the second largest interception of western Alaska chinook salmon since 1956, exceeded only by the 1969 interception of 435,000 chinook. The 388,400 western Alaska chinook intercepted in 1980 represents nearly a 500 percent increase over the 1979 interception level (65,000) and nearly a 1,200 percent increase over the 1978 level (31,000). Chinook salmon intercepted by the mothership fleet in 1980 averaged six pounds and were in their second and third years of ocean life. Figure Two shows the distribution of the 1980 interceptions of western Alaska chinook salmon by general fishing area. The single greatest area of interception was the central Bering Sea north of the U.S. FCZ where 287,000 (74%) of the 388,400 total western Alaska chinook interceptions occurred. Within the central Bering Sea, 217,000 (76%) western Alaska chinook were intercepted east of 180^{o} longitude. Figure Three gives the ranks of INPFC $2^{o} \times 5^{o}$ statistical areas, from the largest to the smallest, of interceptions of western Alaska chinook based on the total interceptions between 1956 and 1979. Figure Three shows that the central Bering Sea fishing areas both east and west of 180^{o} longitude have historically produced the greatest interceptions of western Alaska chinook salmon. Figure Four shows the distribution of the interceptions of western Alaska chinook salmon east and west of 180^{o} longitude 1978-80, while Figure Five shows the percentage distribution of effort and interceptions over the past 22 years. Both figures clearly show that both the greatest amount of effort and the greatest number of interceptions of western Alaska chinook salmon occurs east of 180^{o} longitude in the Bering Sea.

Figure Six shows fishing effort in thousands of tans in the central Bering Sea 1956-80. The number of tans fished in 1980 (542,000) increased by 66 percent from 1979 (338,000) and by over 240 percent from 1978 (158,500). However, the 1980 effort level represents only 68 percent of the 798,000 tans fished in 1969 when a record 435,000 western Alaska

chinook were intercepted. Although fishing effort in the central Bering Sea during 1980 increased by 60 percent from 1979, the total catch of chinook salmon of all origins increased by over 500 percent (Figure 7). As might be expected, therefore, catch per unit of effort (CPUE) in 1980 was a record 768 chinook per thousand tans, nearly 4 times greater than the CPUE in 1979 and nearly triple the previous high observed in 1969 (figures 8 and 9). The record high CPUE observed in 1980 strongly suggests a very large number of chinook salmon were available to the mothership fleet in the central Bering Sea during 1980.

National Marine Fisheries Service
Alaska Region
February 24, 1981

Figure 2. Estimated 1980 Japanese Mothership Interceptions of Western Alaska Chinook Salmon



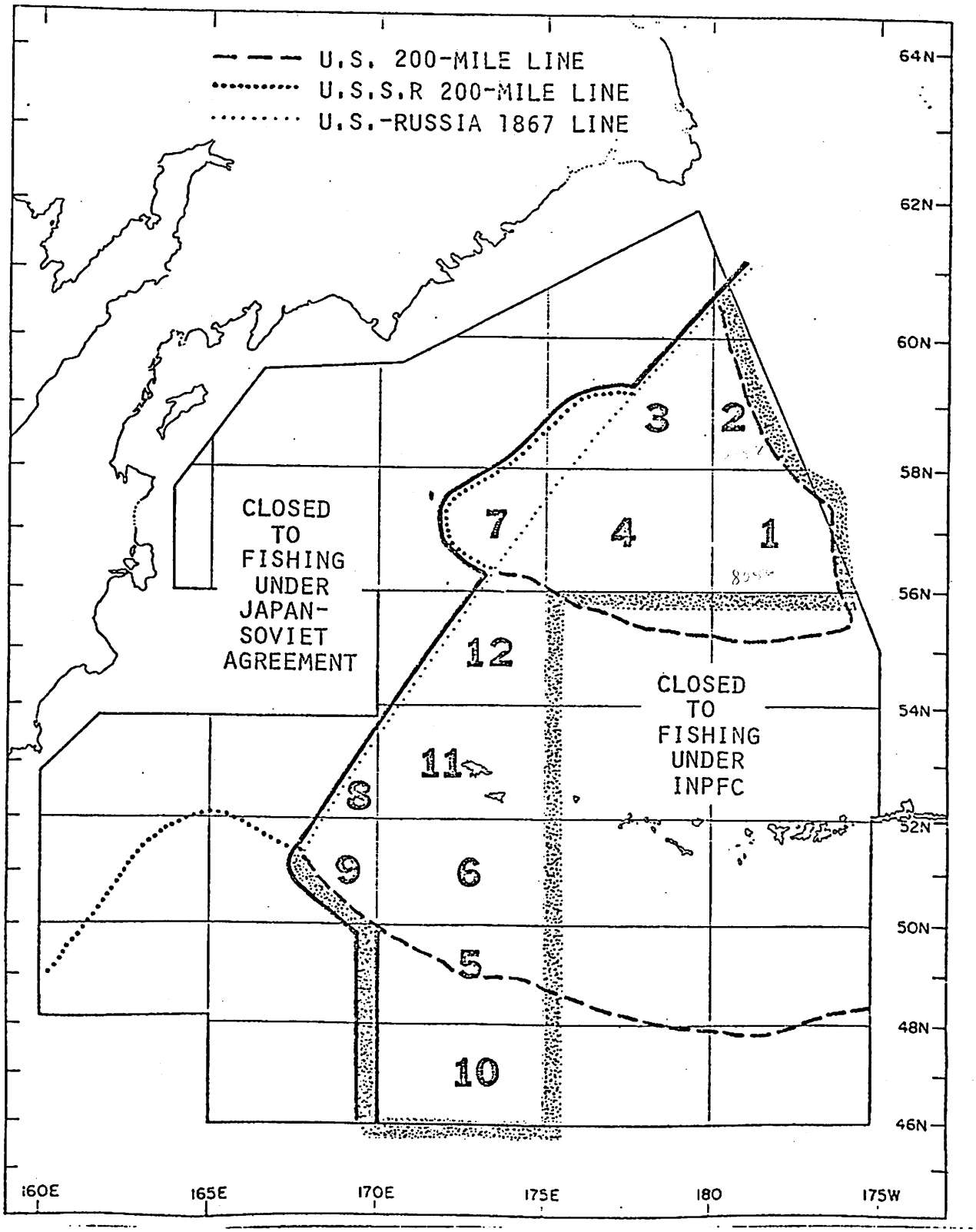


Figure 3. Post-1977 Japanese mothership salmon fishing area showing the rank order, from largest to smallest, of interceptions of western Alaska chinook salmon by 2° X 5° statistical area.

FIGURE 4

ESTIMATES OF INTERCEPTIONS OF WESTERN ALASKA CHINOOK SALMON

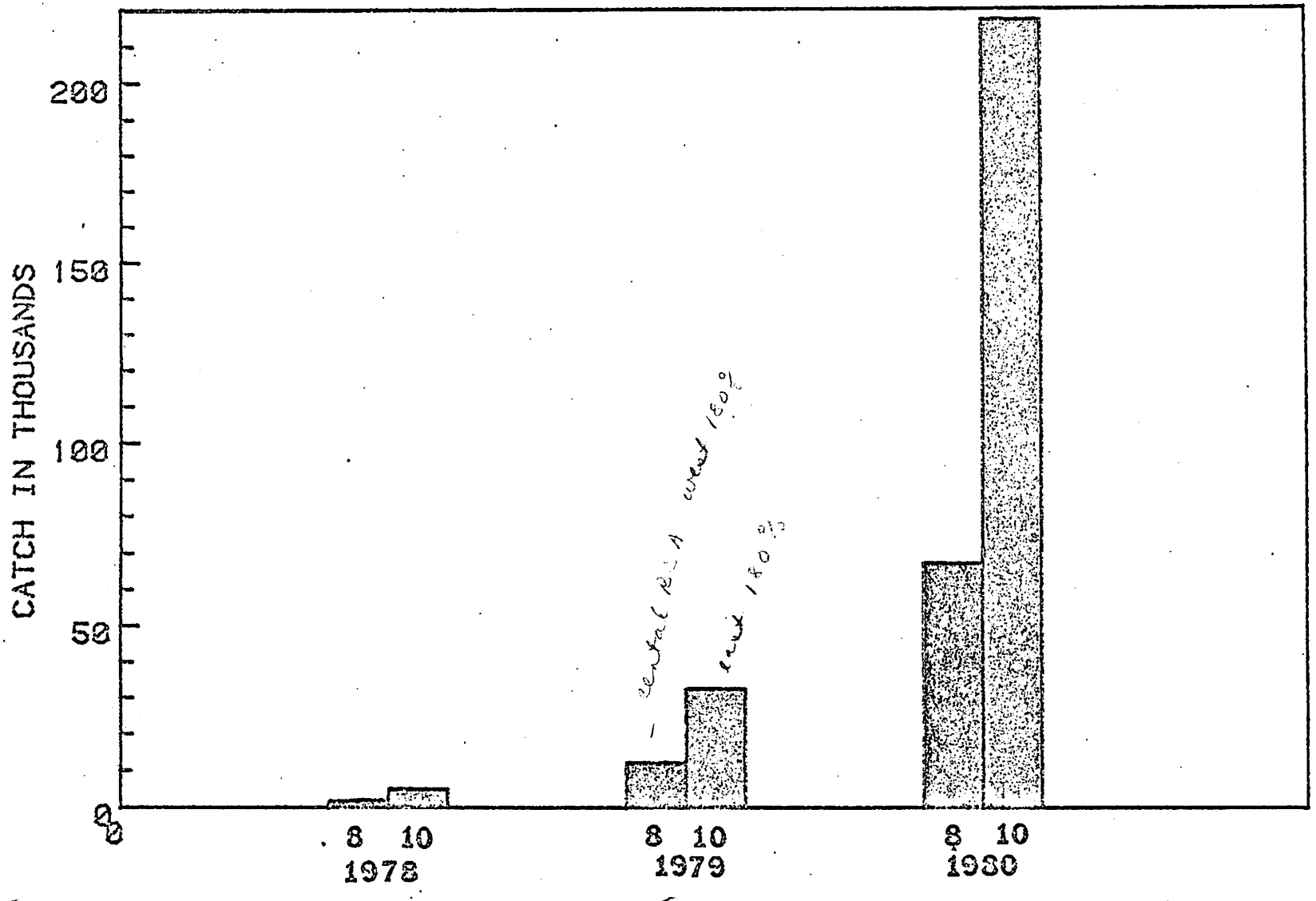
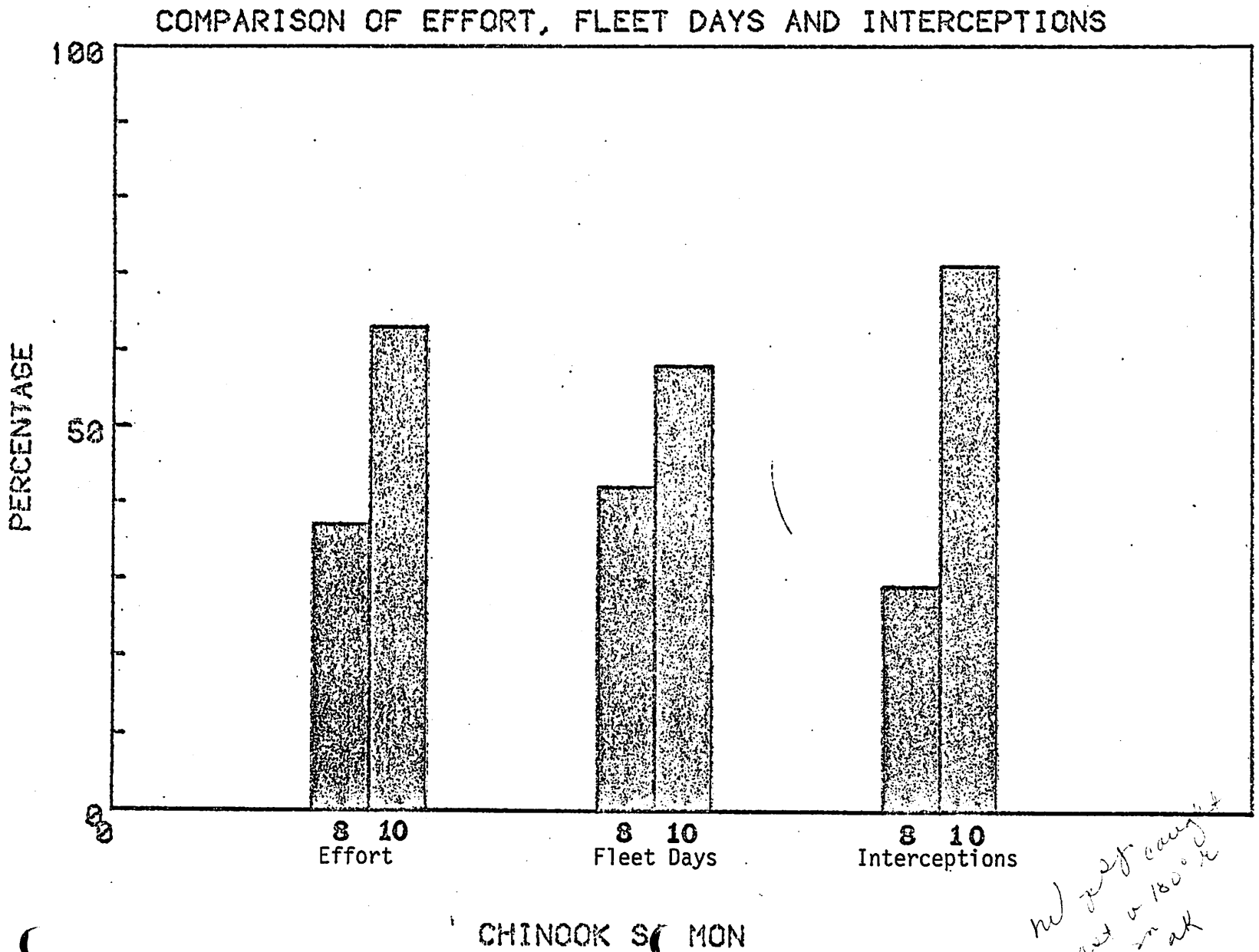


FIGURE 5



CHINOOK S(MON

FIGURE 6

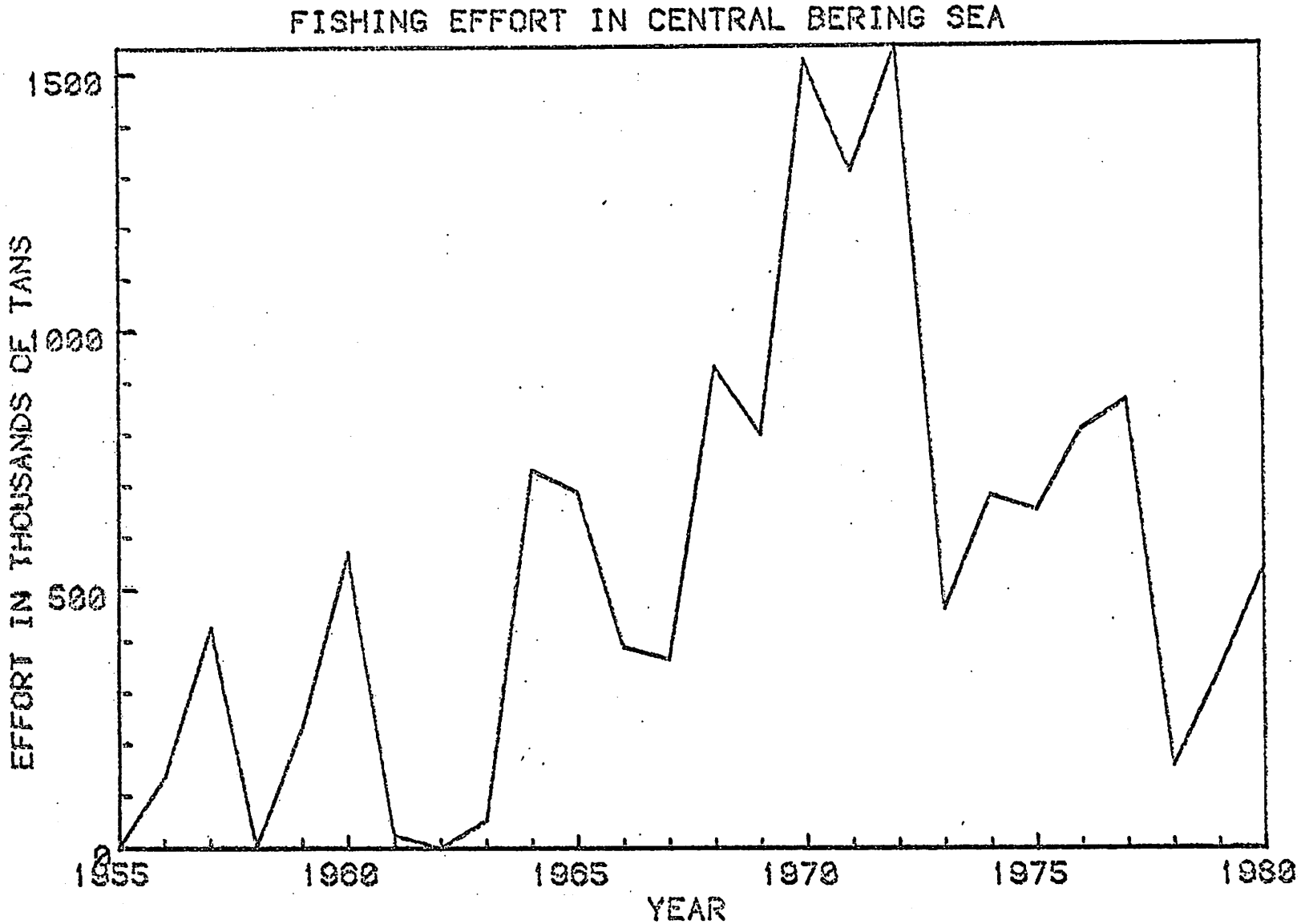

FISHING EFFORT IN CENTRAL BERING SEA
1500
000
500
0
EFFORT IN THOUSANDS OF TANS
1955
1960
1965
1970
1975
1980
YEAR
TOTAL FOR AREAS 7558, 7558, 8058, 8058

FIGURE 7

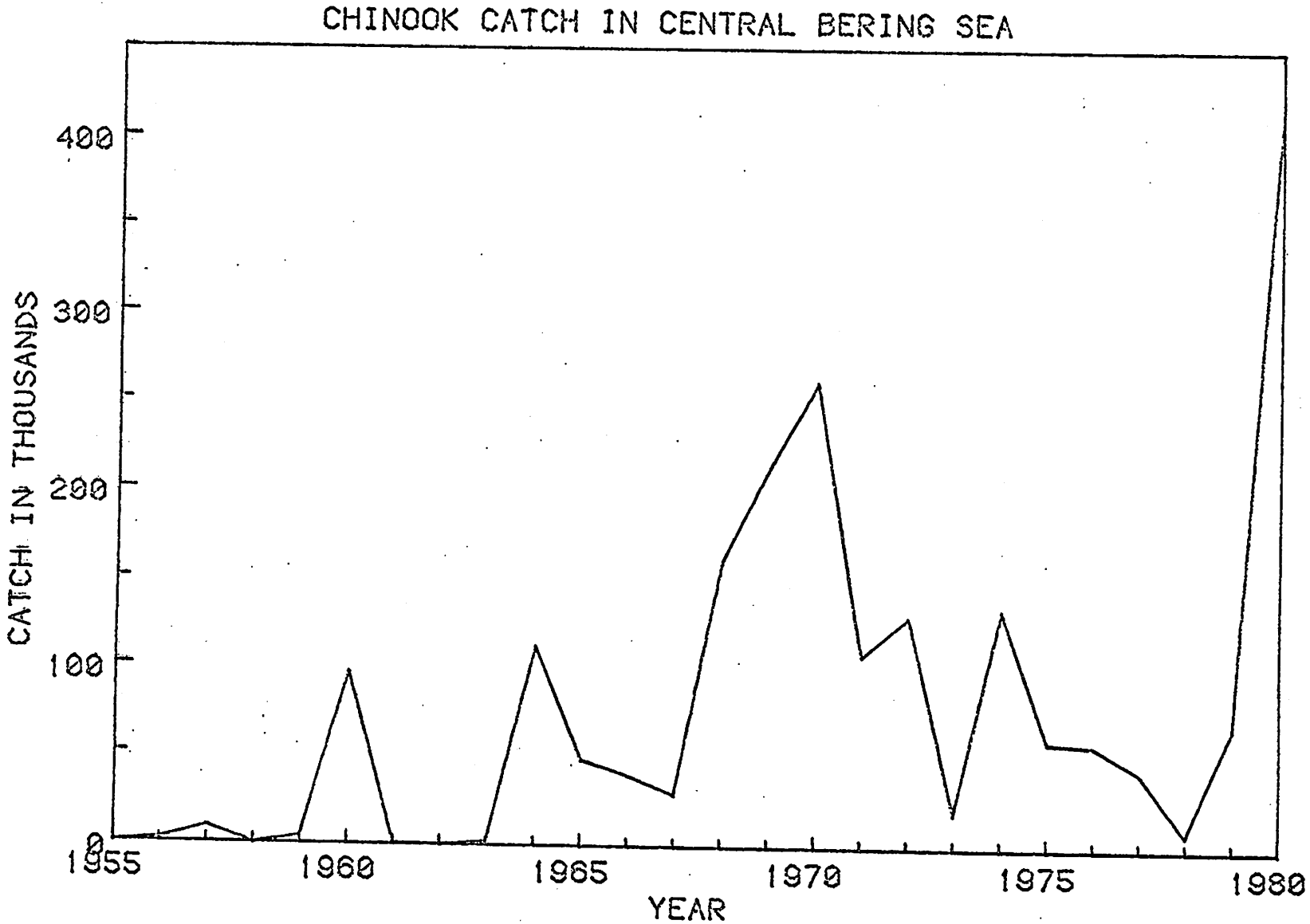
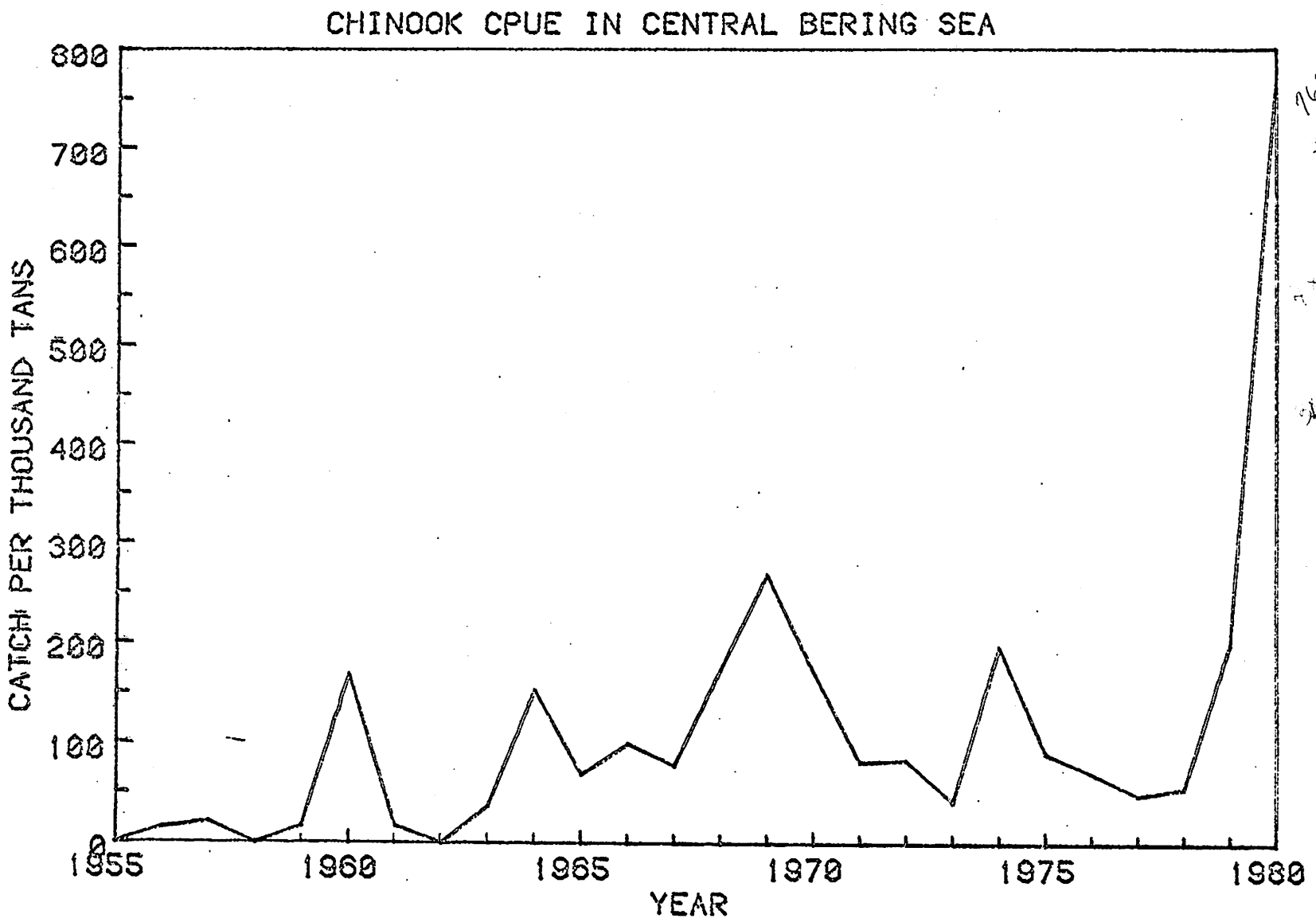
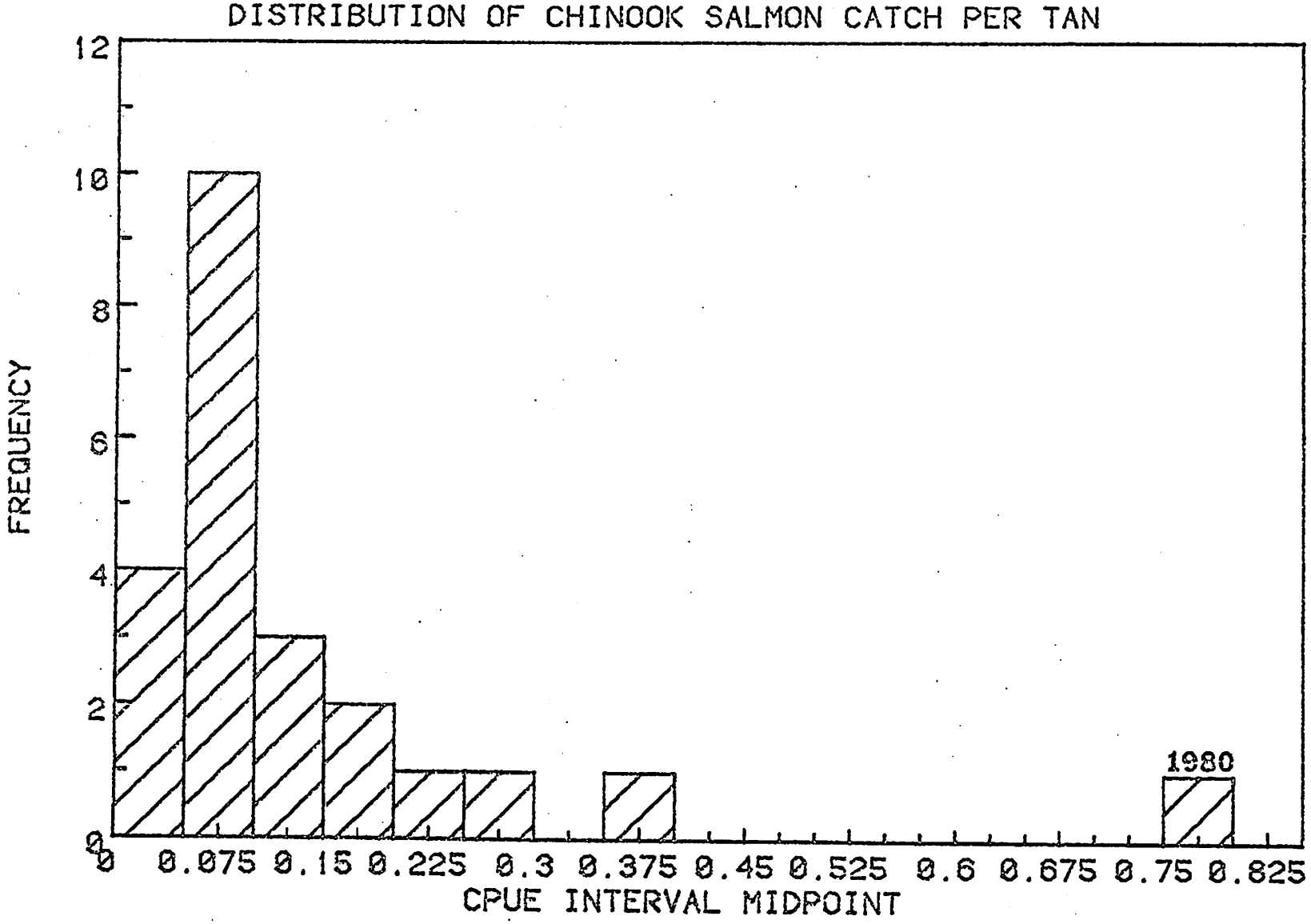

CHINOOK CATCH IN CENTRAL BERING SEA
CATCH IN THOUSANDS
400
300
200
100
0
1955
1960
1965
1970
1975
1980
YEAR
TOTAL FOR AREAS 7556,7558,8056,8058

FIGURE 8



TOTAL FOR AREAS 7558, 8056, 8058

FIGURE 9



AREAS 7556, 7558, 8056 AND 8058 1956-1980

Pennoyer

NORTH PACIFIC BERING SEA
FOREIGN CHINOOK HARVEST POTENTIAL
IMPACT ON WESTERN ALASKA STOCKS

	FOREIGN		INSHORE			
	Total Catch 1/2/	Known Interceptions 2/	Western Alaska Inshore Total	Kuskokwim	Yukon	Bristol Bay
1965	278	106	308	55	135	118
1966	320	112	266	80	105	81
1967	238	70	357	91	145	121
1968	450	226	308	78	119	111
1969	637	435	347	109	105	133
1970	538	345	376	136	93	147
1971	340	144	345	90	127	128
1972	364	170	286	100	111	75
1973	281	47	243	93	99	51
1974	547	287	232	61	115	56
1975	297	109	199	79	91	39
1976	484	168	317	110	103	104
1977	313	108	371	117	115	139
1978	374	70	430	102	127	201
1979	427	165	483	110	160	213
1980	994	488 3/	378	88	183	107
AVERAGE						
65-70	410	199(.38)	327			
70-75	366	151(.37)	261			
75-80	518	190(.32)	396			

1/Landbased, mothership, Gulf and Bering Sea travel.

Trawl Fishery catches prior to 1977 are not available.

2/ Deadloss due to dropout not included

3/ Preliminary trawl catch estimate 100 thousand - Bering Sea Incidental catch