

SCOMM

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SCOMM 29

House Interim Committee on Foreign Investment 1979  
(House Resources Subcommittee)

Rep. Fred Zharoff, Rep. Bill Miles, Rep. Dick Eliason

Representative Fred Zharoff deposited the following materials with the Library during January 1984. The file includes miscellaneous 1979 committee materials as well as a small amount of information on foreign investment and intervention, especially in regard to the fishing industry, from 1980 and 1981.

Six (6) folders total:

- #1 General information
- #2 Foreign investment in Alaska Fishery 1979 - background for Frank Orth report
- #3 Alien Affiliates/Fishing Industry 1979-1981
- #4 Misc. publications, background information (1 of 2)
- #5 Misc. publications, background information (2 of 2)
- #6 Foreign intervention - letters/1981

processed: KHS 3/84

SCOMM

#29:2

W. PATRICK DOUGHERTY

writing, editing, research

718 Fifth St.  
Juneau, Alaska 99801  
(907) 586-1702

# FRANK ORTH & ASSOCIATES

Economic and Business Consultants • 225 108th Ave. N.E., Suite 311, Bellevue WA 98004 • (206) 455-3507

MEMO

Aug. 8, 1979

To: House Interim Committee  
on Foreign Investment

From: Frank Orth & Associates  
and W. Patrick Dougherty

Subject: Update on foreign  
investment study

Dear Reps. Fred Zharoff, Bill Miles, Dick Eliason:

This letter, along with attachments, is a progress report on our contract with the House Interim Foreign Investment Committee to conduct research and analysis on foreign investment in Alaska. First, in the area of project management, a detailed work plan has been completed. Attached for your review is a detailed Task/Subtask breakdown, a personnel budget, an overall project budget and a work schedule. These materials allow you to determine the scope of the effort, the approach we will use to obtain major output items (tasks), and the sequence and the estimated time period required for particular tasks. We will have a preliminary report of all tasks completed by Nov. 15. An outline is attached. A meeting of the committee on or shortly after that date would be helpful. In specific tasks, Pat Dougherty has made significant progress on Tasks 1 and 2, which are primarily Pat's responsibility. A summary of his work is provided immediately below. This is followed by a discussion of progress on Tasks 3 and 4, which are primarily the responsibility of Frank Orth & Associates.

Initially we set out to determine the ownership of processing companies that operated during 1978. However we discovered presently that the Department of Fish & Game has only recently generated production figures for 1977, and the same data for 1978 will not be available for another six to nine months. We decided, as a result, to change the subject year of our study to 1977. Since the primary purpose of Task 1 was to use this ownership information to determine the percentage of overall production originating with Japanese-owned companies, we saw little benefit in using a more current year for study if we would then have to wait six months or more for production figures for that year to become available. So, using the Department of Fish & Game's roll of producers for 1977, we compiled a list of nearly 180 companies and individuals to be checked for ties to foreign (non-U.S.) corporations. We have so far determined that 27 of these are owned, in degrees ranging from 9-100%, by Japanese corporations or the American subsidiaries of Japanese corporations. One company is Canadian-owned. About 95 appear to be clearly U.S.-owned. The ownership of the remaining 55 companies is not yet determined. In some cases we are involved in tracing the ownership of owner companies, most of which are out of state.

As soon as we pin down the ownership of all the 1977 operators, we will draft a letter on behalf of this committee asking the Department of Fish & Game to break out production of Japanese-owned companies and then to compare that with the overall production of the industry that year. We will forward that letter to you to sign off on as soon as we complete the ownership investigation.

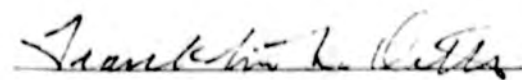
In conjunction with the ownership investigation we are assessing the data gathering situation in the Division of Corporations. The division's files, while still inadequate, are somewhat more helpful this year than they have been in the past. For the first time this year the division required corporations to answer the alien affiliate and percent of ownership questions that appear on corporate annual reports. With a total roll of more than 10,000 corporations, the division found itself returning about 70 percent of the annual reports submitted. This was primarily attributable to failure by corporations to answer the ownership and affiliate questions. The result is that our task is made somewhat less difficult. We have established a cooperative relationship with the division, and it seems to be exerting special effort to pursue missing data significant to the work of this committee.

In an interesting turn of events, the administration recently made public its intention to eliminate or somehow diminish the annual report requirements now in statute. It appears that this committee, upon completion of its work, will be equipped to advocate a legislative position on any proposed revisions in the annual reporting requirements.

Most of the work on Task 3, an evaluation of the effect of foreign investment on domestic processors' investment decisions, is logically sequenced after Task 1. At the present time research is under way to develop a background perspective that will be the basis for the analysis of the information collected under Task 1. This background perspective is being derived from the literature in international economics, international finance and foreign investment in real and financial assets.

Task 4, the coordination of our work with other agencies, is a continuing process. Coordination is developing more slowly than anticipated because of delays in initiating the U.S. Department of Commerce's foreign investment investigations. We are in touch with this situation and are poised to become involved at the appropriate time. In the meantime we are keeping Dick Eakins of the Alaska Department of Commerce and Economic Development informed about the scope and progress of this committee's work.

  
\_\_\_\_\_  
W. Patrick Dougherty

  
\_\_\_\_\_  
Franklin L. Orth

HOUSE INTERIM FOREIGN INVESTMENT COMMITTEE  
ALASKA FOREIGN INVESTMENT STUDY  
TASK/SUBTASK BREAKDOWN

TASK #1: Determine to the maximum extent possible the degree of foreign ownership in Alaska fisheries.

- Subtask #1 Conduct review of previous studies and produce written summary (draft Chapter II)
- Subtask #2 Develop inventory of companies for 1978.
- Subtask #3 Design format for recording information.
- Subtask #4 Extract information onto forms from Alaska and Washington files.
- Subtask #5 Design and implement format for reporting information.
- Subtask #6 Develop format for extracting production information.
- Subtask #7 Obtain production information.
- Subtask #8 Link production information to ownership information.
- Subtask #9 Write up results of subtasks #2-8 (draft Chapter III)

TASK #2: Conduct a comprehensive review of the Alaska Corporate disclosure law and regulations.

- Subtask #1 Obtain and review AS10.05.699-705 and supporting information; write profile.
- Subtask #2 Obtain, review and interview (phone) sample of states; write profile.
- Subtask #3 Obtain, review federal reporting laws and regulations; write profile.
- Subtask #4 Evaluate administration and enforcement of Alaska laws and regulations.
- Subtask #5 Compare with reporting requirements of other state agencies; determine coordinating opportunities.
- Subtask #6 Write up results (draft Chapter IV)

**TASK #3: Analyze effect of foreign investment on the fisheries investment decisions of domestic processors.**

Subtask #1 Review literature in foreign investment, international economics, international finance for background perspective; write profile (Chapter V, Section B).

Subtask #2 Review outputs of Tasks #1-2; identify informational inputs for economic analysis (hard facts and soft facts).

Subtask #3 Define analytical approach.

Subtask #4 Conduct analysis.

Subtask #5 Write up results (draft Chapter V).

**TASK #4 Coordinate research and analysis with state and federal agencies.**

Subtask #1 Coordinate with Alaska Department of Commerce and Economic Development.

Subtask #2 Coordinate with U.S. Department of Commerce

Subtask #3 Coordinate with Alaska Congressional delegation.

**TASK #5 Develop recommendations for legislative/administrative action.**

Subtask #1 Derive from draft Chapters II, III, IV, V.

Subtask #2 Write up for draft Executive Summary (Chapter I)

**TASK #6 Prepare Reports**

Subtask #1 Prepare preliminary report.

Subtask #2 Prepare final report.

**TASK #7 Advise House Interim Foreign Investment Committee on drafting of any proposed legislation as required.**

**TASK #8 Testify on subject matter of report as required.**

FOREIGN INVESTMENT STUDY  
JOB

PERSONNEL BUDGET

8-1-79  
DATE

| TASK / SUBTASK                                       | Frank <sup>1</sup> | Peter <sup>2</sup> | Wendy | Linda | Sub-Contractor<br>BID |  |  |  |  |  |
|--|--------------------|--------------------|-------|-------|-----------------------|--|--|--|--|--|
| I. Project Management                                | 88                 | 30                 |       | 20    | 78                    |  |  |  |  |  |
| a. Management  | 40                 | 20                 |       | 20    | 20                    |  |  |  |  |  |
| b. Client Briefings                                  | 20                 |                    |       |       | 24                    |  |  |  |  |  |
| c. Testimony   | 20                 |                    |       |       | 24                    |  |  |  |  |  |
| d. Coordinate with State/Federal Agencies            | 8                  | 10                 |       |       | 10                    |  |  |  |  |  |
| II. Determine Foreign Ownership                      | 3                  | 13                 | 5     | 20    | 360                   |  |  |  |  |  |
| a. Search AK. Reports-Record                         | 1                  | 3                  |       |       | 200                   |  |  |  |  |  |
| b. Search WA. Reports-Record                         | 1                  | 3                  |       |       | 40                    |  |  |  |  |  |
| c. Review Literature-Summarize                       | 1                  | 4                  |       |       | 50                    |  |  |  |  |  |
| d. Write Draft                                       |                    | 2                  | 3     | 14    | 50                    |  |  |  |  |  |
| e. Revise to Final                                   |                    | 1                  | 2     | 6     | 20                    |  |  |  |  |  |
| III. Evaluate Alaska Reporting Law/Regulations       | 3                  | 12                 | 5     | 20    | 270                   |  |  |  |  |  |
| a. Review/Evaluate AS10, CS. 699-705                 | 1                  | 3                  |       |       | 120                   |  |  |  |  |  |
| b. Determine/Evaluate Reporting Regs of Other States | 1                  | 3                  |       |       | 40                    |  |  |  |  |  |
| c. Determine/Evaluate Federal Reporting Regs.        | 1                  | 3                  |       |       | 40                    |  |  |  |  |  |
| d. Write Draft                                       |                    | 2                  | 3     | 14    | 50                    |  |  |  |  |  |
| e. Revise to Final                                   |                    | 1                  | 2     | 6     | 20                    |  |  |  |  |  |



FOREIGN INVESTMENT STUDY  
PROJECT BUDGET

PROFESSIONAL SERVICES

\$13,720

|  |              |
|--|--------------|
| Project Management (128 hrs. @ \$40/hr.) | \$5,120      |
| Analysts (215 hrs. @ \$25/hr.)           | 5,375        |
| Technical (50 hrs. @ \$15/hr)            | 750          |
| Clerical (165 hrs. @ \$15/hr)            | <u>2,475</u> |

DIRECT EXPENSES

\$24,950

|                |              |
|----------------|--------------|
| Subcontract*   | \$18,000     |
| Communications | 1,200        |
| Copying        | 500          |
| Postage        | 250          |
| Travel         | <u>5,000</u> |

Total Professional Services and Direct Expenses

\$38,670

Management Fee

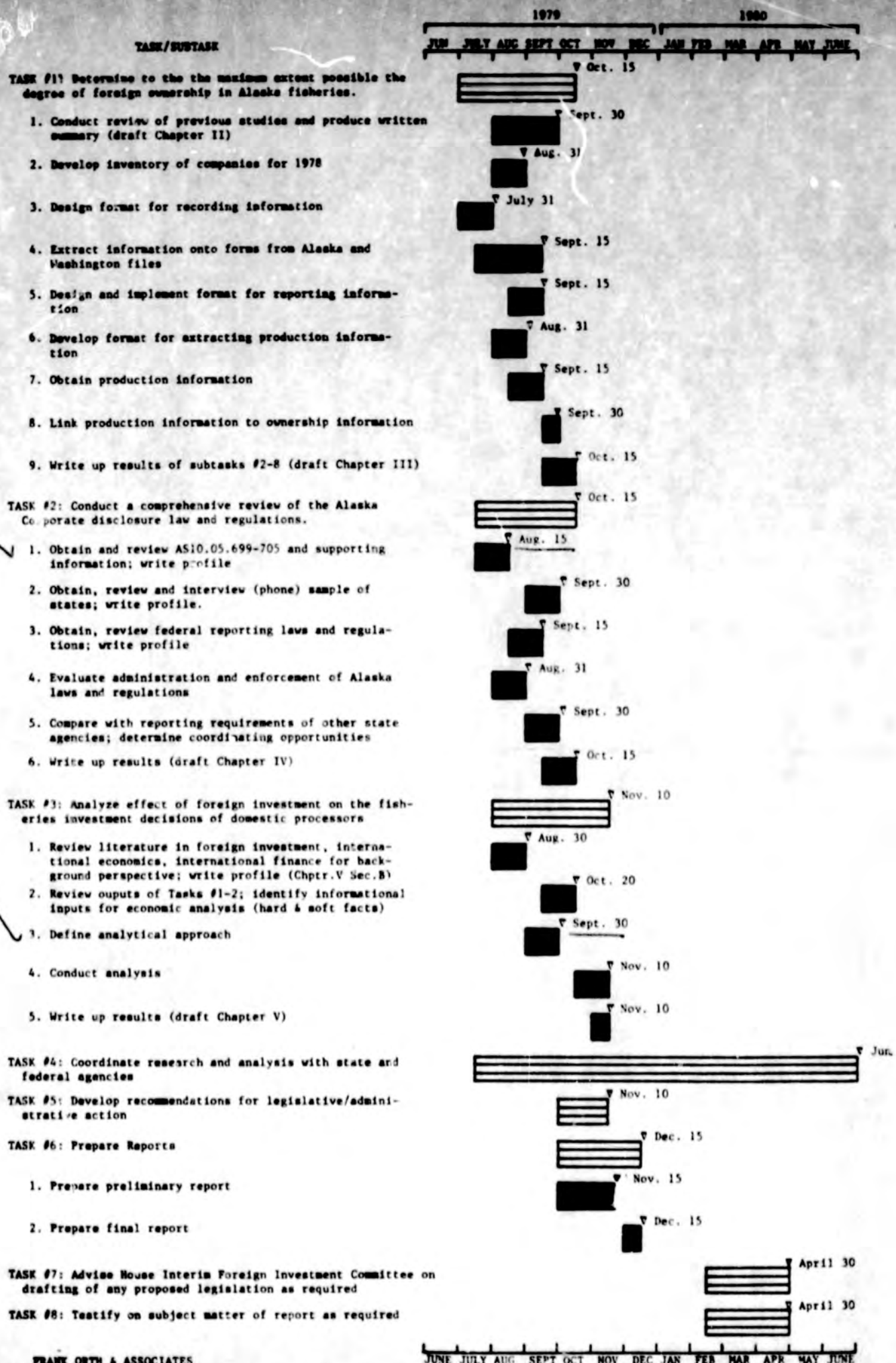
3,830

TOTAL PROJECT COSTS

\$42,500

\* Pat Dougherty (818 hrs. @ \$22/hr.)

FRANK ORTH & ASSOCIATES



HOUSE INTERIM FOREIGN INVESTMENT COMMITTEE  
ALASKA FOREIGN INVESTMENT STUDY  
PRELIMINARY OUTLINE OF PROJECT REPORT

Chapter I INTRODUCTION

- A. Define Problem
- B. Sources of Information
- C. Organization of Report
- D. Executive Summary
- E. Legislative and Administrative Recommendations

Chapter II REVIEW OF PREVIOUS STUDIES

Chapter III EXTENT OF FOREIGN OWNERSHIP AND CONTROL OF ALASKA FISHERIES

- A. Introduction and Executive Summary
- B. As Measured by Percent of Equity
- C. As Measured by Percent of Production
- D. As Measured by Ownership/Management Interests
- E. Other Means of Control

Chapter IV THE ALASKA CORPORATE DISCLOSURE SYSTEM

- A. Introduction and Executive Summary
- B. Alaska Statutes, Regulations, and Enforcement
- C. Comparison with Other States
- D. Federal Reporting Requirements
- E. Alaska System Evaluated
- F. Recommendations for Change

Chapter V ANALYSIS OF EFFECTS OF FOREIGN INVESTMENT ON FISHERY INVESTMENT DECISIONS OF DOMESTIC PROCESSORS

- A. Introduction and Executive Summary
- B. Determinants of Foreign and Domestic Investment
- C. Economic Analysis of Role of Foreign Investment in Domestic Investment Decisions
- D. Policy Issues and Options

Chapter VI RECOMMENDATIONS FOR ADDITIONAL WORK

Appendixes

Mr. Julius J. Brecht  
Director, Div. of Banking,  
Securities, Corporations  
Dept. of Commerce & Economic  
Development  
Pouch D  
Juneau, AK. 99811

July 27, 1979

Dear Mr. Brecht,

As you probably are aware, the Alaska House of Representatives last session created an interim committee to study foreign investment in the state, with particular emphasis on the fish processing industry. I have been hired to perform much of the research that the committee desires.

Since this project will require substantial use of the corporation section's annual reports, I wanted to apprise you of its direction and substance.

Initially, I will attempt to identify those fish processing companies with direct or indirect foreign ownership. It is anticipated that this information in turn will be used by the Department of Fish and Game to estimate the percentage of total seafood production controlled by foreign interests. This will be the best indicator to date of the actual extent of foreign control of the fish processing industry.

Other specific objectives include the following:

--Review of administrative regulations and procedures that affect corporate report accuracy, currency and usefulness.

--Assessment of the adequacy of corporate reporting forms as far as fulfilling the relevant statutory mandates.

--Present and potential uses of computerization with regard to compiling and generating data related to foreign investment.

--Evaluation of the cooperation between departments (primarily Commerce, Labor, Revenue and Natural Resources) in monitoring corporations involved in fish processing.

(more)

July 27, 1979

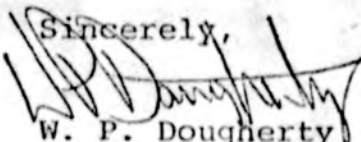
Eventually I would like to meet with you to cover this ground in some detail.

I am eager to work with you and the division to upgrade, streamline and simplify, to whatever extent possible, the state's corporate data collection system.

I will keep you as well informed of my progress as you care to be. If I may be of special assistance to you from time to time, please don't hesitate to call me.

Once my work has progressed a bit farther, I will check with you to see when we may want to meet.

Sincerely,

A handwritten signature in dark ink, appearing to read "W. P. Dougherty", written over the typed name.

W. P. Dougherty  
465-3789

Anch. Daily News  
July 31, 1979

# Sackett: state salary question wide open

By ROSEMARY SHINOHARA  
Daily News reporter

The state Senate finance chief believes the upcoming special session of the legislature will last two, four or 30 days, depending on whether the members do nothing, simply pass the legislation as introduced, or address other pay issues as well.

Sen. John Sackett, R-Galena, Senate Finance Committee chairman, told the Anchorage Chamber of Commerce Monday that he's already packed 10 suitcases to take to Juneau, and he's prepared to stay for however long it takes.

He shared the podium with Bill McConkey, a member of the governor's staff, who responded to an address here by Washington Gov. Dixy Lee Ray last week on how government regulations stifle industry.

McConkey spoke about Alaska Gov. Jay S. Hammond's program to eliminate unnecessary government regulations, saying the state is embarking on an effort unparalleled by any other state to ease the interference of government in the private sector.

He said one of his first major recommendations will be to eliminate the annual reports required to be filed by corporations in Alaska. The information in the reports is already available in various state offices, McConkey said.

Sackett also talked about the effectiveness of state government. He said Alaska has reached the point where "state government is just very unresponsive, primarily due to its size."

Legislators are restricted by their role as to how much they can do, although they are probably closest to the people since they stand for elections, Sackett said.

He urged chamber members to remember the difference between the administrative and legislative branches of government.

As a lobbying group, the chamber of commerce is doing very well, Sackett said.

"This is perhaps the ultimate compliment — the companies should learn a lot from your lobbyists," he said.

Asked why the pro-capital move faction couldn't raise \$100,000 from the legislature this year to reinvigorate proposed capital move, Sackett said the majority of the legislature doesn't want it. He said, "I don't believe in a capital move."

If pro-movers staged an effort to keep the legislature in session until it acted on capital move funding, Sackett indicated he would wait them out.

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**Sec. 10.05.693. Transacting business without certificate of authority not affecting contracts and right to defend action.** The failure of a foreign corporation to obtain a certificate of authority to transact business in the state does not impair the validity of a contract or act of it, and does not prevent the corporation from defending an action, suit or proceeding in a court of the state. (§ 117 ch 126 SLA 1957)

**Sec. 10.05.696. Liability to state for transacting business without certificate of authority.** A foreign corporation which transacts business in the state without a certificate of authority is liable to the state, for the years or portions of years during which it transacted business in the state without a certificate of authority, in an amount equal to all fees and franchise taxes which would have been imposed by this chapter on the corporation if it had applied for and received a certificate of authority to transact business in the state as required by this chapter and filed all reports required by this chapter, plus all penalties imposed by this chapter for failure to pay the fees and franchise taxes. The attorney general shall bring proceedings to recover amounts due the state under this section. (§ 117 ch 126 SLA 1957)

Article 8. Annual Reports.

|   |   |
|---|---|
| Section   | Section   |
| 699. Annual report of domestic and foreign corporations | 705. Filing of annual report of domestic and foreign corporations |
| 702. Contents of annual report                          |   |

**Sec. 10.05.699. Annual report of domestic and foreign corporations.** Each domestic corporation and each foreign corporation authorized to transact business in the state shall file an annual report within the time prescribed by this chapter. (§ 118 ch 126 SLA 1957)

Am. Jur. and C.J.S. references.— 19 C.J.S. Corporations § 987.  
13 Am. Jur., Corporations, §§ 70 to 85, 838, 1316, 1335 to 1339.

**Sec. 10.05.702. Contents of annual report.** The annual report shall set out

- (1) the name of the corporation and the state or country where it is incorporated;
- (2) the address of the registered office of the corporation in the state, and the name of its registered agent in the state at that address, and, in the case of a foreign corporation, the address of its principal office in the state or country where it is incorporated;
- (3) a brief statement of the character of the business in which the corporation is engaged in the state;

(4) the names and addresses of the directors and officers of the corporation;

(5) a statement of the aggregate number of shares which the corporation has authority to issue, itemized by classes, par value of shares, shares without par value, and series, if any, within a class;

(6) a statement of the aggregate number of issued shares, itemized by classes, par value of shares, shares without par value, and series, if any, within a class;

(7) a statement, expressed in dollars, of the amount of stated capital of the corporation. (§ 118 ch 126 SLA 1957)

Sec. 10.05.705. Filing of annual report of domestic and foreign corporations. (a) The annual report of a domestic or foreign corporation shall be delivered to the commissioner between January 1 and March 1 of each year. However, the first annual report of a domestic or foreign corporation shall be filed between January 1 and March 1 of the year succeeding the calendar year in which its certificate of incorporation or its certificate of authority, as the case may be, was issued by the commissioner.

(b) A corporation organized under this chapter whose fiscal year ends at a time other than at the end of the calendar year shall be allowed 60 days from the date on which its fiscal year ends within which to file the annual report.

(c) Proof to the satisfaction of the commissioner that before March 1 the report was deposited in the United States mail in a sealed envelope, properly addressed, with postage prepaid, is compliance with (a) of this section.

(d) If the commissioner finds that the report conforms to the requirements of this chapter, he shall file it. If he finds that it does not conform to the requirements of this chapter, he shall promptly return it to the corporation for necessary corrections. If the report is corrected to conform to the requirements of this chapter and returned to the commissioner in sufficient time to be filed prior to April 1 of the year in which it is due, the penalties for failure to file the report within the time provided in § 771 of this chapter do not apply. (§ 119 ch 126 SLA 1957)

Article 9. Fees and Charges.

| Section  | Section   |
|--|---|
| 708. Incorporation or filing fees  | 720. Failure to pay tax or make report as precluding suit by corporation and certificate of payment or filing as evidence |
| 711. Fees on filing amendatory articles or certificates changing capital stock | 723. Attorney general to institute suits to compel payment  |
| 714. Fees on appointment or revocation of appointment of process agent         | 726. Failure to pay tax as evidence of insolvency   |
| 717. Penalty for nonpayment of annual corporation tax                          | 729-744. [Repealed]   |

**Effect of amendment.** — The 1976 amendment, effective January 1, 1977, substituted "the time set" for "the time prescribed" in the first sentence, deleted "assessed against it for the period beginning July 1 of the year in which the

report should have been filed" from the end of that sentence, and deleted the former second sentence which read "The commissioner shall assess the penalty at the time of the assessment of the franchise tax."

### Article 11. General Provisions.

#### Section

#### 825. Definitions

**Sec. 10.05.825. Definitions.** In this chapter, unless the context otherwise requires,

(1) "commissioner" means the commissioner of commerce and economic development;

(3) "department" means the Department of Commerce and Economic Development;

(18) "affiliate" means a person that directly or indirectly through one or more intermediaries controls, or is controlled by, or is under common control with, a corporation subject to this chapter;

(19) "controls" (including "controlling", "controlled by" and "under common control with") means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through ownership of voting securities, by contract, or otherwise;

(20) "person" means an individual, a corporation, a partnership, an association, a joint-stock company, a trust where the interests of the beneficiaries are evidenced by a security, an unincorporated organization, a government, or a political subdivision of a government;

(21) "reorganization" means a "reorganization" as that word is defined by § 368(a)(1)(A)–(D) of the Internal Revenue Code of 1954 as it exists on the effective date of this Act.

(am § 6 ch 145 SLA 1975; am § 62 ch 218 SLA 1976)

#### **Effect of amendment.**

The 1975 amendment added paragraphs (18) through (21).

The 1976 amendment substituted "commissioner of commerce and economic development" for "commissioner of commerce" in paragraph (1) and "Department of Commerce and Economic Development" for "Department of Commerce" in paragraph (3).

As the rest of the section was not affected by the amendments, it is not set out.

**Editor's note.** — Section 7, ch. 145, SLA 1975, provides: "It is the intent of the legislature to adopt the definitions for 'affiliate' and 'control' as those terms are in use and have been interpreted by the United States Securities Exchange Commission on the effective date of this Act."

**Legislative committee report.** — For report on ch. 145, SLA 1975 (CSSB 376 am H), see 1975 Senate Journal, p. 1028.

CORPORATIONS SECTION

POUCH D - JUNEAU, ALASKA 99811

AUTHORITY: A.S. 10.05.699

ANNUAL REPORT

(Type or print legibly)

NO. **X** 00130

FOR YEAR ENDING DECEMBER 31, 19 \_\_\_\_\_

NAME OF CORPORATION \_\_\_\_\_ File No. \_\_\_\_\_

1. CORPORATION IS ORGANIZED UNDER THE LAWS OF THE STATE OR COUNTY OF \_\_\_\_\_

2. ADDRESS OF PRINCIPAL CORPORATION OFFICE \_\_\_\_\_

3. REGISTERED AGENT \_\_\_\_\_ (FILE CHANGE ON FORM 08-184)

4. REGISTERED OFFICE IN ALASKA \_\_\_\_\_ (FILE CHANGE ON FORM 08-184)

5. CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA \_\_\_\_\_

6. AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE, AND SERIES, IF ANY, WITHIN A CLASS:

| NUMBER OF SHARES | CLASS | SERIES | PAR VALUE PER SHARE |
|------------------|-------|--------|---------------------|
|                  |       |        |                     |
|                  |       |        |                     |

7. AGGREGATE NUMBER OF ISSUED SHARES, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE AND SERIES, IF ANY WITHIN A CLASS:

| NUMBER OF SHARES | CLASS | SERIES | PAR VALUE PER SHARE |
|------------------|-------|--------|---------------------|
|                  |       |        |                     |
|                  |       |        |                     |

8. THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31. \$ \_\_\_\_\_

9. YOU MUST FURNISH THE NAMES AND ADDRESSES OF BOTH DIRECTORS AND OFFICERS. IF DIRECTORS AND OFFICERS ARE THE SAME PEOPLE WRITE IN "SAME" IN THE DIRECTORS AREA.

|           | NAME | COMPLETE ADDRESS |
|-----------|------|------------------|
| DIRECTORS | 1.   |                  |
|           | 2.   |                  |
|           | 3.   |                  |
| OFFICERS  | 1.   |                  |
|           | 2.   |                  |
|           | 3.   |                  |

10. ATTACH AS EXHIBIT "A" THE NAME AND ADDRESS OF EACH NONRESIDENT ALIEN AFFILIATE, IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED. (SEE REVERSE FOR EXPLANATION)

11. ATTACH AS EXHIBIT "B" A NAME AND ADDRESS OF EACH PERSON HAVING A DIRECT OWNERSHIP OR CONTROL OF AT LEAST 5 PERCENT OF THE SHARES OR 5 PERCENT OF ANY CLASS OF SHARES AND THE PERCENTAGE OF SHARES OWNED BY THAT PERSON. EXHIBIT "B" SHALL COVER THE OWNERSHIP AS OF SEPTEMBER 30 OF THE REPORTING PERIOD. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED.

DATED \_\_\_\_\_ 19 \_\_\_\_\_

\_\_\_\_\_  
CORPORATE SEAL

BY \_\_\_\_\_

TITLE \_\_\_\_\_

ATTESTED BY \_\_\_\_\_

**MERCE AND ECONOMIC DEVELOPMENT.** The reports and payments are made within the prescribed time if postmarked on or before the due date.

**MAIL THE COMPLETED FORM TO THE CORPORATIONS SECTION**

**INSTRUCTIONS FOR FILING ANNUAL REPORTS**

(Numbers correspond with report)

All items are required by law. **THE REPORT MUST BE COMPLETE IN FULL OR IT WILL BE RETURNED UNFILED FOR COMPLETION.** Annual Reports returned for completion must be postmarked April 1 or \$7.50 late filing fee is assessed. AS 10.05.771

This form has been revised for use with the computer-based Corporation Data Systems. The pre-printed data (Item 1, 2, 3, 4, & 6) are as they appear on the corporate file. Please verify these data. Note any changes or corrections on the form or as an attachment. Do not erase the pre-printed data. Some changes require filing additional forms or amendments.

2. Domestic corporations must report the principal office address.
3. & 4. **VERIFY THE AGENT AND OFFICE AS SHOWN. ALL CORPORATIONS MUST MAINTAIN A REGISTERED AGENT AND OFFICE IN THE STATE OF ALASKA. THE AGENT AND OFFICE ARE ORIGINALLY DESIGNATED IN THE ARTICLES OF INCORPORATION. ANY CHANGE MUST BE REPORTED TO THIS DEPARTMENT BY FILING A CHANGE OF REGISTERED AGENT AND/OR OFFICE. FORM 08-184 IS AVAILABLE FROM THIS OFFICE FOR THIS PURPOSE AND MUST BE SUBMITTED WITH THE APPROPRIATE FILING FEE.**
5. Be descriptive as to type of business, if inactive please note also.
6. **VERIFY NUMBER OF AUTHORIZED SHARES BY CLASS (COMMON PREFERRED). THIS NUMBER IS THE SAME AS THE AMOUNT AUTHORIZED IN THE ARTICLES OF INCORPORATION OR AMENDED ARTICLES. CHANGES MUST BE SUBMITTED BY AMENDMENT.**
7. THIS ITEM requires the report of all shares of authorized capital stock which have been issued to date.
8. Stated Capital as defined by AS 10.05.825 (12) (A), (B) & (C).
9. List all officers and directors giving their complete mailing addresses. (The same individual cannot be President and Secretary.) A corporation having less than three shareholders may have the same number of directors as shareholders. (AS10.05.177)
10. AS 10.05.702 requires that the name and address of each affiliate which is a nonresident alien or a corporation whose place of incorporation is outside the United States and the percentage of outstanding shares controlled by each affiliate be listed in the annual report.
11. AS 10.05.702(9) requires the report of names and addresses as described if shares are issued (see Item 7).

This report should be signed by two officers of the corporation or is signed by one officer and the corporate seal applied.

- REMEMBER:**
1. TYPE OR PRINT LEGIBLY.
  2. BE SURE REPORT IS SIGNED AND TAX ATTACHED
  3. BE SURE REPORT ARRIVES IN THIS OFFICE WITHIN PRESCRIBED FILING PERIOD.
  4. NO COPIES OF ANNUAL REPORT ARE PROVIDED, PHOTOCOPY FOR YOUR FILE COPY.

It is mandatory that these requirements be met each year in the specified time for a corporation to be considered in good standing and avoid the department's initiating an action to involuntarily dissolve the corporation after six months delinquency.

HOUSE INTERIM FOREIGN INVESTMENT COMMITTEE  
ALASKA FOREIGN INVESTMENT STUDY  
PRELIMINARY OUTLINE OF PROJECT REPORT

Chapter I INTRODUCTION

- A. Define Problem
- B. Sources of Information
- C. Organization of Report
- D. Executive Summary
- E. Legislative and Administrative Recommendations

Chapter II REVIEW OF PREVIOUS STUDIES

Chapter III EXTENT OF FOREIGN OWNERSHIP AND CONTROL OF ALASKA FISHERIES

- A. Introduction and Executive Summary
- B. As Measured by Percent of Equity
- C. As Measured by Percent of Production
- D. As Measured by Ownership/Management Intersties
- E. Other Means of Control

Chapter IV THE ALASKA CORPORATE DISCLOSURE SYSTEM

- A. Introduction and Executive Summary
- B. Alaska Statutes, Regulations, and Enforcement
- C. Comparison with Other States
- D. Federal Reporting Requirements
- E. Alaska System Evaluated
- F. Recommendations for Change

Chapter V ANALYSIS OF EFFECTS OF FOREIGN INVESTMENT ON FISHERY INVESTMENT DECISIONS OF DOMESTIC PROCESSORS

- A. Introduction and Executive Summary
- B. Determinants of Foreign and Domestic Investment
- C. Economic Analysis of Role of Foreign Investment in Domestic Investment Decisions
- D. Policy Issues and Options

Chapter VI RECOMMENDATIONS FOR ADDITIONAL WORK

Appendixes



# Alaska State Legislature 40

## House of Representatives

### Office of the Speaker

Pouch V  
State Capitol  
Juneau, Alaska 99811

#### Official Business

MEMO: Feb. 27, 1979  
TO: Rep. Fred Zharoff  
FROM: Bob Speed, A.A. *BS*  
to Rep. Gardiner, Speaker  
RE: Foreign investment in Alaska Fishery

Fred, here are some materials I thought you might want to have regarding foreign investment in Alaska.

Here is a listing of current status of each bill and resolution in this packet:

HCR 1 in House Finance  
HCR 9 in House ~~Finance~~ *Resources*  
HB 87 in House Finance

As I mentioned to you, I believe that Rep. Osterback and his aide, Dianne Nelson may be thinking about an interim committee or study on this issue. You may want to talk to Dianne or Rep. Osterback about this.

Also, Jim Edenso, the bottomfish coordinator in the Governor's Office, is interested in a study of foreign investment. He may not follow through with it if the Legislature does its own study, though. Edenso is out of town until Thursday, so I couldn't get any additional information from his office about his current thinking on this.

Pat Dougherty, a reporter for the Alaska Advocate, did an extensive investigation on the issue this past summer which resulted in an article which appeared in the United Fishermen of Alaska's newspaper the Alaska Fisherman. As a result of that article and the investigation leading up to it (about three months' work) Pat probably knows more about foreign investment than anybody else.

*BS*

Introduced: 1/29/79  
Referred: Resources

Funding Information  
General Fund \$43,000  
Other Funds -0-  
\$43,000

BY THE RULES COMMITTEE BY  
REQUEST OF THE LEGISLATIVE  
COUNCIL (for the Interim  
Committee on Bottomfish)

IN THE HOUSE

HOUSE BILL NO. 87

IN THE LEGISLATURE OF THE STATE OF ALASKA

ELEVENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making a special appropriation to the Legisla-  
tive Council for the purpose of conducting a study  
relating to the extent of foreign investment in  
Alaska's fisheries; and providing for an effective  
date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

\* Section 1. The sum of \$43,000 is appropriated from the general fund to  
the Legislative Council for the purpose of conducting a study relating to the  
extent of foreign investment in Alaska's fisheries.

\* Sec. 2. The unexpended and unobligated portion of this appropriation  
lapses into the general fund June 30, 1980.

\* Sec. 3. This Act takes effect July 1, 1979.

Introduced: 1/29/79  
Referred: Resources

BY THE RULES COMMITTEE BY  
REQUEST OF THE LEGISLATIVE  
COUNCIL (for the Interim  
Committee on Bottomfish)

1 IN THE HOUSE

2 HOUSE CONCURRENT RESOLUTION NO. 1

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - FIRST SESSION

5 Directing the Legislative Council to  
6 conduct a study relating to the ex-  
7 tent of foreign investment in  
8 Alaska's fisheries.

9 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

10 WHEREAS the fishing industry is one of Alaska's principal businesses;

11 and

12 WHEREAS the extent of foreign control over Alaska's fisheries has not  
13 been accurately determined; and

14 WHEREAS extensive foreign investment in Alaska's fisheries could have a  
15 strong impact on issues which are important to the state, including local  
16 employment, tax revenue, bottomfish development and marketing, and others;

17 BE IT RESOLVED by the Alaska State Legislature that under provisions of  
18 AS 24.20.090 and Uniform Rule 48(c) the Legislative Council is directed to  
19 conduct a study for the purpose of determining:

20 (1) the percentage of total annual seafood harvests within the  
21 200-mile fishery conservation zone off the coast of Alaska harvested by  
22 fishermen wholly or partly financed by foreign investors;

23 (2) the percentage of total annual seafood production in the state  
24 produced by processors which are wholly or partly owned by foreign investors;

25 (3) the percentage of total ownership of seafood processors in the  
26 state owned by foreign investors.

27 For the purposes of the study, "foreign investors" includes any alien  
28 individual, corporation, partnership, association, joint stock company,  
29 trust, unincorporated organization, government subdivision or government that

Introduced: 1/29/79  
Referred: Resources

BY THE RULES COMMITTEE BY  
REQUEST OF THE LEGISLATIVE  
COUNCIL (for the Interim  
Committee on Bottomfish)

1 IN THE HOUSE

2 HOUSE CONCURRENT RESOLUTION NO. 1

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - FIRST SESSION

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24 produced by processors which are wholly or partly owned by foreign investors;

25 (3) the percentage of total ownership of seafood processors in the  
26 state owned by foreign investors.

27 For the purposes of the study, "foreign investors" includes any alien  
28 individual, corporation, partnership, association, joint stock company,  
29 trust, unincorporated organization, government subdivision or government that

1 directly, or indirectly through one or more intermediaries, invests in, lends  
2 money to, controls or is under common control with a seafood processor or  
3 fisherman doing business in the state.  
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Introduced: 2/21/79  
Referred: Resources

1 IN THE HOUSE

BY OSTERBACK

2 HOUSE CONCURRENT RESOLUTION NO. 9

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - FIRST SESSION

5 Requesting the Department of Commerce  
6 and Economic Development to enforce  
7 the law regarding corporate foreign  
8 affiliation.

9 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

10 WHEREAS AS 10.05.702 directs all corporations authorized to do business  
11 in the state to declare affiliations with foreign businesses in the annual  
12 report filed with the Department of Commerce and Economic Development, divi-  
13 sion of banking, securities, and corporations; and

14 WHEREAS in derogation of its responsibilities under the law the division  
15 does not uniformly enforce the reporting requirements and additionally has  
16 adopted a definition of "affiliate" which differs from the definition imposed  
17 by statute and which compromises the effect of the statutes; and

18 WHEREAS the definition of "affiliate" being used by the division of  
19 banking, securities, and corporations is "nonresident alien or a corporation  
20 whose place of incorporation is outside the United States" while AS 10.05.-  
21 825(18) defines "affiliate" as "a person that directly or indirectly through  
22 one or more intermediaries controls, or is controlled by, or is under common  
23 control with, a corporation subject to this chapter";

24 BE IT RESOLVED by the Alaska State Legislature that the Governor is  
25 respectfully requested to require the commissioner of the Department of  
26 Commerce and Economic Development to enforce the law.

27  
28  
29

FRANK ORTH & ASSOCIATES  
225-108th Ave. N.E., Suite 311  
Bellevue, WA 98004

FRED F. ZHAROFF   
BILL MILES   
DICK ELIASON

IMPLICATIONS OF FOREIGN INVESTMENT FOR  
ALASKA POLICY TOWARD BOTTOMFISH DEVELOPMENT

by:  
Franklin L. Orth  
Alaska Sea Grant Program/School of Management  
University of Alaska

for:  
Legislative Affairs Agency  
State of Alaska

October 14, 1977

## I. INTRODUCTION

The principles of international economic relationships, even in a pure world where there are no private-market imperfections or governmental interventions, are sufficiently complex to have challenged economic thinkers for three centuries. Added to these fundamental relationships are real-world market imperfections, governmental regulations, domestic and international politics, and complex legal questions relating to the ownership of and access to the world's common resource heritage. This is the world of fisheries management as it relates to the question of foreign investment.

In addition to inherent complexity policy questions relative to foreign investment in fisheries, and relatedly to foreign direct access to fish stocks, are difficult to reduce to straightforward policy guidelines, because they turn on multiple and contradictory positions of economic vested interests within, as well as between, nations. Indeed, such highly complex and controversial equity tradeoffs exist within nations that it is seldom, if ever, possible to reduce an international-economic question (one relating to trade or investment) to a "we versus they" basis. The internal conflict surrounding trade relations can result in decisions being made on the basis of which domestic interest group has the greatest access to political and bureaucratic processes. This method of resolving conflict is not often likely to be consistent with solutions that are based on the applications of accepted economic principles and that would be optimal from the point of view of the whole society.

This report shall include a discussion of several principles of International Economics which are judged by the author to be relevant to the implications of foreign investment for Alaska. Next, a discussion of the types of, and motivations for, foreign investment will be presented. Finally, the information in the preceding sections will be drawn upon to evaluate the implications of foreign investment in Alaska's fisheries.

## II. Applicable Economic Principles

The concept of comparative advantage states that each nation of the world and the world in total will be economically better off if each nation specializes in the production of those goods and services in which it has a comparative advantage. Comparative advantage exists because the unique combinations of human and nonhuman resources available to each nation provides a basis for increased production by specialization. For example, if Japan's resources make her the most efficient producer of steel and U.S. resources render the U.S. the most efficient producer of aluminum, then both Japan and the U. S. will benefit from specialization and trade; Japan trading steel for aluminum, and vice versa. Note that for the benefits of specialization to be realized foreign trade must take place - Japan trades the steel that is surplus to her own needs to the U.S. for the latter's surplus aluminum.

The terms of trade, the rate at which steel and aluminum are exchanged for each other, are determined within limits by the relative economic bargaining strength of the two nations. The limits within which the terms of trade are established for each nation are determined by what production of both steel and aluminum would exist in the absence of specialization and trade, that is, by the internal rates of exchange between steel and aluminum within each country. Clearly, the U.S. is not willing to trade its aluminum for Japanese steel if she can obtain steel in the U.S. with a lower sacrifice of aluminum. The limit to Japan's willingness to trade with the U.S. is similarly determined by the rate she can exchange steel for aluminum domestically.

The observed international trade of goods and services exists because the consumers within each of the trading partner's boundaries are better off economically with trade than without, because specialization has created a surplus of production that would not otherwise exist. The process of specialization, upon which the benefits from trade depends, requires that within each trading nation resources are transferred away from industries in which a comparative disadvantage exists into those industries where there is a comparative advantage. In the short-run, labor resources in the declining industry are worse off and those in the expanding industry are better off - this is the process by which the market encourages the shift of resources from one industry to another. Because

industries often have a geographic basis - based on access to natural resources, labor resources, or markets - and because nations have political subdivisions, there is a tendency for different areas of a country and different levels of government to view the resource transfers associated with the process of specialization differently - the gainers favoring and the losers opposing. In short, even though specialization and trade create net economic benefits to the world as a whole and, at the national level, to the partners that engage in trade, there are within trading countries losers as well as gainers, each associated with particular industries and geographic regions that are impacted favorably or unfavorably by the process of specialization. Thus it is that we observe national governments favoring trade to the degree possible within the constraints imposed by the operation of political forces for and against trade. Further, we observe that because consumers are not as well organized politically as producers and that gaining producers are generally not as politically effective as losing producers,<sup>1</sup> there is a political bias against free trade. Consequently the "average man on the street" can much more readily cite the reasons why trade should not take place than why it should. Trade is viewed more by individuals as a threat to employment security (and, therefore, the maintenance of the individual's standard of living)

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<sup>1</sup>There are numerous reasons for the differences in political effectiveness; they are, however, beyond the scope of this report.

than it is as a requisite to the national standard of living. The fact that the loss of employment is temporary - as the expansion of industries in which the U.S. specializes and the increased standard of living associated with trade generates new domestic employment opportunities - is not widely understood.

An example of the benefits from specialization and trade lies close at hand. The American Constitution denied state governments the power to erect trade barriers. Had each state been allowed to erect the barriers petitioned for by constituents, the American standard of living would be considerable less, as judged by the present dependence on interstate trade and regional economic specialization.

The principles which support an open trade policy are equally supportive of free international capital movements. In the absence of artificial barriers, capital will flow to the area of highest return consistent with the desired level of risk of their owner. Thus, economies with plentiful natural resources and insufficient capital to develop them will receive capital inflows to finance resource extraction, transportation and perhaps manufacturing. It is common for the country supplying the capital to also be a demander of the production thus created, for its own use or for export. The multinational corporation is usually responsible for organizing the injection of capital and, where applicable, the resulting international trade.

To summarize, the following are important principles of international trade:

1. Trade is economically beneficial and a preference for unhampered trade is rationale economic policy.

2. Trade requires economic specialization.

3. The process of specialization requires the transfer of resources within trading countries; these transfers are especially painful for human resources because of short-run dislocations in employment security.

4. Political influence with respect to trade issues is unequally distributed, with the losing regions and industries being more vocal and aggressive than consumers and the gaining industries and regions.

5. Individuals view trade with fear for their own employment security without being aware of their own dependence on trade for maintaining their standard of living.

6. The principles which support an open trade policy are equally supportive of free international capital movements, of which direct foreign investments is a part.

### III. WHAT IS FOREIGN INVESTMENT?

Foreign investment consists of either or both of the following investment activities:

1. The purchase (or construction) of plant and equipment abroad. In 1976, the U.S. direct investment abroad was \$4.6 billion and that made by foreign businesses in the U.S. was \$2.2

billion.<sup>2</sup> There are varied motivations for this type of investment and there are varied means by which it can be accomplished. First, a foreign firm could establish a U.S. subsidiary which purchases all or part of the assets of an established firm. Second, a foreign firm or its American affiliate could purchase the stock of an American firm, thus obtaining an ownership interest in the assets of the acquired firm.<sup>3</sup> Third, the foreign firm or its affiliate could acquire the bonds and notes of American firms, thus acquiring a claim against the assets of the domestic company. This type of investment actually belongs to the second category to be discussed below, but it is included here for ease of comparability with data which will be presented shortly.

The motivations for the acquisition of interest in domestic companies include:

- a) To enter American markets - a market-extension conglomeration by a multinational firm.
- b) To provide domestic plants with an input that is the output of its U.S. affiliate, e.g., raw material extraction and shipment; or to assure a source of supply for domestic final consumption and/or export, of the products produced by the U.S. affiliate.
- c) Although seldom a factor unto themselves, regulatory

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<sup>2</sup>Federal Reserve Bulletin August, 1977, P.A54.

<sup>3</sup>A purchase of 10 percent or more of the equity of a U.S. firm is counted as direct foreign investment as opposed to security investment.

conditions or world economic-financial considerations can induce direct investment. Japan's investments in U.S. fisheries in recent years, for example, has probably been stimulated by both dollar devaluation and the threat to traditional sources of supply posed by extended jurisdiction.

2. The second broad category of foreign investment consists of purchases of securities in U.S. companies. These are typically viewed as pure investment-account transaction and consist of three types.

a) The purchase of equity in American companies in amounts less than 10 percent of total equity. Amounts equal to or greater than 10 percent are treated as direct investment as discussed above.

b) The purchase of debt securities (bonds and notes) of American firms. This type of investment is usually considered to be purely financial investment, but there may be implicit or explicit conditions before such credit is extended, e.g., the first right of refusal on product offered for sale. The latter circumstance appears to typify foreign security investments in fisheries, making them more analogous to foreign direct investment. For this reason, they are included above as part of foreign direct investment.

c) The acquisition of short-term financial claims including bank deposits, commercial paper, banker's acceptances, and other private short-term notes. This form of foreign investment is a purely financial investment and will not be discussed

further in this report. The primary inducement to such investments are differences in short-term interest rates among nations.

A recent N.M.F.S. study based on data through 1974 indicated that foreign investment in U.S. fisheries was \$129 million in 1974, an increase of 30 percent over the preceding year.<sup>4</sup> Of this amount, \$44 million was in the form of equity items and \$8.5 million in debt. This debt constitutes claims on 66 percent of the assets of the issuing firms. This study showed that American affiliates of some foreign companies (particularly those of Canada, Iceland, Mexico, and Norway) were primarily used to obtain or enhance access to U.S. markets, as these companies were substantial net importers of fisheries products into the United States. Most fishery exports were made by Japan and British affiliates indicating that obtaining access to sources of supply was an important motivation to direct foreign investment for these companies. However, the affiliate companies of Britain were the only ones that as a group were net exporters.<sup>5</sup>

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<sup>4</sup>Siegel, Robert A. "Foreign Direct Investment in the U.S. Commercial Fisheries Industry. Marine Fisheries Review, December, 1976.

<sup>5</sup>Ibid.

#### IV. IMPLICATIONS OF DIRECT FOREIGN INVESTMENT FOR ALASKA'S FISHERIES

It is not the purpose of this report to conduct a primary survey of the amounts, types, motivations, or origins of foreign investments in Alaska fisheries. Actual amounts of Japanese investment are unknown due to incomplete reporting, poor enforcement of reporting requirements and methods of escaping reporting requirements.<sup>6</sup> Two studies of foreign investment in fisheries are underway. Per Heggelund, of the Marine Advisory Program, University of Alaska, is completing a masters thesis on the subject from the Department of Business, University of Washington. The Alaska Sea Grant Program is attempting to develop a foreign-investment profile of shellfish processing industries to relate to other market structure characteristics of shellfish markets and marketing.

Suffice to say that Japanese investment is substantial, with well-known cases of majority, and in several cases nearly universal, ownership. In addition, it is well known that numerous joint ventures are being proposed or negotiated for which management approval is being sought. The form of a joint venture will determine whether or not it constitutes foreign investment, as judged by the definition of foreign investment given in the preceding section. The buying joint

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<sup>6</sup>See memorandum from John Williams, Legislative Affairs Agency, to Representative Keith Specking (dated March 18, 1977).

venture does not constitute foreign investment but it does (may) represent an alternative means for a foreign company to access U.S. controlled resources.

Two management agencies, or more properly, levels of management, are called upon to respond to questions relating to foreign access. They are, of course, the N.P.F.M.C. and the State of Alaska. The decisions made by these agencies with respect to foreign access will to some extent be affected by the present degree of foreign investment, and the present forms of access; and these decisions will, in turn, affect the investment policies of foreign companies. An added complexity is that so little is known about the economics of, and marketing practices within, individual fish and shellfish markets (including market structure) that it is usually impossible to predict what the response of foreign or domestic firms to management decisions will be. Thus, decisions by management agencies in response to one form of foreign access may induce other forms.

As a result of the present absence of knowledge, it is proper that the State of Alaska adopt, within certain limits, a laissez-faire policy with respect to foreign investment and joint ventures. Such a position would allow market forces to operate and is tenable to the degree that the state can influence events independent of the N.P.F.M.C. and the extent that it can do so without major disruption to policies established by the Council; otherwise, its policies should

be consistent with those of the Council.

Foreign Investments in Alaska Fish-Processing Plants

What are the motivations and economic effects of foreign investment in Alaska shore-based and floating processing facilities? One must speculate on the motivations but they likely include one or more of the following:

1. To maintain access to supplies of fish and shellfish for domestic (Japanese) consumption markets, and for export markets, due to uncertainty about traditional methods of access. Both the placement (geographic and species) and timing of Japanese investment suggest that this has been a primary motivation.

2. To obtain greater control over both the buying and selling side of the markets in which a foreign company competes in order to, a) extract better terms from the fishermen from whom they buy raw fish and buyers to whom they sell processed fish; and b) to extract better terms from U.S. processors from whom they also buy, by obtaining information on the costs of processing and delivering, and by having an alternative source of supply which could be expanded if prices are not closely related to the costs of the U.S. affiliates of foreign firms.

3. To obtain or expand access to U.S. markets (and perhaps other export markets) and in particular to reach such markets from lower cost contiguous sources of supply. This is likely to be a long-run objective realized through

substantial capital improvements in acquired Alaska plants.

There are two ways that foreign investment in Alaska processing firms can produce economic benefits. First, such investment can broaden the markets to which the harvesters of Alaska fisheries have access. This has the effect of enhancing competition for Alaska caught fish and shellfish, a process which should both elevate and stabilize prices to fishermen (in comparison to prices without expanded markets). Investments pursued under the first motivation would have this effect as institutional changes (i.e., extended jurisdiction) cause foreigner's traditional sources of supply to be channeled through Alaska harvesters (Tanner crab is the outstanding example). The third motivation would tend to have similar price effects due to an improved ability of U.S. affiliates of foreign companies to compete for product.

The second economic benefit from foreign investment results from the influx of capital associated with the expansion of facilities that often accompanies a takeover. The increments in employment, income, and tax revenues are examples of the benefits that ensue. Both the price effects and the employment-income effects of foreign investment induce higher tax revenues to local and state governments.

Foreign investment can also have negative impacts contrary to those discussed above if it leads to the domination of markets and barriers to entry of new firms. It is frequently alleged, for example, that the Japanese have obtained market dominance in Tanner crab through their combined ownership and control of substantial portions of the processing and marketing capacity of both primary producers, U.S. and Japan. There is insufficient information, at present, about Japanese industrial relationships to properly evaluate the net impact of Japanese foreign investment on U.S. ex-vessel prices or final market prices. It is clear, however, that to the extent that concentration is already very high among domestic firms, a Japanese company's investments in two or more of those firms will have probable significant anticompetitive effects. It is this pyrimiding of ownership interties which, it is hoped, will be assessed by the survey results of the Alaska Sea Grant Program study and evaluated as to their significance and probable effects in light of the other structural characteristics of the industry.

It is important to recognize that questions of market dominance in Alaska by foreign or domestic companies or by both in concert, are as much questions of domestic antitrust policy as they are of policy toward foreign investment. To the extent that antitrust policy (Alaska or U.S.) can be applied to weed out existing dominant market positions based on ownership pyrimiding by foreign firms and those foreign investments which reflect the market-dominance objective,

as opposed to those which represent the market-extension and market-expansion objectives, foreign investments can be expected to result in healthy new competitive forces in domestic markets.

#### Joint Ventures for High-Seas Processing

Although they are not strictly defined as direct foreign investment, a related set of questions surround the proposed joint ventures between foreign firms with floating processing vessels and groups of Alaska fishermen. The benefits of such arrangements to Alaska fishermen are already widely appreciated and they have been subjected to some economic evaluation.<sup>7</sup> Basically these benefits are long-run commitments to provide Alaska fishermen with access to the markets for a new resource, long-run commitments on the minimum price to fishermen including a bonus for maintaining patronage for a minimum period (e.g., five years), higher incomes and income-tax revenues than would exist without the joint ventures, an opportunity to imitate fishing techniques of foreign rivals, and an opportunity to learn while having an assumed market.

The alleged disadvantages are more controversial. They are the lost income, employment and tax base from foregone shore-based facilities that would be built, it is contended,

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<sup>7</sup>See memorandum from Michael Scott, ISER, University of Alaska to Charles Metchum, Office of the Governor (dated July, 1977) and the paper by Sig Jeager, Manager, North Pacific Fishing Vessel Owners Association, to the North Pacific Fisheries Management Council. August, 1977.

were it not for the foreign competition. While there is some logic to these arguments, they have limited relevance if shore-based facilities have a comparative cost disadvantage with floating processing vessels. That there is such a disadvantage is suggested by Sig Jeager's comparative analysis of vessels delivering to shore-based and floating processors.

Jeager's analysis shows that the comparative advantage of floaters is not sufficient to overcome the present opportunity income in the crab fishery. This fact should present no serious long-run impediment to the entry of vessels from other fisheries. It is the opportunity to earn an income above opportunity costs that has attracted vessels into the crab fishery, a like opportunity in the bottom-fishery can be expected to induce the same type of response, but certainly at a slower rate than otherwise due to the high present return in the crab fishery. The feasibility of alternative modes of processing bottomfish becomes a function of which form can pay the higher opportunity income above the minimum required to attract entry into the harvesting sector.

To pursue a state policy which gives preferential treatment to shore-based processors, contains two real dangers. First, Alaska fishermen are denied income by foreclosing foreign buyers (under an absolute exclusion) either in the form of no market being developed by shore-based processors or in the form of a decreased net price by having to harvest and

transport the catch in a manner that is less efficient than alternative means. Second, to the extent that the shore-based alternative is seriously deficient, a preferential policy to encourage their development will likely make all parties worse-off in the long-run (i.e., the amount of time it will take for American firms to enter with competitive floating processors). If shore-based facilities are neither encouraged or discouraged in state policy they may or may not become successfully established depending upon the relative efficiency of alternative techniques. But even if they are artificially encouraged in the short-run by barriers that cannot be maintained (because the prohibition on floaters would only apply to foreign firms<sup>8</sup>) they will not survive in the long-run, if the shore-based method is fundamentally less efficient. In the meantime, by unknowingly having encouraged the "wrong" form of investment we have, by absorbing scarce capital, also discouraged the "right" form of investment.

These considerations - the absence of knowledge about markets, methods of production, and ownership distribution among shore-based firms (from which to determine who benefits in the short-run from a preference policy)- all suggest that a policy of neutrality would be at least as likely to maximize benefits as one of preference. To establish a policy of preference for shore-based processors (or any other form)

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<sup>8</sup>A potentially interesting question of discrimination may exist if foreign-owned, shore-based "American" firms desire to enter the bottomfish market with floating processing vessels while "foreign" firms with such vessels are excluded. This is another factor which would seem to warrant a neutral management policy with respect to foreign investment.

is to trade off fishermen welfare for processor welfare in the short-run (expressed quantitatively as the difference in price or net price received by fishermen), without being able to identify long-run benefits that have a high probability of being realized. In short, if shore-based processors are economically preferable they will be selected by market forces without state policy preferences, and if they are economically inferior, they will be eliminated by market forces irrespective of state preferences. It would seem to follow that a policy of leaving investment decisions and private contractual arrangements over terms of sale to work themselves out through market forces would maximize the potential for benefits to Alaskans of bottomfish development.

Bottom Fish Task Force

October 1, 1979

Jim Edenso  
Bottom Fish Coordinator

Foreign Investment in  
Fisheries in Alaska

I met with Mr. Richard Meier, Deputy Director, Office of Foreign Investment in the United States, U.S. Department of Commerce on September 27, 1979, to discuss an ongoing study which the office of Foreign Investment is undertaking concerning the foreign ownership of the fishing industry in Alaska. The study is just initiated and Mr. Meier was making a trip through Alaska on a fact-finding mission only. He has assured me that as the study progresses he will work closely with myself and the members of the Bottom Fish Task Force. As his schedule is made known to me, I will forward it to those of you who are interested in following the study effort.

JE:bap

**§ 32.22 Special regulations; upland game; for individual wildlife refuge area.**

**Oklahoma**

Sequoyah National Wildlife Refuge, P.O. Box 695, Vian, Oklahoma 74962, telephone 918-773-5251. Upland Game.

Special conditions: Hunting seasons are as follows: squirrel, September 1, 1979 through January 1, 1980; quail, November 20, 1979 through the last day of the regular 1979-80 waterfowl season; rabbits, October 1, 1979 through the last day of the regular 1979-80 waterfowl season. Hunting shall be in accordance with all applicable State regulations covering the hunting of quail, squirrel, and rabbits, subject to the following special conditions:

1. Only shotguns without slug ammunition or longbow and arrow are permitted.

2. Firearms and/or archery equipment are prohibited in areas not posted as open to public hunting, except the Kerr-McClellan Navigation Channel where they must be cased or broken down.

3. Dogs may be used for hunting quail or rabbit, but must be under immediate control or supervision and restrained from pursuit of protected species.

4. Camping or possession of firearms on the refuge from sunset to sunrise is prohibited.

5. All vehicles must be parked in designated parking areas as shown on maps available at refuge headquarters and at leaflet boxes throughout the public hunting area.

Tishomingo National Wildlife Refuge, P.O. Box 248, Tishomingo, Oklahoma 3460, telephone number 405-371-2402. Upland Game.

Special conditions: (1) Bobwhite quail, cottontail, and swamp rabbit hunting shall be in accordance with all applicable State regulations covering the hunting of these species. (2) Open season for hunting bobwhite or the refuge (Wildlife Management Unit) will vary according to the Zones within the Management Unit in order to limit conflicts with waterfowl hunting in the area, and are as follows: **Zones 1 & 2.** Bobwhite hunting is permitted from official sunrise to 11:45 a.m. on Tuesday, Thursdays, Saturdays, Sundays, and all national holidays except Christmas, beginning on the first day of the second half of duck season and ending at 12:00 o'clock noon on the last day of the duck season. Beginning at 12:00 o'clock noon on the last day of duck season and continuing through February 1, 1980, bobwhite hunting will be permitted every day from official sunrise to official sunset. **Zone 3.** No bobwhite hunting will be permitted until after the close of 1979-80 goose season on the

Management Unit. Starting at 12:00 o'clock noon on the last day of goose season on the Management Unit and continuing through February 1, 1980, bobwhite hunting will be permitted every day from official sunrise to official sunset. (3) Open season for hunting cottontails and swamp rabbits on the refuge (Wildlife Management Unit) will be the same as the regulations for bobwhite hunting except that cottontail and swamp rabbit hunting will continue through February 15, 1980. (4) Vehicular access for hunting upland game in Zone 1 & 2 during the period of half day quail and rabbit hunting is restricted to existing roads and trails. No vehicular access will be allowed after the close of waterfowl season in any of the three zones (Zones 1, 2, or 3); access will be by walk-in only. (5) Up to two (2) dogs per hunter may be used for the purpose of hunting and retrieving game. (6) Hunters, upon entering and leaving the hunting area, shall report at designated checking stations as may be established for the regulation of the hunt and shall furnish upon request information pertaining to their hunting activities.

**Texas**

Aransas National Wildlife Refuge (Matagorda Unit), P.O. Box 100, Austwell, Texas 77950, telephone number 512-286-3559. Upland Game.

Special Conditions: (1) Unless otherwise specified, all laws and regulations published by the Texas Parks and Wildlife Department concerning bobwhite quail hunting will be applicable. (2) Shot guns only will be allowed for quail hunting. (3) Hunting hours will be from 8:00 a.m. until 4:00 p.m. throughout the designated season. (4) All hunters must report to the island docks for briefing on endangered species and hunter conduct. Once hunters have arrived on the island they will be transported to or from the hunting area at 8:00 a.m., 12:00 p.m. and 4:00 p.m. only. (5) In the event whooping cranes begin using habitat within the hunt area, all or portions of that area will be closed to hunting.

The provisions of this special regulation supplement the regulations which govern public hunting on wildlife refuge areas generally which are set forth in Title 50, Code of Federal Regulations, Part 32. The public is invited to offer suggestions and comments at any time.

Note.—The U.S. Fish and Wildlife Service has determined that this document does not contain a major proposal requiring preparation of an Economic Impact

Statement under Executive Order 11949 and OMB Circular A-107.

Joseph R. Higham,  
Area Manager, Austin, Tex 38.  
(FR Doc. 79-30158 Filed 9-25-79; 9:45 am)  
BILLING CODE 4310-05-M

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 611**

**Groundfish of the Gulf of Alaska Fishery Management Plan Amendment #6; Final Implementing Regulations**

**AGENCY:** National Oceanic and Atmospheric Administration (NOAA/Commerce).

**ACTION:** Final Regulations.

**SUMMARY:** Final regulations are promulgated to implement amendment number 6 to the Groundfish of the Gulf of Alaska Fishery Management Plan. These regulations lower the estimates of domestic annual harvest (DAH) and commensurately increase the total allowable level of foreign fishing (TALFF).

**EFFECTIVE DATE:** September 24, 1979.

**FOR FURTHER INFORMATION CONTACT:** Harry L. Rietze, Director, Alaska Region, National Marine Fisheries Service, P.O. Box 1668, Juneau, Alaska 99802, Telephone (907) 586-7221.

**SUPPLEMENTARY INFORMATION:** At its June 28-29 meeting, the North Pacific Fishery Management Council (Council) submitted amendment 6 to the FMP for the Gulf of Alaska Groundfish fishery. The amendment lowers the estimates of DAH and commensurately increases the TALFF by 27,700 m.t. for all species of groundfish combined. (For specifications by species, see revised Table 61 which may be found in sec. 5.2.2.2 of the FMP.) The Assistant Administrator for Fisheries approved the amendment on July 26, 1979. Proposed regulations were published August 2, 1979 (44 FR 46904).

The lowering of DAH, by species and individual regulatory areas in the Gulf of Alaska, is based upon data gathered by the National Marine Fisheries Service and reviewed by the Council on (1) total domestic harvest through April 1979, and (2) processors' intentions to process during the remainder of the fishing year. The purpose of the amendment is to make available for foreign fishing, fish which will not be harvested by domestic vessels. No comments were received on the proposed regulation. A final reserve release was effective on August 31, 1979 (44 FR 52214). The amounts of fish made

available to TALFF as a result of this release are incorporated in the final regulations implementing this amendment.

The Assistant Administrator for Fisheries, under a delegation of authority from the Secretary, has determined that this amendment to the FMP (1) is necessary and appropriate to the conservation and management of Gulf of Alaska Groundfish resources; (2) is consistent with the National Standards and other provisions of the Fishery Conservation and Management Act of 1976; (3) does not constitute a major Federal action requiring the preparation of an environmental impact statement; and (4) does not constitute a significant action requiring the preparation of a regulatory analysis under Executive Order 12044.

The Assistant Administrator also finds that the 30-day cooling-off period required under the Administrative Procedure Act is unnecessary, impractical, and contrary to the public interest because it is desirable that foreign fishermen have the best opportunity possible to harvest their respective allocations.

Signed in Washington, D.C., this the 24th day of September 1979.

Winfred H. Meibohm,  
Executive Director, National Marine Fisheries Service.  
(16 U.S.C. 1801 et seq.)

**PART 611—FOREIGN FISHING**

50 CFR Part 611 is amended as follows:

1. Section 611.20(c) Table 1, change the TALFF for species in the Gulf of Alaska fishery to the following:

**§ 611.20 Total allowable level of foreign fishing.**

(c) \* \* \*

| Fishery                   | Species                             | Species Code | TALFF (Metric Tons) |
|---------------------------|-------------------------------------|--------------|---------------------|
| Gulf of Alaska Groundfish | Cod, Pacific                        | 702          | **29,300            |
| Do                        | Flounders, including yellowfin sole | 129          | **32,025            |
| Do                        | Mackerel, Atka                      | 207          | **26,775            |
| Do                        | Perch, Pacific Ocean (POP)          | 780          | **22,750            |
| Do                        | Pollock                             | 701          | **157,200           |
| Do                        | Rockfishes, other than POP          | 849          | **6,675             |
| Do                        | Rattails                            | 315          | **11,868            |
| Do                        | Sablefish                           | 703          | **8,805             |
| Do                        | Squid                               | 509          | **4,975             |
| Do                        | Other species                       | 499          | **15,570            |

2. Section 611.92(b)(1), remove Table I and replace it with the following Table I.

**§ 611.92 Gulf of Alaska trawl fishery.**

(b) \* \* \*  
(1) \* \* \*

Table I—Gulf of Alaska Groundfish Fishery: Tally and Reserve by Species and Regulatory Area for 1978/1979

| Species                           | [Metric Tons] |         |         | Total   |
|-----------------------------------|---------------|---------|---------|---------|
|                                   | Western       | Central | Eastern |         |
| <b>Pollock:</b>                   |               |         |         |         |
| TALFF                             | 56,925        | 84,420  | 15,855  | 157,200 |
| Reserve                           | 50            | 5,400   | 50      | 5,500   |
| <b>Pacific Cod:</b>               |               |         |         |         |
| TALFF                             | 8,860         | 15,070  | 5,370   | 29,300  |
| Reserve                           | 500           | 850     | 150     | 1,500   |
| <b>Flounders:</b>                 |               |         |         |         |
| TALFF                             | 10,250        | 14,300  | 7,475   | 32,025  |
| Reserve                           | 50            | 100     | 25      | 175     |
| <b>Pacific Ocean Perch (POP):</b> |               |         |         |         |
| TALFF                             | 2,475         | 4,355   | 13,920  | 22,750  |
| Reserve                           | 200           | 1,250   | 400     | 1,850   |
| <b>Other Rockfishes:</b>          |               |         |         |         |
| TALFF                             | 230           | 500     | 8,945   | 6,675   |
| Reserve                           | 25            | 100     | 100     | 225     |
| <b>Sablefish:</b>                 |               |         |         |         |
| TALFF                             | 1,965         | 3,570   | 3,270   | 8,805   |
| Reserve                           | 35            | 130     | 30      | 195     |
| <b>Atka Mackerel:</b>             |               |         |         |         |
| TALFF                             | 4,395         | 19,390  | 2,990   | 26,775  |
| Reserve                           | 5             | 10      | 10      | 25      |
| <b>Squid:</b>                     |               |         |         |         |
| TALFF                             | 975           | 1,990   | 1,990   | 4,975   |
| Reserve                           | 5             | 10      | 10      | 25      |
| <b>Rattails:</b>                  |               |         |         |         |
| TALFF                             | 3,267         | 7,067   | 1,534   | 11,868  |
| Reserve                           | 0             | 0       | 0       | 0       |
| <b>Other Species:</b>             |               |         |         |         |
| TALFF                             | 4,280         | 8,380   | 3,090   | 15,750  |
| Reserve                           | 20            | 120     | 10      | 150     |

\* See figure 1 of this Section 611.92(b) for description of regulatory areas.

\* The category "Pacific ocean perch" includes *Sebastes* species *S. alutus* (Pacific ocean perch), *S. polycarpus* (northern rockfish), *S. aleuticus* (rougeye rockfish), *S. borealis* (shorttraker rockfish), and *S. zacentrus* (sharpchin rockfish).

\* The category "other rockfish" includes all fish of the genus *Sebastes* except the category "Pacific ocean perch" as defined above.

\* The category "other species" includes all species of fish except (A) the other fish listed in the table, and (B) shrimp, scallops, steelhead trout, Pacific halibut, herring, and (FR Doc. 79-30066 Filed 9-26-79; 8:45 am)

BILLING CODE 3510-22-M

**50 CFR Part 652**

**Atlantic Surf Clam and Ocean Quahog Fisheries Amendments to Final Regulations**

**AGENCY:** National Oceanic and Atmospheric Administration (NOAA)/Commerce.

**ACTION:** Amendments to final regulations.

**SUMMARY:** These amendments to the final regulations for the Atlantic surf clam and ocean quahog fisheries implement the amendment to the Fishery Management Plan for the Atlantic Surf Clam and Ocean Quahog Fisheries (FMP), approved by the Assistant Administrator for Fisheries, to regulate fishing during the period beginning October 1, 1979, and ending on December 31, 1979. These regulations basically extend regulations already in

effect. They modify the record-keeping and data reporting requirements for surf clam and ocean quahog processors. They also modify the procedure for setting allowable times for fishing for surf clams.

**EFFECTIVE DATE:** October 1, 1979.

**FOR FURTHER INFORMATION CONTACT:** Allen E. Peterson, Jr., Regional Director, National Marine Fisheries Service, 14 Elm Street, Gloucester, Massachusetts 01930. Telephone (617) 281-3800.

**SUPPLEMENTARY INFORMATION:** The FMP was amended by the Mid-Atlantic Fishery Management Council (the Council) to extend the management program established in the FMP for three months until December 31, 1979. This was accomplished by establishing optimum yields and quotas for both surf clams and ocean quahogs identical to those established for the corresponding three-month period in 1978, and extending the moratorium on the entry of new vessels into the surf clam fishery. The amendment also requires additional record-keeping and data reporting by surf clam and ocean quahog processors to provide information necessary for the determination of U.S. capacity to process these species, and contains language bringing the FMP into conformity with the Fishery Conservation and Management Act of 1976, as amended (16 U.S.C. 1801 et seq. the Act). Finally, the amendment establishes a new procedure for determination and adjustment of allowable times for fishing for surf clams. The amendment to the FMP and these amendments to the regulations are intended to provide for interim preparing a more comprehensive amendment to the FMP.

**Public Comments**

These regulations were proposed on August 1, 1979 (44 FR 45227) and public comment was invited until September 16, 1979. No comments have been received from the general public concerning the proposed regulations. The only significant public comment received during the course of this amendment process concerned the additional reporting requirements which are to be imposed on processors of the regulated species. Additional information about the capacity, payroll and employment of those operations will facilitate analysis of U.S. capacity to harvest and process regulated species, which is necessary under P.L. 95-354, an amendment to the Act. Information will also greatly enhance the understanding of the fishery and facilitate the analysis of future

7. INVEST  
April 9

MEMO

To: Rep. Fred Zharoff

From: W. P. Dougherty

Subject: The foreign investment study

As we discussed Saturday, a study of this nature is long overdue. Japan's influence over the fisheries of Alaska is well known but almost totally unexamined. In the instance of the Alaska fishing industry, the state has a critical need to understand the role of the Japanese in the processing industry before embarking upon a grand program to foster an American bottomfishery. In addition, recent revelations concerning the use and non-use of the state's progressive corporate disclosure laws underscore the helplessness of the state in trying to determine trends in its own economy when such business data are either not available, or not available in a usable form.

In accordance with the guidance you gave me, I will outline here my suggestion for a three-part study costing between \$45,000 and \$50,000.

PART I Who owns what?

As a starting place, I suggest that we locate and identify all those processing and fishery-related companies that are owned or controlled, directly or indirectly, by the Japanese. This would involve a search of Alaska corporate records, SEC filings and other documents, as well as interviewing processors and

other contacts. I would need to travel to Seattle-Olympia for review of Washington state records and interviews since so much of the Alaska processing industry ultimately resides in Washington. This investigation would provide the state with the only current, specific picture of the way the industry is structured, including the relationships between companies. The cost for Part I would be about \$10,000. I would do almost all of the work, with assistance and review by Dr. Frank Orth of Seattle.

PART II. Alaska's corporate disclosure law. How are data compiled, and how are they used?

This is the heart of the study. It is the foundation for the future understanding of industry in the state of Alaska. If the state is ever to put itself on a solid footing from which it can scrutinize and guide development in Alaska, an accurate, timely compilation of relevant corporate data is absolutely essential. As you know, at present, the state's disclosure statutes are enforced laxly, if at all. Data are compiled in unusable forms, and often so tardily that they are virtually worthless. This portion of the study would examine what is being done now, what could be done and at what cost, and what would be optimally desirable from the state's point of view. We would want to study the degree to which information is related and yet held separately by, for example, the Department of Fish & Game, the Department of Revenue, the Department of Commerce and the Department of Labor. The aim would be to reduce the number of instances in which the left hand doesn't know what the right is doing. We would subcontract for a legal analysis of the disclosure statutes and privacy restrictions to determine the degree to which the state handicaps itself in trying to understand current trends in an industry such as fishing. The cost for this portion of the study would be roughly \$25,000,

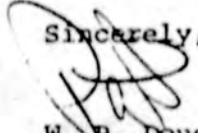
with the work to be performed cooperatively by Frank Orth and myself.

PART III. Analysis of the role of foreign investment on bottomfish investment decisions of domestic processors.

This long-overdue study would attempt to determine whether the investment decisions of Japanese-invested processors are calculated to retard or in any way hamper development of a domestic bottomfish industry. It is clear that the Japanese have a vested interest in protecting their industry by opposing, or at the least not helping, an American bottomfishery. So far no one has looked at their use of capital to determine if they are actually engaged in some form of economic subterfuge. Arthur D. Little Co., for example, completely ignored this question in its recent study for the administration. Obviously, since the companies are unwilling to discuss this matter forthrightly with the state or its representatives, it will be necessary to review their recent economic decisions in an effort to note a pattern of investment contrary to the goal of a growing bottomfish industry. Frank Orth would design a research methodology and use it to complete this analysis. The cost would be about \$10,000. I would lend my assistance where needed, as well as reviewing this part of the study.

I hope this overview is helpful to you in envisioning the scope and value of such a study. If additional details would be helpful, please don't hesitate to contact me.

Sincerely,

  
W. P. Dougherty

SCOMM

# 29:3

JAY S. HAMMOND  
GOVERNOR



STATE OF ALASKA  
OFFICE OF THE GOVERNOR  
JUNEAU

September 25, 1979

The Honorable Fred Zharoff  
Representative  
Box 405  
Kodiak, Alaska 99615

Dear Representative Zharoff:

I am pleased to inform you of your appointment to the Bottom Fish Task Force. I appreciate your willingness to serve your state.

You are now accepting important responsibilities on behalf of Alaska. Alaska will be a better place in which to live because of the willingness of citizens such as yourself to devote time and talent in serve to our state.

Finally, it is my strong belief that serving on the Bottom Fish Task Force is both a privilege and a responsibility. Therefore, I expect each appointee to attend at least 75 percent of the meetings. Should circumstances arise preventing that, I ask you to request replacement so the Task Force will be able to continue to function efficiently.

Again, I am pleased to be able to appoint you and thank you for your willingness to serve your state.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read "Jay S. Hammond".

Jay S. Hammond  
Governor

cc: The Honorable Terry Gardiner

Suggested substitute

WHEREAS the extent of nonresident alien investment in the Alaska seafood industry should be available to the citizens of Alaska; and

WHEREAS some corporations involved in Alaska's seafood industry have not disclosed their nonresident alien affiliates as required by AS 10.05; and

WHEREAS AS 43.75.015 provides that a person engaging or attempting to engage in a fisheries business shall first apply for and obtain a license from the Department of Revenue;

THEREFOR BE IT RESOLVED that the Alaska State Legislature respectfully requests that the Governor direct the Department of Revenue to decline to issue a license under AS 43.75.015 to any corporation unless that corporation has met the requirements of AS 10.05 and is a corporation in good standing as determined by the Department of Commerce and Economic Development.

Note

AS 43.75.020(b) provides that:

(b) Upon receipt of the application in proper form and accompanied by the initial fee, the department shall issue the license as of the date the application is filed or mailed, and the applicant may carry on the business from the date the application was actually made.

The effectiveness of the suggested resolution would hinge on whether an application could be considered as not in "proper form" if the applicant had not disclosed alien affiliation as required under AS 10.05. If this is

perceived as a problem, AS 43.75.020(b) could be amended to read:

(b) Upon receipt of the application in proper form and accompanied by the initial fee, and upon certification by the Commissioner of the Department of Commerce and Economic Development that the applicant has fulfilled the requirements of AS 10.05, the department shall issue the license as of the date the application is filed or mailed, and the applicant may carry on the business from the date the application was actually made.

HOUSE RESEARCH AGENCY  
Pouch Y - State Capitol  
Juneau, Alaska 99811  
465-3991

MEMORANDUM

March 20, 1980

TO: Representative Fred Zharoff

FROM: Peter B. Froehlich *PBF*

RE: Comparison of HB 767 (Alien Affiliates in Alaska Business)  
and SB 112 (Corporate Dissolution Reinvestment and Fees)  
Research Request No. 96

You requested a comparison of HB 767 and SB 112 in addition to the sectional analysis of HB 767 which was provided to you on March 12, 1980. This memorandum briefly compares the two bills as requested, and summarizes my conversation with you and your aide on March 12.

As discussed in my earlier memorandum, HB 767 would make various amendments to the Alaska Business Corporation Act (AS 10.05). It includes 7 sections related to alien affiliates in Alaska business and 9 sections related to all corporations in Alaska business, regardless of any alien affiliation. For that reason, the scope of the title of HB 767 could be broadened to more clearly comply with the constitutional requirement that 9 bills be confined to one subject described in its title (Article III, Section 13 of the Alaska Constitution).

SB 112 would make various amendments not only to the Alaska Business Corporation Act (AS 10.05), but also to the Alaska Cooperative Association Act (AS 10.15), the Non-Profit Corporations chapter (AS 10.20), the Electric and Telephone Cooperative Act (AS 10.25), the Businesses chapter (AS 10.35), and the Religious Corporations chapter (AS 10.40). The bill includes 13 sections amending AS 10.05, 5 sections amending AS 10.15, 4 sections amending AS 10.20, 1 section amending AS 10.25, 2 sections amending AS 10.35, and one section amending AS 10.40.

Of the 26 substantive sections of SB 112, 24 involve changing the fees charged to corporations and businesses by the Department of Commerce and Economic Development under the various chapters of Title 10, Corporations and Associations. Most of these 24 fee provisions would change current

Representative Fred Zharoff  
March 20, 1980  
Page 2

statutorily specified fees to fees established by regulation. Only 2 sections of SB 112 involve corporate dissolution (Section 4 amending AS 10.05.594 and Section 19 amending AS 10.20.450). These sections would add provisions that both profit and non-profit corporations would survive for 5 years after dissolution for the purpose of conveying and otherwise dealing with property and for the purpose of service of process.

It appears that at least the 13 sections of SB 112 which would amend AS 10.05 could be incorporated into HB 767, all the sections of which would amend the same chapter. Of course, as mentioned above, a combined bill would need a sufficiently broad title describing a single subject. It may also be feasible to combine the sections of SB 112 amending other chapters of Title 9 if an even broader descriptive title were used. The Legal Affairs division of Legislative Affairs could assist with a new descriptive title in compliance with both the descriptive title and the single subject requirements of Article II, Section 13 of the Alaska Constitution.

Please contact this agency if we can provide any further information on this matter.

PBF/dp

# STATE OF ALASKA

## DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

DIVISION OF BANKING, SECURITIES, SMALL LOANS & CORPORATIONS

JAY S. HARRISON, GOVERNOR

POUCH D  
JUNEAU, ALASKA 99811

February 27, 1980

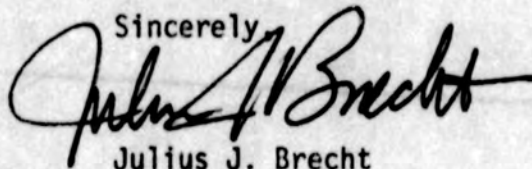
Honorable Fred F. Zharoff  
Chairman, Foreign Investment Committee  
House of Representatives  
Mail Stop: 3100  
Juneau, Alaska 99811

Dear Mr. Zharoff:

Please find attached a signed copy of my memorandum giving a section-by-section analysis along with the fiscal note on HB 767.

As you know, we discussed the bill this past week in your office. I would be happy to discuss HB 767 and the amendments to SB 112 with you at your convenience.

Sincerely,



Julius J. Brecht  
Director

JJB:aw  
Enclosure

MEMORANDUM

TO: Members of the Committee

DATE: February 22, 1980

FILE NO:

TELEPHONE NO:

FROM: Julius J. Brecht, Director  
Division of Banking & Securities  
Department of Commerce & Economic  
Development

SUBJECT: Section-by-Section  
Analysis of HB 767

This bill, at least in part, evolved out of discussions between Pat Dougherty (on contract for the Resources Committee to conduct a study of foreign investment in the Alaska seafood industry), the division staff, and myself. However, I have not had the opportunity to review and comment on the bill until now.

Much of the discussion of the intent of the bill centers on what constitutes "control" of a corporation sufficient to require reporting by an alien affiliate. Furthermore, there are jurisdictional questions as to whether the department can, as a practical matter, get corporation A doing business in Alaska to report on its affiliation with corporation B, located in some other state which is, in turn, affiliated with corporation C located in some other country. I have requested two opinions from the Department of Law in this regard, but have not as yet received them. Much of the analysis of whether or not the department can accomplish what the committee wants, i.e., disclosure of corporations C's involvement in A, using the example above, depends on those opinions. The opinions should be out within the next week or so.

Nevertheless, I do have the following specific comments regarding the provisions of the bill with the qualifications just discussed. The "Sec." number refers to the sections of the bill:

Sec. 1 (AS 10.05.250). This section makes a number of drafting style changes regarding the reorganization of a corporation, and, in addition, it requires a specific description of the nature of the affiliation between a surviving or controlling corporation and its alien affiliate. A similar requirement is imposed on domestic corporations at the time of incorporation (See, Sec. 3), foreign corporations in applying for a certificate of authority under AS 10.05 (See, Sec. 7), and on both domestic and foreign corporations at the time of submission of their corporate annual reports (See, Sec. 9). Presumably, one is to read the nature of the affiliation in the context of the definition of "affiliate" found at Sec. 14, however, there may be some difficulty in interpretation of this requirement on the part of the filer. See, Sec. 14 for further discussion.

Sec. 2 (AS 10.05.255(a)(3)). This provision requires that the articles of incorporation of a domestic corporation incorporating after the effective date of the bill must include reference to a code number identifying the nature of its business activity. A similar requirement is imposed by the bill on domestic and foreign corporations filing their annual corporate reports with the department (See, Sec. 8) and for applications for certificate of authority for foreign corporations wishing to do business in the State (See, Sec. 6). The proposed amendments submitted by the division to SB 112, include requiring that corporations furnish information on the "primary business activities" of the corporation in their biennial corporate reports. The division would very likely use the SIC code presently used by the Department of Revenue in issuing business licenses. However, I suggest that the provision on business activity not be specifically tied to a "code," i.e., I recommend that the approach taken in the amendments to SB 112 be used.

Sec. 3 (AS 10.05.255(a)(13)). This section requires that the articles of incorporation of a domestic corporation include a specific description of the nature of the affiliation between the corporation and its alien affiliates. See, Sec. 1.

Sec. 4 (AS 10.05.519(a)(1)). This section reduces the delinquency period from six to three months for purposes of the department to involuntarily dissolve a corporation. The amendments to SB 112 provide for a two-month period. That amendment is preferred.

Sec. 5 (AS 10.05.519(a)(6)). This section adds a new ground for the department to involuntarily dissolve a corporation and that being a misrepresentation of a material matter in an application, report, affidavit, or other document submitted under the chapter. It should be noted that similar language already applies to foreign corporations under AS 10.05.675(5). The provision of Sec. 519(a)(6) ties into AS 10.05.777 providing for interrogatories by the commissioner, and also will complement AS 10.05.783, providing that it is a misdemeanor to fail to answer truthfully such interrogatories. It should be noted that the amendments to SB 112 provide, in addition, that a domestic corporation may be involuntarily dissolved, if it is 30 days delinquent in filing a notice of change of an office, director, alien affiliate, or five percent shareholder.

Sec. 6 (AS 10.05.615(5)). This section requires that a foreign corporation, in applying for a certificate of authority to do business in Alaska, must give a code indicating the primary business activity of the corporation. See, Sec. 2 discussion. It should be noted that more than one code might apply to the operations of a corporation.

Sec. 7 (AS 10.05.615(12)). See, Sec. 1 and 6 for discussion.

Sec. 8 (AS 10.05.702(3)). See, Sec. 2 for discussion.

Sec. 9 (AS 10.05.702(8)). See, Sec. 1.

Sec. 10 (AS 10.05.700 & 703). Section 700 requires a corporation which publishes a report to its stockholder to submit a copy of the most recent issue with its annual report. This provision is unnecessary in that the information is readily available through the SEC for corporations with more than 500 shareholders and \$1 million in assets. Furthermore, such a requirement would greatly increase the volume of paper which the division must maintain. Sec. 703 requires that the department and the Department of Revenue establish, adopt and publish a numerically-coded list of business activities and make the list available to the public. I do not believe the section is necessary in that it is the department's intention to use the SIC code, presently used by the Department of Revenue in gathering information on the business activities of corporations on file under AS 10.05. See, Amendment 10 to SB 112, as submitted to the Senate Finance Committee several weeks ago. Furthermore, I do not believe that the department should be required to "publish" such a list. It is sufficient that the list be made available to the public.

Sec. 11 (AS 10.05.771). This section provides for a penalty for failure to file an annual report of 10% of the corporation tax for each month that the corporation is delinquent in that filing. While this penalty is a substantial increase over the present provision of a flat 10% penalty, it is open-ended and may actually defeat the purpose for its being. That is, it may be cheaper for a corporation to allow itself to be involuntarily dissolved and then reincorporate rather than pay the penalty. I believe the Department of Revenue has a similar penalty for income tax filings, however, there is a statutory maximum of six months penalty, i.e., 60%.

Sec. 12 (AS 10.05.783). See, Sec. 5 discussion. In addition, the class of misdemeanor is not specified. I believe, under these conditions, it may be classified as the next lower offense, i.e., a "violation."

Sec. 13 (AS 10.05.786). See, Sec. 12.

Sec. 14 (AS 10.05.825(18)). This section redefines "affiliate." The definition is very broad and may prove difficult to enforce. For example, in Sec. 825 (18)(C), the term "control" is used, but what constitutes control of a corporation? I have asked the Department of Law to provide clarification on this point. It may be advisable to have a representative of that department available to answer questions at the hearing on this bill.

Sec. 15 (AS 10.05.825(20)). The definition of "person" is expanded to include joint ventures, companies (i.e., unincorporated businesses), firms, societies, and estates. There may be some difficulty in applying this definition on a case-by-case basis. See, Sec. 14 for further discussion.

Sec. 16 (AS 10.05.825(22)). A new definition is provided for "alien" in an attempt to clean up the language of AS 10.05.702(8) and 825 (18). In addition, a definition of "state" is provided although I am not sure that it is needed.

Sec. 17. This section establishes the effective date of the bill as January 1, 1981. However, if the division is to be ready to process the additional corporate report data coming in at that time, additional personnel should be in place and familiar with the operation. I recommend that the effective date of the bill should be July 1, 1981.

In addition to the above comments, I would recommend that the definition of the "commissioner" be amended to mean "the commissioner of commerce and economic development or his designee." In this way the investigative responsibilities required by the bill can be handled directly by the division similar to the investigations conducted by the division in administering the Alaska Securities Act and the Alaska Uniform Lands Sales Practices Act.

Furthermore, at present, AS 10.05 does not prohibit an entity from holding itself out as a corporation when, in fact, it is not a domestic corporation or registered as a foreign corporation doing business in the state. The division has been made aware of at least one example where the term "Inc." is used by a business in Anchorage when, in fact, it is not registered under AS 10.05. This misrepresentation is not in the best interest of the Alaskan public. I recommend that appropriate language be added to make it unlawful for one to hold themselves out as incorporated when, in fact, they are not.

My comments on this bill have been necessarily brief. Several similar provisions are also found in the amendments to SB 112. It is my hope that the provisions of the two bills can be made compatible. I stand ready to discuss the bill at the convenience of the committee.

JJB/sa5/2

**FISCAL NOTE**

**I. REQUEST**

Bill/Resolution No. HB 767  
 Title Act Relating to Disclosing Alien Affiliates  
 Requested by Resources Committee Date \_\_\_\_\_

**II. FISCAL DETAIL**

Agency Affected Commerce & Economic Development  
 Program Category Affected Consumer Protection  
 BRU, Program, or Subprogram(s) Affected Banking, Securities, Corporations

(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

**EXPENDITURES** (Thousands of Dollars)

|                          | FY 80 | FY 81 *     | FY 82       | FY 83       | FY 84       | FY 85       |
|--------------------------|-------|-------------|-------------|-------------|-------------|-------------|
| 100 PERSONAL SERVICES    |       | 37.0        | 74.0        | 75.0        | 75.0        | 76.0        |
| 200 TRAVEL               |       | 5.0         | 10.0        | 10.0        | 10.0        | 10.0        |
| 300 CONTRACTUAL          |       | 15.0        | 8.0         | 9.0         | 10.0        | 11.0        |
| 400 COMMODITIES          |       | 2.0         | 2.0         | 2.0         | 2.0         | 2.0         |
| 500 EQUIPMENT            |       | 5.0         | -0-         | -0-         | -0-         | -0-         |
| 600 LAND & STRUCTURES    |       |             |             |             |             |             |
| 700 GRANTS, CLAIMS, ETC. |       |             |             |             |             |             |
| <b>TOTAL</b>             |       | <b>64.0</b> | <b>94.0</b> | <b>96.0</b> | <b>97.0</b> | <b>99.0</b> |

**FUNDING** (Thousands of Dollars)

|                             | FY 80 | FY 81 * | FY 82 | FY 83 | FY 84 | FY 85 |
|-----------------------------|-------|---------|-------|-------|-------|-------|
| GENERAL FUND                |       | 64.0    | 94.0  | 96.0  | 97.0  | 99.0  |
| FEDERAL FUNDS               |       |         |       |       |       |       |
| OTHER (Specify Fund Source) |       |         |       |       |       |       |

**POSITIONS**

|           | FY 80 | FY 81 * | FY 82 | FY 83 | FY 84 | FY 85 |
|-----------|-------|---------|-------|-------|-------|-------|
| FULL TIME |       | 3       | 3     | 3     | 3     | 3     |
| PART TIME |       |         |       |       |       |       |
| TEMPORARY |       |         |       |       |       |       |

**III. ANALYSIS** (See Fiscal Note Preparation Instructions, Section III)

The above figures are based on a number of assumptions: 1) that approximately 10% of the business corporations or 1000 corporations have foreign affiliates (the division is aware of approximately 500 that have filed alien affiliate information, however, because of the confusion raised by the language of AS 10.05.702(8) and 10.05.825(18) there may be at least another 500 corporations that should file); 2) that the division could send out letters of inquiry to corporations on file that have not filed alien affiliate information either on a selective basis or to all of them asking specific questions about alien affiliation; 3) that the division could in addition review the filings of upwards of 100 to 200 corporations with some amount of detail; 4) that in addition the division could investigate in more detail and pursue upwards of 20 corporations that either resist or otherwise require comprehensive investigative effort to gain the information required by the bill; 5) that a clear definition of "control" can be devised in the best interest of the reporting corporations and the division in conducting investigations;

IV. DATE 2/22/80 PREPARED BY Julius J. Brecht, Director  
 AGENCY Division of Banking & Securities  
 PHONE 465-2521

Original: Legislative Finance  
 cc: Budget and Management  
 Prime Sponsor (First Legislator Named)

6) that the Department of Law can provide the legal support necessary to pursue discovery of corporate records located outside of the state and can demonstrate in actions brought in courts in other states that exists sufficient control between the corporation doing business in Alaska and an affiliate once, twice, or more removed doing business in another country; 7) that the Department of Law would be responsible for its own expenses in supporting the Division on the investigations.

The implementation of the program under the above assumptions would require a trained investigator, and two administrative/clerical people to process the filings and aid in investigations. The travel budget would be primarily for the investigator but also include allowances for witness travel for enforcement actions. The contractual budget includes provision for redesign and printing of forms and data processing revisions, maintenance, and operation of the on line data system with alien affiliate and other information required by the bill. The commodities/equipment budget would include necessities for the three new employees including a micro fiche reader.

\* It should be pointed out that the division recommends that the bill become effective on July 1, 1980 rather than January 1, 1981. See, bill analysis. However, this fiscal note has been prepared using the January effective date.

# Japanese Firms Control Alaskan Fish Processing

ANCHORAGE (AP) — A handful of Japanese corporations financially control Alaska's seafood processing industry, according to a foreign investment report prepared for the state Legislature.

The report, written by Franklin Orth and Associates of Seattle, says 29 firms operating in Alaska in 1977 had known Japanese investors.

Of those 29 firms, 18 were tied back in the report to two Japanese corporations, Marubeni and Nippon.

However, the study says, the exact amount of control exerted by the Japanese firms can only be estimated.

The state has had little or no information on foreign investment or its influence on the industry.

U.S. Rep. John Breaux, D-Louisiana, currently is investigating Japanese influence in the American fishing industry, but he says he has found nothing to indicate Japanese influence is bad for U.S. interests.

"Lack of capital is a problem," he said. "It's being met in many areas by the influx of foreign money. It can be good and it can be bad. It's unhealthy when it becomes a dominant force."

The report says Japanese money has been poured into the Alaska fishing industry to the following extent:

- The Marubeni Corp. has total ownership of Marubeni America Corp. and its Bristol Bay plant, St. Elias Ocean Products with a plant in Cordova, Togiak Fisheries with plants in Togiak and Quinhagak and Alaska Pacific Seafoods with a plant in Kodiak.

- Marubeni America Corp. owns 50 percent interest in North Pacific Processors with plants in Kodiak and Cordova. North Pacific Processors owns 100 percent of Alaska Pacific Processors.

- Marubeni also owns 50 percent interest in Kodiak King Crab which has plants in Kodiak and Port Williams.

- Kodiak King Crab owns 100 percent of Cordova Bay Fisheries and Juneau Cold Storage.

- Marubeni also holds a nine percent equity interest in Ward's Cove Packing which has 50 to 100 percent interest in Red Salmon Co., Craig Fisheries Inc., Excursion Inlet Packing and E.C. Phillips & Son.

- Kyokuyo owns 99 percent of Whitney Fidalgo which owns all of Mokubana Fisheries.

- Mitsubishi International is tied directly to Orca-Pacific Packing and Sitka Sound Seafoods which are tied to Icicle Seafoods, Seward Seafoods and Seward Fisheries, Viking Seafoods, The New England Fish Co., Egegik Packing, the Canadian Fishing Co., Sooke Harbour Fishing, British Columbia Packers, Rupert's Certi-Fresh and Nelbro Packing.

- Nippon and Mitsui have a controlling interest in Morpac Inc., a Cordova packer, and have ties to Dutch Harbor Seafoods, Universal Seafoods and Vita Foods.

- Alaska Pulp of Tokyo has total ownership of Harbor Seafoods in Homer.

- Sasaya Shoten and Marusan Sholai Co. own S.A. Packers.

## Tribes Oppose Power Bill

PORTLAND, Ore. (AP) — Indian tribes with treaty rights to Columbia River salmon announced yesterday that they will oppose the Pacific Northwest regional power bill.

The Columbia River Inter-Tribal Fish Commission said the bill is unacceptable

because it does not adequately provide for "restoration, protection and enhancement of Columbia River fish runs."

The regional power bill, which already has been approved by the Senate, would establish the Bonne-

## Port of Po

PORTLAND, Ore. — After a decade brought the sophistication of shipping technology increasing competitive challenges, the 85-year-old Port of Portland reached the top in 1977.

Port spokeswoman Corb Kemmer described as a year in which doors were re-opened to world markets — mainland China — and former Neill Goldschmidt took his five-city peregrination to Washington, D.C., as secretary of transportation.

For the Marine Department of the Port, a year for marketing, traffic and terminal operations was a period of significant change. A decade of growth. Figures released by the Association of Port Authorities said Portland's highest growth rate of any U.S. port in 1977. Tonnage was up 34.7 percent and dollar value had risen 44.8 percent, placing Portland 18th respectively, among American seaports.

Portland has long been known as the export port on the U.S. Pacific Coast. As of 1979 showed a growth rate for nearly every port handled.

## A Tax Break

New York Times  
BALTIMORE — The man in the gray flannel suit can be clothed largely at the expense of the United States Treasury when his suits are designed to improve the corporate image.

The arrangement involves two tax breaks — "wardrobe analysis" and "suit leasing" — marketed by the Haas Tailoring Co. of Baltimore and its affiliate, the Guilford Leasing Co.

The result: Corporations now can lease suits for their executives just as they lease cars for salesmen and railroad freight cars to transport their goods. Part of the cost is a tax-deductible business expense, while part of it is considered income to the executive.

"We weren't sell tax loopholes five years ago; it worked out that Irving Neuman, president of both Guilford. "We set up Leasing to more business for us."

At first, he said suits were not too popular.

"Our people were coming into the suit business," Neuman said. "Companies wanted to get tax status of suits. We kept telling them we don't sell suits; they should ask their lawyers."

When it became clear that Guilford was not going to get ground until the suit question was resolved, Neuman said, the company lawyers to raise the question. "That's how we found the tax break," he said. "Since the whole thing was crazy."

Word of the lease of suit less through the world, says Guil-

RICHARD B. LAUBER

Fred:

I know that you are  
very interested in the  
foreign investment in the  
seafood industry -

This federal survey  
should give a good and  
accurate indication of  
the extent.

Rick

DEPARTMENT OF COMMERCE

Bureau of Economic Analysis

15 CFR Part 806

Survey of Foreign Direct Investment in U.S. Fish and Seafood Processing Industries

AGENCY: Bureau of Economic Analysis, Commerce.

ACTION: Final rule.

**SUMMARY:** This action amends 15 CFR Part 806 to provide for the BE-21—Survey of Foreign Direct Investment in U.S. Business Enterprises Engaged in the Processing, Packaging, or Wholesale Distribution of Fish or Seafoods. The purpose of the survey is to secure information on foreign direct investment in U.S. fish and seafood processing firms in order to analyze the market shares and impact of their operations on the domestic fish and seafood processing and wholesaling industries, and ultimately, the U.S. fishing industry.

There has been a continuing Congressional interest in foreign involvement in the U.S. fishing industry and the Magnuson Fishery Conservation and Management Act (Pub. L. 94-265) requires a phaseout of foreign involvement within our territorial seas as U.S. capacity develops. Barriers in the processing and marketing area may impede development of U.S. fishing capacity.

**EFFECTIVE DATE:** This rule is effective December 9, 1981.

**FOR FURTHER INFORMATION CONTACT:** George R. Krueger, Chief, International Investment Division, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C. 20230, (202) 523-0657.

**SUPPLEMENTARY INFORMATION:** In the July 6, 1981 Federal Register, Volume 46, No. 128, (46 FR 34812) BEA published a notice of proposed rulemaking to amend 15 CFR Part 806 to provide for this survey. In the July 15, 1981 Federal Register, Volume 46, No. 135, (46 FR 3715) the due date for comments was extended to August 6, 1981. Comments received in response to the notice of proposed rulemaking were considered in making this final rule, but did not result in any changes in the planned rules and survey form. No substantive changes have been made; some clarifying wording has been added.

The survey will consist of three forms: (1) Form BE-21P, "Identification Questionnaire," which is to be completed in advance of the other two forms and will be used to prepare a mailing list for the two statistical reports, Forms BE-21A and BE-21B.

(2) Form BE-21A, "Report for a U.S. Business Enterprise that is a U.S. Affiliate of a Foreign Person," which is to be completed by the U.S. affiliate, i.e., the U.S. business enterprise that is owned to the extent of 10 percent or more, directly or indirectly, by one foreign person, and that engaged in the processing, packaging, or wholesale distribution of fish or seafoods. The form is to cover the fully consolidated U.S. business enterprise, including all subsidiaries that are more than 50-percent owned.

(3) Form BE-21B, "Report for each Establishment of a U.S. Business Enterprise that is a U.S. Affiliate of a Foreign Person," which is to be completed for each establishment, of the U.S. affiliate, that engaged in the processing, packaging, or wholesale distribution of fish or seafoods.

Form BE-21P has been cleared by OMB. Forms BE-21A and B will not be prepared for comment until after the information reported on the BE-21P has been processed.

OMB publishes a notice in the FR of report forms received for clearance, which includes information on securing copies of the submission and to whom comments on the forms should be submitted. When Forms BE-21A and BE-21B have been prepared, they will be submitted to OMB for approval and the public may comment on them during OMB's regular clearance process. BEA itself will not issue any further notices as concerns Forms BE-21A and BE-21B. Forms BE-21A and BE-21B will not become effective until they have been approved by OMB under 44 U.S.C., Chapter 35, as amended.

All legal authorities, provisions, definitions, and requirements contained in 15 CFR 806.1 through 806.13 and 806.15 (a), (b), (c), (e), and (f) are also applicable to this survey.

The Bureau of Economic Analysis has determined that this rule is not "major" under Executive Order 12291. The public use burden will be undertaken within the Department of Commerce allocated FY 1982 Information Collection Budget ceiling.

**Regulatory Flexibility Act—**The provisions of the Regulatory Flexibility Act relating to a final rule are not applicable to this final rule, because it will not have a significant economic impact on a substantial number of small entities. As indicated in the material submitted to OMB requesting clearance of the form and the proposed rule, only 4,000 entities are expected to be subject to the reporting requirements of the identification questionnaire, Form BE-21P. Not all of these are small entities and the average completion time will not exceed one-half hour. For those who

have to complete the full questionnaire, the burden should not exceed one hour. The number of enterprises estimated to be required to complete the statistical reports—Forms BE-21A and B—is only 60. Most of these will be large firms.

Copies of these forms may be obtained from the Bureau of Economic Analysis.

Accordingly, it is hereby certified under provisions of the Regulatory Flexibility Act (5 U.S.C. 606(b)), that this rule will not have a significant economic impact on the substantial number of small entities.

Part 806 is therefore modified as set forth below.

Sherman E. Unger,  
General Counsel.

**PART 806—DIRECT INVESTMENT SURVEYS**

The following subparagraph (j)(5) is added to § 806.15(f):

§ 806.15 Foreign direct investment in the United States.

(j) Other report forms

(5) BE-21—Survey of Foreign Direct Investment in U.S. Business Enterprises Engaged in the Processing, Packaging, or Wholesale Distribution of Fish or Seafoods. Reporting consists of:

(i) Form BE-21P—Identification Questionnaire. A completed questionnaire is required from (a) each U.S. business enterprise that is a U.S. affiliate of a foreign person and that engaged in the processing, packaging, or wholesale distribution of fish or seafoods, and (b) any person to whom a questionnaire is sent by BEA.

(ii) Form BE-21A—Report for a U.S. Business Enterprise that is a U.S. Affiliate of a Foreign Person. A completed report is required from each U.S. business enterprise that is a U.S. affiliate of a foreign person and that engaged in the processing, packaging, or wholesale distribution of fish or seafoods.

(iii) Form BE-21B—Report for each Establishment of a U.S. Business Enterprise that is a U.S. Affiliate of a Foreign Person. A completed report is required for each establishment, of the U.S. affiliate, that engaged in the processing, packaging, or wholesale distribution of fish or seafoods.

(FR Doc. 81-35291 Filed 12-9-81; 9:48 am)  
BILLING CODE 2510-02-01

file

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BY THE U.S. GENERAL ACCOUNTING OFFICE  
**Report To The  
Honorable Les AuCoin  
House Of Representatives**

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## **Foreign Investment In U.S. Seafood Processing Industry Difficult To Assess**

Foreign investment in the U.S. seafood processing industry has increased in recent years, but its extent and impact are uncertain.

Some industry and public officials are concerned that dependency on foreign sources of capital is causing U.S. processors to lose control of the industry.

Complete and actual disclosure of investment data is lacking, making analyses difficult. GAO raises significant questions concerning the effect of this investment.



GED-81-65  
MARCH 30, 1981

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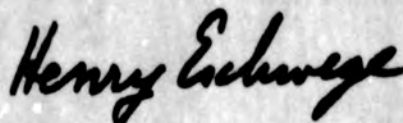
The Honorable Les AuCoin  
U.S. House of Representatives

Dear Mr. AuCoin:

In response to your October 3, 1979, request and discussions with your office, this report discusses foreign investment in the U.S. seafood processing industry. It deals with the extent and nature of foreign investment and the impact of such investment.

As agreed with your office, we are sending copies of this report to congressional committees and the heads of departments and agencies whose programs we discuss. Copies are also being sent to appropriate interested parties and will be available to others upon request.

Sincerely yours,



Henry Eschwege  
Director

## D I G E S T

Recent increases in foreign investment in the U.S. seafood processing industry have caused concern among industry and public officials that U.S. owners and managers are losing control of the industry. They fear that foreign investors may unduly influence U.S. production, marketing, pricing, and fisheries development.

In response to a congressional request, GAO studied the extent and nature of foreign investment and its impact on the seafood processing industry.

### EXTENT OF FOREIGN INVESTMENT

GAO identified 61 U.S. seafood processing firms with foreign ownership. The majority were in Washington, Oregon, and Alaska, and the remaining firms were in six east coast States. (See pp. 4 to 13.)

GAO also identified 27 U.S. seafood processing firms located in Washington, Alaska, and on the east coast which had loans from foreign sources. Sixteen of the firms also had foreign ownership. (See pp. 4 to 11.)

### DATA ON FOREIGN INVESTMENT IS INCOMPLETE

Federal and State Government information on the extent of foreign investment in seafood processors is incomplete. The Commerce Department's Bureau of Economic Analysis is the principal Federal source for foreign ownership data. However, the Bureau's data classification procedures, consolidated reporting practices, and

Filing exemptions prevent a complete and accurate disclosure of foreign ownership in a specific industry such as seafood processing. (See p. 14.)

Another Commerce Department agency, the Office of Foreign Investment in the United States, has primary responsibility for analyzing the effects of foreign investment. Until recently, however, the Office had not studied the seafood processing industry because the Office considers it to be a minor industry. In response to two congressional requests in 1979, the Office agreed to assess the extent and impact of foreign investment on seafood processors. The Office plans to issue this report in late 1981. (See pp. 15 to 16.)

Most of the States covered by GAO's review did not require firms doing business in their States to disclose foreign investment. Alaska requires disclosure of foreign ownership but not foreign loans. Enforcement of this requirement, however, has been lax. In 1980 Alaska enacted changes to strengthen its foreign ownership disclosure requirement. (See pp. 17 to 18.)

#### VARYING AND INCONCLUSIVE EFFECTS OF FOREIGN INVESTMENT

GAO found no consensus on the effects of foreign investment on seafood processors. While some industry and public officials believed that foreign investment affected seafood processors, others could discern little or no effect. Some believed that foreign investors may manipulate the industry while others believed that foreign investment supplies necessary and beneficial funds to U.S. seafood processors. (See pp. 20 to 31.)

The uncertainty and lack of consensus among seafood processors was highlighted by the results of GAO's industry questionnaire. Many respondents were reluctant

to answer certain questions or said they had no basis to judge the impact of foreign investment. (See apps. I to VI.)

### ISSUES AND OBSERVATIONS

While a complete understanding of foreign investment is hindered by the absence of data and the lack of agreement among knowledgeable officials, GAO noted several potentially important observations and related questions.

1. A high percentage of foreign investment originates from relatively few companies within one country (Japan). Does such concentration potentially lessen competition and impede free operation of the marketplace?
2. Foreign investors may use a variety of indirect investment methods to gain control of seafood processors. To what degree does such indirect investment hinder the identification of the full extent, nature, and effects of foreign investment?
3. The percentage of the industry's total output that is produced by processors with foreign investment is unknown, as is the relationship between foreign ownership and production in individual processors. Can and should this information be gathered, considering that it would require access to confidential processor information?
4. Foreign representatives are sometimes placed on the board of directors or as executive officers of U.S. seafood processors. Does such action result in processors operating in a manner contrary to U.S. economic policies?
5. Foreign investors may specify certain provisions, such as the right to acquire a portion of a processor's production, in loan agreements with U.S. processors. To what extent do such actions adversely affect the industry's natural market fluctuations?

In deciding whether to explore these questions, consideration needs to be given to the

- expense further study would entail,
- burden further reporting requirements would place on seafood processors,
- possible discouragement of needed investment capital from foreign sources if Federal reporting requirements are increased, and
- results of the Office of Foreign Investment's 1981 study of the extent and impact of foreign investment in seafood processors.

Other economic and social concerns, such as how other industries may be affected by changes in the seafood processing industry, also need to be considered.

#### AGENCY COMMENTS AND GAO'S EVALUATION

GAO furnished a draft of this report to the Department of Commerce and portions of the draft to the State of Alaska for comment. The Commerce Department generally agreed with GAO's observations and conclusions. The agency and the State of Alaska suggested that certain changes be made to add to or clarify information in the report. GAO considered each of the suggestions and made changes where appropriate.

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ABBREVIATIONS

BEA            Bureau of Economic Analysis  
GAO            General Accounting Office  
NMFS          National Marine Fisheries Service  
OFIUS         Office of Foreign Investment in the United States

## CHAPTER 1

### INTRODUCTION

On October 3, 1979, the Chairman, Ad Hoc Select Subcommittee on Maritime Education and Training, House Committee on Merchant Marine and Fisheries, asked us to gather data on the extent and nature of foreign investment and its impact on the U.S. seafood processing industry. The chairman expressed concern about the apparent marked increase in foreign ownership in the seafood processing industry, especially in the Pacific Northwest and Alaska, since implementation of the Fishery Conservation and Management Act of 1976 (16 U.S.C. 1801 et seq.). The chairman was also concerned about the apparent inadequate information on the extent of foreign investment and its influence on the U.S. fishing industry's development. 1/

### PROFILE OF THE SEAFOOD PROCESSING INDUSTRY

The seafood processing industry has many relatively small, privately held firms. Many seafood processors also have few employees. For example, the Economic Development Council of Puget Sound, a nonprofit organization, reported that in Washington State, 48 firms employed fewer than 10 persons in 1979 and only 43 firms employed more than 50 persons; only 2 of these firms employed more than 1,000 persons.

The National Marine Fisheries Service (NMFS) reported that in 1978 there were about 1,500 seafood processing firms in the United States, excluding Alaska. The State of Alaska reported that in 1979 there were 174 seafood processing firms in the State. Some of these firms, however, operate more than one plant. For example, one firm in Alaska had 11 processing plants and another firm had 9 plants.

Many processors had relatively low gross dollar sales. The following table summarizes the 1979 gross revenues of the 260 seafood processors we surveyed (see app. I).

| <u>1979 gross operating revenues</u> | <u>Percent</u>    |
|--------------------------------------|-------------------|
| Less than \$250,000                  | 24                |
| \$250,000 to \$499,999               | 7                 |
| \$500,000 to \$999,999               | 13                |
| \$1,000,000 to \$4,999,999           | 27                |
| \$5,000,000 to \$9,999,999           | 12                |
| Over \$10,000,000                    | <u>17</u>         |
| Total                                | <u><u>100</u></u> |

1/The subcommittee was not continued for the 97th Congress.

Also, the large majority of these processors were privately owned firms.

PRIOR GAO REPORTS ON FISHERY  
AND FOREIGN INVESTMENT MATTERS

We have issued several reports in recent years that cover various fishery and foreign investment issues. These reports include:

- "Developing Markets For Fish Not Traditionally Harvested By The United States: The Problems And The Federal Role" (CED-80-73, May 7, 1980). This report discussed the U.S. fishing industry's opportunities to make greater use of fish species that have not been traditionally harvested. We reported that the Federal Government could help the industry to develop nontraditional species by providing financing, consumer education, and quality control programs and by helping to ease trade barriers. We also reported that even though foreign investment is a financing source for U.S. fisheries, concern has been expressed that increased foreign investment may inhibit the United States from developing nontraditional species.
- "Foreign Direct Investment In The United States--The Federal Role" (ID-80-24, June 3, 1980). This report stated that the United States has become increasingly attractive to foreign investors. We recommended that greater emphasis be placed on analyzing and publishing studies concerning the economic impact of foreign direct investment.
- "Should Canada's Screening Practices For Foreign Investment Be Used By The United States?" (ID-79-45, Sept. 6, 1979). This report concluded that a foreign investment screening agency in the United States was not needed at that time.

OBJECTIVES, SCOPE, AND METHODOLOGY

In response to the subcommittee's request, we gathered and reviewed data on the extent and nature of foreign investment in the seafood processing industry in Washington, Oregon, and Alaska. Because seafood is also an important industry in certain east coast areas, we collected foreign investment data in six other States--Connecticut, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island. We examined two types of foreign investment--ownership or equity interest and loans to seafood processors

from foreign sources. In addition, we gathered information on the impact of foreign investment on the seafood processing industry.

We used various techniques to gather information and analyze the extent and impact of foreign investment. We analyzed responses to a GAO-prepared questionnaire that we sent to seafood processors in Washington, Oregon, Alaska, Connecticut, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island. Appendix I is a detailed explanation of our questionnaire methodology. Questionnaire responses are in appendixes II through VI. Congressman AuCoin agreed to confidentiality for respondents.

To obtain further data on the extent, nature, and impact of foreign investment, we met with Federal and State Government officials, interviewed seafood industry representatives, and reviewed pertinent studies on foreign investment. We met with headquarters officials and reviewed any foreign investment disclosure requirements at the Departments of Commerce, State, and Justice; the Securities and Exchange Commission; and the Federal Trade Commission. Within the Department of Commerce, we met with headquarters officials from the Bureau of Economic Analysis (BEA), Bureau of the Census, Office of Foreign Investment in the United States (OFIUS), and NMFS. We also met with regional NMFS officials in Juneau, Alaska; Seattle, Washington; and Gloucester, Massachusetts. In addition, we met with officials of the North Pacific Fishery Management Council in Anchorage, Alaska, and the Pacific Fishery Management Council in Portland, Oregon, to obtain further foreign investment information. At the State government level, we met with officials from Washington, Oregon, Alaska, and Massachusetts involved with fishery activities and commerce and economic development.

## CHAPTER 2

### FOREIGN INVESTMENT IS CONCENTRATED

#### IN WASHINGTON, OREGON, AND ALASKA

Considerable foreign investment in U.S. seafood processors is found in Washington, Oregon, and Alaska. The predominate foreign investors in these States are Japanese fishing and trading companies. In six east coast States, foreign investment originates from Canada, Iceland, Norway, and Great Britain. In our review of nine west and east coast States, we identified 61 U.S. seafood processing firms with foreign ownership and 27 firms with foreign loans. This investment appears to be an increase over the last Federal estimate--a 1974 Department of Commerce study--that identified 47 seafood processing firms nationwide having foreign ownership of 10 percent or more. The Department of Commerce stated that more than half the firms received these investments since 1970.

Foreign firms invest in the U.S. seafood processing industry primarily to gain access to fishery products and for profitmaking opportunities. Favorable foreign exchange rates have also encouraged investment in the United States.

#### FOREIGN INVESTMENT IN WASHINGTON AND OREGON

##### Foreign ownership

Although the extent of foreign ownership in Washington and Oregon seafood processors is unknown, we identified 29 processing firms in these States with foreign ownership interest. Twenty of these firms had Japanese ownership. Together, Washington and Oregon have about 200 seafood processing firms.

Through our questionnaires we identified 15 seafood processing firms in Washington and Oregon with foreign ownership--14 in Washington and 1 in Oregon. Two consulting firms' reports to various governments identified foreign ownership in an additional 14 seafood processors.

A consulting firm under contract with the Pacific Northwest Regional Action Planning Commission (a regional inter-governmental planning body) compiled data on the extent of foreign ownership in companies operating in Washington, Oregon, and Idaho during 1979. The consultant's report covered foreign investment in manufacturing, nonmanufacturing

(including seafood processing), resource acquisitions, and financial corporations. The consultant identified six additional seafood processing firms with foreign ownership that were not disclosed in responses to our questionnaire--five in Washington and one in Oregon. According to the consultant's 1980 report

"\* \* \* the extent of nondomestic investments made in the Pacific Northwest is growing rapidly and may represent a more important factor to the economy than previously recognized. The exact size and scope is virtually impossible to define because of the complicated corporate structures of many foreign investors, the low visibility maintained by many foreign-owned companies, and the lack of broad reporting requirements."

A 1977 State of Alaska contracted study of foreign investment in that State (see p. 8) identified eight additional processing firms headquartered in Washington with foreign ownership. These firms were not disclosed in response to our questionnaire nor included in the consultant's study. The eight firms were still operating during our review.

The following schedule shows that at least 20 of the 29 processing firms had Japanese ownership.

Origin of Foreign Owners

| <u>Country of investor</u> | <u>Washington</u>             | <u>Oregon</u> | <u>Total</u> |
|----------------------------|-------------------------------|---------------|--------------|
|                            | ----- (number of firms) ----- |               |              |
| Japan                      | 19                            | 1             | 20           |
| Canada                     | 3                             | 0             | 3            |
| Mexico                     | 0                             | 1             | 1            |
| United Kingdom             | 1                             | 0             | 1            |
| U.S.S.R.                   | 1                             | 0             | 1            |
| Unknown                    | <u>3</u>                      | <u>0</u>      | <u>3</u>     |
| Total                      | <u>27</u>                     | <u>2</u>      | <u>29</u>    |

Japanese ownership consisted of a variety of direct and indirect investments. For example, some U.S. processors were wholly or partially owned by Japanese companies; however, other processors may have been owned by U.S. subsidiaries of Japanese companies. In other cases, a U.S. processor may have been owned by another U.S. processor who in turn was owned by a Japanese company.

For 19 of the 20 firms in which ownership data was available, Japanese ownership in Pacific Northwest processing firms ranged from 9 to 100 percent. The most frequent Japanese investors were Marubeni Corporation, which invested in nine firms; Nippon Suisan Kaisha and Nichiro Gyogyo Kaisha, which each invested in three firms; Kyokuyo Company, which invested in two firms; and Taiyo Fishery Company, Fuji Marine Limited, Mitsubishi Corporation, and Mitsui and Company, which each invested in one firm. Some processing firms had more than one Japanese investor.

The known Canadian investors were Rupert's Certi-Fresh Foods, which had 100-percent ownership of one U.S. processor, and a Canadian family, which owned 23 percent of another U.S. processor. Dalgety Limited, a United Kingdom firm, had 100-percent ownership in one processor. The Mexican investor, Poroduc Pesquera del Pacifico, owned 50 percent of one processor. The U.S.S.R. owned 50 percent of one U.S. firm.

#### Many foreign owners are represented in processors' operations

Many Washington and Oregon processing firms with foreign ownership also had foreign representatives on their board of directors or serving as executive officers. Thirteen of the 15 firms with foreign ownership identified by our questionnaire answered questions about foreign representation. Twelve of the 13 processors said that they had foreign representatives on their board of directors and 8 had foreigners serving as executive officers. Eight firms had both foreign board members and foreign officers.

In terms of size, 10 of the 13 foreign-owned firms responding to this portion of our questionnaire had assets exceeding \$1 million. All 13 firms had gross revenues in excess of \$1 million for 1979. Five firms had more than \$10 million in assets and gross revenues.

#### Foreign loans

Twenty-seven processing firms responding to our questionnaire said that they had foreign loans in 1979--15 of those firms were in Washington. At least 12 of these 15 processors received their loans from Japanese sources. Eight of the 15 processors also had foreign ownership. None of the responding Oregon processors said that they had loans from foreign sources.

Although the majority of foreign loans were less than \$500,000, we noted six firms with at least \$1 million in

foreign loans. Also, as the following schedule shows, foreign loans generally comprised a significant portion of the outstanding debt.

Washington State Processors  
Total Outstanding and Foreign Debt in 1979

| <u>Amount</u>              | <u>Outstanding debt</u>            | <u>Foreign debt</u> |
|----------------------------|------------------------------------|---------------------|
|                            | ----- (number of processors) ----- |                     |
| Less than \$250,000        | 4                                  | 5                   |
| \$250,000 to \$499,999     | 2                                  | 3                   |
| \$500,000 to \$999,999     | 1                                  | 1                   |
| \$1,000,000 to \$4,999,999 | 4                                  | 4                   |
| \$5,000,000 to \$9,999,999 | 1                                  | 0                   |
| Over \$10,000,000          | <u>3</u>                           | <u>2</u>            |
| Total                      | <u>15</u>                          | <u>15</u>           |

Some foreign loans to Washington processors had certain loan conditions. For example, five processors said that their loans provided for the foreign lender to acquire a portion of the processors' production, and four processors' loans called for a representative of the foreign lender to serve as a technician in the processing plants.

FOREIGN INVESTMENT IN ALASKA

Foreign ownership

As with Washington and Oregon processors, the extent of foreign ownership in Alaska seafood processors is unknown. The State of Alaska reported that in 1979 there were 174 seafood processing plants in the State. Through our questionnaire we identified 14 seafood processing firms in Alaska with foreign ownership. A January 1980 study contracted by the State of Alaska identified 23 additional seafood processors with foreign ownership. As shown below, at least 32 of the 37 processing firms had Japanese ownership.

Origin of Foreign Owners in Alaska Processing Firms

| <u>Country of investor</u> | <u>Number of firms</u> |
|----------------------------|------------------------|
| Japan                      | 32                     |
| Canada                     | 2                      |
| Netherlands                | 1                      |
| Unknown                    | <u>2</u>               |
| Total                      | <u>37</u>              |

Sixteen of the 37 processing firms also operated in Washington and are included in the Washington and Oregon section of this chapter.

The Alaska study was performed by a consulting firm at the request of the State House of Representatives Interim Committee on Foreign Investment. Among other things, the committee requested the consulting firm to determine the extent of foreign ownership. The consultant reported that the State's files and records used as the basis for identifying foreign investors were missing information and contained incorrect information. The study stated that because the State of Alaska had incomplete ownership data, there could be many more firms having foreign ownership. Therefore, according to the report, " \* \* \* it was not possible to determine ownership for a number of business entities \* \* \*."

Extensive Japanese ownership  
in Alaska processors

For 30 of the 32 firms in which ownership data was available, Japanese ownership in Alaska seafood processors ranged from less than 10 percent to 100 percent. As in Washington and Oregon, Japanese ownership may occur directly or through ownership in another company. The following schedule shows the extent of Japanese ownership in 30 Alaska processors.

Extent of Japanese Ownership in Alaska  
Seafood Processors in 1977

| <u>Percent of ownership</u> | <u>Number of firms</u> |
|-----------------------------|------------------------|
| 100                         | 4                      |
| 90 to 99.9                  | 3                      |
| 50 to 89.9                  | 7                      |
| 25 to 49.9                  | a/9                    |
| Less than 25                | <u>7</u>               |
| Total                       | <u>30</u>              |

a/Includes one processing firm with 40 percent preferred stock investment.

Marubeni Corporation, a Japanese trading company, had ownership interest in at least 15 Alaska processors. Nippon Suisan Kaisha, a Japanese fishing company, had ownership interest in four processing firms. Accordingly, as many as

19 of the 30 processing firms with identified Japanese investment had an ownership interest by just two Japanese investors. Other Japanese firms that had invested in more than one Alaska processor include Mitsubishi Corporation, a trading company, and Kyokuyo Company, a fishing company.

The two Alaska processors with Canadian owners are both headquartered in Washington. One firm is wholly owned by a Canadian firm that has both Canadian and U.S. interests. The other firm is 23 percent Canadian owned. The processor with ownership from the Netherlands is 40 percent owned by a Netherlands citizen.

#### Foreign representatives involved in Alaska operations

Like firms in Washington and Oregon, many Alaska processing firms with foreign ownership had foreigners serving on their board of directors or as executive officers. Twelve of 14 processors that responded to our questionnaire were corporations. Ten of the 12 processors told us that they had foreign representatives on their board of directors and 8 had foreign executive officers. Eight firms had both foreign board members and foreign officers.

Ten of the 14 processors with foreign ownership had assets over \$1 million, and 11 had gross revenues over \$1 million for 1979.

#### Foreign loans

The extent of foreign loans to Alaska processors, like those to Washington firms, is considerable, and most loans are from Japanese investors. Seven Alaska processing firms that responded to our questionnaire said that they had foreign loans; six had loans from Japanese sources. The origin of the other loan was not identified. Three of the Alaska processing firms with foreign loans also had foreign ownership investment.

As the following schedule shows, four of the five Alaska processors with outstanding debts over \$1 million were indebted to foreign lenders for amounts exceeding \$1 million.

Alaska Processors  
Total Outstanding and Foreign Debt in 1979

| <u>Amount</u>              | <u>Outstanding debt</u>            | <u>Foreign debt</u> |
|----------------------------|------------------------------------|---------------------|
|                            | ----- (number of processors) ----- |                     |
| Less than \$250,000        | 1                                  | 2                   |
| \$250,000 to \$499,999     | 0                                  | 1                   |
| \$500,000 to \$999,999     | 1                                  | 0                   |
| \$1,000,000 to \$4,999,999 | 3                                  | 3                   |
| \$5,000,000 to \$9,999,999 | 1                                  | 1                   |
| More than \$10,000,000     | <u>1</u>                           | <u>0</u>            |
| Total                      | <u>7</u>                           | <u>7</u>            |

Many of the foreign loans to Alaska processors also had loan conditions. Five processors had provisions for the foreign lenders to acquire a portion of the processors' production, and four processors had provisions for foreigners to serve as technicians in the processing facilities.

FOREIGN INVESTMENT ON THE EAST COAST

Foreign ownership

As in the Pacific Northwest and Alaska, in the six east coast States we surveyed, we were unable to identify the complete extent of foreign ownership in seafood processors. However, we found that at least four foreign countries had invested in east coast seafood processing firms.

NMFS reported that there were about 230 seafood firms in the six east coast States covered by our questionnaire. Through our questionnaire, we identified five seafood processing firms on the east coast with foreign ownership. Using other available sources, including interviews with NMFS and industry officials, we identified six additional processing firms with foreign ownership. Nine of the processors were 100 percent foreign owned. No data was available on the extent of foreign ownership for two processors.

The following schedule shows that investors from at least four foreign countries (Canada, Norway, Iceland, and Great Britain) have invested in east coast seafood processors.

Origin of Foreign Owners

| <u>Country of investor</u>        | <u>U.S. location</u> |                 |                 |                 |                 |                 | <u>Total</u>     |
|-----------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
|                                   | <u>Mass.</u>         | <u>Conn.</u>    | <u>N.Y.</u>     | <u>Maine</u>    | <u>Penna.</u>   | <u>N.J.</u>     |                  |
| ------(number of processors)----- |                      |                 |                 |                 |                 |                 |                  |
| Canada                            | 4                    | -               | -               | 1               | -               | -               | 5                |
| Norway                            | 1                    | -               | -               | -               | -               | -               | 1                |
| Iceland                           | -                    | 1               | -               | -               | 1               | -               | 2                |
| Great Britain                     | -                    | -               | -               | -               | -               | 1               | 1                |
| Unknown                           | <u>1</u>             | -               | <u>1</u>        | -               | -               | -               | <u>2</u>         |
| <b>Total</b>                      | <u><u>6</u></u>      | <u><u>1</u></u> | <u><u>1</u></u> | <u><u>1</u></u> | <u><u>1</u></u> | <u><u>1</u></u> | <u><u>11</u></u> |

All five east coast processors with foreign ownership that responded to our questionnaire had assets exceeding \$10 million, and four of the processors had 1979 gross revenues exceeding \$10 million. Three of the processors said that they had foreign representatives on their board of directors and one processor had a foreign executive officer.

Foreign loans

Five east coast processing firms that responded to our questionnaire stated that they had foreign loans. All five firms had foreign loans and total outstanding debts in excess of \$1 million in 1979, and all five firms had foreign ownership investment.

FOREIGN INVESTORS WANT ACCESS TO FISHERY PRODUCTS AND PROFIT-MAKING OPPORTUNITIES

The primary reasons that foreign firms invest in U.S. seafood processors are to gain access to fishery products and for profitmaking opportunities. Also, favorable foreign exchange rates encourage investment in the United States.

Access to U.S. fishery products

Seafood processing and Federal officials told us that the primary reason Japanese companies invest in U.S. seafood processors is to have access to a significant and continuous supply of U.S. fishery products. Japan needs this access because it depends on seafood as a source of protein and must look beyond its own fishing industry to meet this demand. U.S. processing firms export considerable amounts of seafood

products to Japan. For example, during 1979 Japan imported about 50 percent of the 195 million pounds of salmon exported by the United States.

According to an NMFS marketing specialist in Seattle, the Japanese have been investing in U.S. processing operations since 1965 when Japanese salmon fishing off Alaska was substantially curtailed. Since Japanese salmon fishing along the U.S. shoreline was restricted, Japanese fishing and trading companies began to seek access to the product by investing in U.S. processors.

Some officials, including a Japanese member of the board of directors of one U.S. processor, told us that the U.S. 200-mile fishery conservation zone, established by the Fishery Conservation and Management Act of 1976, further stimulated Japanese investment. This act allowed the U.S. Government to limit or exclude foreign fishing off U.S. coasts and to impose on both foreign and U.S. fishermen responsibilities for conserving and using the fishing resources within the 200-mile zone. The Japanese official's company--one of Japan's major international fishing companies--had an ownership interest in at least four U.S. processing firms to assure a supply of fish products for the Japanese market.

#### Profitmaking opportunities

Foreign investors have sought profitmaking opportunities in several ways. First, by gaining access and control of fishery products, the foreign owners can profit from the subsequent resale of those products. Second, foreign owners have an opportunity to expand the marketing of their own fishery products in the U.S. through the processing firms they have invested in. Third, foreign owners hope to earn a return on their ownership interest in U.S. processors.

According to a 1974 Department of Commerce report on foreign investment, expanding market opportunities for a foreign company's products appears to be the primary reason Canadian, Icelandic, Mexican, and Norwegian firms invest in U.S. processors. U.S. affiliates of investors from these countries import considerably more seafood products than they export.

Favorable foreign exchange rates  
encourage foreign investment

Changes in the exchange rate between the U.S. dollar and foreign currencies affect the desire of foreigners to invest in U.S. seafood processors. Japan's Ministry of Finance attributes the sharp increase in Japan's 1978 overseas investment primarily to the appreciation in the value of the yen vis-a-vis the dollar. Between January 1976 and December 1977 the yen-to-dollar exchange rate ranged from about 304 to 240 yen to the dollar. In 1978 the yen further strengthened--the yen-to-dollar exchange rate fell to 176 yen to the dollar by October 1978. With a stronger yen, Japanese investors could purchase more for their money.

CONCLUSIONS

Considerable foreign investment--primarily Japanese--exists in U.S. seafood processors in Washington, Oregon, and Alaska. Significantly less foreign ownership and foreign loans are found in east coast States. The extent of known foreign investment, however, is relatively small compared with the total number of seafood processors operating in Washington, Oregon, and Alaska and the six east coast States included in our review. Although we identified many foreign investors in Alaska, the complete extent of foreign investment in Alaska and other States is unknown. Chapter 3 discusses Government efforts to identify foreign investment.

Primary reasons for foreign investment in U.S. seafood processors include assuring access to U.S. fishery products, seeking profitmaking opportunities, and favorable foreign exchange rates. How foreign investment has affected the U.S. seafood processing industry is described in chapter 4.

## CHAPTER 3

### GOVERNMENT DATA ON FOREIGN INVESTMENT

#### IS INCOMPLETE

Federal and State Government information on the extent of foreign investment in the U.S. seafood processing industry is incomplete. Federal agencies are not required to maintain a record of U.S. seafood processors that have foreign ownership or foreign loans. Also, most of the States in our review did not require firms to disclose foreign ownership or loans. Although Alaska, an important fishing State, does require firms to disclose foreign ownership, the State has been lax in enforcing this requirement and does not require foreign loans to be disclosed.

#### SHORTAGE OF FEDERAL DATA ON FOREIGN INVESTMENT IN SEAFOOD PROCESSORS

Federal agencies have incomplete information on foreign investment in the seafood processing industry. The Department of Commerce is the primary Federal agency responsible for collecting and analyzing data on foreign direct investment. <sup>1/</sup> Within the Department, BEA is the principal source for foreign investment data. Other Department offices--OFIUS, NMFS, and the Bureau of the Census--also keep certain foreign investment data. Collectively, however, these Federal agencies have incomplete data on foreign investment in the U.S. seafood processing industry.

#### Bureau of Economic Analysis

BEA's data classification procedures, consolidated reporting practices, and filing exemptions prevent a complete and accurate disclosure of foreign investment in a specific U.S. industry such as seafood processing.

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<sup>1/</sup>Investment resulting in 10 percent or greater foreign ownership.

BEA classifies its survey data into broad industry categories that do not separately identify seafood processors. Also, BEA permits companies to report on a consolidated basis all of a firm's divisions and subsidiaries. This practice hinders identifying large companies with seafood processing divisions. Moreover, when more than 50 percent of a company's outstanding voting stock is owned by a parent company, BEA allows the parent company to be the sole reporting entity. Since seafood processors are often linked with companies in other industries, seafood processing data could be combined with other industries and not separately classified.

Moreover, because BEA does not collect data from businesses having assets, net sales or gross revenues, and net income of less than \$5 million in a reporting year for annual surveys, its current foreign investment data may be understated. Our questionnaire showed that at least 71 percent of the responding processors had assets or gross operating revenues under \$5 million. As a result, many seafood processors with foreign ownership may be exempt from BEA's minimum annual reporting level.

#### Office of Foreign Investment in the United States

OFIUS has primary responsibility for analyzing the effects of foreign investment. Even so, it has not studied foreign investment in the seafood processing industry, primarily because OFIUS officials consider seafood processing to be a minor industry. However, OFIUS has received several requests for studies on foreign investment in the industry.

OFIUS was established in 1975 to (1) develop a consistent and timely data collection and processing system on foreign direct investment in the United States, (2) evaluate and report on the impact of foreign direct investment, and (3) prepare reports for publication. OFIUS, however, collects only publicly reported data, such as data found in newspapers and filings with Federal agencies.

OFIUS has the authority to decide which foreign investment activities it will study. According to OFIUS officials, priority is given to studying foreign investment activities in major industries such as manufacturing, finance, insurance, petroleum, and real estate, where most foreign investment occurs. OFIUS, however, has received requests from various Members of the Congress concerning foreign investment in seafood processors. In June 1979 Senator Ted Stevens of Alaska requested OFIUS to conduct a joint Federal/State of Alaska study on the extent and impact of foreign investment in Alaska

seafood processors. In September 1979 Senator Warren Magnuson of Washington asked the Commerce Department to study the extent and effects of Japanese investment in the U.S. fishing industry. These requests have been consolidated into a single study. To conduct its study, OPIUS plans to survey the industry and issue its report in late 1981.

#### National Marine Fisheries Service

Although NMFS gathers various data from the seafood processing industry, it does not collect data on foreign investment. NMFS gathers annual fishery production data from seafood processing plants. However, according to headquarters officials, NMFS is concerned with what and how much seafood each plant processes and not with who owns the plants.

#### Bureau of the Census

In the past, the Bureau of the Census collected relatively little information on foreign ownership. Recent attempts to collect the information, however, do not adequately identify foreign ownership in the seafood processing industry.

During the September 1978 hearings before the Subcommittee on Commerce, Consumer, and Monetary Affairs, House Committee on Government Operations, the Associate Director for Economic Fields, Bureau of the Census, stated that

"Census participation in the measurement of foreign ownership has been minimal \* \* \* Census has no surveys or programs specifically designed to collect information on foreign ownership, nor are any funds budgeted by the Congress to Census for this purpose."

Recognizing, however, the increasing importance of foreign investment information, several years ago Census supplemented an existing survey to include questions about ownership. The annual survey included a question on whether a foreign entity owns 10 percent or more of the voting stock or other equity rights of the reporting company. If the answer is yes, the reporting company is asked to provide the name and home office address of the owning entity and its ownership percentage.

The survey, however, does not provide complete data to identify foreign ownership in the seafood processing industry because it excludes single-establishment (single plant) firms and partially excludes multi-establishment (multi-plant) firms with fewer than 50 employees.

**WASHINGTON AND OREGON DO NOT  
REQUIRE DISCLOSING FOREIGN INVESTMENT**

Neither Washington nor Oregon require firms in their States to disclose foreign ownership or loans from foreign sources. According to officials in these States, neither State government has expressed concern about the extent or effects of foreign investment in seafood processors.

Oregon requires corporations operating in the State to register and file an annual report disclosing the place of incorporation, identity of the registered agent, names and addresses of principal officials, and the nature of the business activity conducted in the State. Similarly, Washington requires registration and an annual report disclosing the place of incorporation, and if that location is out of State, the address of the principal offices. It also requires firms to identify the registered agent and the officers and directors of the corporations and the business activity conducted in that State.

Although neither Washington nor Oregon requires firms to identify foreign owners or foreign lenders, the Pacific Northwest Regional Action Planning Commission (a Federal/State partnership entity) contracted for studies on the extent of foreign ownership in Pacific Northwest industries. The consulting firm reported on the extent of foreign ownership investment in 1975 and 1979. However, these studies did not analyze the effects of foreign ownership or foreign loans.

**ALASKA REQUIRES DISCLOSING  
FOREIGN OWNERSHIP--BUT COMPLIANCE  
HAS BEEN QUESTIONABLE**

Alaska requires U.S. and foreign corporations doing business in the State to disclose foreign ownership. However, according to a State-hired consultant's report on foreign investment in Alaska, until 1979 the State agency that monitors compliance had been lax in assuring that the required disclosures were made. Lax enforcement was the result of vagueness in State laws and insufficient funds to provide effective enforcement. Alaska does not require that foreign loans be reported.

Alaska's attempts to have foreign ownership reported have not produced complete and accurate information. According to the consultant, many of the required annual reports were delinquent for excessive periods. For example, in October 1979 the State was still processing 1978 forms and taxes. State law permitted corporations to be delinquent up to 9 months from the January filing deadline before taking adverse action against a delinquent corporation. We were also told that Alaska never verified the data reported.

Until 1979 the State never returned or rejected any annual reports that were incomplete. In 1979, however, about 75 percent of the approximately 6,000 nondelinquent reports were returned because they were incomplete.

In 1979 a State-hired consultant reviewed the annual reports for 1977. The consultant found numerous reports with deficient or misleading information. The consultant concluded that the reported data was unreliable because it lacked verification. The Director of the Division of Banking, Securities, Small Loans, and Corporations, Alaska Department of Commerce and Economic Development, stated that increasing the accuracy of report filings would require substantial increases in the number of employees and in the division's budget. He said, however, that the State Legislature has failed to provide sufficient financial support to the division to carry out legislative intent.

#### Improvements enacted

The consultant proposed statutory and administrative changes to improve the completeness and reliability of disclosures. In June 1980 the Governor of Alaska signed into law amendments intended to strengthen Alaska's foreign ownership disclosure requirements. In September 1980 the chairman of the Alaska House Interim Committee on Foreign Investment said that these amendments should improve foreign ownership disclosure requirements and that further changes should not be necessary. He added, however, that the legislature must still provide funding to carry out the additional administrative duties.

#### MASSACHUSETTS DOES NOT REQUIRE DISCLOSING FOREIGN INVESTMENT

Like Washington and Oregon, Massachusetts does not require firms in the State to disclose foreign investment. The Corporations Division of the Massachusetts Secretary of State's office requires firms incorporated in the State to

file an annual statement of condition. However, the statements only require a firm to disclose its name, address, outstanding stock, and the names and addresses of its principal officers. A representative of the Secretary of State's office said that the agency has no responsibility to monitor foreign investment.

Within the State's Department of Commerce and Development, the Foreign Business Council maintains a listing of foreign-owned firms, including seafood processors. The listing, however, does not include the investment amount. According to a Council official, the purpose of the Council is to promote foreign investment.

### CONCLUSIONS

Although various Federal agencies collect data on foreign investment, no single agency maintains a complete record of foreign investment in U.S. seafood processors. Basically, foreign investment information is not available because (1) data gathering and reporting practices prevent collecting accurate data on foreign involvement and (2) the processing industry is relatively small, thus receiving a low priority from those Federal agencies monitoring foreign investment in U.S. industries.

Certain State governments in important fishing areas also do not have data on foreign investment since they do not require firms to disclose any foreign affiliation. Even Alaska, a State that requires foreign ownership disclosure, has not strictly enforced the requirement. Although recent modifications are expected to improve the disclosure of foreign ownership in Alaska businesses, the legislature must still provide funding to carry out these improvements.

Since neither the Federal nor State Government authorities maintain complete data on foreign ownership or loans, the actual extent of foreign investment may be significantly greater than that presently identified. This lack of complete information on foreign investment in the U.S. seafood processing industry is likely to continue if current Federal data collection practices and most State disclosure requirements remain unchanged.

## CHAPTER 4

### SEAFOOD PROCESSORS AND GOVERNMENT

#### OFFICIALS IDENTIFIED FAVORABLE AND UNFAVORABLE

##### EFFECTS OF FOREIGN INVESTMENT

Through our interviews with industry and Government officials and the responses we received from our questionnaire, we found no consensus on the effects of foreign investment. While some industry and public officials believed that foreign investment affected seafood processors, others could discern little or no effect.

Those processors who believed that foreign investment did affect their firms listed a variety of effects; however, their comments can be grouped into two main areas:

- How foreign investment affects the industry's financial condition.
- How foreign investment affects the industry's operations.

A summary of processors' responses to our questionnaire on the conditions affected by foreign investment are in appendixes II through VI.

To fully understand these industry and Government comments and put them in perspective, the fluctuations in the supply and demand for seafood must also be considered. These factors include fluctuations in the Japanese demand for U.S. seafood products and the large runs of salmon off Japan and Alaska during 1979-80.

##### HOW FOREIGN INVESTMENT AFFECTS THE INDUSTRY'S FINANCIAL CONDITION

The seafood processing industry is dependent upon securing financing for operating needs. Traditionally, however, U.S. processors have had difficulty obtaining needed funds from U.S. sources; U.S. investors have generally not been interested in this high-risk, low-return industry. Some U.S. processors, however, have been able to attract needed financing from foreign sources--especially Japan.

Difficulties in obtaining loans  
from U.S. financial institutions

Some processing officials said that they had problems obtaining loans from U.S. lenders. One processing official told us that his firm had been able to secure operating funds from a U.S. bank but had been unable to secure financing for capital needs from U.S. lenders. Loans from Japanese sources, however, were made available because the firm sold a large volume of products to Japanese buyers. As of September 30, 1979, the firm owed Japanese lenders about \$7.5 million. Also, officials of this firm told us that they entered into purchase agreements with Japanese buyers whereby the buyer provided advances to cover operating expenses and the processor in turn agreed to sell that buyer a portion of the processed product.

One processor said that since U.S. investors have shown little interest in the industry, no restrictions should be placed on foreign financial sources. This processor, which is almost entirely Japanese owned, believed that if foreign investments were restricted, many processing firms probably would be forced out of business. Another processor with foreign loans said that without sufficient support from U.S. lenders, investors, and the Government, there is little choice but to work with foreigners. These comments were reinforced by a processor who said, "The problem isn't foreign investment, it's American lack of interest."

We discussed problems in securing financing from U.S. sources in our May 7, 1980, report to the Chairman, House Committee on Merchant Marine and Fisheries, entitled "Developing Markets For Fish Not Traditionally Harvested By The United States: The Problems And The Federal Role" (CED-80-73). We reported that U.S. lending institutions often perceive development of nontraditional fisheries, such as Alaska bottomfish, as a high-risk endeavor. As a result, fishermen and seafood processors face difficulties obtaining financing from commercial lenders as well as from Federal agencies, such as NMFS. Although the NMFS Fishing Vessel Obligation Guarantee and Capital Construction Fund Programs are directed to helping obtain financing for the harvesting sector, they use lending criteria that favor traditional fisheries and limit funds for the development of higher risk, nontraditional fisheries. Also, from both programs Capital Construction Fund money is generally not available to finance shoreside processing facilities. Our report suggested that these programs be expanded to include nontraditional fish processors.

In recognition of the need for some higher risk financing for nontraditional species, NMFS proposed legislative changes to the Fishing Vessel Obligation Guarantee Program to provide guaranteed financing for higher risk vessels in developing fisheries. In addition, NMFS initially proposed extending the Capital Construction Fund Program to shoreside facilities. However, the proposal was withdrawn in December 1979, pending further study. According to an official of NMFS' Financial Assistance Division, this study has been held in abeyance pending congressional action on a Capital Construction Fund proposal under consideration.

On December 22, 1980, President Carter signed the American Fisheries Promotion Act (Public Law 96-561). An earlier version of the bill which passed the Senate would have extended the Capital Construction Fund Program to shoreside processors. However, the final version of the act does not include this extension provision.

#### Dependency on short-term operating loans

Many seafood processors are also extremely dependent on short-term operating loans from foreign sources. Processors must gear up for their operations each year before the start of the fishing/processing season and must pay fishermen for the raw fish when delivered. Processors, however, do not recover these costs until the processed products are sold. In the interim, these firms face considerable cash flow problems. As a result, operating loans are needed until their finished products are sold. Some processors were willing to accept Japanese loans and sales conditions tied to those loans because doing so provided them with needed operating funds and a market for their products.

#### Foreign equity/loans have strengthened the financial operating capability of U.S. processors

Some industry and Government officials told us that foreign equity and loans have strengthened the financial operating capability of U.S. seafood processors.

Japanese companies have capital available and better loan terms

Processors told us that financing was available from Japanese sources that was not available elsewhere and that this financing was available at better loan terms. One processor said:

"\* \* \* Capital has been made available by Japanese companies that was not available from other sources. This capital was, and is, used to expand and develop the industry by providing new and improved processing facilities and pack finance." [1/]

\* \* \* \* \*

"As prices decline and markets become weak, some marginal operators are unable to survive. Strongly financed operations usually do survive and those entities in the Northwest fish industry, for the most part, have been financed by Japanese companies. This situation has created a misconception on the actual cause of these difficulties and it has been surmised by some that Japanese involvement caused these various problems. In my opinion this is untrue."

A processor with Japanese investment told us that 75 percent of the firm's operating loans are from Japanese banks and 25 percent are from U.S. banks.

The recent (1979-80) high level of U.S. commercial lending rates has inhibited seafood processors' ability to obtain financing from U.S. lenders. The relatively low interest rates charged by Japanese lending sources as compared with U.S. lenders may be sought by U.S. processors either directly or indirectly through a foreign investor. For example, during 1979 Japan's prime lending rate ranged from 3.75 to 6.5 percent. In April 1980 the rate reached 9.25 percent. The U.S. prime lending rate was considerably higher during the same period. For example, the prime rate at the largest commercial bank in the State of Washington, a commonly used lending source for Alaska and Northwest processors, reached 20 percent in early April 1980. In 1979 the prime rate for

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1/Financing for canning and other processing activities.

this bank ranged from 11-1/2 to 15-3/4 percent. Consequently, it seems financially desirable for U.S. seafood processors to seek financing from Japanese sources.

#### Japanese investment has helped develop Alaska's processing industry

The executive director of the North Pacific Fishery Management Council (Anchorage, Alaska) told us that Japanese investment has helped to develop Alaska's processing sector. According to the executive director of the Pacific Fishery Management Council (Portland, Oregon), many U.S. investors do not understand seafood processing operations and the marketing of seafood products as well as Japanese fishing and trading company officials. An Alaskan investor added that U.S. investors have generally been uninterested because they are unfamiliar with Alaska seafood processing and lower risk, higher return opportunities are available elsewhere.

Another processor stated that when his firm was formed in 1973-74, he tried to secure U.S. sources for equity and operating capital. He discovered, however, that potential U.S. investors and lenders declined financial assistance. As a result, he sought financial assistance from non-U.S. sources and successfully obtained equity and operating assistance from a Japanese company.

#### HOW FOREIGN INVESTMENT AFFECTS THE INDUSTRY'S OPERATIONS

Some processors and Federal and State officials have become concerned about the increased dependency of U.S. processors on foreign sources of capital and foreign purchases of U.S. fishery products. Because of this dependency, some U.S. processors believe that foreign investors have the ability to control to their own advantage U.S. processors' operations.

#### Processors' decisions may be controlled by foreign investors

An NMFS Seattle official told us that the extensive Japanese investment in U.S. processors leads to some processors' decisions and actions being controlled by their foreign investors. As an example, he cited a proposal by a processor to purchase and convert a barge into a floating processing vessel. NMFS approval is required for such action. He said that when the processor made his proposal, 16 other processors telephoned NMFS to voice opposition to

the conversion. As a result, NREPS scheduled a hearing on the purchase and conversion; however, only 2 of the 16 complaining processors appeared and testified against the conversion at the hearing. He said that he subsequently checked the financial background of the 16 firm and found that the 2 processors that testified did not have foreign financial support while the other 14 processors did.

Some officials from firms with extensive foreign ownership told us that their foreign investors do not become involved in the firm's operations. The president of one firm told us that the Japanese owners do not place any conditions on the firm's operational decisions. Another processor told us that foreign investors have made various suggestions, but they have not been involved in the firm's operational decisions and have not dictated to the firm's management how to run the company. A third processor told us that as long as the invested company had U.S. managers and employees and the foreign investors stayed out of the firm's operations, the foreign investment was not a problem. Although this firm is more than 90 percent Japanese owned and the majority of its board of directors is Japanese, the officials said that the foreign investors do not become involved in daily operations.

In contrast, the vice president of another processor with substantial foreign investment told us that Japanese investor's representatives are at its headquarters offices in Seattle and that all major policies and decisions come from the investor's offices in Japan. An official from a processing firm without foreign investment believed that while Japanese-owned U.S. processors generally do not change management, foreign investors do exert control and influence over the invested firm's policies and operations.

#### Foreign investors may control production and marketing

Some officials believed foreign investors can control the marketing and production of seafood products because U.S. firms are dependent on Japanese buyers and many loan agreements have buying conditions.

An official from the Alaska Department of Commerce and Economic Development said that since the Japanese consume a large portion of Alaska's fish production, processors have had an easy time selling to Japanese buyers. As a result, the processors have become dependent on those buyers. The chairman of Alaska's Interim Committee on Foreign Investment told us that this dependence is a major problem for the

processing sector. Since marketing the products is tied to the Japanese market, the price received by the U.S. processors is dependent on conditions in that foreign market.

A common stipulation of most foreign loans to U.S. processors is a first right of refusal on the borrower's production. This stipulation gives the lender the option to purchase the processor's products at whatever selling price the processor is offered from other potential buyers. For example, if a potential buyer offers \$1 per pound for a certain species, the loan terms require the processor to first offer the product to the lender at that price. Generally, this option is in effect until the loan is repaid and in some cases for a fixed term after the loan is repaid.

While foreign investment has provided needed financial assistance to U.S. processors, some industry and other officials are concerned about the large amount of foreign investment. As a result, one processor told us that the foreign involvement has tied the U.S. industry to another country. An Alaska Department of Commerce and Economic Development official said that because of the dominant Japanese influence, the State is concerned about the potential for manipulation of the industry because the industry is so closely tied to the Japanese economy. Alaska legislators were also concerned because investors from one foreign country dominate foreign investment in this State.

#### Foreign investors may control prices

Some seafood processors and Alaska officials expressed concern about the ability of Japanese buyers to get together and discuss pricing strategies. Some processors said that by controlling prices, the Japanese buyers control the activities of most processing firms. The President of the Alaska Senate told us that although he does not believe price fixing has occurred, potential for it exists. However, an official in the Governor's office stated that although there have been allegations of collusive agreement by Japanese buyers, no evidence has been presented to substantiate those allegations.

One processor told us that he believes Japanese fish buyers deliberately raise the price to assure an adequate supply; the processor in turn pays fishermen a high price to assure an adequate supply. The processor said that Japanese buyers are known to break buying agreements. We were told that if the processor tries to get the buyer to honor the agreement, the buyer usually declares that the quality of the product is lower than agreed to and offers to pay a lower

price. The processor told us that Japanese buyers will threaten to try to force the U.S. processor out of business if the processor institutes legal action for noncompliance with the purchase agreement. This practice creates an extremely difficult situation for a U.S. processor.

An official in the Alaska Governor's office said that since processors are so dependent on selling to a particular buyer, if that buyer rejects their product, that processor may not be able to sell to other potential buyers. Some officials told us that Japanese buyers will not buy from a processor that has financial ties with other Japanese investors.

Several processors believed that Japanese buyers set a maximum price that they will pay processors for their product. This practice has created extreme difficulties for both the processing and fishing sectors. For example, in 1979 Alaska processors and fishermen negotiated a price for king crab before the fishing season started. After processors and fishermen agreed to the price, Japanese buying orders arrived at prices that were considerably less than what the processors expected. In some cases, processors had already paid fishermen the previously agreed upon price and therefore faced losses on these products. Subsequently, raw-product purchase prices were reduced, which created financial difficulties for fishermen who had geared up for the season expecting higher prices.

#### Japanese investment may have a negative impact on Alaska bottomfish development

Foreign ownership can give the investor the potential to influence or control the operations of U.S. seafood processors to the advantage of the foreign investor. As a result, some NMFS, State of Alaska, and processor officials believe the extensive Japanese investments have a negative impact on U.S. bottomfish development. In Alaska, pollock is the dominant bottomfish resource; other abundant species include cod, rockfish, flatfish, and sablefish.

We discussed this concern in our report to the Chairman, House Committee on Merchant Marine and Fisheries, entitled "Developing Markets For Fish Not Traditionally Harvested By The United States: The Problems And The Federal Role" (CED-80-73, May 7, 1980). We reported that concern had been expressed, particularly in Alaska, that the development of nontraditional species may be inhibited because of increasing foreign investment and control over processing firms. We reported that some officials believed Alaska bottomfish development may be slowed because foreign investors may be reluctant

to help develop U.S. bottomfish capabilities. By retarding U.S. bottomfish development, the Japanese can continue to maintain their dominance in harvesting and processing bottomfish fisheries off Alaska. To support U.S. bottomfish development would accelerate the time when foreign operators no longer dominate in the U.S. 200-mile fishing zone off Alaska. Developing U.S. bottomfish capability would reduce bottomfish allocations to foreign countries fishing in the U.S. fishery conservation zone. Such a prospect would not be favorable to foreign countries that fish the zone, particularly Japan. For example, one seafood processor told us that

"The most damage \* \* \* occurs when a [foreign] fishing company buys control of a U.S. processor and discourages development to benefit foreign fishermen. Subsequently the foreign product enters the U.S. at prices below what U.S. processors can compete with."

An NMFS Seattle official said that he had been told Japanese owners and Japanese customers of U.S. financial institutions have pressured these lenders not to make loans to processors trying to initiate bottomfish processing.

Contrary to these beliefs, a Japanese Fishing Association representative told us that the Japanese are not investing in the processing sector to discourage the U.S. development of Alaska bottomfishery resources. He said that the Japanese recognize that a future decrease will occur in the foreign fishing allocation in the 200-mile U.S. fishing zone as the U.S. expands its capabilities.

SEAFOOD SUPPLY CONDITIONS  
AFFECT THE DEMAND AND PRICE  
FOR U.S. SEAFOOD PRODUCTS

Although the Japanese demand for U.S. seafood products increased dramatically in the late 1970's it decreased in 1980. This kind of changing market condition should be understood in evaluating industry and Government concerns about the effects of foreign investment.

Japanese imports of U.S. fishery products decreased 18 percent for the first 6 months of 1980 from the same period in 1979. Salmon imports declined 30 percent for the same period. Japan's cold storage holding of salmon in December 1979 rose about 53 percent above the December 1978 inventory. The high year-end inventory was primarily the result of Japan's heavy purchases of the huge 1979 Alaska salmon harvest

and the large 1979 catch of salmon off the Japanese coast. In 1979 Alaska fishermen harvested 468 million pounds of salmon. The 1980 Alaska salmon harvest exceeded the 1979 catch and was the fourth largest in the State's history.

During 1979 the United States exported about 195 million pounds of salmon, about 50 percent going to Japan. Japan's imports of fresh/frozen salmon from the United States increased from about 32 million pounds in 1977 to 93 million pounds in 1979. The following table shows the dramatic increase in salmon exports to Japan.

U.S. Salmon Exports To Japan

| <u>Year</u>                      | <u>Fresh/frozen</u> | <u>Fillets/steaks<br/>portions</u> | <u>Canned</u> | <u>Total</u> |
|----------------------------------|---------------------|------------------------------------|---------------|--------------|
| ------(thousands of pounds)----- |                     |                                    |               |              |
| 1979                             | 93,458              | 1,820                              | 3,078         | 98,356       |
| 1978                             | 87,679              | 2,126                              | 1,505         | 91,310       |
| 1977                             | 31,854              | 1,809                              | 717           | 34,380       |
| 1976                             | 4,275               | 872                                | 201           | 5,348        |

Source: NMFS

Along with Japan's recent large increase in imported U.S. salmon products, Japanese fishing fleets had a large 1979 harvest. For example, the salmon catches off Hokkaido, Japan, in September 1979, 20 days into the season, exceeded the 1978 pace by more than 30 percent.

CONCLUSIONS AND OBSERVATIONS

Industry and Federal and State Government officials expressed a variety of views on the effect of foreign investment in U.S. seafood processors. While some officials believed that foreign investment definitely affects seafood processors, others could discern little or no effect. Those who believed that foreign investment affects seafood processors expressed opinions that ranged from concern that foreign investors may manipulate the industry to the belief that foreign investment is necessary and beneficial to U.S. processors.

The response to our questionnaire highlighted both the lack of consensus among seafood processors and the reluctance of some processors to discuss the effects of foreign investment on their firms. We mailed questionnaires to 453

processors; 307 questionnaires were returned. Of these, however, only 260 were useable in our analysis. Furthermore, many respondents failed to answer certain questions or said they had no basis on which to judge the impact. For example, although 66 processors believed foreign ownership in U.S. processors had an unfavorable impact, 122 processors said that such ownership had no impact or they had no basis to judge or did not respond. We obtained similar responses from processors when we asked about the impact of foreign loans. (See appendixes I and II for further information on questionnaire results.)

We also tried to determine if foreign investment increased or decreased certain production, marketing, pricing, and other operating factors for seafood processors. Again, questionnaire results revealed a lack of consensus. For example, although 41 processors believed foreign investment decreased their control over their business operations, 65 said there was no impact, 43 had no basis to judge, and 39 did not respond to the question.

The uncertainty and lack of consensus surrounding the question of foreign investment was further illustrated by our interviews with officials of U.S. firms having foreign investment. Some officials were reluctant to discuss the impact of foreign investment on their firms or believed that foreign investment had no effect on their firms operations. Others felt that foreign investment was beneficial for the industry in general and necessary for the survival of some firms. Still others believed that foreign investors negatively influenced the operations of some U.S. firms, either through direct involvement or loan provisions.

Available Federal data can do little to resolve uncertainties over the effects of foreign investment. As mentioned in chapter 3, the only major Federal study of foreign investment in the U.S. seafood industry is scheduled for completion in 1981. The uncertainty that surrounds the foreign investment question, coupled with difficulties in obtaining data, hinders Federal evaluation efforts.

While the issue of foreign investment is clouded by the lack of agreement among knowledgeable officials and the absence of reliable data, we identified several potentially important observations and related questions.

1. A high percentage of foreign investment originates from relatively few companies within one country (Japan). Does such concentration potentially lessen competition and impede free operation of the marketplace?

2. Foreign investors may use a variety of indirect investment methods to gain control of seafood processors. To what degree does such indirect investment hinder identifying the full extent, nature, and effects of foreign investment?
3. The percentage of the industry's total output that is produced by processors with foreign investment is unknown, as is the relationship between foreign ownership and production in individual processors. Can and should this information be gathered, considering that it would require access to confidential processor information?
4. Foreign representatives are sometimes placed on the board of directors or as executive officers of U.S. seafood processors. Does such action result in processors operating in a manner contrary to U.S. economic policies?
5. Foreign investors may specify certain provisions, such as the right to acquire a portion of a processor's production, in loan agreement with U.S. processors. To what extent do such actions adversely affect the industry's natural market fluctuations?

In deciding whether to explore the above issues further, consideration needs to be given to

- the expense further study would entail,
- the burden further reporting requirements would place on seafood processors,
- the possible discouragement of needed investment capital from foreign sources if additional reporting requirements are imposed, and
- the results of OFIUS' 1981 study of the extent and impact of foreign investment in seafood processors.

Other economic and social concerns, such as how other industries may be affected by changes in the seafood processing industry also needs to be considered.

#### AGENCY COMMENTS AND OUR EVALUATION

We furnished a draft of this report to the Department of Commerce and portions of the draft to the State of Alaska

for comment. The Commerce Department generally agreed with our observations and conclusions. The agency and the State of Alaska suggested certain changes be made to add to or clarify information in the report. We considered each of the suggestions and made changes where appropriate.

QUESTIONNAIRE METHODOLOGY

Complete and reliable data on the extent and impact of foreign ownership and loans in the seafood processing industry does not exist. We used a questionnaire survey to collect information to help us determine the extent and impact of foreign investment in the seafood processing industry.

Since we could not identify a complete and current universe of seafood processing firms, a statistically valid sample could not be made. We did, however, identify seafood processing firms in the geographic areas of our audit by using the National Fisheries Institute 1979-1980 Blue Book of firms that engage in fishery-related activities, and the National Fisherman's Pacific Packers Report for 1980 that identifies major seafood processors on the west coast. Also, we identified firms engaged in seafood activities from the Alaska Department of Fish and Game 1979 intent-to-operate list of seafood processors, the Economic Development Council of Puget Sound 1979 list of seafood processors in Washington State, and the NMFS 1978 list of processors of fishery products. We believe these sources enabled us to identify most seafood processors in those geographical areas.

We mailed questionnaires in June 1980 to 453 firms. Follow-up letters were mailed twice during July 1980. We received 307 responses. For various reasons, such as the Postal Service returning the questionnaire to us as undeliverable or the firms telling us that they would not complete the questionnaire, 46 of the 307 responses were not useable. Of the 260 useable responses, only 196 were from firms engaged in seafood processing in 1979. The following schedule shows by State the number of firms that were mailed questionnaires, the number of questionnaires returned, the number of useable responses, and the number of firms processing seafood in 1979.

| <u>State</u>  | <u>Number of firms mailed questionnaires</u> | <u>Number of questionnaires returned</u> | <u>Number of useable responses</u> | <u>Number of firms processing in 1979</u> |
|---------------|--|--|------------------------------------|---|
| Alaska        | 169  | 103                                      | 82                                 | 57  |
| Washington    | 172  | 120                                      | 107                                | 80  |
| Oregon        | 26   | 23                                       | 18                                 | 17  |
| California    |  |  |                                    |   |
| (note a)      | 3  | 3  | 3                                  | 3   |
| Connecticut   | 3  | 2  | 2                                  | 2   |
| Massachusetts | 44   | 30                                       | 25                                 | 21  |
| New Hampshire | 1  | 1  | 1                                  | 0   |
| New Jersey    | 8  | 5  | 4                                  | 2   |
| New York      | 22   | 16                                       | 15                                 | 12  |
| Rhode Island  | <u>5</u>                                     | <u>4</u>                                 | <u>3</u>                           | <u>2</u>                                  |
| Total         | <u>453</u>                                   | <u>307</u>                               | <u>260</u>                         | <u>196</u>                                |

a/The three California firms operated in the Pacific Northwest.

A copy of the questionnaire with the numerical responses for the 196 seafood processors is included in appendix II.

Our auditors and systems analysts designed the questionnaire for this study. Development of the questionnaire included pretesting with seafood processing firms with and without foreign investment in Washington and Massachusetts. Appendixes III through VI contain numerical responses to most questions from west coast and east coast processors with and without foreign investment.

**RESPONSES FROM SEAFOOD PROCESSING FIRMS  
WITH AND WITHOUT FOREIGN INVESTMENT**

The terms "your firm" or "this firm" refer to the organization to which this questionnaire was addressed

**I. OWNERSHIP**

1. Which of the following best describes your firm? (Check one.)
- 1.  Individual proprietorship (Go to question 2.) 27
  - 2.  Partnership (Go to question 3.) 12
  - 3.  Cooperative (Go to question 5.) 4
  - 4.  Corporation (Go to question 7.) 153 A/
2. Is the proprietor a U.S. citizen? (Check one.)
- 1.  No 0
  - 2.  Yes 27
- (Go to question 17.)
3. Approximately how many partners were in your firm in 1979? (Check one.)
- 1.  Less than 4 9
  - 2.  5 to 99 3
  - 3.  100 to 499 0
  - 4.  500 or more 0
4. Approximately what percent of the partners are foreigners (not U.S. citizens)? (Check one.)
- 1.  None, all are U.S. citizens 11
  - 2.  1 to 24% 1
  - 3.  25 to 49% 0
  - 4.  50 to 74% 0
  - 5.  75 to 99% 0
  - 6.  100% 0
  - 7.  Don't know 0
- (Go to question 17.)
5. Approximately how many members were in your cooperative in 1979? (Check one.)
- 1.  Less than 100 2
  - 2.  100 to 199 1
  - 3.  200 to 499 1
  - 4.  500 and above 0

6. Approximately what percent of your members are foreigners (not U.S. citizens)?
- 1.  None, all are U.S. citizens. 4
  - 2.  1 to 24% 0
  - 3.  25 to 49% 0
  - 4.  50 to 74% 0
  - 5.  75 to 99% 0
  - 6.  100% 0
  - 7.  Don't know 0
- (Go to question 17.)
7. Approximately how many shareholders, who are authorized to vote, were in your corporation in fiscal year 1979? (Check one.)
- 1.  Less than 100 142
  - 2.  100 to 499 3
  - 3.  500 to 999 1
  - 4.  1000 or more 3
- No response 4
8. Approximately what percent of your corporation's shareholders, who are authorized to vote, are foreigners (not U.S. citizens)? (Check one.)
- 1.  None, all are U.S. citizens 120
  - 2.  1 to 24% 4
  - 3.  25 to 49% 8
  - 4.  50 to 74% 5
  - 5.  75 to 99% 1
  - 6.  100% 8
  - 7.  Don't know 1
- No response 6
9. Are shares in your corporation publicly traded? (Check one.)
- 1.  Yes 3
  - 2.  No 143
- No response 7

A/ Responses to questions regarding corporations in appendixes III through VI will not sum to the total in this appendix because some corporations did not disclose if they had or did not have foreign ownership and other corporations were headquartered in States other than those shown in those appendixes.

10. Approximately what percent of the corporation's board members are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 124
- 2.  1 to 24% 4
- 3.  25 to 49% 6
- 4.  50 to 74% 6
- 5.  75 to 99% 6
- 6.  100% 1
- 7.  Don't know 1

11. Approximately what percent of the corporation's executive officers are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 132
- 2.  1 to 24% 6
- 3.  25 to 49% 5
- 4.  50 to 74% 3
- 5.  75 to 99% 1
- 6.  100% 1
- No response 5

12. Where is your firm incorporated? (Check one.)

- 1.  United States 146
- 2.  Canada
- 3.  Iceland
- 4.  Japan
- 5.  Norway
- 6.  Other. Specify \_\_\_\_\_

13. Do any other companies currently own any of your firm's authorized voting stock? (Check one.)

- 1.  Yes
- 2.  No (Go to question 15.)

GAO Note: Does not apply for summary information contained in this appendix.

14. Please indicate: (A) the names of companies owning shares in this firm, (B) their location, (C) approximate percentage of your firm's stock they own, and (D) if 10 percent or more of their voting stock is owned by a foreign (non-U.S.) organization or more than four companies, list the additional names on the back of this appendix.

|  | A                                   | B                    | C   | D  |
|--|-------------------------------------|----------------------|---|--|
|  | Companies owning stock in your firm | City of headquarters | Approximate % of your firm's stock they own | Is 10% or more of their voting stock foreign (non-U.S.) owned? (Check one box for each row)      |
| GAO Note: Does not apply for summary information contained in this appendix. |                                     |                      |   | 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 Not Sure <input type="checkbox"/> |
| 1. _____ %   |                                     |                      |   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                       |
| 2. _____ %   |                                     |                      |   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                       |
| 3. _____ %   |                                     |                      |   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                       |
| 4. _____ %   |                                     |                      |   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>                       |

15. Does your firm own any voting shares in any other seafood processing companies? (Check one.)

- 1.  Yes
- 2.  No (Go to question 17.)

GAO Note: Does not apply for summary information contained in this appendix.

16. Please indicate: (A) the names of other companies in which your firm owns shares, (B) their location, (C) approximate percentage of your ownership, and (D) if 10 percent or more of their voting stock is owned by a foreign (non-U.S.) organization or individual. (If there are more than four companies, list the additional names on the back of the questionnaire.)

| A  | B                    | C   | D   |                          |                          |
|--|----------------------|---|---|--------------------------|--------------------------|
| Companies in which your firm owns shares                                     | City of headquarters | Approximate % of their stock your firm owns | Is 10% or more of their voting stock foreign (non-U.S.) owned? (Check one box for each row) |                          |                          |
| GAO Note: Does not apply for summary information contained in this appendix. |                      |   | 1   | 2                        | 3                        |
|  |                      |   | Yes   | No                       | Not Sure                 |
| 1. _____   | _____                | _____ %                                     | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. _____   | _____                | _____ %                                     | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. _____   | _____                | _____ %                                     | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. _____   | _____                | _____ %                                     | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/> |

For the following questions on assets, revenues, and debts in Parts II & III, please include in your figures your firm's share from any subsidiary operations as listed in question 16.

**II. SIZE AND TYPE OF OPERATION**

17. Approximately what were your firm's total assets for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 55
- 2.  \$250,000 to \$499,999 18
- 3.  \$500,000 to \$999,999 32
- 4.  \$1,000,000 to \$4,999,999 55
- 5.  \$5,000,000 to \$9,999,999 16
- 6.  \$10,000,000 or more 19

No response 1

18. Approximately what was your firm's gross operating revenue for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 46
  - 2.  \$250,000 to \$499,999 13
  - 3.  \$500,000 to \$999,999 26
  - 4.  \$1,000,000 to \$4,999,999 53
  - 5.  \$5,000,000 to \$9,999,999 23
  - 6.  \$10,000,000 or more 34
- No response 1

19. Approximately what percent of this revenue was from the following operations? (Fill in percentages.)

- \_\_\_\_\_ % Seafood brokerage or trading
- \_\_\_\_\_ % Seafood processing (including operations such as dressing, steaking, freezing and canning)
- \_\_\_\_\_ % Fishing
- \_\_\_\_\_ % Other (specify)

100% TOTAL

GAO Note: Does not apply for summary information contained in this appendix.

**III. DEBT**

20. Approximately what was your firm's total outstanding debt (short and long term) for the 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 93
- 2.  \$250,000 to \$499,999 19
- 3.  \$500,000 to \$999,999 16
- 4.  \$1,000,000 to \$4,999,999 44
- 5.  \$5,000,000 to \$9,999,999 13
- 6.  \$10,000,000 or more 10

21. To the best of your knowledge was any of this debt in the form of loans from foreign individuals (non-U.S. citizens) or foreign organizations (Non U.S. organizations incorporated or chartered in a foreign country, including U.S. branches of foreign banks)?

- 1.  Yes 27
- 2.  No (Go to question 27.) 169

22. What was the approximate total amount of these foreign loans? (Check one.)

- 1.  Less than \$250,000 7
- 2.  \$250,000 to \$499,999 4
- 3.  \$500,000 to \$999,999 1
- 4.  \$1,000,000 to \$4,999,999 9
- 5.  \$5,000,000 to \$9,999,999 2
- 6.  \$10,000,000 or more 4

23. Approximately what percentages of the total amount of these foreign loans were from the following types of lenders? (Fill in percentages)

- \_\_\_\_\_ % Banks or other financial institutions
- \_\_\_\_\_ % Companies
- \_\_\_\_\_ % Individuals
- \_\_\_\_\_ % Governments
- \_\_\_\_\_ % Other (specify)

GAO Note: Does not apply for summary information contained in this appendix.

100% TOTAL

24. Approximate what percentages of the total amount of these foreign loans were from sources in the following countries? (Fill in percentages)

- \_\_\_\_\_ % Canada
- \_\_\_\_\_ % Iceland
- \_\_\_\_\_ % Japan
- \_\_\_\_\_ % Norway
- \_\_\_\_\_ % Other (specify)

GAO Note: Does not apply for summary information contained in this appendix.

100% TOTAL

25. Which of the following provisions are included as part of any of these loan arrangements? (Check all that apply.)

- 1.  Provides for a representative of the foreign lender on your firm's Board of directors. 2
- 2.  Provides for a representative of the foreign lender to serve as a executive officer in your firm. 1
- 3.  Provides for a representative of the foreign lender to serve as a technician in your processing plant. 8
- 4.  Provides for the foreign lender to acquire a portion of your firm's production. 10
- 5.  Other (specify) 0
- 6.  No special provisions such as listed above. 15

26. It has been alleged that most foreign loans are from seven large Japanese firms; We would like to verify this allegation. Which of the following foreign organizations, if any, provided loans to your firm? (Check all that apply.)

- 1.  Kyokuyo 0
- 2.  Marubeni 0
- 3.  Mitsubishi 2
- 4.  Mitsui 0
- 5.  Nichiro Gyogyo Kaisha 2
- 6.  Nippon Suisan Kaisha 2
- 7.  Taiyo 2
- 8.  None of the above 19

**IV. POSSIBLE IMPACTS OF FOREIGN ACTIVITIES ON U.S. FIRMS**

*If 51% or more of this firm's ownership belongs to non-U.S. citizens, skip to question 30.*

27. In your opinion how much, if at all, are foreign individuals or companies engaging in the following activities regarding the U.S. seafood processing industry? (Check one box for each row.)

|   | Great extent                | Some extent                 | Little if any               | No basis to judge           | No response |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
|   | 1                           | 2                           | 3                           | 4                           |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 62 | <input type="checkbox"/> 50 | <input type="checkbox"/> 5  | <input type="checkbox"/> 50 | 29          |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 69 | <input type="checkbox"/> 46 | <input type="checkbox"/> 1  | <input type="checkbox"/> 51 | 29          |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 27 | <input type="checkbox"/> 67 | <input type="checkbox"/> 12 | <input type="checkbox"/> 58 | 32          |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 28 | <input type="checkbox"/> 48 | <input type="checkbox"/> 14 | <input type="checkbox"/> 75 | 31          |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 51 | <input type="checkbox"/> 36 | <input type="checkbox"/> 21 | <input type="checkbox"/> 57 | 31          |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 73 | <input type="checkbox"/> 41 | <input type="checkbox"/> 9  | <input type="checkbox"/> 43 | 30          |
| 7. Other (specify) <u>A/</u>                          | <input type="checkbox"/> 7  | <input type="checkbox"/> 1  | <input type="checkbox"/> 0  | <input type="checkbox"/> 15 | 173         |

A/ Does not lend itself to summarization.

28. In your opinion what kinds of impact, if any, are the following foreign activities having on your firm?  
(Check one box for each row.)

|   | Very favorable impact      | Favorable impact            | No impact                   | Unfavorable impact          | Very unfavorable impact     | No basis to judge           | No response |
|---|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
|   | 1                          | 2                           | 3                           | 4                           | 5                           | 6                           |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 5 | <input type="checkbox"/> 16 | <input type="checkbox"/> 38 | <input type="checkbox"/> 44 | <input type="checkbox"/> 3  | <input type="checkbox"/> 58 | 29          |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 3 | <input type="checkbox"/> 5  | <input type="checkbox"/> 34 | <input type="checkbox"/> 44 | <input type="checkbox"/> 22 | <input type="checkbox"/> 58 | 30          |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 3 | <input type="checkbox"/> 5  | <input type="checkbox"/> 25 | <input type="checkbox"/> 44 | <input type="checkbox"/> 27 | <input type="checkbox"/> 60 | 32          |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 2 | <input type="checkbox"/> 3  | <input type="checkbox"/> 21 | <input type="checkbox"/> 35 | <input type="checkbox"/> 29 | <input type="checkbox"/> 73 | 33          |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 2 | <input type="checkbox"/> 2  | <input type="checkbox"/> 20 | <input type="checkbox"/> 44 | <input type="checkbox"/> 35 | <input type="checkbox"/> 62 | 31          |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 2 | <input type="checkbox"/> 5  | <input type="checkbox"/> 13 | <input type="checkbox"/> 50 | <input type="checkbox"/> 50 | <input type="checkbox"/> 46 | 30          |
| Other (specify <u>A/</u> )                            | <input type="checkbox"/> 0 | <input type="checkbox"/> 0  | <input type="checkbox"/> 1  | <input type="checkbox"/> 1  | <input type="checkbox"/> 8  | <input type="checkbox"/> 19 | 167         |

A/Does not lend itself to summarization.

29. Some may feel their firm has been affected by foreign (non-U.S.) investments—either directly by investments in their firm or indirectly by investments in other processors. In your opinion, how much, if at all, have foreign investments increased or decreased the following for your firm? (Check one box for each row.)

| Conditions possibly affected by foreign investments    | Greatly increased           | In-creased                  | No impact                   | De-creased                  | Greatly decreased           | No basis to judge           | No response |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
|  | 1                           | 2                           | 3                           | 4                           | 5                           | 6                           |             |
| 1. Capital available to our firm                       | <input type="checkbox"/> 7  | <input type="checkbox"/> 18 | <input type="checkbox"/> 77 | <input type="checkbox"/> 7  | <input type="checkbox"/> 1  | <input type="checkbox"/> 51 | 35          |
| 2. Our ability to obtain U.S. capital                  | <input type="checkbox"/> 4  | <input type="checkbox"/> 11 | <input type="checkbox"/> 73 | <input type="checkbox"/> 18 | <input type="checkbox"/> 4  | <input type="checkbox"/> 50 | 36          |
| 3. Technical and management assistance available to us | <input type="checkbox"/> 8  | <input type="checkbox"/> 28 | <input type="checkbox"/> 67 | <input type="checkbox"/> 8  | <input type="checkbox"/> 1  | <input type="checkbox"/> 47 | 37          |
| 4. Our total markets for all seafood                   | <input type="checkbox"/> 10 | <input type="checkbox"/> 36 | <input type="checkbox"/> 23 | <input type="checkbox"/> 42 | <input type="checkbox"/> 9  | <input type="checkbox"/> 37 | 39          |
| 5. Our domestic markets for all seafood                | <input type="checkbox"/> 3  | <input type="checkbox"/> 13 | <input type="checkbox"/> 46 | <input type="checkbox"/> 46 | <input type="checkbox"/> 14 | <input type="checkbox"/> 37 | 37          |
| 6. Our foreign markets for all seafood                 | <input type="checkbox"/> 9  | <input type="checkbox"/> 28 | <input type="checkbox"/> 28 | <input type="checkbox"/> 36 | <input type="checkbox"/> 12 | <input type="checkbox"/> 45 | 38          |
| 7. Our total markets for new products                  | <input type="checkbox"/> 5  | <input type="checkbox"/> 19 | <input type="checkbox"/> 48 | <input type="checkbox"/> 16 | <input type="checkbox"/> 5  | <input type="checkbox"/> 67 | 36          |
| 8. Our research and development activities             | <input type="checkbox"/> 3  | <input type="checkbox"/> 14 | <input type="checkbox"/> 65 | <input type="checkbox"/> 7  | <input type="checkbox"/> 6  | <input type="checkbox"/> 62 | 39          |
| 9. Prices we sell seafood                              | <input type="checkbox"/> 13 | <input type="checkbox"/> 23 | <input type="checkbox"/> 22 | <input type="checkbox"/> 47 | <input type="checkbox"/> 21 | <input type="checkbox"/> 34 | 36          |
| 10. Amount of employment for U.S. citizens             | <input type="checkbox"/> 4  | <input type="checkbox"/> 29 | <input type="checkbox"/> 50 | <input type="checkbox"/> 20 | <input type="checkbox"/> 3  | <input type="checkbox"/> 52 | 38          |
| 11. Prices we pay fishermen or other seafood sources   | <input type="checkbox"/> 20 | <input type="checkbox"/> 36 | <input type="checkbox"/> 24 | <input type="checkbox"/> 31 | <input type="checkbox"/> 15 | <input type="checkbox"/> 35 | 35          |
| 12. Competition with other processors                  | <input type="checkbox"/> 21 | <input type="checkbox"/> 50 | <input type="checkbox"/> 32 | <input type="checkbox"/> 13 | <input type="checkbox"/> 4  | <input type="checkbox"/> 40 | 36          |
| 13. Our control over our business operations           | <input type="checkbox"/> 1  | <input type="checkbox"/> 7  | <input type="checkbox"/> 65 | <input type="checkbox"/> 30 | <input type="checkbox"/> 11 | <input type="checkbox"/> 43 | 39          |
| 14. U.S. taxes we pay                                  | <input type="checkbox"/> 7  | <input type="checkbox"/> 28 | <input type="checkbox"/> 52 | <input type="checkbox"/> 13 | <input type="checkbox"/> 2  | <input type="checkbox"/> 56 | 38          |

**NORTHWEST PROCESSORS PLEASE CONTINUE WITH THIS QUESTION.  
NORTHEAST PROCESSORS GO TO QUESTION 30.**

|  |                            |                             |                             |                             |                             |                             |              |
|--|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--------------|
| 15. Our development of the Alaska bottomfish industry  | <input type="checkbox"/> 3 | <input type="checkbox"/> 14 | <input type="checkbox"/> 26 | <input type="checkbox"/> 16 | <input type="checkbox"/> 11 | <input type="checkbox"/> 58 | 29 <u>A/</u> |
| 16. Our development of the Pacific bottomfish industry | <input type="checkbox"/> 4 | <input type="checkbox"/> 18 | <input type="checkbox"/> 25 | <input type="checkbox"/> 21 | <input type="checkbox"/> 12 | <input type="checkbox"/> 47 | 30 <u>A/</u> |

A/157 of the 196 responding processors are located on the west coast, including 3 which are headquartered in California.

**V. GOVERNMENT REGULATIONS**

30. What kind of government regulations, if any, do you feel should be placed on foreign ownership of U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign ownership 5
  - 2.  Make no changes in regulations 24
  - 3.  Require periodic disclosure to the government of foreign ownership 33
  - 4.  In addition to disclosure, restrict the amount of foreign ownership 83
  - 5.  Exclude all foreign ownership in U.S. seafood processing firms. 34
- No response 17
31. What level of government should have primary responsibility for regulating foreign ownership? (Check one.)
- 1.  Federal Government 121
  - 2.  State government 46
  - 3.  Other (specify) 11 A/
- 
- No response 18

32. What kind of government regulations, if any, do you feel should be placed on foreign loans to U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign loans 29
  - 2.  Make no changes in regulations 26
  - 3.  Require periodic disclosure to the government of foreign loans 43
  - 4.  In addition to disclosure, restrict the amount of foreign loans 53
  - 5.  Exclude all foreign loans to U.S. seafood processors 24
- No response 21
33. What level of government should have primary responsibility for regulating foreign loans? (Check one.)
- 1.  Federal Government 118
  - 2.  State government 39
  - 3.  Other (specify) 14 A/
- 
- No response 25
- A/Does not lend itself to summarization.

**VI. COMMENTS**

34. Please provide any other comments you may have about foreign involvement in the seafood processing industry

GAO Note: Does not apply for summary information contained in this appendix.

35.  Check here if you wish to receive a copy of our final report

GAO Note: Does not apply for summary information contained in this appendix.

RESPONSES FROM WEST COAST <sup>1/</sup> SEAFOOD PROCESSORS WITHOUT  
FOREIGN INVESTMENT

**OWNERSHIP**

1. Which of the following best describes your firm? (Check one.)
- 1.  Individual proprietorship (Go to question 2.) 25
  - 2.  Partnership (Go to question 3.) 11
  - 3.  Cooperative (Go to question 5.) 4
  - 4.  Corporation (Go to question 7.) 77
2. Is the proprietor a U.S. citizen? (Check one.)
- 1.  No 0
  - 2.  Yes 25
- (Go to question 17.)
3. Approximately how many partners were in your firm in 1979? (Check one.)
- 1.  Less than 4 8
  - 2.  5 to 99 3
  - 3.  100 to 499 0
  - 4.  500 or more 0
4. Approximately what percent of the partners are foreigners (not U.S. citizens)? (Check one.)
- 1.  None, all are U.S. citizens 11
  - 2.  1 to 24% 0
  - 3.  25 to 49% 0
  - 4.  50 to 74% 0
  - 5.  75 to 99% 0
  - 6.  100% 0
  - 7.  Don't know 0
- (Go to question 17.)
5. Approximately how many members were in your cooperative in 1979? (Check one.)
- 1.  Less than 100 2
  - 2.  100 to 199 1
  - 3.  200 to 499 1
  - 4.  500 and above 0

6. Approximately what percent of your members are foreigners (not U.S. citizens)?
- 1.  None, all are U.S. citizens. 4
  - 2.  1 to 24% 0
  - 3.  25 to 49% 0
  - 4.  50 to 74% 0
  - 5.  75 to 99% 0
  - 6.  100% 0
  - 7.  Don't know 0
- (Go to question 17.)
7. Approximately how many shareholders, who are authorized to vote, were in your corporation in fiscal year 1979? (Check one.)
- 1.  Less than 100 74
  - 2.  100 to 499 3
  - 3.  500 to 999 0
  - 4.  1000 or more 0
8. Approximately what percent of your corporation's shareholders, who are authorized to vote, are foreigners (not U.S. citizens)? (Check one.)
- 1.  None, all are U.S. citizens 77
  - 2.  1 to 24% 0
  - 3.  25 to 49% 0
  - 4.  50 to 74% 0
  - 5.  75 to 99% 0
  - 6.  100% 0
  - 7.  Don't know 0
9. Are shares in your corporation publicly traded? (Check one.)
- 1.  Yes 1
  - 2.  No 75
- No response 1

<sup>1/</sup>Includes Alaska, Washington, and Oregon.

10. Approximately what percent of the corporation's board members are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 76
- 2.  1 to 24% 0
- 3.  25 to 49% 0
- 4.  50 to 74% 0
- 5.  75 to 99% 0
- 6.  100% 0
- 7.  Don't know 0

No response 1

11. Approximately what percent of the corporation's executive officers are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 76
- 2.  1 to 24% 0
- 3.  25 to 49% 0
- 4.  50 to 74% 0
- 5.  75 to 99% 0
- 6.  100% 0

No response 1

12. Where is your firm incorporated? (Check one.)

- 1.  United States 77
- 2.  Canada 0
- 3.  Iceland 0
- 4.  Japan 0
- 5.  Norway 0
- 6.  Other. Specify \_\_\_\_\_ 0

II. SIZE AND TYPE OF OPERATION

17. Approximately what were your firm's total assets for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 43
- 2.  \$250,000 to \$499,999 15
- 3.  \$500,000 to \$999,999 22
- 4.  \$1,000,000 to \$4,999,999 26
- 5.  \$5,000,000 to \$9,999,999 5
- 6.  \$10,000,000 or more 6

18. Approximately what was your firm's gross operating revenue for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 41
- 2.  \$250,000 to \$499,999 12
- 3.  \$500,000 to \$999,999 18
- 4.  \$1,000,000 to \$4,999,999 29
- 5.  \$5,000,000 to \$9,999,999 8
- 6.  \$10,000,000 or more 9

GAO Note: Responses to questions 13, 14, 15, 16, 19, 23, 24, 34, and 35 are not summarized in this appendix. Copies of the questions are in appendix II.

**III. DEBT**

20. Approximately what was your firm's total outstanding debt (short and long term) for the 1979 fiscal year? (Check one.)
- 1.  Less than \$250,000 74
  - 2.  \$250,000 to \$499,999 8
  - 3.  \$500,000 to \$999,999 8
  - 4.  \$1,000,000 to \$4,999,999 18
  - 5.  \$5,000,000 to \$9,999,999 8
  - 6.  \$10,000,000 or more 1

21. To the best of your knowledge was any of this debt in the form of loans from foreign individuals (non-U.S. citizens) or foreign organizations (Non U.S. organizations incorporated or chartered in a foreign country, including U.S. branches of foreign banks)?
- 1.  Yes 0
  - 2.  No (Go to question 27.) 117

22. What was the approximate total amount of these foreign loans? (Check one.)
- 1.  Less than \$250,000 0
  - 2.  \$250,000 to \$499,999 0
  - 3.  \$500,000 to \$999,999 0
  - 4.  \$1,000,000 to \$4,999,999 0
  - 5.  \$5,000,000 to \$9,999,999 0
  - 6.  \$10,000,000 or more 0

25. Which of the following provisions are included as part of any of these loan arrangements? (Check all that apply.)
- 1.  Provides for a representative of the foreign lender on your firm's Board of directors. 0
  - 2.  Provides for a representative of the foreign lender to serve as a executive officer in your firm. 0
  - 3.  Provides for a representative of the foreign lender to serve as a technician in your processing plant. 0
  - 4.  Provides for the foreign lender to acquire a portion of your firm's production. 0
  - 5.  Other (specify) 0  
\_\_\_\_\_
  - 6.  No special provisions such as listed above. 0

26. It has been alleged that most foreign loans are from seven large Japanese firms; We would like to verify this allegation. Which of the following foreign organizations, if any, provided loans to your firm? (Check all that apply.)
- 1.  Kyokuyo 0
  - 2.  Marubeni 0
  - 3.  Mitsubishi 0
  - 4.  Mitsui 0
  - 5.  Nichiro Gyogyo Kaisha 0
  - 6.  Nippon Suisan Kaisha 0
  - 7.  Taiyo 0
  - 8.  None of the above 0

**IV. POSSIBLE IMPACTS OF FOREIGN ACTIVITIES ON U.S. FIRMS**

*If 51% or more of this firm's ownership belongs to non-U.S. citizens, skip to question 28.*

27. In your opinion how much, if at all, are foreign individuals or companies engaging in the following activities regarding the U.S. seafood processing industry? (Check one box for each row.)

|   | Great extent                | Some extent                 | Little if any               | No basis to judge           | No response |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
|   | 1                           | 2                           | 3                           | 4                           |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 43 | <input type="checkbox"/> 33 | <input type="checkbox"/> 1  | <input type="checkbox"/> 29 | 11          |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 51 | <input type="checkbox"/> 27 | <input type="checkbox"/> 0  | <input type="checkbox"/> 29 | 10          |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 16 | <input type="checkbox"/> 43 | <input type="checkbox"/> 10 | <input type="checkbox"/> 36 | 12          |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 17 | <input type="checkbox"/> 32 | <input type="checkbox"/> 10 | <input type="checkbox"/> 46 | 12          |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 30 | <input type="checkbox"/> 25 | <input type="checkbox"/> 14 | <input type="checkbox"/> 36 | 12          |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 52 | <input type="checkbox"/> 28 | <input type="checkbox"/> 1  | <input type="checkbox"/> 25 | 11          |
| 7. Other (specify) <u>A/</u>                          | <input type="checkbox"/> 7  | <input type="checkbox"/> 0  | <input type="checkbox"/> 0  | <input type="checkbox"/> 10 | 100         |

A/ Does not lend itself to summarization.

28. In your opinion, what kinds of impact, if any, are the following foreign activities having on your firm? (Check one box for each row.)

|   | Very favorable impact      | Favorable impact           | No impact                   | Unfavorable impact          | Very unfavorable impact     | No basis to judge           | No response |
|---|----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
|   | 1                          | 2                          | 3                           | 4                           | 5                           | 6                           |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 2 | <input type="checkbox"/> 8 | <input type="checkbox"/> 26 | <input type="checkbox"/> 27 | <input type="checkbox"/> 5  | <input type="checkbox"/> 39 | 10          |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 2 | <input type="checkbox"/> 4 | <input type="checkbox"/> 20 | <input type="checkbox"/> 24 | <input type="checkbox"/> 15 | <input type="checkbox"/> 41 | 11          |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 14 | <input type="checkbox"/> 31 | <input type="checkbox"/> 14 | <input type="checkbox"/> 41 | 12          |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 14 | <input type="checkbox"/> 23 | <input type="checkbox"/> 16 | <input type="checkbox"/> 48 | 13          |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 2 | <input type="checkbox"/> 0 | <input type="checkbox"/> 12 | <input type="checkbox"/> 32 | <input type="checkbox"/> 18 | <input type="checkbox"/> 42 | 11          |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 3  | <input type="checkbox"/> 35 | <input type="checkbox"/> 33 | <input type="checkbox"/> 31 | 10          |
| 7. Other (specify) <u>A/</u>                          | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1  | <input type="checkbox"/> 1  | <input type="checkbox"/> 6  | <input type="checkbox"/> 11 | 98          |

A/ Does not lend itself to summarization.

29. Some may feel their firm has been affected by foreign (non-U.S.) investments— either directly by investments in their firm or indirectly by investments in other processors. In your opinion, how much, if at all, have foreign investments increased or decreased the following for your firm? (Check one box for each row.)

| Conditions possibly affected by foreign investments   | Greatly increased           | In-creased                  | No impact                   | De-creased                  | Greatly decreased           | No basis to judge           | No response |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
|   | 1                           | 2                           | 3                           | 4                           | 5                           | 6                           |             |
| 1. Capital available to our firm  | <input type="checkbox"/> 2  | <input type="checkbox"/> 9  | <input type="checkbox"/> 52 | <input type="checkbox"/> 6  | <input type="checkbox"/> 1  | <input type="checkbox"/> 34 | 13          |
| 2. Our ability to obtain U.S. capital   | <input type="checkbox"/> 0  | <input type="checkbox"/> 6  | <input type="checkbox"/> 44 | <input type="checkbox"/> 12 | <input type="checkbox"/> 4  | <input type="checkbox"/> 38 | 13          |
| 3. Technical and management assistance available to us  | <input type="checkbox"/> 2  | <input type="checkbox"/> 16 | <input type="checkbox"/> 47 | <input type="checkbox"/> 6  | <input type="checkbox"/> 1  | <input type="checkbox"/> 32 | 13          |
| 4. Our total markets for all seafood  | <input type="checkbox"/> 5  | <input type="checkbox"/> 21 | <input type="checkbox"/> 13 | <input type="checkbox"/> 31 | <input type="checkbox"/> 4  | <input type="checkbox"/> 27 | 16          |
| 5. Our domestic markets for all seafood   | <input type="checkbox"/> 2  | <input type="checkbox"/> 6  | <input type="checkbox"/> 23 | <input type="checkbox"/> 35 | <input type="checkbox"/> 8  | <input type="checkbox"/> 29 | 14          |
| 6. Our foreign markets for all seafood  | <input type="checkbox"/> 4  | <input type="checkbox"/> 15 | <input type="checkbox"/> 19 | <input type="checkbox"/> 24 | <input type="checkbox"/> 10 | <input type="checkbox"/> 30 | 15          |
| 7. Our total markets for new products   | <input type="checkbox"/> 3  | <input type="checkbox"/> 10 | <input type="checkbox"/> 29 | <input type="checkbox"/> 10 | <input type="checkbox"/> 3  | <input type="checkbox"/> 49 | 13          |
| 8. Our research and development activities  | <input type="checkbox"/> 0  | <input type="checkbox"/> 8  | <input type="checkbox"/> 39 | <input type="checkbox"/> 3  | <input type="checkbox"/> 4  | <input type="checkbox"/> 47 | 16          |
| 9. Prices we sell seafood   | <input type="checkbox"/> 10 | <input type="checkbox"/> 13 | <input type="checkbox"/> 9  | <input type="checkbox"/> 34 | <input type="checkbox"/> 15 | <input type="checkbox"/> 24 | 12          |
| 10. Amount of employment for U.S. citizens  | <input type="checkbox"/> 1  | <input type="checkbox"/> 17 | <input type="checkbox"/> 31 | <input type="checkbox"/> 14 | <input type="checkbox"/> 2  | <input type="checkbox"/> 37 | 15          |
| 11. Prices we pay fishermen or other seafood sources  | <input type="checkbox"/> 11 | <input type="checkbox"/> 23 | <input type="checkbox"/> 11 | <input type="checkbox"/> 25 | <input type="checkbox"/> 11 | <input type="checkbox"/> 24 | 12          |
| 12. Competition with other processors   | <input type="checkbox"/> 13 | <input type="checkbox"/> 30 | <input type="checkbox"/> 19 | <input type="checkbox"/> 11 | <input type="checkbox"/> 3  | <input type="checkbox"/> 28 | 13          |
| 13. Our control over our business operations  | <input type="checkbox"/> 0  | <input type="checkbox"/> 4  | <input type="checkbox"/> 38 | <input type="checkbox"/> 23 | <input type="checkbox"/> 4  | <input type="checkbox"/> 33 | 15          |
| 14. U.S. taxes we pay   | <input type="checkbox"/> 3  | <input type="checkbox"/> 20 | <input type="checkbox"/> 25 | <input type="checkbox"/> 9  | <input type="checkbox"/> 1  | <input type="checkbox"/> 44 | 15          |
| <b>NORTHWEST PROCESSORS PLEASE CONTINUE WITH THIS QUESTION.<br/>NORTHEAST PROCESSORS GO TO QUESTION 30.</b> |                             |                             |                             |                             |                             |                             |             |
| 15. Our development of the Alaska bottomfish industry   | <input type="checkbox"/> 2  | <input type="checkbox"/> 13 | <input type="checkbox"/> 19 | <input type="checkbox"/> 13 | <input type="checkbox"/> 9  | <input type="checkbox"/> 46 | 15          |
| 16. Our development of the Pacific bottomfish industry  | <input type="checkbox"/> 3  | <input type="checkbox"/> 14 | <input type="checkbox"/> 18 | <input type="checkbox"/> 18 | <input type="checkbox"/> 10 | <input type="checkbox"/> 38 | 16          |

V. GOVERNMENT REGULATIONS

30. What kind of government regulations, if any, do you feel should be placed on foreign ownership of U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign ownership 2
  - 2.  Make no changes in regulations 5
  - 3.  Require periodic disclosure to the government of foreign ownership 21
  - 4.  In addition to disclosure, restrict the amount of foreign ownership 62
  - 5.  Exclude all foreign ownership in U.S. seafood processing firms. 20
- No response 7

31. What level of government should have primary responsibility for regulating foreign ownership? (Check one.)
- 1.  Federal Government 71
  - 2.  State government 37
  - 3.  Other (specify)A/ 3
- 
- No response 6

A/Does not lend itself to summarization.

32. What kind of government regulations, if any, do you feel should be placed on foreign loans to U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign loans 15
  - 2.  Make no changes in regulations 6
  - 3.  Require periodic disclosure to the government of foreign loans 35
  - 4.  In addition to disclosure, restrict the amount of foreign loans 37
  - 5.  Exclude all foreign loans to U.S. seafood processors 14
- No response 10

33. What level of government should have primary responsibility for regulating foreign loans? (Check one.)
- 1.  Federal Government 67
  - 2.  State government 34
  - 3.  Other (specify)A/ 4
- 
- No response 10

RESPONSES FROM WEST COAST <sup>1/</sup> SEAFOOD PROCESSORS

## WITH FOREIGN INVESTMENT

## I. OWNERSHIP

1. Which of the following best describes your firm? (Check one.)

- |   |    |
|---|----|
| 1. <input type="checkbox"/> Individual proprietorship (Go to question 2.) | 1  |
| 2. <input type="checkbox"/> Partnership (Go to question 3.)               | 1  |
| 3. <input type="checkbox"/> Cooperative (Go to question 5.)               | 0  |
| 4. <input type="checkbox"/> Corporation (Go to question 7.)               | 31 |

2. Is the proprietor a U.S. citizen? (Check one.)

- |                                 |   |
|---------------------------------|---|
| 1. <input type="checkbox"/> No  | 0 |
| 2. <input type="checkbox"/> Yes | 1 |
- (Go to question 17.)

3. Approximately how many partners were in your firm in 1979? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Less than 4 | 1 |
| 2. <input type="checkbox"/> 5 to 99     | 0 |
| 3. <input type="checkbox"/> 100 to 499  | 0 |
| 4. <input type="checkbox"/> 500 or more | 0 |

4. Approximately what percent of the partners are foreigners (not U.S. citizens)? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> None, all are U.S. citizens | 0 |
| 2. <input type="checkbox"/> 1 to 24%                    | 1 |
| 3. <input type="checkbox"/> 25 to 49%                   | 0 |
| 4. <input type="checkbox"/> 50 to 74%                   | 0 |
| 5. <input type="checkbox"/> 75 to 99%                   | 0 |
| 6. <input type="checkbox"/> 100%                        | 0 |
| 7. <input type="checkbox"/> Don't know                  | 0 |

5. Approximately how many members were in your cooperative in 1979? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Less than 100 | 0 |
| 2. <input type="checkbox"/> 100 to 199    | 0 |
| 3. <input type="checkbox"/> 200 to 499    | 0 |
| 4. <input type="checkbox"/> 500 and above | 0 |

6. Approximately what percent of your members are foreigners (not U.S. citizens)?

- |  |   |
|--|---|
| 1. <input type="checkbox"/> None, all are U.S. citizens. | 0 |
| 2. <input type="checkbox"/> 1 to 24%                     | 0 |
| 3. <input type="checkbox"/> 25 to 49%                    | 0 |
| 4. <input type="checkbox"/> 50 to 74%                    | 0 |
| 5. <input type="checkbox"/> 75 to 99%                    | 0 |
| 6. <input type="checkbox"/> 100%                         | 0 |
| 7. <input type="checkbox"/> Don't know                   | 0 |
- (Go to question 17.)

7. Approximately how many shareholders, who are authorized to vote, were in your corporation in fiscal year 1979? (Check one.)

- |   |    |
|---|----|
| 1. <input type="checkbox"/> Less than 100 | 30 |
| 2. <input type="checkbox"/> 100 to 499    | 0  |
| 3. <input type="checkbox"/> 500 to 999    | 1  |
| 4. <input type="checkbox"/> 1000 or more  | 0  |

8. Approximately what percent of your corporation's shareholders, who are authorized to vote, are foreigners (not U.S. citizens)? (Check one.)

- |   |    |
|---|----|
| 1. <input type="checkbox"/> None, all are U.S. citizens | 10 |
| 2. <input type="checkbox"/> 1 to 24%                    | 2  |
| 3. <input type="checkbox"/> 25 to 49%                   | 8  |
| 4. <input type="checkbox"/> 50 to 74%                   | 5  |
| 5. <input type="checkbox"/> 75 to 99%                   | 1  |
| 6. <input type="checkbox"/> 100%                        | 5  |
| 7. <input type="checkbox"/> Don't know                  | 0  |

9. Are shares in your corporation publicly traded? (Check one.)

- |                                 |    |
|---------------------------------|----|
| 1. <input type="checkbox"/> Yes | 0  |
| 2. <input type="checkbox"/> No  | 31 |

<sup>1/</sup>Includes Alaska, Washington, and Oregon.

10. Approximately what percent of the corporation's board members are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 11
- 2.  1 to 24% 4
- 3.  25 to 49% 5
- 4.  50 to 74% 6
- 5.  75 to 99% 4
- 6.  100% 1
- 7.  Don't know 0

11. Approximately what percent of the corporation's executive officers are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 17
- 2.  1 to 24% 5
- 3.  25 to 49% 4
- 4.  50 to 74% 3
- 5.  75 to 99% 1
- 6.  100% 1

12. Where is your firm incorporated? (Check one.)

- 1.  United States 28
- 2.  Canada 0
- 3.  Iceland 0
- 4.  Japan 0
- 5.  Norway 0
- 6.  Other. Specify \_\_\_\_\_ 0
- No response 3

**II. SIZE AND TYPE OF OPERATION**

17. Approximately what were your firm's total assets for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 5
- 2.  \$250,000 to \$499,999 2
- 3.  \$500,000 to \$999,999 4
- 4.  \$1,000,000 to \$4,999,999 11
- 5.  \$5,000,000 to \$9,999,999 5
- 6.  \$10,000,000 or more 6

18. Approximately what was your firm's gross operating revenue for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 3
- 2.  \$250,000 to \$499,999 1
- 3.  \$500,000 to \$999,999 2
- 4.  \$1,000,000 to \$4,999,999 10
- 5.  \$5,000,000 to \$9,999,999 10
- 6.  \$10,000,000 or more 7

GAO Note: Responses to questions 13, 14, 15, 16, 19, 23, 24, 34, and 35 are not summarized in this appendix. Copies of the questions are in appendix II.

III. DEBT

20. Approximately what was your firm's total outstanding debt (short and long term) for the 1979 fiscal year? (Check one.)
- 1.  Less than \$250,000 9
  - 2.  \$250,000 to \$499,999 3
  - 3.  \$500,000 to \$999,999 2
  - 4.  \$1,000,000 to \$4,999,999 12
  - 5.  \$5,000,000 to \$9,999,999 3
  - 6.  \$10,000,000 or more 4
21. To the best of your knowledge was any of this debt in the form of loans from foreign individuals (non-U.S. citizens) or foreign organizations (Non U.S. organizations incorporated or chartered in a foreign country, including U.S. branches of foreign banks)?
- 1.  Yes 22
  - 2.  No (Go to question 27.) 11
22. What was the approximate total amount of these foreign loans? (Check one.)
- 1.  Less than \$250,000 7
  - 2.  \$250,000 to \$499,999 4
  - 3.  \$500,000 to \$999,999 1
  - 4.  \$1,000,000 to \$4,999,999 7
  - 5.  \$5,000,000 to \$9,999,999 1
  - 6.  \$10,000,000 or more 2

25. Which of the following provisions are included as part of any of these loan arrangements? (Check all that apply.)
- 1.  Provides for a representative of the foreign lender on your firm's Board of directors. 2
  - 2.  Provides for a representative of the foreign lender to serve as a executive officer in your firm. 1
  - 3.  Provides for a representative of the foreign lender to serve as a technician in your processing plant. 8
  - 4.  Provides for the foreign lender to acquire a portion of your firm's production. 10
  - 5.  Other (specify) 0  
\_\_\_\_\_
  - 6.  No special provisions such as listed above. 10

26. It has been alleged that most foreign loans are from seven large Japanese firms; We would like to verify this allegation. Which of the following foreign organizations, if any, provided loans to your firm? (Check all that apply.)
- 1.  Kyokuyo 0
  - 2.  Marubeni 0
  - 3.  Mitsubishi 2
  - 4.  Mitsui 0
  - 5.  Nichiro Gyogyo Kaisha 2
  - 6.  Nippon Suisan Kaisha 2
  - 7.  Taiyo 2
  - 8.  None of the above 15

IV. POSSIBLE IMPACTS OF FOREIGN ACTIVITIES ON U.S. FIRMS

*If 51% or more of this firm's ownership belongs to non-U.S. citizens, skip to question 30.*

27. In your opinion how much, if at all, are foreign individuals or companies engaging in the following activities regarding the U.S. seafood processing industry? (Check one box for each row.)

|   | Great extent                | Some extent                 | Little if any              | No basis to judge          | No response |
|---|-----------------------------|-----------------------------|----------------------------|----------------------------|-------------|
|   | 1                           | 2                           | 3                          | 4                          |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 12 | <input type="checkbox"/> 8  | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | 12          |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 11 | <input type="checkbox"/> 6  | <input type="checkbox"/> 0 | <input type="checkbox"/> 4 | 12          |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 5  | <input type="checkbox"/> 10 | <input type="checkbox"/> 1 | <input type="checkbox"/> 4 | 13          |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 4  | <input type="checkbox"/> 8  | <input type="checkbox"/> 0 | <input type="checkbox"/> 9 | 12          |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 7  | <input type="checkbox"/> 6  | <input type="checkbox"/> 3 | <input type="checkbox"/> 5 | 12          |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 10 | <input type="checkbox"/> 5  | <input type="checkbox"/> 2 | <input type="checkbox"/> 4 | 12          |
| 7. Other (specify)                                    | <input type="checkbox"/> 0  | <input type="checkbox"/> 1  | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 32          |

28. In your opinion, what kinds of impact, if any, are the following foreign activities having on your firm? (Check one box for each row.)

|   | Very favorable impact      | Favorable impact           | No impact                  | Unfavorable impact         | Very unfavorable impact    | No basis to judge          | No response |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-------------|
|   | 1                          | 2                          | 3                          | 4                          | 5                          | 6                          |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 3 | <input type="checkbox"/> 6 | <input type="checkbox"/> 4 | <input type="checkbox"/> 7 | <input type="checkbox"/> 0 | <input type="checkbox"/> 2 | 11          |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 6 | <input type="checkbox"/> 9 | <input type="checkbox"/> 5 | <input type="checkbox"/> 1 | 11          |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 8 | <input type="checkbox"/> 2 | 11          |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 9 | <input type="checkbox"/> 5 | 11          |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 4 | <input type="checkbox"/> 6 | <input type="checkbox"/> 8 | <input type="checkbox"/> 4 | 11          |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 3 | <input type="checkbox"/> 8 | <input type="checkbox"/> 9 | <input type="checkbox"/> 2 | 11          |
| 7. Other (specify)                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | 30          |

28. Some may feel their firm has been affected by foreign (non-U.S.) investments—either directly by investments in their firm or indirectly by investments in other processors. In your opinion, how much, if at all, have foreign investments increased or decreased the following for your firm? (Check one box for each row.)

| Conditions possibly affected by foreign investments   | Greatly increased          | In-creased                 | No impact                   | De-creased                 | Greatly decreased          | No basis to judge          | No response |
|---|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|-------------|
|   | 1                          | 2                          | 3                           | 4                          | 5                          | 6                          |             |
| 1. Capital available to our firm  | <input type="checkbox"/> 4 | <input type="checkbox"/> 9 | <input type="checkbox"/> 5  | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 13          |
| 2. Our ability to obtain U.S. capital   | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 10 | <input type="checkbox"/> 3 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 13          |
| 3. Technical and management assistance available to us  | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 10 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 13          |
| 4. Our total markets for all seafood  | <input type="checkbox"/> 4 | <input type="checkbox"/> 7 | <input type="checkbox"/> 4  | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | 12          |
| 5. Our domestic markets for all seafood   | <input type="checkbox"/> 0 | <input type="checkbox"/> 4 | <input type="checkbox"/> 13 | <input type="checkbox"/> 3 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | 12          |
| 6. Our foreign markets for all seafood  | <input type="checkbox"/> 4 | <input type="checkbox"/> 7 | <input type="checkbox"/> 4  | <input type="checkbox"/> 4 | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | 12          |
| 7. Our total markets for new products   | <input type="checkbox"/> 1 | <input type="checkbox"/> 4 | <input type="checkbox"/> 10 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 5 | 12          |
| 8. Our research and development activities  | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 14 | <input type="checkbox"/> 2 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 12          |
| 9. Prices we sell seafood   | <input type="checkbox"/> 1 | <input type="checkbox"/> 4 | <input type="checkbox"/> 8  | <input type="checkbox"/> 4 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | 13          |
| 10. Amount of employment for U.S. citizens  | <input type="checkbox"/> 2 | <input type="checkbox"/> 8 | <input type="checkbox"/> 9  | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 12          |
| 11. Prices we pay fishermen or other seafood sources  | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 | <input type="checkbox"/> 8  | <input type="checkbox"/> 3 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 12          |
| 12. Competition with other processors   | <input type="checkbox"/> 3 | <input type="checkbox"/> 9 | <input type="checkbox"/> 7  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | 12          |
| 13. Our control over our business operations  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 12 | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 | <input type="checkbox"/> 0 | 12          |
| 14. U.S. taxes we pay   | <input type="checkbox"/> 1 | <input type="checkbox"/> 3 | <input type="checkbox"/> 17 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 12          |
| <b>NORTHWEST PROCESSORS PLEASE CONTINUE WITH THIS QUESTION.<br/>NORTHEAST PROCESSORS GO TO QUESTION 30.</b> |                            |                            |                             |                            |                            |                            |             |
| 15. Our development of the Alaska bottomfish industry   | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | <input type="checkbox"/> 7  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 7 | 14          |
| 16. Our development of the Pacific bottomfish industry  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 6  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 7 | 14          |

**V. GOVERNMENT REGULATIONS**

30. What kind of government regulations, if any, do you feel should be placed on foreign ownership of U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign ownership 2
  - 2.  Make no changes in regulations 9
  - 3.  Require periodic disclosure to the government of foreign ownership 4
  - 4.  In addition to disclosure, restrict the amount of foreign ownership 11
  - 5.  Exclude all foreign ownership in U.S. seafood processing firms. 2
- No response 5

31. What level of government should have primary responsibility for regulating foreign ownership? (Check one.)
- 1.  Federal Government 20
  - 2.  State government 6
  - 3.  Other (specify) A/ 3
- 
- No response 4

32. What kind of government regulations, if any, do you feel should be placed on foreign loans to U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign loans 6
  - 2.  Make no changes in regulations 11
  - 3.  Require periodic disclosure to the government of foreign loans 4
  - 4.  In addition to disclosure, restrict the amount of foreign loans 6
  - 5.  Exclude all foreign loans to U.S. seafood processors 1

33. What level of government should have primary responsibility for regulating foreign loans? (Check one.)
- 1.  Federal Government 18
  - 2.  State government 5
  - 3.  Other (specify) A/ 5
- 
- No response 5

A/Does not lend itself to summarization.

**RESPONSES FROM EAST COAST <sup>1/</sup> SEAFOOD PROCESSORS  
WITHOUT FOREIGN INVESTMENT**

**I. OWNERSHIP**

1. Which of the following best describes your firm? (Check one.)

- |   |    |
|---|----|
| 1. <input type="checkbox"/> Individual proprietorship (Go to question 2.) | 1  |
| 2. <input type="checkbox"/> Partnership (Go to question 3.)               | 0  |
| 3. <input type="checkbox"/> Cooperative (Go to question 5.)               | 0  |
| 4. <input type="checkbox"/> Corporation (Go to question 7.)               | 30 |

2. Is the proprietor a U.S. citizen? (Check one.)

- |                                 |   |
|---------------------------------|---|
| 1. <input type="checkbox"/> No  | 0 |
| 2. <input type="checkbox"/> Yes | 1 |
- (Go to question 17.)

3. Approximately how many partners were in your firm in 1979? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Less than 4 | 0 |
| 2. <input type="checkbox"/> 5 to 99     | 0 |
| 3. <input type="checkbox"/> 100 to 499  | 0 |
| 4. <input type="checkbox"/> 500 or more | 0 |

4. Approximately what percent of the partners are foreigners (not U.S. citizens)? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> None, all are U.S. citizens | 0 |
| 2. <input type="checkbox"/> 1 to 24%                    | 0 |
| 3. <input type="checkbox"/> 25 to 49%                   | 0 |
| 4. <input type="checkbox"/> 50 to 74%                   | 0 |
| 5. <input type="checkbox"/> 75 to 99%                   | 0 |
| 6. <input type="checkbox"/> 100%                        | 0 |
| 7. <input type="checkbox"/> Don't know                  | 0 |
- (Go to question 17.)

5. Approximately how many members were in your cooperative in 1979? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Less than 100 | 0 |
| 2. <input type="checkbox"/> 100 to 199    | 0 |
| 3. <input type="checkbox"/> 200 to 499    | 0 |
| 4. <input type="checkbox"/> 500 and above | 0 |

6. Approximately what percent of your members are foreigners (not U.S. citizens)?

- |   |   |
|---|---|
| 1. <input type="checkbox"/> None, all are U.S. citizens | 0 |
| 2. <input type="checkbox"/> 1 to 24%                    | 0 |
| 3. <input type="checkbox"/> 25 to 49%                   | 0 |
| 4. <input type="checkbox"/> 50 to 74%                   | 0 |
| 5. <input type="checkbox"/> 75 to 99%                   | 0 |
| 6. <input type="checkbox"/> 100%                        | 0 |
| 7. <input type="checkbox"/> Don't know                  | 0 |
- (Go to question 17.)

7. Approximately how many shareholders, who are authorized to vote, were in your corporation in fiscal year 1979? (Check one.)

- |   |    |
|---|----|
| 1. <input type="checkbox"/> Less than 100 | 30 |
| 2. <input type="checkbox"/> 100 to 499    | 0  |
| 3. <input type="checkbox"/> 500 to 999    | 0  |
| 4. <input type="checkbox"/> 1000 or more  | 0  |

8. Approximately what percent of your corporation's shareholders, who are authorized to vote, are foreigners (not U.S. citizens)? (Check one.)

- |   |    |
|---|----|
| 1. <input type="checkbox"/> None, all are U.S. citizens | 30 |
| 2. <input type="checkbox"/> 1 to 24%                    | 0  |
| 3. <input type="checkbox"/> 25 to 49%                   | 0  |
| 4. <input type="checkbox"/> 50 to 74%                   | 0  |
| 5. <input type="checkbox"/> 75 to 99%                   | 0  |
| 6. <input type="checkbox"/> 100%                        | 0  |
| 7. <input type="checkbox"/> Don't know                  | 0  |

9. Are shares in your corporation publicly traded? (Check one.)

- |                                 |    |
|---------------------------------|----|
| 1. <input type="checkbox"/> Yes | 0  |
| 2. <input type="checkbox"/> No  | 30 |

<sup>1/</sup> Includes Connecticut, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island.

10. Approximately what percent of the corporation's board members are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 30
- 2.  1 to 24% 0
- 3.  25 to 49% 0
- 4.  50 to 74% 0
- 5.  75 to 99% 0
- 6.  100% 0
- 7.  Don't know 0

11. Approximately what percent of the corporation's executive officers are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 30
- 2.  1 to 24% 0
- 3.  25 to 49% 0
- 4.  50 to 74% 0
- 5.  75 to 99% 0
- 6.  100% 0

12. Where is your firm incorporated? (Check one.)

- 1.  United States 30
- 2.  Canada 0
- 3.  Iceland 0
- 4.  Japan 0
- 5.  Norway 0
- 6.  Other. Specify \_\_\_\_\_ 0

**II. SIZE AND TYPE OF OPERATION**

17. Approximately what were your firm's total assets for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 5
- 2.  \$250,000 to \$499,999 0
- 3.  \$500,000 to \$999,999 5
- 4.  \$1,000,000 to \$4,999,999 14
- 5.  \$5,000,000 to \$9,999,999 5
- 6.  \$10,000,000 or more 1
- No response 1

18. Approximately what was your firm's gross operating revenue for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 1
- 2.  \$250,000 to \$499,999 0
- 3.  \$500,000 to \$999,999 5
- 4.  \$1,000,000 to \$4,999,999 13
- 5.  \$5,000,000 to \$9,999,999 3
- 6.  \$10,000,000 or more 8
- No response 1

GAO Note: Responses to questions 13, 14, 15, 16, 19, 23, 24, 34, and 35 are not summarized in this appendix. Copies of the questions are in appendix II.

## III. DEBT

20. Approximately what was your firm's total outstanding debt (short and long term) for the 1979 fiscal year? (Check one.)
- |  |   |
|--|---|
| 1. <input type="checkbox"/> Less than \$250,000        | 9 |
| 2. <input type="checkbox"/> \$250,000 to \$499,999     | 7 |
| 3. <input type="checkbox"/> \$500,000 to \$999,999     | 5 |
| 4. <input type="checkbox"/> \$1,000,000 to \$4,999,999 | 7 |
| 5. <input type="checkbox"/> \$5,000,000 to \$9,999,999 | 1 |
| 6. <input type="checkbox"/> \$10,000,000 or more       | 1 |
21. <sup>No response</sup> To the best of your knowledge was any of this debt in the form of loans from foreign individuals (non-U.S. citizens) or foreign organizations (Non U.S. organizations incorporated or chartered in a foreign country, including U.S. branches of foreign banks)?
- |   |    |
|---|----|
| 1. <input type="checkbox"/> Yes                     | 0  |
| 2. <input type="checkbox"/> No (Go to question 27.) | 31 |
22. What was the approximate total amount of these foreign loans? (Check one.)
- |  |   |
|--|---|
| 1. <input type="checkbox"/> Less than \$250,000        | 0 |
| 2. <input type="checkbox"/> \$250,000 to \$499,999     | 0 |
| 3. <input type="checkbox"/> \$500,000 to \$999,999     | 0 |
| 4. <input type="checkbox"/> \$1,000,000 to \$4,999,999 | 0 |
| 5. <input type="checkbox"/> \$5,000,000 to \$9,999,999 | 0 |
| 6. <input type="checkbox"/> \$10,000,000 or more       | 0 |
25. Which of the following provisions are included as part of any of these loan arrangements? (Check all that apply.)
- |  |   |
|--|---|
| 1. <input type="checkbox"/> Provides for a representative of the foreign lender on your firm's Board of directors.                 | 0 |
| 2. <input type="checkbox"/> Provides for a representative of the foreign lender to serve as a executive officer in your firm.      | 0 |
| 3. <input type="checkbox"/> Provides for a representative of the foreign lender to serve as a technician in your processing plant. | 0 |
| 4. <input type="checkbox"/> Provides for the foreign lender to acquire a portion of your firm's production.                        | 0 |
| 5. <input type="checkbox"/> Other (specify) _____  | 0 |
| 6. <input type="checkbox"/> No special provisions such as listed above.  | 0 |
26. It has been alleged that most foreign loans are from seven large Japanese firms; We would like to verify this allegation. Which of the following foreign organizations, if any, provided loans to your firm? (Check all that apply.)
- |   |   |
|---|---|
| 1. <input type="checkbox"/> Kyokuyo               | 0 |
| 2. <input type="checkbox"/> Marubeni              | 0 |
| 3. <input type="checkbox"/> Mitsubishi            | 0 |
| 4. <input type="checkbox"/> Mitsui                | 0 |
| 5. <input type="checkbox"/> Nichiro Gyogyo Kaisha | 0 |
| 6. <input type="checkbox"/> Nippon Suisan Kaisha  | 0 |
| 7. <input type="checkbox"/> Taiyo                 | 0 |
| 8. <input type="checkbox"/> None of the above     | 0 |

**IV. POSSIBLE IMPACTS OF FOREIGN ACTIVITIES ON U.S. FIRMS**

*If 51% or more of this firm's ownership belongs to non-U.S. citizens, skip to question 28.*

27. In your opinion how much, if at all, are foreign individuals or companies engaging in the following activities regarding the U.S. seafood processing industry? (Check one box for each row.)

|   | Greet extent               | Some extent                | Little if any              | No basis to judge           | No response |
|---|----------------------------|----------------------------|----------------------------|-----------------------------|-------------|
|   | 1                          | 2                          | 3                          | 4                           |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 4 | <input type="checkbox"/> 7 | <input type="checkbox"/> 2 | <input type="checkbox"/> 16 | 2           |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 4 | <input type="checkbox"/> 9 | <input type="checkbox"/> 1 | <input type="checkbox"/> 14 | 3           |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 5 | <input type="checkbox"/> 9 | <input type="checkbox"/> 1 | <input type="checkbox"/> 13 | 3           |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 4 | <input type="checkbox"/> 6 | <input type="checkbox"/> 4 | <input type="checkbox"/> 14 | 3           |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 8 | <input type="checkbox"/> 5 | <input type="checkbox"/> 2 | <input type="checkbox"/> 13 | 3           |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 | <input type="checkbox"/> 5 | <input type="checkbox"/> 10 | 3           |
| 7. Other (specify)                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 5  | 26          |

28. In your opinion what kinds of impact, if any, are the following foreign activities having on your firm? (Check one box for each row.)

|   | Very favorable impact      | Favorable impact           | No impact                  | Unfavorable impact         | Very unfavorable impact    | No basis to judge           | No response |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-------------|
|   | 1                          | 2                          | 3                          | 4                          | 5                          | 6                           |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 6 | <input type="checkbox"/> 8 | <input type="checkbox"/> 0 | <input type="checkbox"/> 13 | 4           |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 6 | <input type="checkbox"/> 8 | <input type="checkbox"/> 1 | <input type="checkbox"/> 11 | 5           |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 | <input type="checkbox"/> 12 | 5           |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 6 | <input type="checkbox"/> 3 | <input type="checkbox"/> 14 | 5           |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 0 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 | <input type="checkbox"/> 13 | 5           |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 0 | <input type="checkbox"/> 2 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 11 | 5           |
| 7. Other (specify)                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 6  | 25          |

29. Some may feel their firm has been affected by foreign (non-U.S.) investments—either directly by investments in their firm or indirectly by investments in other processors. In your opinion, how much, if at all, have foreign investments increased or decreased the following for your firm? (Check one box for each row.)

| Conditions possibly affected by foreign investments    | Greatly increased          | In-creased                 | No impact                   | De-creased                 | Greatly decreased          | No basis to judge           | No response |
|--|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|-----------------------------|-------------|
|  | 1                          | 2                          | 3                           | 4                          | 5                          | 6                           |             |
| 1. Capital available to our firm                       | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 15 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 11 | 4           |
| 2. Our ability to obtain U.S. capital                  | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | <input type="checkbox"/> 13 | <input type="checkbox"/> 2 | <input type="checkbox"/> 0 | <input type="checkbox"/> 9  | 5           |
| 3. Technical and management assistance available to us | <input type="checkbox"/> 1 | <input type="checkbox"/> 6 | <input type="checkbox"/> 8  | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 9  | 6           |
| 4. Our total markets for all seafood                   | <input type="checkbox"/> 1 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6  | <input type="checkbox"/> 4 | <input type="checkbox"/> 2 | <input type="checkbox"/> 7  | 6           |
| 5. Our domestic markets for all seafood                | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 8  | <input type="checkbox"/> 5 | <input type="checkbox"/> 3 | <input type="checkbox"/> 6  | 6           |
| 6. Our foreign markets for all seafood                 | <input type="checkbox"/> 1 | <input type="checkbox"/> 4 | <input type="checkbox"/> 4  | <input type="checkbox"/> 4 | <input type="checkbox"/> 1 | <input type="checkbox"/> 11 | 6           |
| 7. Our total markets for new products                  | <input type="checkbox"/> 1 | <input type="checkbox"/> 3 | <input type="checkbox"/> 7  | <input type="checkbox"/> 3 | <input type="checkbox"/> 1 | <input type="checkbox"/> 10 | 6           |
| 8. Our research and development activities             | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 9  | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 10 | 6           |
| 9. Prices we sell seafood                              | <input type="checkbox"/> 2 | <input type="checkbox"/> 6 | <input type="checkbox"/> 4  | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | <input type="checkbox"/> 7  | 6           |
| 10. Amount of employment for U.S. citizens             | <input type="checkbox"/> 1 | <input type="checkbox"/> 3 | <input type="checkbox"/> 8  | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 10 | 6           |
| 11. Prices we pay fishermen or other seafood sources   | <input type="checkbox"/> 3 | <input type="checkbox"/> 8 | <input type="checkbox"/> 3  | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 7  | 5           |
| 12. Competition with other processors                  | <input type="checkbox"/> 3 | <input type="checkbox"/> 7 | <input type="checkbox"/> 6  | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 8  | 6           |
| 13. Our control over our business operations           | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 12 | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | <input type="checkbox"/> 6  | 6           |
| 14. U.S. taxes we pay                                  | <input type="checkbox"/> 2 | <input type="checkbox"/> 4 | <input type="checkbox"/> 7  | <input type="checkbox"/> 4 | <input type="checkbox"/> 1 | <input type="checkbox"/> 7  | 6           |

**NORTHWEST PROCESSORS PLEASE CONTINUE WITH THIS QUESTION.  
NORTHEAST PROCESSORS GO TO QUESTION 30.**

|  |                            |                            |                            |                            |                            |                            |    |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----|
| 15. Our development of the Alaska bottomfish industry  | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 30 |
| 16. Our development of the Pacific bottomfish industry | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 30 |

V. GOVERNMENT REGULATIONS

30. What kind of government regulations, if any, do you feel should be placed on foreign ownership of U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign ownership 1
  - 2.  Make no changes in regulations 7
  - 3.  Require periodic disclosure to the government of foreign ownership 4
  - 4.  In addition to disclosure, restrict the amount of foreign ownership 6
  - 5.  Exclude all foreign ownership in U.S. seafood processing firms. 10
- No response 3
31. What level of government should have primary responsibility for regulating foreign ownership? (Check one.)
- 1.  Federal Government 20
  - 2.  State government 3
  - 3.  Other (specify) A/ 3
- 
- No response 5

32. What kind of government regulations, if any, do you feel should be placed on foreign loans to U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign loans 5
  - 2.  Make no changes in regulations 8
  - 3.  Require periodic disclosure to the government of foreign loans 1
  - 4.  In addition to disclosure, restrict the amount of foreign loans 6
  - 5.  Exclude all foreign loans to U.S. seafood processors 8
- No response 3
33. What level of government should have primary responsibility for regulating foreign loans? (Check one.)
- 1.  Federal Government 23
  - 2.  State government 0
  - 3.  Other (specify) A/ 3
- 
- No response 5

A/ Does not lend itself to summarization.

RESPONSES FROM EAST COAST <sup>1/</sup> SEAFOOD PROCESSORS  
WITH FOREIGN INVESTMENT

## L. OWNERSHIP

1. Which of the following best describes your firm? (Check one.)

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Individual proprietorship<br>(Go to question 2.) | 0 |
| 2. <input type="checkbox"/> Partnership (Go to question 3.)                  | 0 |
| 3. <input type="checkbox"/> Cooperative (Go to question 5.)                  | 0 |
| 4. <input type="checkbox"/> Corporation (Go to question 7.)                  | 5 |

2. Is the proprietor a U.S. citizen? (Check one.)

- |                                 |   |
|---------------------------------|---|
| 1. <input type="checkbox"/> No  | 0 |
| 2. <input type="checkbox"/> Yes | 8 |
- (Go to question 17.)

3. Approximately how many partners were in your firm in 1979? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Less than 4 | 0 |
| 2. <input type="checkbox"/> 5 to 99     | 0 |
| 3. <input type="checkbox"/> 100 to 499  | 0 |
| 4. <input type="checkbox"/> 500 or more | 0 |

4. Approximately what percent of the partners are foreigners (not U.S. citizens)? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> None, all are U.S. citizens | 0 |
| 2. <input type="checkbox"/> 1 to 24%                    | 0 |
| 3. <input type="checkbox"/> 25 to 49%                   | 0 |
| 4. <input type="checkbox"/> 50 to 74%                   | 0 |
| 5. <input type="checkbox"/> 75 to 99%                   | 0 |
| 6. <input type="checkbox"/> 100%                        | 0 |
| 7. <input type="checkbox"/> Don't know                  | 0 |
- (Go to question 17.)

5. Approximately how many members were in your cooperative in 1979? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Less than 100 | 0 |
| 2. <input type="checkbox"/> 100 to 199    | 0 |
| 3. <input type="checkbox"/> 200 to 499    | 0 |
| 4. <input type="checkbox"/> 500 and above | 0 |

6. Approximately what percent of your members are foreigners (not U.S. citizens)?

- |  |   |
|--|---|
| 1. <input type="checkbox"/> None, all are U.S. citizens. | 0 |
| 2. <input type="checkbox"/> 1 to 24%                     | 0 |
| 3. <input type="checkbox"/> 25 to 49%                    | 0 |
| 4. <input type="checkbox"/> 50 to 74%                    | 0 |
| 5. <input type="checkbox"/> 75 to 99%                    | 0 |
| 6. <input type="checkbox"/> 100%                         | 0 |
| 7. <input type="checkbox"/> Don't know                   | 0 |
- (Go to question 17.)

7. Approximately how many shareholders, who are authorized to vote, were in your corporation in fiscal year 1979? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Less than 100 | 4 |
| 2. <input type="checkbox"/> 100 to 499    | 0 |
| 3. <input type="checkbox"/> 500 to 999    | 0 |
| 4. <input type="checkbox"/> 1000 or more  | 1 |

8. Approximately what percent of your corporation's shareholders, who are authorized to vote, are foreigners (not U.S. citizens)? (Check one.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> None, all are U.S. citizens | 0 |
| 2. <input type="checkbox"/> 1 to 24%                    | 2 |
| 3. <input type="checkbox"/> 25 to 49%                   | 0 |
| 4. <input type="checkbox"/> 50 to 74%                   | 0 |
| 5. <input type="checkbox"/> 75 to 99%                   | 0 |
| 6. <input type="checkbox"/> 100%                        | 3 |
| 7. <input type="checkbox"/> Don't know                  | 0 |

9. Are shares in your corporation publicly traded? (Check one.)

- |                                 |   |
|---------------------------------|---|
| 1. <input type="checkbox"/> Yes | 1 |
| 2. <input type="checkbox"/> No  | 4 |

<sup>1/</sup> Includes Connecticut, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island.

10. Approximately what percent of the corporation's board members are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 2
- 2.  1 to 24% 0
- 3.  25 to 49% 1
- 4.  50 to 74% 0
- 5.  75 to 99% 2
- 6.  100% 0
- 7.  Don't know 0

11. Approximately what percent of the corporation's executive officers are foreigners (not U.S. citizens)? (Check one.)

- 1.  None, all are U.S. citizens 4
- 2.  1 to 24% 0
- 3.  25 to 49% 1
- 4.  50 to 74% 0
- 5.  75 to 99% 0
- 6.  100% 0

12. Where is your firm incorporated? (Check one.)

- 1.  United States 5
- 2.  Canada 0
- 3.  Iceland 0
- 4.  Japan 0
- 5.  Norway 0
- 6.  Other. Specify \_\_\_\_\_ 0

**B. SIZE AND TYPE OF OPERATION**

17. Approximately what were your firm's total assets for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 0
- 2.  \$250,000 to \$499,999 0
- 3.  \$500,000 to \$999,999 0
- 4.  \$1,000,000 to \$4,999,999 0
- 5.  \$5,000,000 to \$9,999,999 0
- 6.  \$10,000,000 or more 5

18. Approximately what was your firm's gross operating revenue for your 1979 fiscal year? (Check one.)

- 1.  Less than \$250,000 0
- 2.  \$250,000 to \$499,999 0
- 3.  \$500,000 to \$999,999 0
- 4.  \$1,000,000 to \$4,999,999 0
- 5.  \$5,000,000 to \$9,999,999 1
- 6.  \$10,000,000 or more 4

GAO Note: Responses to questions 13, 14, 15, 16, 19, 23, 24, 34, and 35 are not summarized in this appendix. Copies of the questions are in appendix II.

III. DEBT

20. Approximately what was your firm's total outstanding debt (short and long term) for the 1979 fiscal year? (Check one.)
- 1.  Less than \$250,000 0
  - 2.  \$250,000 to \$499,999 0
  - 3.  \$500,000 to \$999,999 0
  - 4.  \$1,000,000 to \$4,999,999 1
  - 5.  \$5,000,000 to \$9,999,999 0
  - 6.  \$10,000,000 or more 4
21. To the best of your knowledge was any of this debt in the form of loans from foreign individuals (non-U.S. citizens) or foreign organizations (Non U.S. organizations incorporated or chartered in a foreign country, including U.S. branches of foreign banks)?
- 1.  Yes 5
  - 2.  No (Go to question 27.) 0
22. What was the approximate total amount of these foreign loans? (Check one.)
- 1.  Less than \$250,000 0
  - 2.  \$250,000 to \$499,999 0
  - 3.  \$500,000 to \$999,999 0
  - 4.  \$1,000,000 to \$4,999,999 2
  - 5.  \$5,000,000 to \$9,999,999 1
  - 6.  \$10,000,000 or more 2

25. Which of the following provisions are included as part of any of these loan arrangements? (Check all that apply.)
- 1.  Provides for a representative of the foreign lender on your firm's Board of directors. 0
  - 2.  Provides for a representative of the foreign lender to serve as an executive officer in your firm. 0
  - 3.  Provides for a representative of the foreign lender to serve as a technician in your processing plant. 0
  - 4.  Provides for the foreign lender to acquire a portion of your firm's production. 0
  - 5.  Other (specify) 0  


---



---
  - 6.  No special provisions such as listed above. 5
26. It has been alleged that most foreign loans are from seven large Japanese firms; We would like to verify this allegation. Which of the following foreign organizations, if any, provided loans to your firm? (Check all that apply.)
- 1.  Kyokuyo 0
  - 2.  Marubeni 0
  - 3.  Mitsubishi 0
  - 4.  Mitsui 0
  - 5.  Nichiro Gyogyo Kaisha 0
  - 6.  Nippon Suisan Kaisha 0
  - 7.  Taiyo 0
  - 8.  None of the above 4
  - No response 1

IV. POSSIBLE IMPACTS OF FOREIGN ACTIVITIES ON U.S. FIRMS

*If 51% or more of this firm's ownership belongs to non-U.S. citizens, skip to question 28.*

27. In your opinion how much, if at all, are foreign individuals or companies engaging in the following activities regarding the U.S. seafood processing industry? (Check one box for each row.)

|   | Great extent               | Some extent                | Little if any              | No basis to judge          | No response |
|---|----------------------------|----------------------------|----------------------------|----------------------------|-------------|
|   | 1                          | 2                          | 3                          | 4                          |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 7. Other (specify)                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 5           |

28. In your opinion, what kinds of impact, if any, are the following foreign activities having on your firm? (Check one box for each row.)

|   | Very favorable impact      | Favorable impact           | No impact                  | Unfavorable impact         | Very unfavorable impact    | No basis to judge          | No response |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-------------|
|   | 1                          | 2                          | 3                          | 4                          | 5                          | 6                          |             |
| 1. Making loans to U.S. processors                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 2. Buying shares in U.S. processing firms             | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 3           |
| 3. Setting up processing plants in the U.S.           | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 4. Giving preferential pricing to selected processors | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 5. Controlling seafood supplies                       | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 6. Controlling the seafood market                     | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | 4           |
| 7. Other (specify)                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | 5           |

29. Some may feel their firm has been affected by foreign (non-U.S.) investments—either directly by investments in their firm or indirectly by investments in other processors. In your opinion, how much, if at all, have foreign investments increased or decreased the following for your firm? (Check one box for each row.)

| Conditions possibly affected by foreign investments   | Greatly increased        | In-creased                 | No impact                  | De-creased                 | Greatly decreased          | No basis to judge          | No response                |   |
|---|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---|
|   | 1                        | 2                          | 3                          | 4                          | 5                          | 6                          |                            |   |
| 1. Capital available to our firm  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 2. Our ability to obtain U.S. capital   | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 3. Technical and management assistance available to us  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 4. Our total markets for all seafood  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 5. Our domestic markets for all seafood   | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 6. Our foreign markets for all seafood  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 7. Our total markets for new products   | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 8. Our research and development activities  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 9. Prices we sell seafood   | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 10. Amount of employment for U.S. citizens  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 11. Prices we pay fishermen or other seafood sources  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 12. Competition with other processors   | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 13. Our control over our business operations  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| 14. U.S. taxes we pay   | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 1 <input type="checkbox"/> | 4 |
| <b>NORTHWEST PROCESSORS PLEASE CONTINUE WITH THIS QUESTION.<br/>NORTHEAST PROCESSORS GO TO QUESTION 30.</b> |                          |                            |                            |                            |                            |                            |                            |   |
| 15. Our development of the Alaska bottomfish industry   | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 5 |
| 16. Our development of the Pacific bottomfish industry  | <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 0 <input type="checkbox"/> | 5 |

APPENDIX VI

APPENDIX VI

V. GOVERNMENT REGULATIONS

30. What kind of government regulations, if any, do you feel should be placed on foreign ownership of U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign ownership 0
  - 2.  Make no change in regulations 3
  - 3.  Require periodic disclosure to the government of foreign ownership 1
  - 4.  In addition to disclosure, restrict the amount of foreign ownership 0
  - 5.  Exclude all foreign ownership in U.S. seafood processing firms. 0
- No response 1
31. What level of government should have primary responsibility for regulating foreign ownership? (Check one.)
- 1.  Federal Government 1
  - 2.  State government 0
  - 3.  Other (specify) A/ 2
- 
- No response 2

32. What kind of government regulations, if any, do you feel should be placed on foreign loans to U.S. seafood processors? (Check the one block that best describes your position.)
- 1.  Liberalize regulations to encourage foreign loans 1
  - 2.  Make no changes in regulations 1
  - 3.  Require periodic disclosure to the government of foreign loans 1
  - 4.  In addition to disclosure, restrict the amount of foreign loans 0
  - 5.  Exclude all foreign loans to U.S. seafood processors 0
- No response 2
33. What level of government should have primary responsibility for regulating foreign loans? (Check one.)
- 1.  Federal Government 1
  - 2.  State government 0
  - 3.  Other (specify)A/ 2
- 
- No response 2

A/Does not lend itself to summarization.

HOUSE SELECT SUBCOMMITTEE ON RITIME  
EDUCATION AND TRAINING  
LES AUOON-OR., CHAIRMAN



COMMITTEE ON FISHERIES  
WILDLIFE CONSERVATION  
AND THE ENVIRONMENT  
SUBCOMMITTEE ON OCEANOGRAPHY

CONGRESS OF THE UNITED STATES  
HOUSE OF REPRESENTATIVES  
WASHINGTON, D.C. 20515

October 3, 1979

The Honorable Elmer B. Staats  
Comptroller General of the United States  
United States General Accounting Office  
Washington, D.C. 20548

Dear Mr. Staats:

For some time I have been deeply concerned about the extent and impact of foreign investment on the U.S. fishing industry. There is woefully inadequate information with respect to the extent of this investment and its implication on the development of the domestic fishing industry. Indications are, however, that since implementation of the Fishery Conservation and Management Act of 1976, which limits the amount and species of fish foreign vessels can harvest in U.S. waters, foreign ownership in the processing sector has increased markedly, especially in the Pacific Northwest and Alaska.

In view of the above, I am requesting that the General Accounting Office gather data on the extent and nature of such investment (including "captive loans" and market manipulation techniques) and study the impact such investment has on the U.S. seafood processing industry. Although I am primarily concerned about such investment in the Pacific Northwest and Alaska, you need not restrict your study to that area. I am aware of two studies of foreign investment in Alaska's fishing industry currently being performed by Frank Orth and Associates, Seattle, Washington; and by the Department of Commerce's Office of Foreign Investment. You should coordinate your efforts with these groups to help avoid any duplication.

Recently I introduced legislation, H.R. 1906 which would limit foreign investment, as well as require an annual report on the level of foreign investment in the U.S. fishing industry. Your study will be most helpful to me and the Congress in consideration of this legislation.

I look forward to receiving the results of your work as soon as possible. Under present plans, I expect that shortly after the ne

721 HOUSE ANNEX 1, WASHINGTON, D.C. 20515 (202) 225-3444

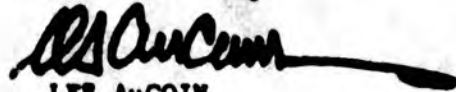
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session of Congress we will have hearings on this matter.

Throughout the course of your work, I request that you keep my office advised of your progress and if there is any additional information my office can provide, please let me know.

With warm regards,

Sincerely,



LES AuCOIN  
Chairman  
Ad Hoc Select Subcommittee on  
Maritime Education and Training

LA/dps



UNITED STATES DEPARTMENT OF COMMERCE  
Office of Inspector General  
Washington, D.C. 20230

February 12, 1981

Mr. Henry Eschwege  
Director, Community and Economic  
Development Division  
U. S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Eschwege:

This is in reply to your letter of December 10, 1980, requesting comments on the draft report entitled "Foreign Investment in U. S. Seafood Processors -- Issues and Observations."

We have received the enclosed comments of the Acting Administrator, National Oceanic and Atmospheric Administration for the Department of Commerce and believe they are responsive to the matters discussed in the report.

Sincerely,

  
Frederic A. Halm, Jr.  
Acting Inspector General

Enclosure



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Washington, D.C. 20560

OFFICE OF THE ADMINISTRATOR

February 12, 1981

Mr. Henry Eschwege  
Director, Community and Economic  
Development Division  
U.S. General Accounting Office  
Washington, D.C. 20540

Dear Mr. Eschwege:

This is in response to your letter of December 10, 1980, requesting the Department of Commerce's comments on a draft report entitled "Foreign Investment in U.S. Seafood Processors--Issues and Observations."

The draft report provides a useful analysis of the complexities involved in measuring the extent and impact of foreign investment in the U.S. seafood processing industry.

The draft report (page ii of the Digest and page 15 of the main body of the report) seems to imply that Commerce, and particularly the Office of Foreign Investment in the United States (OFIUS), has intentionally avoided an in-depth analysis of foreign direct investment (FDI) in the U.S. seafood processing industry because it is a "minor industry." In fact, OFIUS and the Bureau of Economic Analysis (BEA) are responsible for collecting comprehensive data and for conducting various analyses of FDI. OFIUS and BEA have limited resources and their analyses have highlighted those industries with the greatest level of FDI. Once concerns over the potential impact of increased FDI on the U.S. fish processing industry were voiced by Congress and others, the Department of Commerce agreed to undertake a rigorous, in-depth study of this sector.

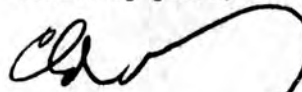
GAO Comment: This statement agrees with our discussion beginning on p. 15.

The study will be based on data collected (on a mandatory and confidential basis) from the entire universe of U.S. fish processors, packagers and wholesalers defined as foreign-owned--those in which one foreign entity owns or controls, directly or indirectly, 10 percent or more of the voting securities of an incorporated U.S. business enterprise. The special survey designed to collect these data has involved input from OFIUS, BEA, and the National Marine Fisheries Service (NMFS), as well as an organization representing the domestic industry. Tabulation of survey responses should provide an accurate assessment of the extent of foreign ownership and provide insight into the economic impact of foreign-owned respondents on the overall U.S. industry.

We suggest the following change to the text in the paragraph beginning at the bottom of page 22 and ending at the top of page 23 to reflect the different activity levels required for the Benchmark Survey (1974 and 1980) and the annual surveys (1977-79). The underlined language below represents our suggested changes.

"Moreover, because BEA does not collect data from businesses having assets, net sales or gross revenues, and net income less than \$5 million in a reporting year in their annual surveys, its current foreign investment data may be understated....As a result, many seafood processors with foreign ownership may be exempt from BEA's minimum annual reporting level."

Sincerely yours,



Eldon Greenberg  
Acting Administrator

GAO Comment: Suggested clarification added. See page 15.

# STATE OF ALASKA

## DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

DIVISION OF BANKING, SECURITIES, SMALL LOANS & CORPORATIONS

JAY E. BARNETT, GOVERNOR

POUCH D  
JUNEAU, ALASKA 99811  
PHONE: 485-3521

January 6, 1981

Mr. Henry Eschwege  
Director  
Community & Economic  
Development Division  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Eschwege:

Your letter of December 10, 1980 to Commissioner Webber has been referred to me for comment. That letter, of course, pertained to the draft report to the Chairman of the Ad Hoc Select Subcommittee on Maritime Education and Training of the House Committee on Merchant Marine and Fisheries.

My comments are keyed to the text that was included with your letter and are as follows.

First, in the first section entitled "Alaska Requires Disclosing Foreign Ownership -- But Compliance Has Been Questionable," the reference to "firms operating" in Alaska is misleading. That phrase in the first line of the section should be replaced by "Domestic and Foreign Corporations Doing Business."

GAO Comment: Sentence revised to "U.S. and foreign \* \* \*."  
See p. 17.

Second, in that same paragraph there is reference to the alleged lax monitoring of the reports required by State law. I would like to point out that while the consultant's report did make that statement, I believe the statement to be untrue. The reason for noncompliance with the law in 1979 was not the result of lax administration by this division. Rather, the reason for noncompliance with the statute was that the law itself was vague and the Legislature has not appropriated funds to provide effective enforcement of even the new law enacted on July 1, 1980. That new law was the result of substantial input by this division as to workable language to provide effective enforcement.

**GAO Comment:** Sentence added discussing vagueness and insufficient funding. See p. 17.

Third, there is reference to the status of processing of forms and taxes for the year 1978. It is true that the division was still seeking compliance by certain corporations as late as October 1979. What is not stated is that this predicament is a direct result of the present Alaska Business Corporation Act (AS 10.05), which allows a corporation to be delinquent for up to nine months from the filing deadline of January 2 of each year before the department can take the definitive step of dissolving the corporation.

**GAO Comment:** Sentence added to clarify. See p. 18.

Fourth, in the third paragraph of this section there is reference to the status of processing in 1979 and reference to the primary cause for the rejection of forms being the failure to report "ownership data." Please be advised that this was not the primary cause. The primary cause was that no information was provided as to the "control" of corporations by alien affiliates.

**GAO Comment:** Sentence revised to state reports were returned because of incompleteness. See p. 18.

Fifth, in the final paragraph of the section there is reference made to numerous reports with deficient or misleading information. Again, please be advised that the reason for this state of affairs is the lack of financial support to the division to carry out legislative intent. For example, while the Legislature did enact changes to the alien affiliate reporting requirements which should clarify those reporting requirements, the Legislature nevertheless did not pass the appropriations requested by the division to carry out the legislative intent.

**GAO Comment:** Sentence added discussing insufficient financial support to carry out legislative intent. See p. 18.

With regard to the section of the draft entitled "Improvements Enacted," please be advised that while the Chairman of the Alaska House Interim Committee on Foreign Investment stated that the enactment of the clarification of the alien affiliate requirements would improve foreign ownership disclosure, the division is caught in a position of not being able to fully carry out the legislative intent because of lack of funds to conduct a proper investigation of the filing system and take other steps necessary to enforce the statute.

**GAO COMMENT:** Page 18 of the draft already discusses funding problems.

APPENDIX IX

I look forward to seeing the revised draft of the report in question with regard to Alaska and, also, the full report on foreign investment in general.

Sincerely,



Julius G. Brecht  
Director

JJB/mh2/6

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# STATE OF ALASKA

## OFFICE OF THE GOVERNOR

DIVISION OF POLICY DEVELOPMENT AND PLANNING

JAY S. HAMMOND  
GOVERNOR

POUCH AD - JUNEAU 99611  
PHONE 465-3577

November 9, 1979

The Honorable Fred Zharoff  
Alaska State Representative  
Alaska State Legislature  
Box 405  
Kodiak, Alaska 99615

Subject: Bering Sea/Aleutian Islands Fisheries Management Plan  
State I.D. No. 79110801ES

Review: A-95 Review and ACMP Consistency Determination

Dear Mr. Zharoff:

The subject project has been submitted to the State Clearinghouse for an U.S. Office of Management and Budget Circular No. A-95 Review and a Alaska Coastal Management Program (ACMP) Consistency Determination.

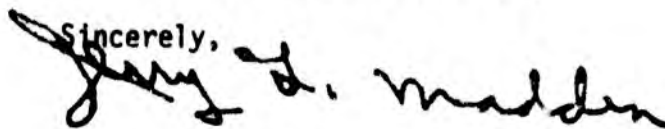
The A-95 review is advisory in nature, allowing comment on proposed federal action. The ACMP Consistency Determination is a specific state decision on consistency of a proposed federal action with the approved ACMP. Comments should be made concerning ACMP Standards your agency is responsible for interpreting. If your agency determines there are inconsistencies between this project and the ACMP Standards, identify the standard(s) involved and list any project changes which would make the project consistent. All comments to the Clearinghouse, including any serious objections to the proposal not based on interpretation of the ACMP Standards, should be submitted as an A-95 comment.

DPDP will issue two review conclusions dependent upon the appropriate review criteria and the specific comments received.

The State Clearinghouse has assigned State I.D. No. 79110801ES to this project. Please use this number in all future correspondence concerning this project.

Your comments should reach this office by December 17, 1979.

Sincerely,



Jerry L. Madden  
State-Federal Coordinator

National Marine Fisheries Service  
P.O. Box 1868  
Juneau, Alaska 99802

Ms. Frances Ulmer  
Director, Division of Policy Development  
and Planning  
Office of the Governor  
Pouch AP  
Juneau, Alaska 99811

Dear Ms. Ulmer:

The National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA), United States Department of Commerce, has given preliminary approval to a fishery management plan for the ground-fish fishery in the Bering Sea and Aleutian Islands area ("the Plan"). NMFS has published the Plan and proposed implementing regulations for public comment. The Plan was adopted by the North Pacific Fishery Management Council for NMFS approval and implementation pursuant to the Fishery Conservation and Management Act of 1976, Pub. L. 94-265.

If finally approved and implemented, the Plan would govern United States and foreign fishing operations for all finfish except salmon, steelhead, herring, and Pacific halibut, and for all marine invertebrates except Tanner crab, king crab, horsehair crab, lyre crab, Dungeness crab, shrimp, snails, coral, and clams, in the fishery conservation zone of the Bering Sea and of the North Pacific Ocean adjacent to the Aleutian Islands and west of 170° West longitude. The "fishery conservation zone" includes all areas seaward of the three-mile limit of the territorial sea out to a line each point of which is two hundred miles from the baseline from which the territorial sea is measured or to the 1867 Convention line separating Alaska and the U.S.S.R. A copy of the Plan, and of the proposed final environmental impact statement thereon, is enclosed.

Approval and implementation of the Plan would be undertaken by NMFS in a manner that is consistent, to the maximum extent practicable, with the Alaska Coastal Management Program (ACMP), as required by section 307(c)(1) of the Coastal Zone Management Act of 1972, Pub. L. 92-583.



Approval and implementation of the Plan may have two primary direct effects on the Alaska coastal zone:

(1) By affecting the supply and distribution of living marine resources in the area beyond the three mile limit, it may affect the supply of such resources within three miles, and also any species of marine life within three miles that may be dependent on or depended upon by these resources.

(2) By encouraging the development of a United States fishing industry based in Alaska, incorporating both harvesting and processing capacity, the Plan may induce new development in coastal communities.

The ACMP standards most relevant to approval and implementation of the Plan are those on coastal development (6 A.A.C. 80.040); fish and seafood processing (6 A.A.C. 80.090); subsistence (6 A.A.C. 80.120); habitats, particularly off-shore areas (6 A.A.C. 80.130(b) and (c)(1)); and air, land, and water quality (6 A.A.C. 80.140). Approval and implementation of the Plan will either not interfere with or affirmatively encourage the implementation of each of these standards.

As was just noted, the Plan's potential encouragement of a domestic bottom-fishing industry may induce substantial coastal development which will be subject to the coastal development, fish and seafood processing, habitat, and air and water quality standards of the ACMP. Nothing in the Plan purports to regulate such development in a way that would be inconsistent with those standards, since such regulation is beyond the scope of the Plan. Thus, the Plan's approval and implementation will not affect the applicability of these ACMP standards to developments resulting from its encouragement of domestic bottomfish harvesting and processing efforts.

The catch levels provided for in the Plan are intended either to maintain plentiful stocks of groundfish at a level that will produce the maximum sustainable yield, or to restore less healthy stocks to that level. The Plan thus affirmatively fosters the implementation of the ACMP standards requiring that habitats

"be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources . . . ,"

and that

"offshore areas must be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial, and subsistence fishery . . . ."

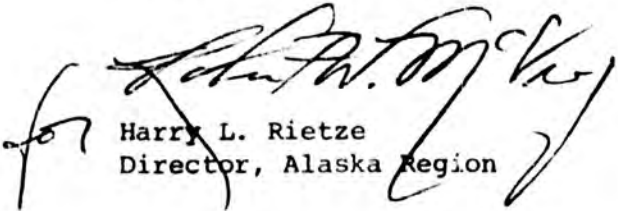
6 A.A.C. 80.130(b), (c)(1).

There are no significant subsistence fisheries for the species regulated under the Plan. A preliminary plan covering herring, which will be succeeded next year by a permanent herring plan, limits the incidental catch of herring that may be taken by foreign participants in the groundfish fishery. This assures continued subsistence usage of the herring resource in accordance with the subsistence standard of 6 A.A.C. 80.120.

As you are aware, no district coastal management program has yet been developed or approved for any community adjacent to the area covered by the Plan. The district programs for Dutch Harbor and the Kodiak Island Borough can be expected to have the greatest relevance to the Plan's future implementation and revision.

Pat Travers can provide you with any further information you may need on the Plan. We hope that the consistency of future plans with the ACMP will be determined before their approval by the Council under a memorandum of understanding between the Council and the Office of Coastal Management of the Division of Policy Development and Planning that is currently being developed.

Sincerely,

  
for Harry L. Rietze  
Director, Alaska Region

State agencies requiring further information on the Plan may contact Pat Travers of the NOAA Office of General Counsel at 586-7414.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

# MEMORANDUM

State of Alaska

TO: Charles R. Webber  
Commissioner

DATE: March 10, 1980

FILE NO:

TELEPHONE NO:

FROM: Julius J. Brecht, Director  
Division of Banking & Securities

SUBJECT: Summary of Foreign  
Investment in U.S.  
Business Seminar

As you requested, this memorandum summarizes the American Law Institute - American Bar Association (ALI-APA) course of study in foreign investment in United States business. The seminar was held on March 7-8, 1980 in Philadelphia, Pennsylvania.

There were a number of speakers who participated in the seminar program.\* These people came from law firms many of whose clients were involved in foreign investment. In addition, there were two individuals on the panel who provide consulting services for foreign investors contemplating entrance into the United States market. I found the statements by these two individuals, Messrs. Robert M. Gottschalk and Charles A. Fagan, of particular interest to this department in its operation of the two foreign offices in Tokyo and Copenhagen.

In very general terms, the seminar covered the following topics.

- I. BACKGROUND AS TO THE FOREIGN INVESTOR. Charles Fagan gave this presentation. The primary concerns here were what is the general makeup of the typical foreign investor, what are some of the misconceptions that that person might have concerning the United States, what are some of the language barrier problems that might exist and the need for sensitivity on the part of the person offering advice to that foreign investor. It was pointed out that these foreign investors come from basically three areas: (i) established international or multinational public companies, (ii) private or family companies, and (iii) private groups or individuals wishing to purchase an existing entity. It was noted that typically the sophisticated international company seeks a new market for existing products. The company desires improved market shares which can be achieved through local production. Perceived benefits from U.S. production facilities include: (i) greater appreciation of U.S. regional market and customer desires; (ii) knowledge of U.S. manufacturing techniques; (iii) exposure to U.S. management methods, and (iv) availability of

\*Anthony L. Bartolini, Peter A. Bator, Serge R. Bellanger, Stanhope S. Browne, Charles A. Fagan III, Robert M. Gottschalk, Robert A. Hendrickson, Douglas E. Rosenthal, and Frank Wille.

export credits for further expansion into other markets. It was noted that the American lawyer plays a very important role in properly advising the prospective foreign investor to make sure that he or she thoroughly understands the complexities of the American market.

## II. SPECIAL U.S. RULES DIRECTLY AFFECTING FOREIGN INVESTMENT.

Stanhope S. Browne made this presentation. These rules include the International Investment Survey Act of 1976. The purpose of this act is to provide clear and unambiguous authority for the president of the United States to collect information on international investment and to provide analyses of such information to the Congress and executive agencies and the general public. Some amount of time was spent on outlining the complexities of that act.

The Agricultural Foreign Investment Disclosure of 1978 was also described. That act covers any foreign person who acquires or transfers any interest other than a security interest in agriculture and after February 2, 1979 for any foreign person who held such interest on February 1, 1979. The Department of Agriculture has adopted regulations in this area and is responsible for administering the act. It was the general consensus of the panel members that it is unclear whether that department will have sufficient personnel to properly handle the information that will be filed pursuant to that act.

The disclosure statutes of various states were discussed. It was stated that as of September 1, 1979 the following 30 states had no significant restrictions on real property ownership by foreign individuals: Alabama, Alaska, Arkansas, California, Colorado, Delaware, Florida, Georgia, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Montana, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington and West Virginia. As of that same date, the following 20 states had various types of restrictions on ownership of real property by foreign individuals: Arizona, Connecticut, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, Oklahoma, Oregon, Pennsylvania, South Carolina, West Virginia, Wisconsin and Wyoming. Furthermore, as of that date, the following 13 states had restrictions on ownership of real property by corporations whether domestic or foreign: Arizona, Kansas, Kentucky, Minnesota, Missouri, Nebraska,

Oklahoma, Oregon, North Dakota, South Dakota, Texas, West Virginia and Wisconsin. As of September 1, 1979, three states had legislation specifically restricting the ownership of farm land by foreigners: Iowa, Missouri and Minnesota.

The Iowa statute appears to be the most strict. It requires that no nonresident alien "foreign business" (any business in which a majority interest is owned directly or indirectly by nonresident aliens) or foreign government may acquire agricultural land. Foreign ownership must be registered with Iowa's Secretary of State and investors must file periodic reports before March 31 of each year. Land acquired in violation of this act escheats to the state. It should be noted that Alaska has a similar registration statute but does not provide a penalty of escheatment for failure to disclose the information.

In September of 1979, the Attorney General of Oklahoma published an opinion that Oklahoma's 1907 Constitution bars an alien corporation from owning property in that state. Litigation is in progress in these matters in Oklahoma.

Other federal laws in some way restricting the foreign ownership of land include the following: The 1934 Federal Communications Act, the Communications Satellite Act of 1962 and various state regulations including limitations on direct entry by foreign telephone or telegram companies (Alaska) and, similarly, limitations on indirect entry (Georgia), the Federal Power Act of 1976, the Atomic Energy Act of 1954, the Natural Gas Act of 1976, the Mineral Leasing Act of 1920 and the Mineral Lands Leasing Act of 1976, the Mining of Mineral Deposits Act of 1976, the Outer Continental Shelf Lands Act of 1976, the Geothermal Steam Act, the Federal Aviation Act of 1958, the Coastal and Inland Water Trade and several others.

III. GENERAL COUNSELING AS TO INVESTMENT. Mr. Robert Gottschalk gave this presentation. He noted that state development agencies attempt to promote economic development within their states through the encouragement of domestic and foreign investment and export and travel promotion. Many such agencies maintain special sections for promotion and the encouragement of foreign investment, as well as offices in foreign countries. In fact, he noted that there were approximately 30 states that had such offices in foreign countries and that, furthermore, certain regions of the United States

have offices in Europe. He stated that the following services for the encouragement of foreign investment are generally provided by these agencies:

- (i) location studies which establish the cost and availability of land, building, and construction;
- (ii) information regarding availability of and costs for energy and labor;
- (iii) information regarding transportation facilities; (iv) assistance in dealing with other government agencies, (v) assistance in securing job training funds (certified firms may be reimbursed for wages and materials used in a job training program);
- (vi) information regarding tax rates, tax incentives and tax comparisons with other states, state tax incentives can include:
  - (A) abatements of or credits against corporate income taxes;
  - (B) reductions by localities of real estate taxes;
  - (C) investment credits;
  - (D) accelerated depreciation for certain types of equipment and facilities
  - (E) special formulas to reduce the taxable base of a domestic manufacturer whose out of state sales exceed those within the state;
  - (F) reduction in or exemption from state or local ad valorem taxes on manufacturers personal property including machinery, equipment and inventory;
  - (G) state treatment of net operating losses on the same basis as IRS regulations;
  - (H) reduction in or exemption from state and local sales taxes on manufacturing fuels, utilities, nonreturnable packaging devices and equipment and machinery;

- (I) job incentive programs which provide certified firms with franchise tax credit of up to 100% for a period of years (as many as ten in some areas);
- (vii) information regarding and assistance in applying for state financial incentive programs including the method of financing, advantages to the applicant, and procedural manners;
- (viii) maintaining foreign offices which are staffed with a small number of multilingual personnel whose job is to identify potential investors.

Mr. Gottschalk went into the operational problems, banking arrangements for currency and exchange controls, problems of confidentiality, and immigration laws affecting activities by foreign individuals.

Mr. Serge Bellanger also offered comments on general counseling of foreign investors from his perspective as a European banker. Much of what he said reinforced Mr. Gottschalk's position that it is more important for the American attorney or consultant to be sensitive to the needs of the prospective foreign investor. Mere fluency in the foreign language is not sufficient to properly advise that prospective investor.

- IV. COUNSELING THE FOREIGN INVESTOR ON U.S. ANTITRUST LAW. Mr. Douglas Rosenthal, Chief, Foreign Commerce Section, Antitrust Division, U.S. Department of Justice gave a lecture on the counseling of the foreign investor on U.S. antitrust laws. He stated that there are basically four statutes applicable in this area: Section 7 of the Clayton Act (dealing with mergers), Section 1 of the Sherman Act (dealing with anticompetitive agreements), Section 2 of the Sherman Act (dealing with monopoly and monopolizing conduct), and the Robertson-Pattman Act (dealing with price discrimination). It was pointed out that the monopolistic conduct may be an area of unfamiliarity to the foreign investor, e.g., European investors are more familiar with Sections 81 and 86 of the Rome Treaty which has been adopted by common market countries. It was advised that expert antitrust counsel be retained to prevent any possible liability for triple damages as provided in the various acts. Special note was made of the 1968 Department of Justice Merger Guidelines in this area. It was noted that an antitrust action may be brought by the Department of Justice, the Federal Trade Commission, a state, or a private party.

- V. **SECURITIES LAW ASPECTS.** Mr. Peter Bator discussed the securities law aspects of foreign investment in the United States. This discussion included the various means of acquisition including cash acquisitions, tender offers, partial acquisitions, margin rules, and acquisitions using securities. Mr. Bator noted that acquisitions using securities is a method which is rarely used at this time because of the many difficulties associated with such international transactions, but he expected a substantial increase in this activity in the future.
- VI. **TAX QUESTIONS.** On the second day of the seminar, Mr. Robert A. Hendrickson discussed the counseling of individual investors from the aspect of the use of trusts and stop gap wills. In addition, Mr. Anthony L. Bartolini outlined various tax considerations both from the standpoint of U.S. law and tax treaties that might be of interest to the foreign investor. He approached the issues of
- (i) how the United States taxes foreign corporations and partnerships,
  - (ii) the general rules of taxation used in the Internal Revenue Code and regulations adopted under it with special emphasis on the "effectively connected" concept and tax withholding,
  - (iii) how tax treaties change some of the above rules,
  - (iv) state and local taxation,
  - (v) special tax planning techniques,
  - (vi) forms of business,
  - (vii) structuring of a transaction, and
  - (viii) income, state and gift tax problems of the foreign individual.

While at the seminar I took the opportunity to discuss the issue of "control" of a subsidiary corporation with Peter Bator. Both Messrs. Fagan and Gottschalk expressed interest in knowing more about the state's efforts and approach in maintaining foreign offices in Tokyo and Copenhagen. I have their addresses and telephone numbers if you wish to pursue this matter.

Charles R. Webber

-7-

March 10, 1980

This summary of the 1½ day seminar on foreign investment has been necessarily brief. I would be happy to discuss it in more detail at your convenience.

JJB/s121K

HOUSE RESEARCH AGENCY  
Pouch Y - State Capitol  
Juneau, Alaska 99811  
465-3991

MEMORANDUM

March 12, 1980

TO: Representative Fred Zharoff

FROM: Peter B. Froehlich *PBF*

RE: HB 767 (Disclosure of Alien Affiliates in Alaska Businesses)  
Research Request No. 96

This memorandum is in response to your recent request that this agency perform a sectional analysis of HB 767 concerning disclosure of alien affiliates in Alaska businesses. You also requested a comparison of HB 767 and SB 112 concerning corporate dissolution, reinstatement and fees. That comparative analysis will be provided next week as previously arranged.

In summary, it appears that this bill would improve the completeness and accuracy of the State's information concerning alien affiliates in Alaska business. It would also make other changes in the Alaska Business Corporation Act, which have no apparent specific connection to alien affiliates in Alaska business. In fact only 7 of the 16 substantive sections of the bill appear to have a specific application on alien affiliates, while the remaining 9 sections apply to all corporations equally. Therefore, it may be desirable to broaden the scope of the title of the bill to more clearly comply with the requirement of Article II, § 13 of the Alaska Constitution that the subject of each bill be expressed in its title.

HB 767 would amend 13 sections or subsections of AS 10.05. the Alaska Business Corporation Act, and would add five new sections or subsections. The existing provisions of the Act dealing with alien affiliates were enacted in 1975.

Section 1 of the bill would amend AS 10.05.250 in three respects. First, it would change the last word in the current title of the section, Reorganization; Disclosure of Alien Interests, to "Affiliates". Second, it would substitute the words "alien affiliates" for the current descriptive language "affiliate which is a nonresident alien or corporation whose place of business is outside the U.S." The word "alien" would be defined by § 16 of the bill which would add a new AS 10.05.825(22). Finally, § 1 of the bill would add a third category of information to the two categories now required to be filed before a corporate reorganization (i.e., identities of alien affiliates of the surviving corporation and percent of shares controlled by each). The new third category of information required would be a description of the nature of the affiliation between the surviving corporation and an alien affiliate.

Representative Fred Zharoff  
March 12, 1980  
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Sections 2 and 3 of the bill would amend AS 10.05.225(a) which lists the requirements to be included in articles of incorporation by all corporations. Section 2 would add to AS 10.05.255(a)(3) the requirement that articles include an activity code number from the code established under new AS 10.05.703 which would be enacted by § 10 of the bill. This new numerical code would be adopted by the commissioners of Revenue and of Commerce and Economic Development and would be a numerical list of business activities. Section 3 of the bill would change the language of the requirement of AS 10.05.255(a)(13) that articles include the identity of any alien affiliate and add a requirement of a description of the nature of the affiliation. The new language corresponds to that of AS 10.05.250 as it would be amended by § 1 of the bill.

Sections 4 and 5 of the bill would amend AS 10.05.519(a) which lists the circumstances under which the Commissioner of Commerce and Economic Development may dissolve a corporation involuntarily. Section 4 would shorten the allowable delinquency period for annual reports, license fees, and penalties from 6 months to 3 months. (It was shortened from 12 to 6 months in 1976.) Section 5 of the bill would add material misrepresentation as cause for involuntary dissolution.

Sections 6 and 7 of the bill would amend AS 10.05.615 which lists the required contents of applications by foreign corporations for certificates of authority to transact business in the state. [Foreign corporations, under current AS 10.05.825(4), are corporations for profit organized under any laws other than those of Alaska.] Section 6 would add to AS 10.05.615(5) the requirement that applications include an activity code number from the code established under new AS 10.05.703 (§ 10 of the bill). The language of this change is identical to that of § 2 of the bill concerning articles of incorporation. Section 7 of the bill would change the language of AS 10.05.615(12) which requires applications for certificates to include the identity of alien affiliates to correspond with the changes §§ 1 and 3 of the bill would make to AS 10.05.250 and 255(a)(13), respectively. Section 7 would also add the requirement of a description of the nature of the alien's affiliation just as would §§ 1 and 3.

Sections 8 and 9 of the bill would amend AS 10.05.702 concerning annual reports. Section 8 would amend AS 10.05.702(3) to add the requirement that annual reports include an activity identification code under new AS 10.05.703 (§ 10 of the bill). This change corresponds to §§ 2 and 6 of the bill concerning articles of incorporation and applications for certificates of authority, respectively. Section 9 of the bill would change the language of AS 10.05.703(8) which requires annual reports to include the identity of alien affiliates to correspond with the changes of §§ 1, 3 and 7 make to other reporting requirements including the addition of a requirement of a description of the nature of the affiliation.

Representative Russ Meekins

March 12, 1980

Page 3

Section 10 of the bill would add two new sections to the Act. New AS 10.05.700 would require any domestic (Alaska) or foreign (non-Alaska) corporation which publishes a stockholder report to submit it with its annual report to the commissioner. New AS 10.05.703 would require the commissioners of Revenue and of Commerce and Economic Development to adopt a code list of business activities to be followed by corporations in complying with the reporting requirements added by § 2 of the bill re articles of incorporation [AS 10.05.255(a)(3)], by § 6 re applications for certificates of authority [AS 10.05.615(5)], and by § 8 re annual reports [AS 10.05.702(3)].

Section 11 of the bill would amend AS 10.05.771 to provide that the penalty for not timely filing an annual report is 10% of the franchise tax for each month of violation rather than the single flat 10% penalty provided in current statute.

Sections 12 and 13 of the bill would amend AS 10.05.783 and 786 to delete the \$500 maximum fine for failure to answer interrogatories promptly and for signing required documents knowing them to be materially false. Under AS 11.81.250(c) of the new criminal code, the deletion of the penalty would result in the categorization of this offense as a Class A misdemeanor under the new criminal code. Under AS 12.55.035(c) the new maximum fine would therefore be \$100,000.

Sections 14-16 of the bill amend and add to the definitions of AS 10.05.825. Section 14 would broadly rewrite the definition of "affiliate" in AS 10.05.825(18). Section 15 would expand the definition of "person" in AS 10.05.825(20), by adding joint venture, company, firms, society and estate to the list of meanings. Section 16 would add two new definitions to AS 10.05.825, "alien" and "state."

Finally, Section 17 of the bill would give it a January 1, 1981 effective date.

Please contact us if we may provide further assistance or information concerning HB 767.

PBF/dp

House of Representatives

POUCH V  
JUNEAU, ALASKA 99811  
OFFICIAL BUSINESS

Mr. Ronald O. Skoog  
Commissioner  
Alaska Department  
of Fish & Game  
Support Building  
Juneau, Alaska

Sept. 27, 1979

Dear Commissioner Skoog:

As chairman of the House's Interim Committee on Foreign Investment, I ask your help and cooperation in answering a question of considerable interest to state government and the public.

As I know you are aware, the last 10 years have seen a steady growth of Japanese investment in the Alaska seafood processing industry. Generally we are aware of those companies that are foreign-owned, but the extent of their participation in the industry has never been documented. To do that, it is necessary to work with production figures, and that is only possible with the cooperation of the Department of Fish & Game.

We have two objectives in applying this information: To calculate the percentage of total production produced by Japanese-owned companies, and to look for production trends peculiar to the same group of firms. Since we require only aggregated production figures, and not those of any individual company, this request should not pose a problem with respect to confidentiality.

The five groups of seafood processors which accompany this letter were drawn from the list of firms that submitted the mandatory annual production reports for 1977. Specifically, here is what we ask:

Sept. 27, 1979

For each of the five groupings (Canadian- and U.S.-invested firms; individual fish buyers/processors; firms with unidentified ownership; companies with at least 25 percent Japanese ownership; and companies with less than 25 percent Japanese ownership), we would like the 1977 aggregate, statewide production divided by species and process/product, in terms of net weight and value.

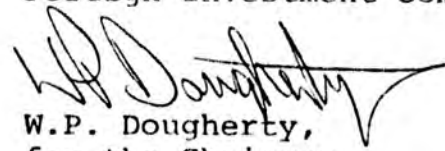
If your department could provide this data by November 1, it would aid substantially this committee's timely effort to examine the issue of foreign investment in fisheries, and the state's monitoring of such investment.

If procedural questions regarding this request should arise, please contact Mr. Pat Dougherty (465-3789), who is in Juneau working on this project.

If you would like to discuss further the committee's efforts, please feel free to contact me (486-5254 at home; 486-3131 at work; Box 405, Kodiak 99615).

Sincerely,

Fred F. Zharoff, Chairman,  
Foreign Investment Committee



W.P. Dougherty,  
for the Chairman

cc: Rep. Bill Miles  
Rep. Richard Eliason  
Rep. Nels A. Anderson Jr.  
Speaker Terry Gardiner  
Sen. George H. Hohman

EXAMPLE

PRODUCTION FOR GROUP 1

| <u>Species/process</u>     | <u>Net weight</u> | <u>Value</u> |
|----------------------------|-------------------|--------------|
| Red salmon/frozen          | 100,00 lbs.       | \$157,000    |
| King salmon/canned         | 20,000 lbs.       | \$94,000     |
| Herring/salted roe on kelp | 14,000            | \$180,000    |

PRODUCTION FOR GROUP 2

| <u>Species/process</u>     | <u>Net weight</u> | <u>Value</u> |
|----------------------------|-------------------|--------------|
| Red salmon/frozen          | 50,000            | \$85,000     |
| King salmon/canned         | 40,000            | \$190,000    |
| Herring/salted roe on kelp | 28,000            | \$360,000    |

#/ FIRMS WITH AT LEAST 25% JAPANESE OWNERSHIP

1. Alaska Pacific Seafoods
2. Alaskan Marine Products Inc.
3. B&B Fisheries Inc.
4. Bering Sea Fisheries Inc.
5. Cordova Bay Fisheries Inc.
6. Dutch Harbor Seafoods Co. Inc.
7. Harbor Seafoods Co. Inc.
8. Juneau Cold Storage
9. Kodiak King Crab Inc.
10. Mokuhana Fisheries
11. Morpac Inc.
12. North Pacific Processors Inc.
13. Olympic Fish Products Inc.
14. Orca-Pacific Packing Co. Inc.
15. S.A. Packers Inc.
16. Sagaya Alaska Seafoods Ltd.
17. Sitka Sound Seafoods Inc.
18. Toqiak Fisheries Inc.
19. Universal Seafoods Ltd.
20. Vit Foods
21. Whitney-Fidalgo Seafoods Inc.

#2

FIRMS WITH LESS THAN 25% JAPANESE OWNERSHIP

1. Columbia Wards
2. Craig Fisheries Inc.
3. Excursion Inlet Packing Co. Inc.
4. Haines Packing Co. Inc.
5. E.C. Phillips & Son Inc.
6. R-Lee Seafoods
7. Red Salmon Co.
8. Wards Cove Packing

#3

FIRMS WITH UNIDENTIFIED OWNERSHIP

1. ATCO Seafoods Inc.
2. Alaska Bud Co.
3. Alaska Far East Corp.
4. Alaska Scallop Fleet Inc.
5. Alaska Star Inc.
6. Alaskan Glacier Seafood Co.
7. All Alaskan Seafood Inc.
8. Al-Lous Fish
9. Americo Ltd.
10. Bergit Fishing Co.
11. Blakes Canning
12. Christensen & Sons
13. Clipperton
14. Cook Inlet Processing Co. Inc. (Cook Inlet Packing)
15. Dan's Cold Storage
16. Deep Sea Inc.
17. Dry Bay Fish Co.
18. Eagle General Store
19. Ed's Kasilof Seafoods
20. Engstrom Brothers Co. Inc.
21. Fairmount Islands Seafood
22. Glacier Packing Co.
23. Halibut Producers Cooperative Inc.
24. Hanson Trading Co.
25. Happy Clam Seafood

26. Johnson Fish Co.
27. Keener Packing Co. Inc.
28. Martin's Sea
29. Northern Peninsula Fisheries
30. Northwest Pacific Trading
31. Nuka Point Fisheries
32. Odiak Smokeries
33. Pelican Cold Storage Inc.
34. Peter Merry Guide Service
35. Prince Rupert
36. Reliance Shrimp Co.
37. Salmon Products Inc.
38. Sea Seafood Processors
39. Surfline Seafood
40. Swiftsure Alaska Inc.
41. Taylor Aquatic Enterprises
42. Thorne Smith Co.
43. Wally's Fish Wagon

#4

U.S.- AND CANDIAN-INVESTED FIRMS

1. Akers & Co. Inc.
2. Alakanuk Native Corp.
3. Alaska Aquatic Dive Center Inc.
4. Alaska Packers Association Inc.
5. Alaska Sea Products Inc.
6. Alaska-Shell Inc.
7. Alaskan Gourmet Inc.
8. Annette Island Packing Co.
9. Azachorok Inc.
10. Bayside Cold Storage Inc.
11. Bumble Bee Seafoods Inc.
12. Cossack Caviar Inc.
13. Dignon Co. Inc.
14. East Point Seafood Co.
15. Egegik Packing Co. Inc.
16. Elim Fish Processing Cooperative
17. Foodland Inc.
18. Golovin Fish Processing Cooperative
19. Icicle Seafoods Inc.
20. Interior Enterprises & Fisheries Inc.
21. Kachemak Seafoods Inc.
22. Kemp & Paulucci Seafoods Inc.
23. Kenai Salmon Packing Co. Inc. (Kenai Packers)
24. Kotzebue Sound Area Fishery Cooperative
25. Kootznoowoo Inc.

26. M.S.P. Corp.
27. North Coast Seafood Export Inc. (North Coast Seafoods)
28. Osmar's Ocean Specialties Inc.
29. Pacific Pearl Seafoods
30. Pan-Alaska Fisheries Inc.
31. Peter Pan Seafoods Inc.
32. Petersburg Processors Inc.
33. Port West Inc.
34. Queen Fisheries Inc.
35. Salamatof Seafoods Inc.
36. San Juan Seafoods
37. Saratoga Fish/Tony B. Western
38. Terrell D. Schenk & Associates Inc.
39. Sea Alaska Products Inc.
40. Sea Nik Foods
41. Seward Fisheries
42. Seward Marine Services Inc.
43. Southeast Seafood Processors Inc.
44. St. Elias Seafoods
45. Thompson Fish Co.
46. Trident Seafoods Corp.
47. Ursin Seafoods Inc.
48. U.S. Mercantile
49. Wesley Brand Shrimp & Prawns
50. Yakutat Fishermen's Cooperative
51. Yugtak Fish Co. Inc.
52. Yukon Delta Fish Marketing Cooperative

INDIVIDUAL FISH PROCESSORS/BUYERS

1. Anderson, Knute
2. Attla, George & Karen
3. Baker, William C.
4. Ball, Gerald
5. Bishop, Richard
6. Bryant, Everett E.
7. Burkholder, Bernie
8. Carlson, Rudolph
9. Charles, James
10. Crow, J.B.
11. Curry, Adolph
12. Daniels, R.G.
13. Erkins, Gregory
14. Foster, Bruce
15. Franzen, Francis
16. Gilbert, Marvin
17. Griechen, Gust
18. Grunert, Mike
19. Hopfinger, James
20. Huntress, John
21. Ingman, Maurice
22. Johansen, Martin
23. Leask, Henry
24. Lewis, Joe
25. Lloyd, R.
26. Maness, Betty
27. March, Frederick

28. Matter, Joseph & Dolores
29. McLaughlin, William
30. Nick, Aleck
31. Painter, Larry
32. Parker, Eric V.
33. Pedersen, Hans
34. Pellett, Warren
35. Pletnikoff, Robert
36. Putman, Joe
37. Rupprecht, Reinhard
38. Sampson, Emma
39. ██████████ Shapley, George
40. Shaw, E.L. & Iona May
41. Simpson, Donval
42. Taylor, Connie
43. Temple, Becky
44. Thiessen, Jeff
45. Trueman, Slim
46. Turner, Harry
47. Wagner, Louie
48. Wallace, R.D.
49. Wilson, Walter

11/15/79

Pat -

Attached is memo to fish processing permit work group which defines problems currently existing with fish ticket control - it's not written strictly from the standpoint of problems with F.T. system, but it does expose the major problems + gives background philosophy, etc, of F.T. system. I think you will find it informative.

I'm sorry I didn't get this off sooner, but I've been busier than your basic one armed paper-hanger. The judges are starting to sign orders on the Bristol Bay Clabs Action suit, fishermen vs. processors, + all hell is beginning to break loose for us again! C'est la guerre.

I hope you're working on my letter to change the subject. I've got the whole ball of wax in, except I don't have Wanie's letter either, so you're not alone. A feeling of increasing pessimism is descending on that prospect - rampant cronyism is so obvious in many legislative affairs. No matter, it was good practice - took forward to hearing from you -  
You Svensson

TO: [ Fish Processing Permits Work Group  
(La Pierre, Anderson, Smathers, Angst  
Kirk, Kubley, Stewart, Paulick)

DATE: November 9, 1979

FILE NO:

TELEPHONE NO: 465-4150

FROM: Lori J. Svensson <sup>hjs</sup>  
Computer Services  
Division of Commercial Fisheries  
Department of Fish and Game

SUBJECT: ADF&G Background Information on  
Processing/Reporting Requirements.

At this writing, an entity seeking to become properly licensed in some type of fisheries business in Alaska may have to interact with as many as nine state agencies, six federal agencies, and various local government offices. Some of these agencies may issue as many as five different permits/licenses for distinct aspects of a given operation. Obviously this situation creates problems, both for industry participants and administering agencies. As I see it, this work group is meeting for three purposes.

- 1) To compile a comprehensive directory of fisheries business permits, to be made available to potential participants.
- 2) To arrive at short-term solutions for interagency communication problems.
- 3) To suggest long-term solutions to existing statutory and regulatory inadequacies in this realm.

In our initial meeting, and in earlier discussions with different group members, we have always come to the conclusion that Department of Fish and Game (ADF&G) forms must be used as control mechanisms in any attempt to coordinate the permit process. ADF&G forms take precedence mainly because the industry tends to work more closely with us than with other agencies. Department field personnel have done a good job of keeping commercial operators informed of ADF&G reporting requirements, so everyone knows that they must complete fish tickets, and that they must file an Intent to Operate.

In many cases that is as far as an operator will go initially, dependent upon the extent to which ADF&G field personnel are cognizant of other agencies' requirements. There is a good chance that many are not. I have made some attempts to distribute what information I had to the areas, but I have never had time to follow up. Whether or not this group has produced a workable directory, I shall see to it that the information is dispersed sometime this winter.

As you know, there is no filing deadline for the Intent to Operate. An operator may file the Intent, receive fish tickets, and commence operations on the same day; filing can occur through any field office or the central office in Juneau, and all offices distribute fish tickets. This state of

affairs can be changed only through adoption of new regulations by the Board of Fisheries. I submitted a proposal in September which would have created a filing deadline of at least 30 days prior to operation. It was deleted from the final proposals by ADF&G area and regional supervisors. Their reasons for the deletion should be clarified by the following.

The primary purpose of the fish ticket is to collect data on Alaskan fisheries catch. The Intent to Operate was designed to give the Department a control mechanism for fish ticket distribution, to collect data on the nature of each operation, and to give each area biologist information on companies which anticipate operating in his area. There are no filing fees associated with the Intent. It is used strictly to gather information, and to enable ADF&G to collect annual operation summaries.

The original purpose of collecting fish ticket data was to assist biologists in making management decisions for the protection of the fishery resource. Many other uses have since been found for the fish ticket, but it is essential to remember that it is first and foremost a device to collect information. This was the basic rationale for making it so easy to file the Intent and to acquire fish tickets.

ADF&G needs the data, and it is feared that significant loss of fisheries data would ensue if rigid restrictions were applied to fish ticket distribution. This is a legitimate fear, because there have been occasions when a negligent fish buyer has run out of tickets, but has continued buying fish. If this is detected the buyer can be prosecuted and the data reconstructed, but any attempt of this nature is bound to result in error. Most fishermen are aware that fish ticket documents are their means of protection in any possible court suit arising from broken agreements, bad checks, or any questions from Commercial Fisheries Entry Commission on the fisherman's use of his Entry Permit; for this reason a legal fisherman is unlikely to sell to a buyer without tickets. Fishermen who were not able to get permits after entry to some fisheries was limited may fish illegally and sell to buyers without tickets. Or a legal fisherman confronted with this situation and lacking any other buyer may decide to sell his fish anyway. A sufficient number of such occurrences could introduce significant error factors into fisheries catch data, which would affect various management decisions.

This brings into the discussion one of our major problems, the enforcement of our agencies' various regulations. ADF&G regulations are enforced by Public Safety, the Division of Fish and Wildlife Protection. They bear a double burden; first, of working with regulations which are often inadequate to deal with existing situations, and second, of having very few officers available for field duty. During each year's salmon fishery hundreds of commercial fishing/buying/processing operations involving at least 45,000 persons are occurring at widely separated points along Alaska's 34,000 miles of shoreline (figure includes islands). Major fisheries also occur many miles offshore, notably the Bering Sea crab fisheries and most bottom-fisheries. Under these circumstances many infractions of regulations must

be virtually undetectable. The problem of enforcement is subject to no easy solutions.

Several months ago representatives of the departments of Public Safety, Fish and Game, Revenue, and the Commercial Fisheries Entry Commission (CFEC) met to discuss problem areas with enforcement of fish ticket regulations. Mainly we discussed specific problems as mentioned above, and agreed to meet and discuss these problems further at some future date, pending the outcome of action on proposed regulatory and statutory changes.

Even if the currently proposed changes are enacted, major revisions must still occur if we hope to control the steps of the fisheries permit process through the Intent to Operate and the fish ticket. These are:

- 1) Adoption of deadlines for Intent filing.
- 2) Establishment of procedures for interagency permit/license certification.
- 3) Changes in fish ticket system;
  - a) Centralize distribution from single office.
  - b) Recall all tickets previously issued.
  - c) Issue new tickets by serial number, restrict their use to company of original issue only establish enforceable penalties for violations of that restriction; establish procedures and forms for loss, destruction, water damage of unused tickets; fund position to control and monitor ticket numbers.
  - d) Modify existing fish ticket computer processing system to accept serial numbers. (This may sound like an easy step, but you can believe me when I say that it is not easy at all--the necessary procedural changes in editing, program modification, file restructuring etc., would be a huge project, requiring lots of time and dollars.)

Another problem which I have not addressed, but which was considered briefly in our original meeting is the problem of the increasing development of new types of fisheries businesses. These new types, particularly the fisherman who markets his own catch in a raw state, need to be properly defined and fitted into the permit system.

With all of these obstacles in mind, I think we must proceed with the compilation of a fisheries business permit directory, and with the effort to coordinate interagency activities within the existing regulatory structure. I also hope that we can produce a concrete proposal for regulatory and statutory reforms within each concerned agency, which would allow for a cooperative effort in regulating the fisheries industry.

**STATE OF ALASKA  
THE LEGISLATURE  
LEGISLATIVE AFFAIRS AGENCY**

POUCH V - STATE CAPITOL  
JUNEAU, ALASKA 99811  
907-465-3800

May 4, 1979

MEMORANDUM

**SUBJECT: Representative Miles' Washington Trip--(W.O.#7246)**

**TO: The Honorable Bill Miles  
The Honorable Fred Zharoff**

**FROM: Elke Kallab *EK*  
Policy Analyst**

Below is a listing of several individuals which you might wish to meet with on your trip to Washington next week. If you would like us to set up the necessary appointments, we would be more than happy to do so.

Department of Commerce  
Bureau of East-West Trade  
Office of Foreign Investment in the United States

Tel: (202) 377-2568

Richard Meier, Deputy Director  
Tom Strzeiminski, International Economist

I talked to both Mr. Meier and Tom Strzeiminski and they indicated that they would be happy to meet with you. They have done preliminary research into foreign investments in Alaska in fisheries, and have been in contact with John Williams, formerly of the Research Division, and Richard Eakins of the Division of Economic Enterprise in the Department of Commerce and Economic Development. They are familiar with Frank Orth's and Abby Gorum's work.

Department of Agriculture  
Economic Statistics and Cooperative Service (ESCS)

Tel: (202) 447-9179

Gene Wunderlich, Sr. Economist (Foreign Investments)  
Peter deBraal, Attorney

I talked to Mr. deBraal at length and believe that they might be very helpful regarding foreign investments in real estate. Under the International Investment Survey Act of 1976 ESCS was charged to conduct a

May 4, 1979

feasibility study to determine the methods of monitoring foreign investments in U.S. real estate. It was my impression from talking to Mr. deBraal that they have acquired a considerable amount of expertise in the area of foreign investments in real estate and that they would be pleased to share it with you. Mr. Wunderlich will be back on Monday, but will be out of town Tuesday and Wednesday. Mr. deBraal will be out of the office on Monday, but will be in the office for the rest of the week.

Department of Commerce  
Bureau of Economic Analysis

Tel: (202) 523-0657

George Kruer, Chief of International Investment Division

I was unable to reach Mr. Kruer. The Bureau of Economic Analysis monitors all foreign investments in the United States. Their output is primarily statistical in nature, but you may decide that you would like to talk to Mr. Kruer nevertheless.

We were unable to reach some other contacts in the State Department and National Governor's Association which we believe could be of use to you, but would be very happy to pursue these as well as other sources of information if you wish. Please let us know how we can be of further assistance.

EK:dh

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.



MEMBER NATIONAL ASSOCIATION OF REALTORS  
 MEMBER INTERNATIONAL REAL ESTATE FEDERATION  
 MEMBER REALTORS NATIONAL MARKETING INSTITUTE  
 MEMBER ALASKA ASSOCIATION OF REALTORS  
 MEMBER NATIONAL FARM AND LAND INSTITUTE



535 THIRD AVENUE      PHONE 452-1247      FAIRBANKS, ALASKA 99701

March 19th, 1980

Lieutenant Governor Terry Miller  
 Pouch V  
 Juneau, Alaska 99811

Dear Terry:

I am enclosing an updated report regarding foreign investments on which I have written each of you in the past. In this issue we have more detailed facts and some words of warning.

As I have stated previously, the State of Alaska should be strongly considering some of the restrictions that other states are placing on foreign ownership, such as the State of Iowa. I realize that this does not seem to be a problem at this time, but now would be the time to do something about it rather than wait until it does become a major problem.

I would appreciate your thoughts on this matter.

Sincerely,

Vincent P. Guzzardi  
 Broker

STATE OF ALASKA  
 RECEIVED  
 MAR 24 1980

LIEUTENANT GOVERNOR

VPG/slm  
 Enclosures



# Foreign Investment: Tall

*How you view this complex issue depends on the reliability of your information and its effects on your economic condition.*

10

**Kenneth Harney**  
Washington, DC

Foreign investment capital is flowing into the United States in waves that grow larger every year—a fact that has a lot of Americans upset, and a lot of others pleased.

The influx of deutsche marks, pounds, francs, rials and petrodollars into prime U.S. real estate, manufacturing, banking, retail chains—and even into homes for the aged—is producing fears of foreign control that hark back to the late 19th century, when more than a dozen state governments moved to restrict alien land acquisitions.

How you view the current surge of capital depends in part on how much reliable information you have concerning it. It also depends on the direct impact of these investments, actual or imagined, on your own economic situation.

Some of the strongest voices on the issue, both in favor of greater investment and against it, come from people who envision major effects on their own wealth or livelihood, but have relatively little solid information on the national or state-wide impacts. The author of Iowa's widely publicized new state law prohibiting foreign acquisition of farm property, for example, now freely admits that he thought the extent of alien ownership of Iowa farmlands was significantly greater than the less-than-one-tenth of 1 percent it has turned out to be, according to subsequent federal tabulations. Horace R. Daggett, a four-term member of the Iowa House and the owner of a 480-acre farm, hasn't changed his mind on the issue, but he agrees that his perceptions of the size of the problem were magnified by his own economic dependence on farming as a way of life.

At the other end of the spectrum, some of the strongest advocates of foreign investment—realty consultants based in New York, San Francisco, Miami, Los Angeles and Texas—concede privately that the pace and magnitude of investments in commercial properties in concentrated urban markets (an estimated \$1 billion or more last year in Dade County, Florida and Houston, Texas, for instance) are far larger than they ever anticipated was possible as little as two years ago.

Is America indeed being sold off in pieces to the highest bidder? Are Howard Johnson's 28 Flavors and motel empire (in the process of being sold to British investors for \$630 million), Houston's Pennzoil Plaza (sold to German investors for nearly \$100 million), 13 of downtown Los Angeles' best-located office buildings (sold at multimillion dollar prices to Japanese, Cana-



# Taking Stock in America

dian, Dutch and other investors), and prime real estate in virtually every major U.S. city merely the beginning of the long-term selling of America? Or are these investments—particularly in real estate—healthy, small-scale infusions of capital into the segments of our economy that need it most? Let's take a look at this complex issue, at the hard statistical data that exists about it, and where the trends appear to be heading in this new decade.

If you examine the federal government's data on the extent and pace of foreign investment here in recent years, you inevitably come up with a mixture of conclusions.

On the one hand:

- The Commerce Department's Industry and Trade Administration reports that foreign investment transactions involving at least 10 percent acquisitions of American real estate and business enterprises during 1978—the latest year for which data is complete—were 58 percent more numerous than during the preceding year, and up 85 percent in dollar terms. Twenty percent of the dollars involved were

in real estate—farmland purchases, investments in office buildings, shopping centers, timberlands, industrial parks, and the like.

- Foreign penetration into segments of the U.S. economy important to real estate, such as banking, has been proceeding at a rapid pace. The U.S. offices of foreign-headquartered banks now account for 14 percent of all commercial and industrial loans, and one-third of such loans in the New York metropolitan area, whereas in 1972 the percentage was negligible, according to a federally funded study ("The Impact of Foreign Direct Investment on U.S. Cities and Regions," U.S. Department of Housing and Urban Development, 1979). Total foreign bank assets in the U.S. stand at \$95 billion, up from just \$23 billion in 1972. The growth rate of these assets has been nine times as fast as the rate of expansion of asset holdings in domestic banks.

- Foreign holdings of American farmland and timberland now stand at about 3 million acres out of a total of 1.3 billion acres, according to Department of Agriculture estimates. Some of the individual hold-

ings are extremely large, such as London-based paper and building product conglomerate Bowater Corporation's 168,000 acres in Georgia, plus extensive holdings in six other southern states.

The bulk of recent foreign investments in real estate, however, has been in income-producing properties in prime urban growth areas—particularly in shopping centers, office buildings, industrial parks, hotel and residential development parcels. Commerce Department and HUD data suggest that most of this capital is going into the Sunbelt cities, often at lower cash-on-cash yields than many U.S. realty investors would accept. HUD's study on foreign investment impacts saw this as deleterious to the needs of the economically strapped northern cities.

On the other hand, federal data and studies by private national organizations also reveal that:

- The extent of U.S. direct ownership of capital abroad in real estate, manufacturing, retail and other economic sectors, is about \$160 billion, four times the \$40 billion in

**Table 1**  
**U.S. Agricultural Land Holdings of Foreign Owners, by State, 1979**

| State          | Privately Owned<br>Agricultural Land* | Foreign-Owned<br>Agricultural Land | Proportion of Foreign-<br>Owned Agricultural Land |
|----------------|---------------------------------------|------------------------------------|---|
|                | 1,000 acres                           | Acres                              | Percent   |
| Alabama        | 29,467                                | 162,430                            | 0.5   |
| Alaska         | 400                                   | 337                                | neg.**  |
| Arizona        | 10,383                                | 71,550                             | 0.5   |
| Arkansas       | 28,634                                | 20,734                             | 0.1   |
| California     | 47,353                                | 109,498                            | 0.2   |
| Colorado       | 37,527                                | 132,137                            | 0.4   |
| Connecticut    | 2,267                                 | 220                                | neg.  |
| Delaware       | 1,084                                 | 837                                | 0.1   |
| Florida        | 26,529                                | 122,671                            | 0.5   |
| Georgia        | 33,253                                | 223,412                            | 0.7   |
| Hawaii         | 1,992                                 | 14,287                             | 0.7   |
| Idaho          | 15,168                                | 6,534                              | neg.  |
| Illinois       | 32,326                                | 29,477                             | 0.1   |
| Indiana        | 20,909                                | 5,335                              | neg.  |
| Iowa           | 33,912                                | 12,899                             | neg.  |
| Kansas         | 49,911                                | 22,496                             | neg.  |
| Kentucky       | 22,915                                | 7,958                              | neg.  |
| Louisiana      | 26,463                                | 17,032                             | 0.1   |
| Maine          | 18,829                                | 18,934                             | 0.1   |
| Maryland       | 5,146                                 | 10,285                             | 0.2   |
| Massachusetts  | 3,322                                 | 5                                  | neg.  |
| Michigan       | 26,117                                | 6,489                              | neg.  |
| Minnesota      | 36,204                                | 16,101                             | 0.1   |
| Mississippi    | 26,629                                | 77,704                             | 0.3   |
| Missouri       | 40,025                                | 18,891                             | neg.  |
| Montana        | 54,189                                | 147,630                            | 0.3   |
| Nebraska       | 45,397                                | 26,607                             | 0.1   |
| Nevada         | 7,586                                 | 130,266                            | 1.7   |
| New Hampshire  | 4,682                                 | 30,040                             | 0.6   |
| New Jersey     | 2,894                                 | 7,416                              | 0.3   |
| New Mexico     | 34,451                                | 189,838                            | 0.5   |
| New York       | 24,257                                | 122,064                            | 0.5   |
| North Carolina | 27,321                                | 75,986                             | 0.3   |
| North Dakota   | 39,617                                | 11,805                             | neg.**  |
| Ohio           | 22,979                                | 4,847                              | neg.  |
| Oklahoma       | 38,875                                | 2,982                              | neg.  |
| Oregon         | 25,685                                | 166,168                            | 0.6   |
| Pennsylvania   | 22,380                                | 95,565                             | 0.4   |
| South Carolina | 15,932                                | 220,125                            | 1.4   |
| South Dakota   | 38,241                                | 14,084                             | neg.  |
| Tennessee      | 22,901                                | 285,775                            | 1.2   |
| Texas          | 156,768                               | 161,951                            | 0.1   |
| Utah           | 10,779                                | 8,131                              | 0.1   |
| Vermont        | 5,251                                 | 24,167                             | 0.5   |
| Virginia       | 21,499                                | 37,327                             | 0.2   |
| Washington     | 23,028                                | 35,327                             | 0.2   |
| West Virginia  | 13,744                                | 2,599                              | neg.  |
| Wisconsin      | 27,837                                | 9,853                              | neg.  |
| Wyoming        | 26,142                                | 1,800                              | neg.  |
| Puerto Rico    | na                                    | 386                                | neg.  |
| <b>Total</b>   | <b>1,290,217</b>                      | <b>2,893,988</b>                   | <b>0.2</b>  |

\*Privately held land based on T. Frey, "Major Uses of Land in the United States 1974," Econ. Statis. Coop. Service, U.S. Dept. Agr., *Econ. Rpt. No. 440*, Nov. 1979. Estimate of total land less public land, urban, and transportation. Includes forest land, cropland, pasture range and miscellaneous.

\*\*Negligible.

direct foreign ownership here. The present rate of U.S. investment overseas is three times the rate of new foreign investment here. Of the \$5.6 trillion in total U.S. domestic assets, according to a NATIONAL ASSOCIATION OF REALTORS® study, foreigners own less than 1 percent. At the current rate of investment here, according to the study, it would take another 12 years for foreigners to control another 1 percent of those assets.

• Agriculture Department data indicates that the 3 million acres of farmland and timberland owned in the U.S. by foreigners must be seen in the context of 1.3 billion acres total stock of privately owned land (cropland, pastureland, rangeland and forest land) in the country as a whole. That is a rate of foreign ownership of roughly one half of 1 percent. As the November 1979 Agriculture Department statistics show, in only three U.S. states are foreign holdings 1 percent or more, and some of the largest states in terms of territory have negligible holdings of less than one-tenth of 1 percent (see Table 1).

• Although foreign bank assets here are expanding, the \$95 billion held within the U.S. has to be contrasted with the nearly \$300 billion in assets held in foreign countries by branches of American banks.

• Even critical federal studies, like HUD's, see benefits in large inflows of foreign dollars to the U.S. "Foreign investment is attaining a scale," said the report, "where it can have important impacts on the U.S. economy by increasing income, employment, and output; by affecting the balance of payments; and by contributing to the growth of urban and regional economies."

The official stance not only of the federal government but of a majority of state governments has been to encourage foreign investment in local economies, not hamper it. Forty states competed unabashedly with incentives and sites for the location of the \$250 million Volkswagen assembly plant which ultimately went to New Stanton, Pennsylvania. About 30 states maintain offices or representatives in Europe whose function is to attract capital from private firms, pension funds and governments on the

capital movements have been large, highly visible, and are likely to continue to be significant.

The Miami area, for example, has become one of the hottest commercial and residential markets in the country in part because of massive infusions of funds from Canada, Latin America, Saudi Arabia and other nations. The largest office structure in Miami, One Biscayne Tower, was sold 18 months ago to Saudi businessman Abdul Latif Jameel for \$491 million. A fellow

investor, Mira Wilkins, an economist at Florida International University and the author of *Foreign Enterprise in Florida*, calls the inflow of capital "essential to the dynamism" of the state in the 1980s.

In Houston, the size and impact of foreign investment have been equally important, with the Chamber of Commerce estimating real estate and industrial acquisitions in 1978 at more than \$1 billion. Brokers there indicate that one-third of current commercial project



continent, and dozens of American cities every year send official or business community missions to Japan, Europe and the Middle East to do the same. The fact that the Eurodollar, the petrodollar and other currencies are responding to these invitations should be a surprise to no one. It is the direct result of a concerted American public and business policy.

#### Impacts on Real Estate

Although the nationwide and state-wide data on the extent of foreign investment in real estate suggests the impacts to date are relatively small, the situation is not that simple. For the fact is that on a localized basis, the effects of foreign

countryman, Mohammed Y. Bedrawi, has purchased what local realty brokers identify as one of the most expensive private homes anywhere in the Miami area, a \$12 million, five bedroom house in Coral Gables. Canadian investors last year bought the 3,200 acre Homestead mixed-use development project, the area's largest—and have poured \$100 million into aluminum manufacturing, newspapers, banks, motels, hotels, nursing homes and a wide variety of commercial real estate. Florida has become, Canada's southern province, in the words of one enthusiastic Miami broker, "It also has become an international magnet for foreign firms, with more than 100 multinational corporations now maintaining offices in Coral Gables

and dozens of other key cities also have experienced heavy infusions—to the point that during the credit crunch months of late 1979, some developers and sellers of income properties looked first to foreign sources for their capital, and only secondarily to domestic sources.

and dozens of other key cities also have experienced heavy infusions—to the point that during the credit crunch months of late 1979, some developers and sellers of income properties looked first to foreign sources for their capital, and only secondarily to domestic sources.

## Taking Stock in America

### The Agricultural Land Problem

Without question the most controversial impacts of capital investment from abroad have been in the field of agricultural and timberland acquisitions by foreigners. Thirty states have adopted some form of restrictions on the ownership of land by foreigners—ranging from disclosure requirements following sale (Virginia, 1979) to absolute bans on alien acquisition of agricultural land (Iowa, 1979, effective January 1, 1980).

The Iowa law, pushed through the legislature by the Rep. Daggett quoted previously, is the most significant recent legislation, and could be a model for other states. Daggett says that more than two dozen legislatures or state committees across the U.S. have requested copies of his law, and he believes its widespread adoption "would save a lot of land for American farmers and their children, and preserve a way of life that this country was built on."

Daggett and other Iowa farmers were upset by the relatively small-scale purchases by foreigners that have occurred within the state's rich corn, soybean, and cattle agricultural stock. They tell of the \$1.5 million that British actor Sean Connery and a group of investors plunked down for a 680-acre farm in Fayette County. ("James Bond just bought the Askelsen place," went the story.) They tell of Saudi Arabians, Germans and others nosing around for prime Iowa farmland with large amounts of cash, and they get upset.

The sheer numbers of acres involved "aren't the point," argues Daggett. "It's the outlook for the future, the outlook for prices being raised by these folks; the life of communities being changed by absentee owners who don't really

**Table 2**  
**Who Are the Top Foreign Investors in U.S. Land?\***

| Country                   | Acres   | Country           | Acres            |
|---------------------------|---------|-------------------|------------------|
| 1 United Kingdom          | 907,892 | 29 South Africa   | 1,478            |
| 2 Luxembourg              | 398,550 | 30 Sweden         | 1,462            |
| 3 West Germany            | 352,147 | 31 Brazil         | 1,340            |
| 4 Canada                  | 265,894 | 32 Australia      | 1,132            |
| 5 Netherlands Antilles    | 187,449 | 33 Lebanon        | 943              |
| 6 Netherlands             | 126,958 | 34 Turkey         | 520              |
| 7 Switzerland             | 62,291  | 35 Iran           | 492              |
| 8 France                  | 49,530  | 36 Czechoslovakia | 415              |
| 9 Mexico                  | 47,755  | 37 Guyana         | 334              |
| 10 Belgium                | 36,687  | 38 Ireland        | 310              |
| 11 Lichtenstein           | 27,567  | 39 Jamaica        | 294              |
| 12 Liberia                | 22,276  | 40 Jordan         | 229              |
| 13 Bahamas                | 20,517  | 41 Kuwait         | 217              |
| 14 Panama                 | 19,723  | 42 Argentina      | 216              |
| 15 British Virgin Islands | 14,552  | 43 Israel         | 177              |
| 16 Japan                  | 14,229  | 44 Egypt          | 165              |
| 17 Colombia               | 13,973  | 45 New Zealand    | 160              |
| 18 Bermuda                | 9,158   | 46 Ivory Coast    | 119              |
| 19 Cayman Islands         | 8,682   | 47 Guatemala      | 106              |
| 20 Greece                 | 6,223   | 48 Finland        | 80               |
| 21 Hong Kong              | 5,907   | 49 Pakistan       | 80               |
| 22 Venezuela              | 4,945   | 50 Spain          | 58               |
| 23 Norway                 | 4,367   | 51 India          | 36               |
| 24 Denmark                | 3,527   | 52 South Korea    | 26               |
| 25 Italy                  | 3,344   | 53 Honduras       | 15               |
| 26 Philippines            | 2,789   | 54 Uruguay        | 9                |
| 27 China                  | 2,148   | 55 Chile          | 5                |
| 28 Austria                | 1,701   | 56 Ecuador        | 2                |
|                           |         | <b>Total</b>      | <b>2,630,899</b> |

\*Based on preliminary Agriculture Department analysis (September 1979).  
Source: U.S. Department of Agriculture

care about schools and local government matters. The issue is control and the use of our land. Is it going to be us, or is it going to be somebody who lives in another country?"

The actual percentages involved from state to state are indeed low, and even the highest federal estimates of the rate of foreign acquisition confirm them to be well under 4 percent of new sales transactions. Since the Agricultural Foreign Investment Disclosure Act of 1978 went into effect, the U.S. has been able to begin getting a clearer statistical picture of the situation. The initial data from the 1979 filings required of all alien owners and new purchasers is summar-

ized in Tables 1 and 2. The data supports earlier federal findings, such as by the Senate Committee on Agriculture, Nutrition and Forestry, that of the 2 to 3 percent of total private U.S. acreage that comes on the market every year, about three-fourths are gobbled up by local farmers, tenants, and investors, with absentee owners—American as well as foreign—left to bid against a maximum of 15 percent of the available land.

What is also instructive in the data are the identities of the foreign nationals purchasing U.S. land. While the popular image may suggest that OPEC sheiks or their brokers are

skulking around the countryside buying up fertile farms, the data indicates that the oil-producing countries are inactive in this field. British corporations and individuals own the biggest pieces of U.S. lands, as they have throughout the past two centuries. Next come corporate and private investors from Luxembourg, West Germany, Canada, and the offshore Caribbean tax haven of Netherlands Antilles. Kuwait is 41st on the list with barely 217 acres of American land.

#### **Economic Attractions—and Possible Federal Tax Revisions**

The disproportionately high rankings of the Netherlands Antilles, the British Virgin Islands, Bahamas,

The U.S. tax code does indeed provide special loopholes for nonresident aliens. As Kenneth Leventhal, the nationally known accountant and principal partner in Kenneth Leventhal & Co. of Los Angeles, puts it: "With proper tax planning, any foreign investor can avoid paying United States income tax on the ultimate sale of U.S. real estate." This includes income-producing commercial property as well as agricultural real estate. Leventhal points out that there are a variety of methods for doing this, such as by investing through corporations based in treaty-protected tax havens (like the Netherlands Antilles and the British Virgin Islands), by selling stock in foreign-based

"Taxation of Foreign Investment in U.S. Real Estate," which explains the tax loopholes and preferences in great detail.)

Bills have been introduced in both the Senate and House in the current Congress aimed at closing these loopholes, and the Senate Finance Committee approved a bill to this effect in December 1979. The House Ways & Means Committee, however, which held hearings in October 1979 on similar legislation, has not yet taken action.

Even assuming that Congress does ultimately revise the code to equalize tax treatment between Ameri-



and other tiny countries offer insight to still another issue raised by the foreign real estate investment boom here.

Farmers, some of their representatives in Congress, and the U.S. Treasury Department have complained that a significant portion of new money is being attracted by the U.S. tax structure, which allows incentives to foreigners in capital gains treatment of real estate profits that are not afforded American taxpayers.

corporations whose profits are derived from U.S. realty sales (the U.S. imposes no capital gains on stock sales of foreign firms by foreigners), and by selling U.S. realty via the installment sale method. The legal explanation of these and other approaches gets technical and lengthy, but the point is clear: The Internal Revenue Code offers incentives for alien investors that American citizens cannot obtain. (For a more complete discussion see "Taxation of Foreign Investors" on page 18. Also, the Treasury Department completed an important monograph on this subject in 1979.

cans and foreigners, is that likely to have a major effect on the pace of investment here from abroad? Real estate consultants and attorneys who work with foreign clients are divided on the degree of influence it will have, but the majority viewpoint appears to be "not very much, if at all."

John McMahan, a San Francisco real estate consultant whose firm has helped invest \$110 million for foreign clients in U.S. real estate

## Foreign Investment: Taking Stock in America

over the past several years, ranks tax advantages last on his list of key motivating factors. "Most (foreign) clients," he says, "aren't really thinking about taxes in real estate, unlike many American investors. The majority of foreign investors, in fact, probably don't give a thought to it at all until their American attorneys point out some of the interesting things they can do."

The key attractions in U.S. real estate, according to McMahan, are:

- The sheer size, diversity, and incomparable stability of the U.S. market. America's real estate procedures are well-established, well-secured by financial and technical intermediaries—unlike many other countries' markets.

- The attractive pricing of U.S. real estate, agricultural and commercial, relative to prices in other developed countries such as Japan and on the European continent. The effective depreciation of the dollar has widened the price gap rapidly, notes McMahan, enabling many foreign investors to buy U.S. real estate with "cheap dollars."

- The availability of plentiful financing here. Foreign investors generally are not looking for high-leverage opportunities—preferring instead to put 50 percent equity into an acquisition—but they still often require some form of financing. Capital availability in the U.S. for the sort of prime properties foreign investors prefer is usually excellent.

- The continued high, steady rate of appreciation of American real estate—particularly high-quality income property. Foreign investors fear inflation and the erosion of their capital, just as Americans do. And, like Americans, they've watched real estate outperform just about everything else in sight.

- Yield—the cash-on-cash return—is important to foreign investors, says McMahan, but foreigners are more willing to be patient for yields to grow than are most American investors. As a result, foreign equity can be obtained today at 6 to 8 percent yields, whereas American investors typically seek 10 to 12 percent as a minimum.

### The Preferred Acquisitions for Foreigners in the 1980s

Absent any drastic changes in the U.S. economy, political structure or laws, foreign investment in American real estate can be expected to remain at high levels—even accelerate—for the foreseeable future.

One of the country's experts in the field, John R. White, president of New York-based Landauer Associates, sees a boom coming in the next several years. White, whose firm has guided an estimated \$500 million in foreign equity into U.S. shopping centers, office buildings, and other property in the past five years alone, believes that the rise of global economic factors make this virtually inevitable.

"In the next few years," White told the *Wall Street Journal* in a December 1979 interview, "we expect to double or triple the amount invested for foreign clients. We hope to become as big as the life

insurance companies in real estate investment."

The investments are likely to continue heaviest in the high-growth areas of the U.S.—especially the Sunbelt states—but may also be in select growth "pockets" located inside slower-expanding, northern metropolitan areas.

The country's estimated existing 18,200 shopping centers—and 500 to 600 new ones developed per year—are a likely focus for capital coming in from abroad, as are prime office buildings, well-connected by transit lines, in the inner-ring suburbs of major U.S. cities. On the other hand, investments in apartment buildings and other residential projects—with their heavy management responsibilities and high marketing risks—will not attract overseas capital on as significant a scale.

Whatever the ultimate direction of the capital inflow during the decade of the 1980s, one conclusion appears certain: Realty brokers in rural, urban, and suburban areas will do well to keep abreast of such developments to determine if or how they relate to their own businesses. □

*Kenneth Harney is the executive editor of Housing & Development Reporter and a syndicated columnist for the Washington Post.*



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58 foot seiners, the fish will be caught before they ever enter the bay, and Kodiak will once again be on the inside looking out as the larger boats take all the fish."

## Government checks foreign investment in seafood industry

By CHRIS BLACKBURN  
Mirror Staff Writer

Three federal probes are under way to determine the extent and effect of foreign investment in the U.S. fishing industry at the requests of congressmen from Louisiana, Washington, Oregon and Alaska.

Following last fall's drop in king crab prices, which occurred after fishermen's organizations thought they had a negotiated price, Alaska's Rep. Don Young and Sen. Ted Stevens and Washington's Sen. Warren Magnusen requested that the Office of Foreign Investment in the U.S. research foreign investment in the U.S. fishing industry.

The federal General Accounting Office, at the request of Oregon Rep. Les AuCoin, has also launched its own investigation of foreign investment in the U.S. fishing industry.

In addition, according to Young's office, the House Subcommittee of Fish and Wildlife Conservation requested that the Library of Congress initiate a study of foreign investment in the U.S. fishing industry, but "for a number of reasons" the Library of Congress study "never got off the ground."

In December and January a representative from the Fish and Wildlife Conservation subcommittee visited Washington and Alaska and interviewed members of the fishing industry.

All investigations of foreign investment in the fishing industry

have been conducted without publicity. News of the probe by the Fish and Wildlife Conservation subcommittee, which is headed by Rep. John Breaux of Louisiana, was broken Jan. 31 by Peninsula Clarion writer Steve Ringhart.

Findings of the subcommittee's research will be kept confidential "until, and if, the matter is turned over to the U.S. Department of Justice," according to the Peninsula Clarion.

Spokesman for the committee Wayne Smith of Wash., D.C., refused to discuss the investigation with the Clarion.

In requesting the investigation, Breaux wrote the Japanese trading companies appear to be fixing prices, may be dividing markets to limit competition and may be controlling capital to assure continued Japanese control of the fish processing industry and fish markets in the U.S., according to the Clarion.

In a prepared release, Young noted that foreign capital in the U.S. fishing industry is the result of a lack of U.S. capital for what is a high risk industry and of easy access to foreign capital.

There has been concern recently, Young said, that the amount of foreign capital in the U.S. fishing industry has given foreign companies control of the industry.

However, Young said, "I do not think at this point it is wise or fair to single out any nation or making any accusations of illegal

(Continued on Page 3)

**Weather —** FORECAST: snow showers, cloudy  
WINDS NW 10-15 m.p.h. HIGH 35  
LOW 20 MARINE FORECAST: (Gore Point-Shuyak) Gale warning  
WINDS NW 35 knots gusts to 45 SEAS 11 feet decreasing to 5 OUT

# Hearings

(Continued from Page 1)  
 concerns with the amendment.  
 "Here in Kodiak, if we want to be in the crab and shrimp game, we have to be forced to buy two boats because of the existing law," he said.

Harder said that if Southeast fishermen were allowed larger, multipurpose vessels, then when the fishing became bad in Southeast, they would be able to come up to the Kodiak area and fish crab and shrimp in Kodiak waters.

Harder said he would like to see the issue put to a vote to all the seine boat owners in the state, "any my guess is you would find that 90 percent of the owners would vote against it," he said.

Gardiner said that Alaska is such a big state that it isn't realistic to expect one law for everyone on certain issues, which is why the amendment was added

to limit the lifting of restrictions on the length of the salmon seines for Southeast fishermen only.

"I suggest that if you want to allow Southeast fishermen to develop multipurpose boats, that you allow them to fish in Southeastern only," Harder said.

Legislative Information Officer Mary Jo Simmons said she was very surprised at the small turnout for the teleconference because she had received so many phone calls from interested fishermen yesterday, prior to the hearing.

Zharoff and Mulcahy didn't sound too optimistic about the failure of the bill's passage in the House. After the hearing on the bills in the Resource Committee today, the bill could travel to another House committee, or be shot straight to the Senate, Simmons said.

## Foreign investments

(Continued from Page 1)  
 practices."

The investigations, at this point, are fact finding, Young said, and no comment is appropriate until the facts are presented.

Doris Lashley of the processing firm Sea Catch in Kodiak has been instrumental in forming an organization, the American Pacific Seafood Association, to investigate the effect of foreign involvement in North Pacific fisheries, according to the Peninsula Clarion.

The association has hired

lobbyist George Steele, who has long experience with the tuna industry, according to the Clarion, to work for the association in Washington, D.C.

"I have heard the local allegations, but we need to gather the facts first," Steele told the Clarion, adding that there is nothing wrong with foreign investment unless it hampers the development of the American industry. The association's intent, Steele said, is to call attention to foreign investment in the U.S. fishing industry, but not to prejudge the case.

## Joint venture settlement reached

ANCHORAGE (AP) — An out-of-court settlement has been reached in a suit by two fish processors against the federal government over procedures to approve joint U.S.-foreign fishing ventures.

The out-of-court settlement was approved by U.S. District Court Judge Joyce Green of Washington, D.C., in a suit brought by the New England Fish Co. of Seattle and Icicle Seafoods of Petersburg.

Under it, the National Oceanic and Atmospheric Administration agreed to clarify procedures for obtaining public comment on foreign applications for joint ventures before any decision is made.

Under federal law, foreign

countries may apply for permits allowing them to receive fish taken by U.S. fishermen if domestic processors are not expected to be able to use all fish caught by American fishermen within the U.S. 200-mile fisheries conservation zone.

New England and Icicle challenged methods used by NOAA for estimating the expected U.S. harvest of some species in the Gulf of Alaska, the use of that harvest by U.S. processors, and the amount of fish available for joint ventures.

The out-of-court settlement requires NOAA to make available to the public an explanation of how it arrives at its estimates, without disclosing confidential data.

...claiming for 1,000 Canadian natives are threatened a \$1.2 million lawsuit against the Juneau-based Tlingit-Haida Central Council unless the native group responds to its demands by June.

Reg Kelly, vice president of Tlingit-Haida of Massett in British Columbia who also represents Tlingit-Haida of the Yukon Territory, says the central council owes his people \$200 per person.

The claim is based on the 1985 federal judgment of \$7.5 million used to finance creation of the central council program. The U.S. grant specifically included descendants of Southeast Alaska natives who now live in Canada.

Kelly said that after 8 years of talks and what he called "stonewalling" by the Juneau-based organization, it appears court action is his last resort.

Ray Paddock, president of the council in Juneau, denied the Canadians have any claim on the \$7.5 million.

He acknowledged they are included in the law, but that it was strictly for "political purposes."

Paddock said the Canadians have been invited to join the central council and if they are accepted, they will be eligible for central council services which were set up as an alternative to a cash distribution.

The council had asked Bureau of Indian Affairs attorneys in Anchorage whether the Canadians were entitled to the benefits under the social programs. They were told yes,

...to take the money to the Canadians.

Paddock said he has no plans to negotiate the issue.

Kelly said the offer of Canadian membership in the council is unacceptable because they live too far away to benefit from council social programs.

The Canadians constitute about 10 percent of the Tlingit-Haida population covered by the federal award.


## Police handle

Police received a report at about 3:30 this morning that a 29-year-old woman had been assaulted. The incident has been referred to the district attorney for any further action, said police.

William McLinn and Martin Ferguson were arrested and charged with possession of a hallucinogenic drug for sale early this morning, police report. Both are scheduled to appear in court today, said police.

Police received a report Tu

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January 15, 1980

(A)

Foreign Inv.

Rep. Fred Zharoff  
Pouch V  
State Capitol  
Juneau, Alaska 99811

Dear Fred:

Enclosed please find a copy of the final report "Foreign Investment in the Alaska Seafood Industry." It was both a challenge and a pleasure to do this work for the House Interim Committee on Foreign Investment.

I have also enclosed a copy of a letter sent to Mr. Charney. As I expressed in that letter, we will cooperate to the extent necessary during the production and distribution of the report. In addition, we would like to receive ten (10) copies of the final report. If you concur, would you please convey this request to Mr. Charney?

As you requested we have produced two (2) copies for Pat Sweeney, General Accounting Office, Seattle. We have received numerous other requests for the report; these have been directed to Mr. Charney and yourself. Due to the high demand for the report, 300 copies may not be adequate. You may wish to discuss with Mr. Charney the production of additional copies.

We have enjoyed working for the Committee and would welcome the opportunity to do additional work regarding foreign investment. Please contact me if you have questions regarding the production and distribution of the report or other matters.

Sincerely,

*Peter Rogers*

Peter Rogers,  
Economic Analyst

Enclosures

PWR:lco

# FRANK ORTH & ASSOCIATES

Economic and Business Consultants • 225 108th Ave. N.E., Suite 311, Bellevue WA 98004 • (206) 455-3607

January 14, 1980

Mr. Myrton Charney,  
Executive Director  
Alaska State Legislature  
Legislative Affairs Agency  
Pouch Y  
Juneau, Alaska 99811

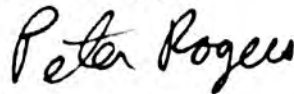
Dear Mr. Charney:

Enclosed are the original and a copy of our firm's final report to the House Interim Committee On Foreign Investment. Rep. Fred Zharoff, Chairman of this Committee, is the liason person for the printing of the report. It is our understanding that the committee desires 300 copies of the report. Please contact Rep. Zharoff to confirm this, as well as the method of printing and distribution procedure for the report.

Enclosed under a separate cover are 90 front covers and 90 back covers. We will arrange for the printing of additional covers upon your request.

If there are any questions or problems with the material submitted, please feel free to contact me.

Sincerely,



Peter Rogers  
Economic Analyst

Enclosures

cc: Fred Zharoff

PWR:lco

· PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
· AS A UNIT IN THE ORIGINAL DOCUMENT.

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# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

DIVISION OF BANKING, SECURITIES, SMALL LOANS & CORPORATIONS

POUCH D  
JUNEAU, ALASKA 99811

November 20, 1979

Honorable Fred F. Zharoff  
Alaska State Representative  
Chairman, Foreign Investments  
Committee  
Box 405  
Kodiak, Alaska 99615

Dear Mr. Zharoff:

I have just finished reading two articles that appeared in the November, 1979 issue of the National Fisherman, both of which were authored by Mr. W. P. Dougherty. I have enclosed copies for your information.

After reading these articles I am a bit confused as to the role which Mr. Dougherty has played in getting the full support of the staff of the Corporations Section within this division to the extent possible, given the other commitments of that section. I understand Mr. Dougherty works for your committee. However, I am particularly confused as to why the article which appears on page 23 of the National Fisherman was reported at all in that it appears to be substantially the same article as which appeared in the December 7-13, 1978 issue of Alaska Advocate and does not reflect the activities of the division nor the activities of your committee in getting clarification on foreign investment in the state. A copy of that article is also enclosed for your information.

I would be interested in your thoughts on this matter. The division has worked closely with your committee in the past primarily through Mr. Dougherty. I intend to cooperate with the committee in any way possible on making the files of the division available and offering advice and comments on the maintenance of those files.

I look forward to seeing you in January during the next legislative session.

Sincerely,



Julius J. Brecht  
Director

JJB/va12/3

cc: W. P. Dougherty

By W.P. Dougherty

Like market concentration, the concentration of ownership attending Japanese investment also poses potential problems for Alaskan fishermen.

Dr. Franklin Orth, in a report entitled "Japanese Investment in Alaska Seafood Processing," describes the ownership characteristics of the Northeast Pacific processing industry:

"Explicit concentration in the domestic seafood processing industry is already high in some areas (of Alaska). Ownership interlinks among domestic firms increase actual concentration to much higher levels. Add investments by a large Japanese fishing & trading company in several Alaskan companies, and the potential for market power is further enhanced."

Marubeni's tentacular investments illustrate well the type of situation Orth outlines (see charts).

Marubeni owns stock in four Alaskan companies: Kodiak King Crab Inc., which operates two shore plants and a processing ship; North Pacific Processors Inc., which has two shore plants; Togiak Fisheries Inc., which operates a shore plant and a freezer ship; and Ward Cove Packing Co. Inc., which has one shore plant.

Kodiak King Crab in turn owns Cordova Bay Fisheries, which operates one shore plant, and Juneau Cold Storage, which has one shore plant.

North Pacific Processors owns Alaska Pacific Seafoods, which runs a single shore plant.

Ward Cove Packing Co. apparently owns Columbia Ward Fisheries, which operates five shore plants; Craig Fisheries, which has one plant; and Excursion Inlet Packing Co., which runs one plant.

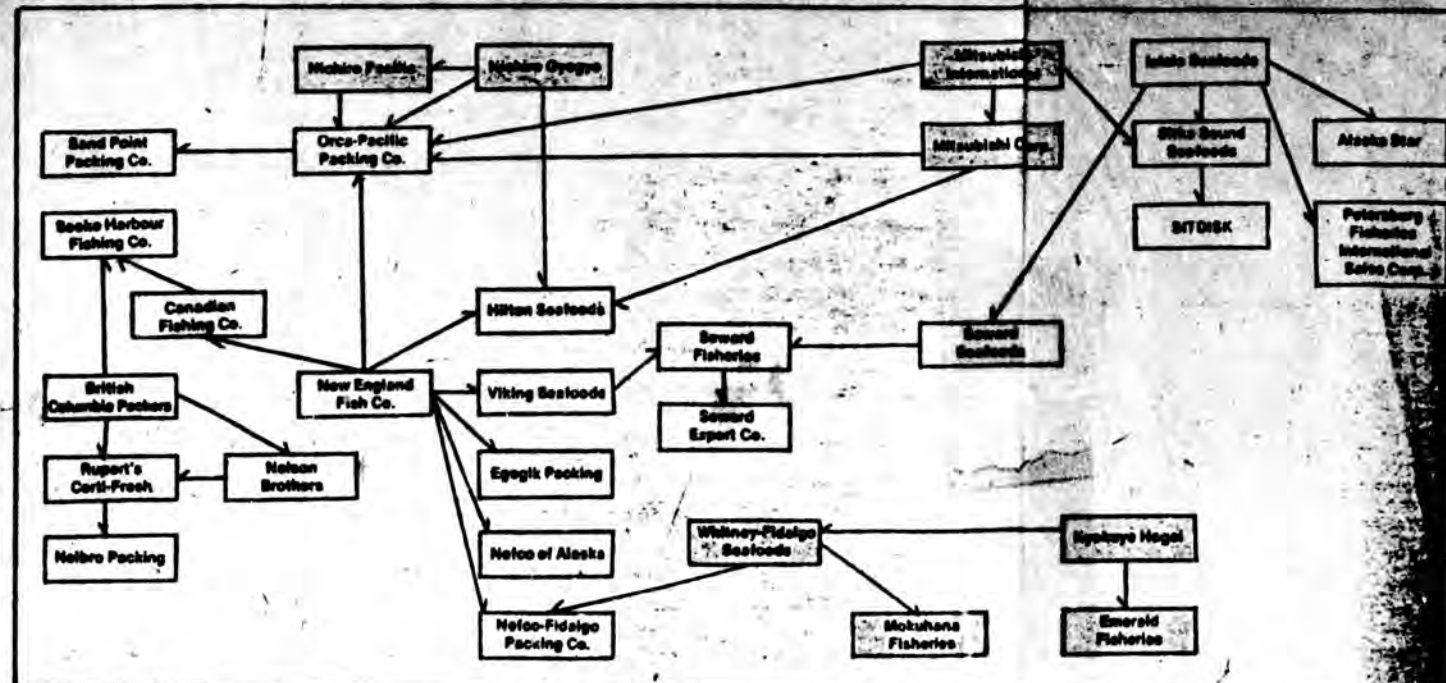
So, although Marubeni owns stock in four companies, which directly operate eight processing facilities, it actually interlinks a total of at least 18 plants statewide.

Since the State of Alaska has never undertaken to study the effects of such corporate connections, no one knows whether competition in the market is reduced as a result.

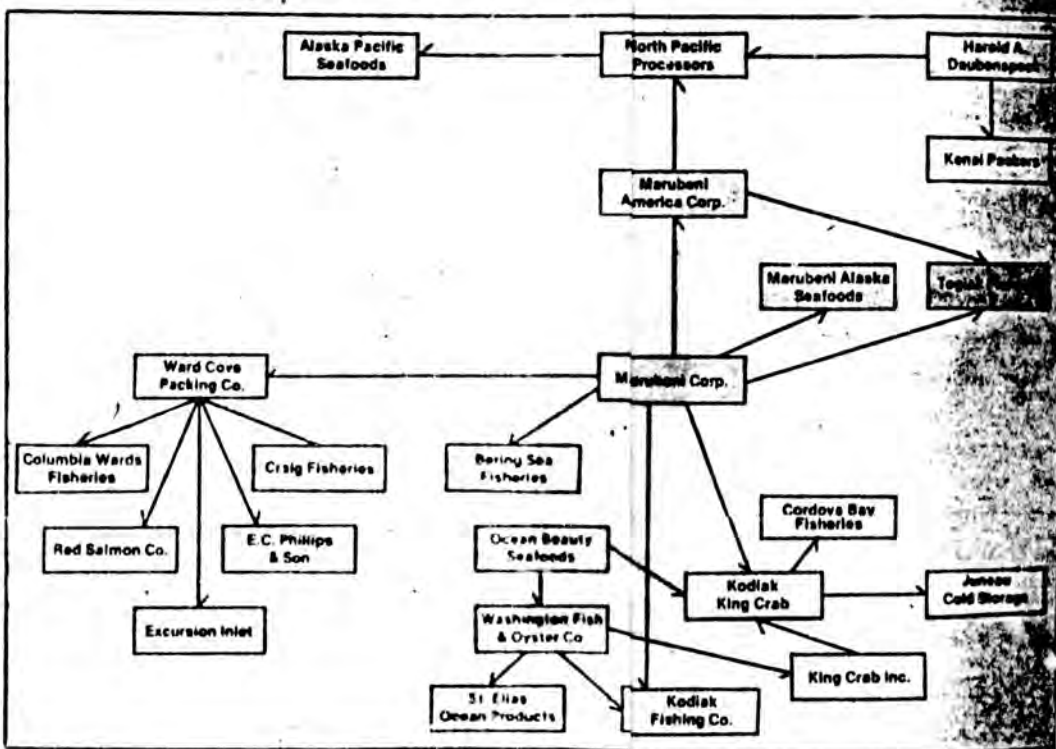
Dick Reynolds, fisheries development specialist with the Alaska Div. of Economic Enterprise, authored a report in 1974 entitled, "Japanese Investment in Alaska." He noted:

"... The fishing industry has been this way forever: control has been vested within a few major corporations.

"If the Japanese trading companies are not 100% competitive among themselves, in other words, if their method of business operation is to carve out a niche that's not encroached on by another trading



ALASKA's processing industry has a history of extensive interownership among companies, now compounded by substantial Japanese investment. These charts indicate ties between the firms shown; the connections may be equity investment, control or both. Japanese fishing companies such as Nichiro Gyogyo and Kyokuyo Hogei are antagonistic competitors of the huge international trading companies, the most visible of which are the Marubeni Corp. and Mitsubishi International. Since Japan's giant trading companies are thought not to compete with one another, it is interesting to note in these charts that while the fishing companies' investments overlap each other and those of the trading companies, the trading companies in no way overlap each other's investments but seem to maintain separate, inviolate spheres of investment.



company, then you don't have the competition that you're looking for."

Dr. George Rogers, a Juneau economist who has written extensively on Alaska's fishing industry and is familiar with business operations in Japan, explained the huge Japanese trading companies:

"They have strict territories that they agree on among themselves. They have the whole world mapped out, and they don't compete with each other. I imagine they would probably do the same with processors in Alaska. My impression is

that they would not have fishermen going back and forth between them selling to the one that gives them the best price."

It should be noted that all the Japanese firms operating in Alaska are trading companies, which are very large, highly diversified, multinational corporations. The two main trading companies active in the Alaska seafood industry are Marubeni Corp. and Mitsubishi International, supposedly the largest corporation in the world.

The other Japanese firms are primarily

worldwide fishing companies. Generally it is understood that the trading companies and the trading companies are antagonistic competitors, it is important not to lump them together as simply "Japanese" assuming a unilateral point of view.

"As far as whether Japanese investment is good or bad, I think you have to look at the people who make the investment. I would say some of the trading companies have not done so well for the industry," suggests

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Whitney-Fidalgo executive Balkfield, who persistently refused to elaborate on his remark.

Whitney-Fidalgo is owned 99% owned by Kyokuyo Hogei, a Japanese fishing company.

Although no one interviewed could substantiate any charges of illegal oligopsony (market control resulting from a limited number of buyers) in Alaskan processing, at least one of the major Japanese trading companies operating here has been accused of corporate kanky-panky in the North.

A Los Angeles grand jury last year indicted Marubeni Corp. in connection with a bribe-kickback scheme involving an employee of the Anchorage Telephone Utility. The telephone company buys materials from Marubeni.

"People can look at these conspiracy theories and say, 'Hey, that guy's off the wall.' — and maybe I am off the wall — but I'm just saying these things could happen and we have to look at them and see that they don't happen," concluded union official Cotter at the end of one of his periodic sermons on foreign investment.

If there is any recurring theme among the people with some detailed knowledge of the evolution of the Alaskan seafood business, it is just what Cotter suggests: the industry is changing, but no one knows exactly how or understands what effect those changes will have on the day-to-day lives and livelihood of those who depend on the industry; the only way to protect Alaska's interests is to find out what is happening.

True to bureaucratic form, state government has reacted ponderously to "things that happen slowly and don't make headlines..."

Neither Jim Edenso, the governor's bottomfish coordinator, nor Chuck Meacham, Gov. Jay Hammond's assistant for international fisheries and external affairs, has any comprehensive profile of the processing industry generally or Japanese investment specifically, even though such information bears directly on their areas of responsibility.

When first interviewed about Japanese investment, Meacham said the administration has "not singled out any nation to give attention to (regarding investments in Alaska processing)."

However, in a second interview a month later, he said, "I have initiated requests for this information to be gathered in a usable form... I think it only correct that the state administration should have available to it the true ownership of companies that operate in the State of Alaska."

If somewhat overdue, the information is needed now as much as ever. With the state bounding forward with plans to do all within its power to nurture a bottomfish industry, it is necessary to understand clearly who will benefit and what it will mean to the industry.

**Alaskan Journalist**

W.P. Dougherty first began looking into the degree and effect of considerable Japanese investment in the Northeast Pacific fish processing industry in September 1977, on assignment for the "Alaska Fisherman." What he discovered was a dramatic shift in the face of the industry, though one which had undergone surprisingly little public scrutiny.

At the time the most current information on the topic was hopelessly outdated. Eventually he spent three months examining Alaska's corporate records and interviewing members of

**What About Japanese Investment?**

The extent of Japanese investment in Alaska's processing industry would be far less a mystery if state government had forced companies to live up to the law.

Alaska's progressive corporate disclosure statutes require firms doing business in the state to reveal who owns them and what foreign ties, if any, they have. The Div. of Corporations, however, has until recently elected to enforce the laws laxly or not at all.

For example, on the corporate annual report forms used by the division, the state asks companies to list "alien affiliates" and then gives the following definition of the term:

"A non-resident alien or a corporation whose place of incorporation is outside the United States."

This would scarcely seem to elicit the type of disclosure envisioned by the legislature when it decided that corporations should identify "any (alien) individual, corporation, partnership, association, joint-stock company, trust, unincorporated organization, government subdivision or government" that "directly or indirectly through one or

more intermediaries controls, or is controlled by, or is under common control with, a corporation" doing business in Alaska.

Any Alaskan corporation with an alien affiliate must reveal the number of its shares held by such an affiliate.

If this statute were enforced, Japanese ownership of Alaskan processors would be readily apparent in each corporation's file in Juneau. However, it appears the Div. of Corporations has permitted compliance with the law to be voluntary.

House Speaker Terry Gardiner (D-Ketchikan) wrote to Julius J. Brecht, director of the Div. of Banking, Securities and Corporations, asking why the misleading definition appeared on the annual report forms.

Gardiner replied, "It would appear that the definition being used by the Dept. of Commerce effectively thwarts the intent of 145 SLA 1975."

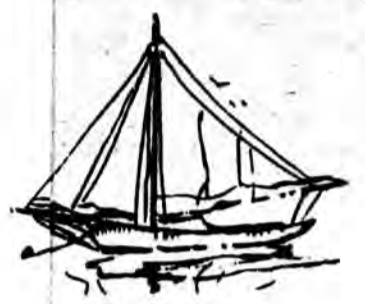
Gardiner was told that the forms had been printed two years in advance, and the definition would have to stand until the new forms were ordered.

Another batch of forms was ordered

When the forms were not meant to be read as a definition. The companies are responsible for knowing what the law is and obeying it. We now have two year's worth of forms due for delivery. If this turns out to be a serious problem, perhaps we can do something with the definition, like typing a message (by computer) onto the annual report forms."

More than just a few corporations take advantage of the state's unconcerned attitude by neglecting to mention alien affiliates. At the moment, the division has no method for even spot checking the reports to see if they are correct.

— Dougherty



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"In one case, a hurricane was approaching Cape Hatteras. When a hurricane hits Hatteras, it usually veers towards the Grand Banks. We were with 11 boats . . . we all started in. But because I had the ALDEN MARINEFAX, I kept studying the storm. I ran part way in and laid to. The storm veered off more to eastward than was expected. I lost the night's fishing but came back and fished the next night. Being able to track the storm myself instead of listening to weather reports, I continued to fish and the storm went around outside of us. We picked up 26,000 lbs. of fish while all the other boats were in. I figure the ALDEN MARINEFAX

# Mr. Tashiro goes to Kodiak

## Quietly, calculatedly, Japan buys an Alaska industry

by W.P. Dougherty

Copyright 1978, W.P. Dougherty

The international Japanese trading and fishing companies, as their investment in the Alaska seafood industry grew and grew, found little use for such American corporate conventions as gaudy ribbon-cutting ceremonies and groundbreaking photo sessions. They seemed to cherish their low profile.

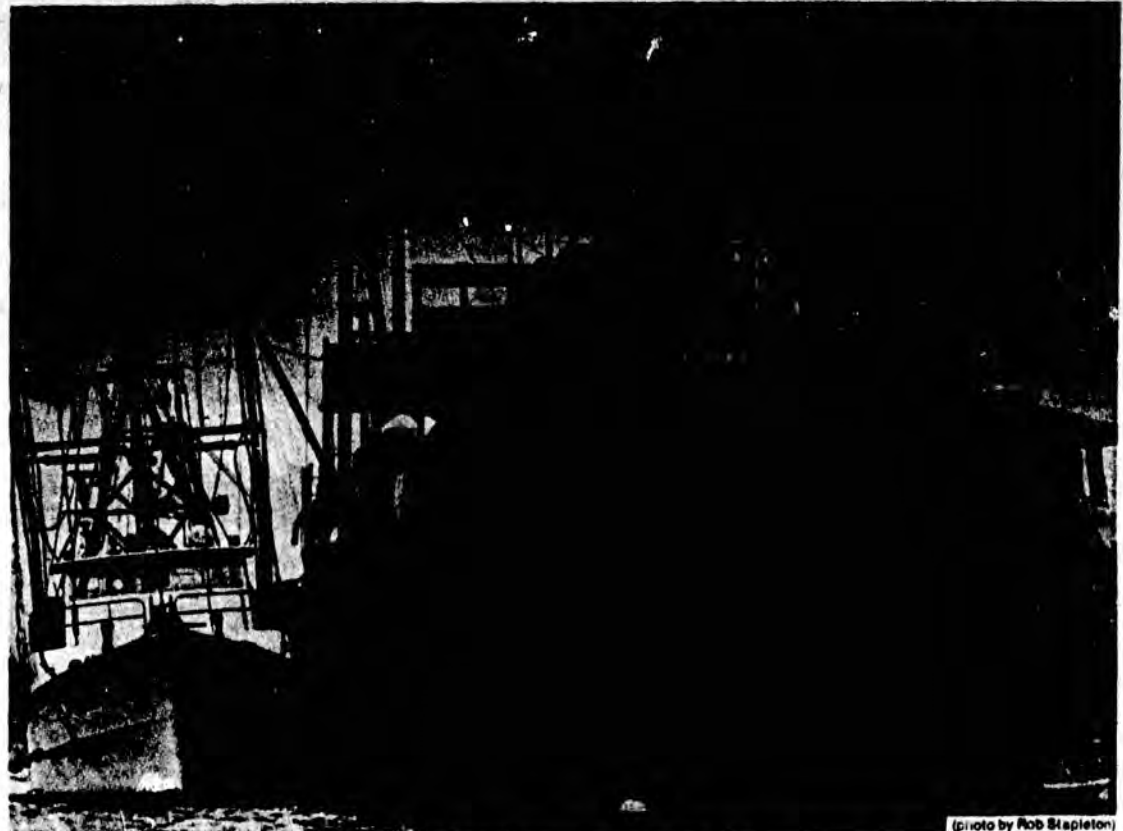
After all, over the years, the multinational Japanese industrialists found they reached a so-called "peril point" upon acquiring more than one-third of a particular local industry in a foreign country. The usual result of venturing beyond the peril point, notes a director of the Southeast Asia Research Center in Japan, is indigenous opposition and a flowering of anti-Japanese sentiment.

In the Alaska fish processing industry, however, the peril point passed years ago—without ceremony, without fanfare, and, apparently, without protest.

Foreign control of Alaska's fisheries, in one form or another, is hardly a recent wrinkle in the pages of state history. As one hard-boiled Kodiak fisherman grouched, "We were a colony of Seattle; now we're becoming a colony of Tokyo."

In the halls of state government, the attitude seems equally as resigned; in 1976, Hammond assistant Bob Palmer told the authors of *Last Frontier: The Marketing of Alaska* that "...the Japanese have a near monopoly (in the processing industry), if not an actual one."

Surprisingly, the state has failed to follow up such alarming pronouncements with a comprehensive, up-to-date look at how the Japanese affect one of



(photo by Rob Stapleton)

Accepting a load of fish aboard the M/V Whitney, a floating processor owned by Whitney-Fidalgo Sea-

foods, which is 99% Japanese.

Alaska's principal businesses. As a result, no one outside of the typically tight-lipped industry really knows how much the Japanese have invested, where they've invested it, or what degree of control ensues.

The few voices decrying Japanese ownership of processors operating in Alaska cite five potential problems begging for closer examination:

- The Japanese have a vested interest in retarding development of an Alaska bottom-fish industry, and they may be able to accomplish this if the numerous processing companies they control decline to handle American-caught bottomfish.

- Monopolistic practices could be encouraged by increased interownership in an industry already notable for extensive

inter-ties between the larger operating companies.

- Processing within Alaska, with its potential for tax revenue and local employment, could be abbreviated to allow Japanese firms to perform as many processing functions as possible in plants in Japan.

Unlike the timber industry, which also is heavily controlled by the Japanese, the fishing in-

dustry has no primary processing requirements. This encourages foreign firms to ship home virtually raw fish products.

- The Japanese-invested processors appear to have little reason to seek out and develop markets other than Japan, which raises the possibility of fishermen without bargaining leverage because no alternate markets [continued on next page]

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(Continued from preceding page)

exist.

• Since the majority of Alaska fishery products apparently are destined for Japanese markets, the health of the industry in Alaska is intimately tied to the ups and downs of Japan's economy.

Almost too obvious to mention is the fact that foreign ownership means profits will be paid to corporate treasuries overseas, while company accountants spend their days contemplating ways to reduce local tax liability, which is one of the primary ways Alaskans stand to benefit from the exploitation of their resources.

The legitimacy of these fears is undetermined and likely to remain so until two questions are answered: How extensive is Japanese investment in the Northeast Pacific processing industry? And how much control do the Japanese exercise as a result?

Petersburg processor Tom Thompson believes the Japanese miss few opportunities for investment. "I don't think anyone doesn't (have some Japanese financing)," he says, with a chuckle.

A recent investigation by the Advocate found Japanese investment in the majority of large-scale processors operating in the state. In terms of total production, the best guesses available indicate that Japanese-invested companies produce 65-85 percent of Alaska's commercial seafood.

Poor record keeping by the state and evasiveness on the part of many American processors, however, make it nearly impossible to paint an exact, current picture of the industry. The figure given above may well be too low.

Control is even more intangible than actual investment. Only industry insiders can knowledgeably discuss who pulls the corporate strings, and they are reluctant to do so.

Control of a corporation is not apparent in the reports filed annually with the state Division of Corporations (see story on Page 7). Just because U.S. citizens own 51 percent of a pro-

cessing company's stock does not mean Americans control it. Effective control can be bargained away in exchange for a loan necessary to prepare for the upcoming season, for example.

As one processor explained, "...If you're hurting for cash, (the Japanese) will come up and say, 'Sure, we'll give you a million dollars, but we want this and this and this at such and such and such a price.' Either you're not going to produce what they want and make nothing, or you're going to take (their) money. In fact, the Japanese come in as partners."

But, he adds, the most obvious, most effective method of control involves neither stock ownership nor loans. "The markets are Japan for the fishing industry in Alaska. That's enough control right there."

To understand how the interests of the Pacific neighbors—Alaska and Japan—become so wedded, a little history is in order.

### MR. TASHIRO GOES TO KODIAK

One gray, damp spring day in 1964, Yoshio Tashiro followed his American guide through the frenzy and fragrance of a Kodiak Island salmon packing plant. Tashiro, an executive with the marine products department of the Japanese trading company, Marubeni Corp., had been dispatched on a mission to secure future supplies of salmon for his company to process and sell.

As he slipped past the clattering machinery and Filipino laborers, his footsteps were arrested by a startling sight.

"My God," Tashiro exclaimed under his breath, and then, more loudly: "Are you people dumping that stuff into the sea, guts and all?"

(continued on next page)

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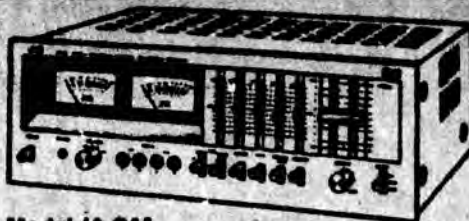
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# Japan buys

(continued from preceding page)

The guide, somewhat puzzled by the visitor's reaction, replied uncertainly. "Yes, sir. Salmon eggs are worthless, aren't they? We just throw 'em away here."

Tashiro excitedly asked to speak with the manager, and soon was ushered into the plant office. He and the manager quickly agreed that Marubeni could purchase all it wanted of the glistening red salmon eggs.

"You people sure buy funny stuff," the plant manager told Tashiro as he prepared to leave. The manager, of course, had never crossed paths with a plate of *sujiko*, a salmon egg delicacy pleasing to the Japanese palate.

A year later, after arrival of specialized equipment and technicians to prepare the eggs for finicky consumers, Marubeni imported 100 tons of eggs, \$200,000 worth, from four packers. Two years later, a Canadian packer and two more Alaska canners were signed on to meet the growing demand for *sujiko*. During the same time, other Japanese companies, goaded by the Marubeni profits, began searches for their own roe suppliers.

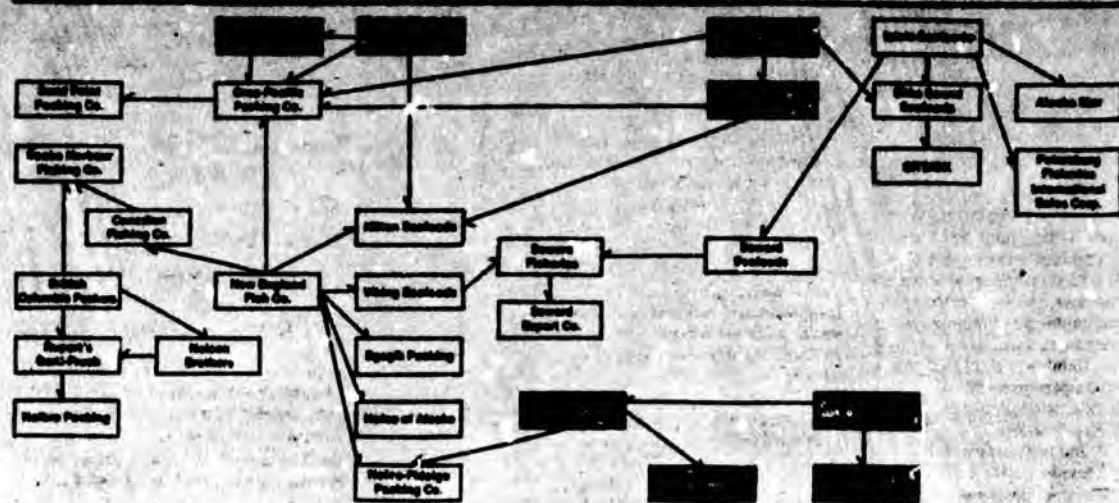
Although he couldn't have realized it at the time, Tashiro's chance discovery at Kodiak presaged a new era in the Alaska fishing industry.

If the salmon egg incident had occurred just a few years earlier, the Japanese government would have aborted the *sujiko* scheme while it was little more than a twinkle in Mr. Tashiro's eye, since such imports had been severely restricted.

In the early '60s, however, unsatisfied consumer demand in Japan for a variety of specialty products persuaded the government to drop some import barriers, including those on salmon roe.

**T**okyo's decision on egg imports could hardly have come at a more critical time in the history of the Alaska processing business. Poor management by the federal government and voracious plundering by the West Coast canners had reduced the industry to a shambles by the late 1950s. (The annual total of salmon canned, which reached nearly 8.5 million cases in 1936, fell to 1.5 million by 1960 despite the efforts of roughly four times as many fishermen.)

By 1964, with salmon stocks still seriously depleted after the ravaging of the '40s and '50s, many of the remaining canners were strained financially to the breaking point. Such was the scene when the Japanese arrived with intentions of boosting pro-



cessor revenues by purchasing eggs, which the canners had flushed out to sea for 75 years.

Some still-operating processors who struggled through those early years of statehood say the egg sales to Japan provided the margin of profit on which they survived.

"The Japanese... saved the salmon industry because of roe. The canneries couldn't have made it without the market for roe," says Larry Salkield, attorney for Whitney-Pidalgo Seafoods, which is 99 percent Japanese-owned and one of the largest processors in Alaska today.

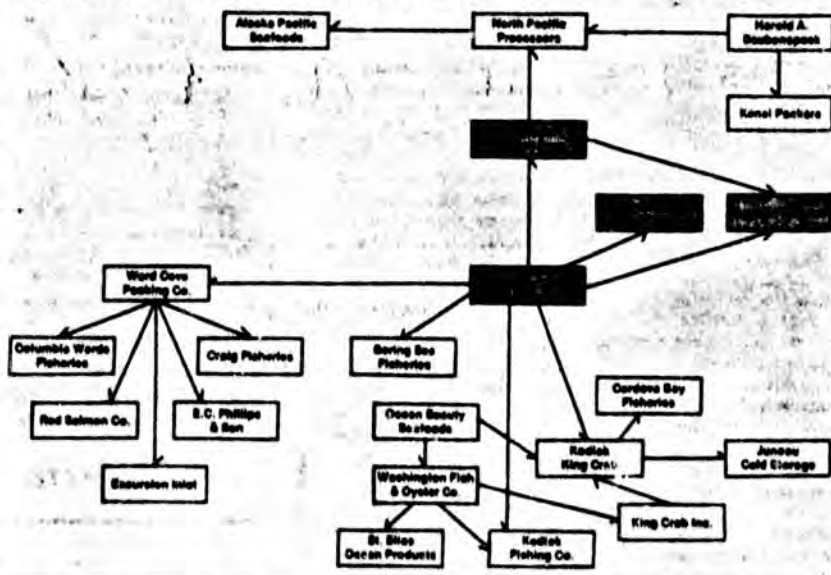
The stream of yen that began with egg purchases flowed steadily into the Northeast Pacific fishing industry through the mid-1960s. The major Japanese firms expanded their dealings from buying roe to the initiation of broader-ranging partnerships, or joint ventures, with American processors. Tokyo still maintained its historic overseas investment restrictions, which discouraged outright investments in or purchases of U.S. companies.

By the close of the '60s, though, Japan's foreign investment dampers became increasingly anachronistic. The governors in Tokyo found themselves confronting mounting trade surpluses, which had grown steadily in recent years and threatened to upset the world economy.

The subsequent Japanese decision to reduce the surpluses by removing obstacles to overseas investment opened the way for a flood of capital into West Coast-Alaska processing firms.

Relaxation of investment barriers came at a time when Japan's interest in Alaskan fisheries found new focuses. Japanese demand for semi-processed tanner (snow) crab sections in the early '70s enlivened that fishery to the profit of U.S. fishermen. (The snow crab catch, for example, leapt from 13 million pounds in 1971 to 81 million

The fish processing industry in Alaska historically has been characterized by considerable interownership among the larger firms. One of the effects of substantial Japanese investment has been to bring more companies in it. These two charts show ties between the companies, which may be stock ownership, control or both. Critics of Japanese investment worry that price fixing or other monopolistic machinations are encouraged by common financial interests among many, many companies. A distinction must be made between the worldwide Japanese fishing companies, such as Nichire Gyogyo and Kyokuyo Hegel, and trading companies such as Mitsubishi International and Marubeni Corp. Since Japan's giant trading companies reportedly do not compete with one another, it is interesting to note that while the fishing companies have investments overlapping those of the trading companies, the trading companies maintain spheres of investment separate from one another.



pounds two years later.) Also in 1971, Marubeni was again prowling for fish eggs, though this time the quarry was herring roe, a Japanese delicacy known as *kazunoko*.

With profitable new incentives and greater freedom to invest, Marubeni, as Japan's largest importer of marine products, eagerly committed \$1 million to three American firms in mid-1972. Other companies did likewise. In 1973, Tokyo set up a government agency with the sole purpose of promoting overseas investment in fisheries.

A 1974 study by the U.S.

Department of Commerce revealed that foreign investments in commercial fisheries nationwide doubled from 1970-74, with an increase of 30 percent in 1974 alone. The bulk of the investment ended up in the North Pacific fishery. The study suggested the investment surge was spurred by the increasing likelihood that the U.S. would extend its exclusive fishery zone from 12 to 200 miles.

One American processing company launched by the Japanese in 1974 was Universal Seafoods, a joint venture of the Japanese fishing firm Nippon Suisan Kaisha Ltd. and a group

of Americans. "Nippon Suisan's participation was necessary and critical for us to get started. We could not find American capital," said Richard Pace, president of Universal Seafoods and vice president of Dutch Harbor Seafoods, a second company formed by the same group two years later.

In 1976, as the Japanese had unhappily anticipated, Congress passed into law the Fishery Conservation and Management Act. Proponents argued that the 200-mile limit law was necessary to revive an anemic U.S. fishing [continued on next page]

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industry and protect the nation's marine resources from heavy foreign fishing.

Japan, traditional harvester of hundreds of millions of tons of bottomfish, crab and salmon takes within 200 miles of Alaska in the Bering Sea and Gulf of Alaska, faced the dismal prospect of eventual eviction. Worldwide, nearly half of Japan's supply of seafood swam within 200 miles of some other nation's shores. Since seafood is a basic element of the Japanese diet, the implications of the new law were staggering.

## JAPAN AND THE AGE OF LIMITS

Imposition of an American 200-mile limit gave a new cast to Japanese investment in the American processing industry. Where earlier they were a desirable source of profits, the investments suddenly became a precious guarantee of future supplies of marine products.

The 200-mile limit law divided all fishery resources within 200 nautical miles of the U.S. among eight regions, each governed by a management council. Because Alaska's coastline and fisheries are so vast, they comprise a single region overseen by the North Pacific Fishery Management Council (NPFMC).

Each council is responsible for formulating and periodically revising a regional management plan, which is approved and enforced by the secretary of commerce. Councils also study the fisheries under their jurisdiction, listen to comments from various elements of the fishing industry and suggest policy to the commerce secretary.

In very simple terms, the North Pacific council annually treats each species fished commercially off Alaska as though it were an imaginary pie. Scientific data on a particular species are gathered and used to determine the size of the pie (actually how much of that species is available in the region).

The council determines the optimum yield—how much of the pie can be removed without permanently reducing the number of fish. Since American fishermen are entitled to all the fish they can catch, the council calculates how much the U.S. fleet is able to handle, and what remains becomes the foreign quota.

Based on information from the councils, the secretary of commerce ultimately decides the total allocations to foreign and domestic fishermen. The 200-mile law requires that Americans receive as large a share as they reasonably can expect to catch and process.

Once the commerce secretary decides the total foreign

The extent of Japanese investment in the Alaska processing industry would be far less a mystery if state government had forced companies to live up to the law.

Alaska's progressive corporate disclosure statutes require firms doing business here to reveal who owns them and what foreign ties, if any, they have. The Division of Corporations, however, has until recently elected to enforce the laws laxly or not at all.

For example, on the corporate annual report forms used by the division, the state asks companies to list "alien affiliates" and then gives the following definition for the term:

"A non-resident alien or a corporation whose place of incorporation is outside the United States."

This would scarcely seem to elicit the type of disclosure envisioned by the legislature when it decided that corporations should identify "any (alien) individual, corporation, partnership, association, joint-stock company, trust, unincorporated organization, government subdivision or government" that "directly or indirectly through one or more

harvest, the secretary of state divides it among the various nations vying for a share. The law provides that the secretary of state withhold allocations from nations barring imports of American marine products. The law also dictates that a country which traditionally has fished for a certain species in an area receive preference in the final foreign allocations.

In the North Pacific, Japan is the primary traditional user.

The Japanese find this system far from ideal; it only becomes acceptable when contrasted with complete exclusion from the fishing grounds. Each year they must argue for the largest possible allocations, with no guarantee of approval.

A delegation of Japanese fishery officials, at a press conference in Washington, D.C., last August, charged that they weren't really permitted to harvest their full allotment because of various hobbling regulations imposed on their fleets.

In addition, they complained, "It is common for regional fishing interests to keep foreign allocations as low as possible through the use of inflated U.S. catch capacity claims, underestimated

intermediaries controls, or is controlled by, or is under common control with, a corporation" doing business in Alaska.

Any Alaska corporation with an alien affiliate must reveal the number of its shares held by such an affiliate.

If this statute were enforced, Japanese ownership of Alaska processors would be readily apparent in each corporation's file in Juneau. However, it appears the division of corporations has permitted compliance with the law to be voluntary.

State Rep. Terry Gardiner, D-Ketchikan, sent a letter more than a year ago to Julius J. Brecht, director of the Division of Banking, Securities and Corporations, asking why the misleading definition appeared on the annual report forms.

Wrote Gardiner, "It would appear that the definition being used by the Dept. of Commerce effectively thwarts the intent of 145 SLA 1975."

Gardiner was told that the forms had been printed two years in advance, and the definition would have to stand until the new forms were ordered. Another batch of forms was ordered this year,

but they retained the same misleading definition.

When asked about this failure to change the forms, Brecht said, "This was not meant to be read as a definition. The companies are responsible for knowing what the law is and obeying it. We now have two years worth of forms due for delivery. If this turns out to be a serious problem, perhaps we can do something with the definition, like typing a message (by computer) onto the annual report forms."

More than just a few corporations take advantage of the state's unconcerned attitude by neglecting to mention alien affiliates. At the moment, the division has no method for even spot checking the reports to see if they are correct.

A second favorite corporate oversight is the law requiring companies to report every holder of 5 percent or more of its stock. This failure is readily apparent when the forms arrive in the corporations section, but seldom are the reports returned to the companies for completion.

—Dougherty

harvestable stock data, and reductions in allowable catch quotas based on domestic economic and political considerations, not conservation criteria."

Ultimately, Japan's fishing industry must recognize the futility of such complaints. The Japanese realize their best protection lies in control of American processors, which at least assures them a surety of supply virtually immune to any chauvinistic arbitrariness by the councils, the commerce secretary or the secretary of state.

Under the 200-mile limit law, the Japanese fishing the North Pacific must contend with a supply continually shrinking as Americans bite off a larger and larger share.

Through their shore-plant investments, which continue today, the Japanese retain a voice in what is produced from Alaskan waters, how much is produced and where it is marketed.

## TOO MUCH OF A GOOD THING?

Everybody thinks and talks about (Japanese investment in processing)," admits Dick Reynolds, fisheries development

specialist with the state Division of Economic Enterprise. "We haven't kept track of the real development (of investment). In the beginning it was good, it may still be good."

Reynolds is one of the few persons in state government with any detailed knowledge of Japan's evolving role in Alaska processing. In 1974, he authored a report entitled "Japanese Investment in Alaska" in which he concluded, "...Whatever the concerns are, Japanese investment in the Alaska fishing industry has so far produced higher prices to the fisherman, money for plant expansion and product diversification, and a good market for products not currently salable in the U.S."

Reynolds estimated in the report that plants then wholly or partly owned by Japanese firms accounted for roughly 20 percent of total Alaska seafood production. Since then, he acknowledges, the investment has grown prolifically, and he has lost track of it.

Asked why the state's interest waned while the issue became increasingly significant, he explains:

"Government operates in

response to people saying, 'My God, look what's happening,' and going to their legislators and telling them they want something done."

"Long-range, long-term things that happen slowly and don't make headlines get put on the back burner."

For the last two years, the Department of Fish and Game has relegated to the back burner any requests for its statistical section to compute the percentage of total seafood production represented by companies wholly or partly owned by Japanese firms. The department waves off such requests as too time-consuming, too expensive or too unimportant to bother with.

Consequently, no one knows the amount of Japanese-invested production. Educated guesses range from 65 to 85 percent of Alaska's annual total, which represents a wholesale value of roughly \$250 million to \$375 million.

Critics of pervasive Japanese investment, such as former state representative Ed Naughton of Kodiak, say they don't need any computer print-outs to know that the "peril point" has arrived.

"Having Japanese investment here is very good, it's a positive thing. But having only their money is not a good thing," Naughton says.

"One of my concerns is that the Japanese fishing industry is not regulated but (rather) run by the Japanese Fishery Agency (an arm of the Japanese government). We don't like them making decisions about what is going to happen here."

"I'm aware of some companies that want to get into (new) species, but they can't get permission (from the fishery agency)."

"There are (joint venture) companies that have proposed larger on-shore facilities and then the Japanese (partners have) ...had to back away because they can't get permission to make the investment."

"No company (controlled by the Japanese) can make investments that will allow the Japanese quota (under the 200-mile law) to be reduced." (Remember, the greater the American fishing and processing capacity, the smaller the foreign allocation.)

"Development of a bottom-fishery," one of the best worn phrases in Alaska these days, basically means construction or conversion of vessels to trawl for bottomfish, retrofitting of processing plants to handle the new species and cultivation of a market for U.S.-caught fish.

Fisheries specialist Reynolds, for example, agrees that the Japanese demonstrate precious little interest in bottom-fish development, possibly in order to protect their quota

(continued on page 10)

# Japan buys

(continued from page 7)  
under the 200-mile limit.  
"It seems like there's almost been a planned effort to keep the Japanese companies from investing in any development that might encourage a shore-based trawl fishery," Reynolds said.

Tom Thompson, an owner of Iccle Seafoods in Petersburg, speculates that, "If I were the Japanese, I would probably think that (the longer it takes to develop an American bottomfishery, the better). They have lots of men and boats depending on this fishery. I don't think they'd actively try to prevent a bottomfishery; they wouldn't come out and say it, anyway."

Clem Tillion, chairman of the NPFMC, a state senator and former fisherman, predicts "the Japanese aren't going to be pioneers (of a bottom fish industry in Alaska)...Why should they put themselves out of business?"

One difficulty in launching a bottomfishery is the presence of an economic Catch-22. The processing companies hesitate to invest in equipment to handle bottomfish until fishermen show they can catch enough fish to keep plants running near capacity. The fishermen, on the other hand, don't want to spend time and money landing fish the plants can't accommodate.

One suggested approach to dissolving the standoff involves a controversial joint venture of Alaska fishermen and a multinational Korean fishing company.

The plan—which was approved by the commerce secretary after a year's delay, much public debate and an amendment to the 200-mile law—calls for Alaska fishermen to catch and deliver pollock (the

'If you're hurting for cash, (the Japanese) will come up and say, 'Sure, we'll give you a million dollars, but we want this and this and this at such and such and such a price.' Either you're not going to produce what they want and make nothing, or you're going to take (their) money. In fact, the Japanese come in as partners.'

least economic bottomfish species to produce) to Korean factory ships outside U.S. territorial waters (which extend three miles from shore).

The proposal seems beneficial for fishermen, who gain a waiting market with little risk on their part, and it appears advantageous for the Koreans, who annually would receive up to 130,000 metric tons of pollock in addition to their allocations from the state department. The vast majority of Alaska pollock now is caught and processed by Japanese fleets.

**N**ot too surprisingly, the Korean plan brought rains of condemnation from powerful American processors and unhappy Japanese. Both had little or nothing to gain and something to lose from such a scheme.

Though the processors would benefit by evidence that U.S. fishermen could provide them ample quantities of bottomfish, as the Korean venture may or may not show, they feared the possibility of later having to bid against Korea or other nations for the catches of American fishermen. The processors also worried that the foreign competition could prevent the American industry from moving beyond its infancy.

The competition would be unfair, they argued, because the foreign floating factories could compete unfairly in the absence

of U.S. health, safety and labor regulations.

The Japanese, in their role as American processors, complained similarly. But, even more fundamentally repugnant to them was the idea of Americans helping Koreans cart off fish that otherwise would be caught by Japanese fishermen and processed aboard their floating factories.

When the Korean venture was proposed to the NPFMC in early 1977, strenuous objections were raised by opponents, the most adamant of which was New England Fish Co. of Seattle (Nefco). Nefco is an American multinational that describes itself as the largest fishing company in the United States.

The North Pacific Council, under considerable pressure from the various fishing interests involved, voted to postpone any decision until a study of joint ventures could be completed.

The processors, meanwhile, launched a well-financed effort to protect themselves by amending the Fishery Conservation and Management Act. Their amendment proposed to guarantee U.S. processors—no matter who owns them—a first right of refusal to buy and process American-caught fish.

The Koreans, with a sizeable bankroll and lobbyists of their own, journeyed to Washington to fight the processors.

The Wall Street Journal

characterized the amendment drive as "little noticed, heavily lobbied." The newspaper quoted a source on the House Merchant Marine Subcommittee as saying, "The Nefco people were everywhere. They wrote position papers. They wrote part of the committee report and they wrote some floor statements for the members, too."

Considering Nefco's ties—both directly and indirectly—to other powerful multinational corporations on the West Coast, it's subsequent victory was less than a complete surprise.

In accordance with the limitations placed on joint ventures by the new amendment, which passed this August, the secretary of commerce approved the Korean proposal and a Soviet one this fall.

"In many cases, New England Fish Co. has been active in building up an emotional storm," said NPFMC chairman Tillion. "I'm not dismissing the threat (posed by foreign factory ships operating in U.S. waters), it's just not as great as those who talk about it say. It should be watched, but there is no reason to panic. The loudest screamers in Kodiak are busy packing sac roe for the Japanese."

That certainly is true of Nefco, which is a partner with the Japanese in several fishing companies: Nefco-Fidalgo Packing Co.; Orca-Pacific Packing Co.,

which owns Good Point Packing and Hinton Seafoods, which is not an Alaska firm.

Nefco's opinion over the joint ventures is understandable, though, when the stakes are kept in mind. If the Japanese can be edged out of U.S. waters, if an American industry in bottomfish, for example, develops, and Japan's import barriers can be weakened, then companies such as Nefco stand to make millions upon millions of dollars supplying the huge Japanese market.

At present, Nefco is pushing for congressional limits on foreign investment in processing companies, a move which runs counter to this country's historic policy favoring a free investment climate.

"Just as we would not accept a Soviet or Japanese takeover of CBS or of our coast-wide shipping industry, we believe the United States should limit the ability of foreign interests to take over the protein resources adjacent to this nation's coasts..." testified Nefco consultant Edward W. Faria before Congress.

"...What we are saying is that America should control the destination of its fish protein resource and obtain the full political, strategic and economic benefits of that control."

Naughton, because he hired or as a consultant to the Korean venture, is a controversial figure frequently accused of serving as a mouthpiece for the Koreans. However, other industry observers such as cannery worker representative Larry Cotter, echo Naughton's fears.

Cotter, president of the International Longshoremen's and Warehousemen's Alaska Council, concludes, "You can be sure the Japanese don't want to see development of an American industry because they'd be

(continued on next page)

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cutting their own throats."

Another problem pointed out by state fisheries expert Reynolds and Naughton concerns the danger of dependence on a single market.

"In the early '70s," Naughton recalls, "the (Japanese) government collapsed and the fishing industry (in Kodiak) went into a recession. There was no market when their economy collapsed."

Reynolds adds, "We've never developed a secondary market or the ability to market a large quantity of tanner crab anywhere else. So, if we do run into an economic crunch in Japan, as happened before recently, we could really hurt our tanner crab fishery...Everytime you concentrate your market in one spot, you're leaving yourself open to trouble."

"(The Japanese) could derail the crab industry by refusing to buy," Tilton admits. "The price now is so high that the American market is limited."

Like market concentration, the concentration of ownership attending Japanese investment also poses potential problems for Alaska fishermen.

Dr. Franklin Orth, in a recent report entitled "Japanese Investment in Alaska Seafood Processing," describes the ownership characteristics of the Northeast Pacific processing industry:

"Explicit concentration in the domestic seafood processing industry is already high in some areas of (Alaska). Ownership interties among domestic firms increases actual concentration to much higher levels. Add investments by a large Japanese fishing or trading company in several Alaska companies, and the potential for market power is further enhanced."

Marubeni's tentacular investment tendencies illustrate well the type of situation Orth outlines (see chart on Page 6).

Marubeni owns stock in four Alaska companies: Kodiak King Crab Inc., which operates two shore plants and a processing ship; North Pacific Processors Inc., which has two shore plants; Togiak Fisheries Inc., which operates a shore plant and a freezer ship; and Ward Cove Packing Co. Inc., which has one shore plant.

Kodiak King Crab in turn owns Cordova Bay Fisheries, which operates one shore plant, and Juneau Cold Storage, which has one shore plant.

North Pacific Processors owns Alaska Pacific Seafoods, which runs a single shore plant.

Ward's Cove Packing Co. apparently owns Columbia Wards Fisheries, which operates five shore plants; Craig Fisheries, which has one plant; and Excursion Inlet Packing Co., which runs one plant.

So, although Marubeni owns stock in four companies, which directly operate eight processing facilities, it actually interlinks a total of at least 18 plants statewide.

Since the state of Alaska has never undertaken to study the effects of such corporate connections, no one knows (for sure) whether competitiveness in the market is reduced as a result.

"...The fishing industry has been this way forever: control has been vested within a few major corporations," Reynolds said. "If the Japanese trading companies are not 100 percent competitive among themselves, in other words, if their method of business operation is to carve out a niche that's not encroached on by another trading company, then you don't have the competition that you're looking for."

Dr. George Rogers, a Juneau economist who has written extensively on the Alaska fishing industry and is familiar with business operations in Japan, explained this about the huge Japanese trading companies:

"They have strict territories that they agree on among themselves. They have the whole world mapped out, and they don't compete with each other. I imagine they would probably do the same with processors in Alaska. My impression is that they would not have fishermen going back and forth between them selling to the one that gives them the best price."

It should be noted that all the Japanese firms operating in Alaska are not trading companies, which are very large, highly diversified multinational corporations. The two main trading companies active in the Alaska seafood industry are Marubeni Corp. and Mitsubishi International, supposedly the largest corporation in the world.

The other Japanese firms are primarily worldwide fishing companies. Since generally it is understood that the fishing companies and the trading companies are antagonistic competitors, it is important not to lump them together as simply the Japanese, assuming a unilateral purpose or point of view.

"As far as whether Japanese investment is good or bad, I think you have to look at the people who make the investment. I would say some of the trading companies have not done so well for the industry," suggested Whitney-Fidalgo executive Sal-kield, who steadfastly refused to elaborate on his remark. (Whitney-Fidalgo is owned 99 percent by Kyokuyo Hoge, a Japanese fishing company.)

Although no one interviewed by the Advocate could substantiate any charges of illegal oligopoly (market control resulting from a limited number

of buyers) in Alaska processing, at least one of the major Japanese trading companies operating here has recently been accused of corporate henky-penky in the North. A Los Angeles grand jury last month indicted Marubeni Corp. in connection with a bribe-kickback scam involving an employee of the Anchorage Telephone Utility. The telephone company buys materials from Marubeni.

State labor officials recently launched an investigation into charges that Japanese rose technicians regularly exceed the limits of their alien work visas. (Advocate, Aug. 24, 1978) The probe began in response to urging by union official Cotter, who represents some 3,000 Alaska workers, including processor employees.

The alien work visas, which are issued by both the Immigration and Naturalization Service and the State Department, restrict the foreign workers to specific tasks that employers

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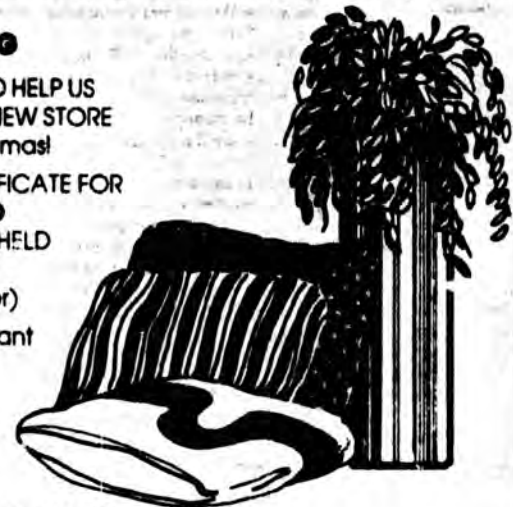
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## Japan boys

(continued from page 10)

are unable to fill with Americans.

Since Japan has been the sole market for Alaska salmon roe, the Japanese buyers used that leverage to demand that processing of roe be overseen by Japanese technicians.

Local union spokesmen and state labor officials don't object to the Japanese supervisors, but they strongly object to use of Japanese in relatively unskilled jobs that could be filled by Alaskans.

In a letter to Sen. Mike Gravel's office, Cotter wrote:

"...Whether through lack of knowledge, industriousness, or lack of direction from the companies, the Japanese are almost continually working beyond the boundaries of their (U.S. visa) jurisdiction—and it seems impossible to stop them.

"I have seen them working on Saturdays when there were no Americans in the plant, loading vans with roe cartons, making boxes, loading the freezers in the cold storages, driving fork lifts, packing eggs in the boxes, and, just last week in a cold storage in Ketchikan, working on a fish salting line.

"If you are aware of the general wages for fish workers in the state, and the extreme seasonality of their occupation—and the unemployment in the state—every extra bit of work, and every extra job makes a big difference."

The state so far has not released any conclusions drawn from its investigation.

### LOOKING OUT FOR NUMBER ONE

"People can look at these conspiracy theories and say,

"Hey, that guy's off the wall,—and maybe I am off the wall—but I'm just saying these things could happen and we have to look at them and see that they don't happen," concludes union official Cotter at the end of one of his periodic sermons on foreign investment.

If there is any recurring theme among the people with some detailed knowledge of the evolution of the Alaska seafood business, it is just what Cotter suggests: the industry is changing, but no one knows exactly how or understands what effect those changes will have on the day-to-day lives and livelihood of Alaskans; the only way to protect the state's interests is to find out what is happening.

"If we are going to look after anybody, then we are going to have to look after Old Number One," as Naughton says.

True to bureaucratic form, state government reacted ponderously to "things that happen slowly and don't make headlines..."

Neither Jim Edensco, the governor's bottomfish coordinator, nor Chuck Meacham, Gov. Hammond's assistant for international fisheries and external affairs, has any comprehensive profile of the processing industry generally or Japanese investment specifically, even though such information bears directly on their areas of responsibility.

When first interviewed about Japanese investment two months ago, Meacham said the administration has "not singled out any nation to give attention to (regarding investments in Alaska processing)." However, in a second interview a month later, he said, "I have initiated requests for this information to be gathered in a usable form...I think it only correct that the state administration should have available to it the true ownership of companies that operate in

the state of Alaska."

Meacham said he asked the Department of Commerce and Economic Development as well as the Department of Revenue to provide him the information. He could not predict how soon the agencies might complete the task in the face of post-election administrative reorganization.

If somewhat overdone, the information is needed now as much as ever. With the state bounding forward with plans to do all within its power to nurture a bottomfish industry, it is appropriate that the administration understand clearly who will benefit and how to maximize the benefits to Alaskans.



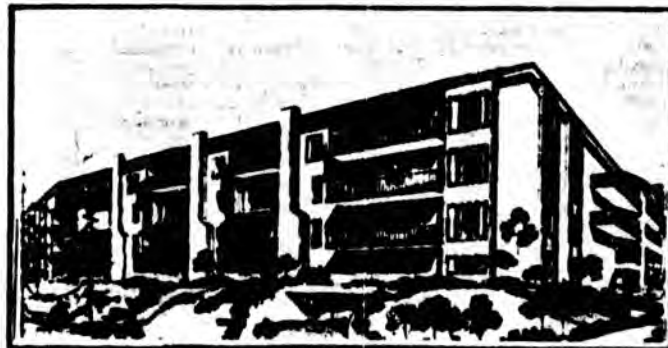
## ELDERBERRY PARK Condominiums

Without question the  
finest condominium complex  
in the state of Alaska.

### A PANORAMIC VIEW OF HISTORIC COOK INLET AND THE ALASKA RANGE

Condominiums are all two bedrooms and have whirlpool bathtubs, saunas, wet bars, fireplaces and decorator kitchens that will delight the culinary connoisseur. Units range in size from 1,450 to 2,100 square feet and are priced from \$147,500.

Located on a cul-de-sac just north of the Historic Elderberry Park area, Elderberry Park Condominiums feature a billiards and game room and a completely equipped exercise room with men's and women's steam baths. There is also an interior landscaped courtyard, and a party room with wet bar and dance floor. A heated below grade security garage provides owners with 37 parking spaces.



A limited number of units are still available.

## A JOMAX DEVELOPMENT



For information Call (907) 276-0055  
1317 West Northern Lights Blvd. Anchorage, Alaska 99503

### A Workshop in

## Self Hypnosis

"Learn to use the power of  
your unconscious mind."

PLACE: Jomax Hilton Hotel

COST: \$40.00

INSTRUCTOR: BM John J.

PRE-REGISTRATION IS REQUIRED

CONTACT: See Morris  
Box 414  
Jomax, Alaska 99502

Phone: 364-3271 evenings

**\*\*PLEASE NOTE\*\***

THE ORIGINAL FILE CONTAINS AN OVERSIZED DOCUMENT THAT IS UNSUITABLE FOR FILMING. PLEASE REFER TO THE ALASKA STATE ARCHIVES TO VIEW THE ORIGINAL.

DESCRIPTION: NEWSPAPER

ALASKA FISHERMAN, VOLUME 6, NUMBER 2  
OCTOBER 1978 PAGE 1

"JAPANESE SEAFOOD INVESTMENT CLIMBS"

"WHO OWNS ALASKA PROCESSORS?"

**PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.**

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

# STATE OF ALASKA

JAY S. MARKS, GOVERNOR

## DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

DIVISION OF BANKING, SECURITIES, SMALL LOANS & CORPORATIONS

POUCH D  
JUNEAU, ALASKA 99811

August 15, 1979

Honorable Fred F. Zharoff  
Box 405  
Kodiak, Alaska 99615

Dear Representative Zharoff:

Please find enclosed a copy of the most recent computer search of the corporation files for corporations which, in their last annual report, indicated that they had foreign affiliates.

We discussed an earlier computer run that was made approximately six months ago. The enclosed computer run is based on annual reports that were received for the year 1978.

Please do not hesitate to contact me if you have any questions concerning this listing.

Sincerely,



Julius J. Brecht  
Director

JJB/cw3/5

Enclosure

PROGRAM 05-1-00  
DATE 08/08/79  
TIME 08:55:30

DIVISION OF BANKING AND SECURITIES  
CORPORATE DATA SYSTEM  
CORPORATION LIST  
CORPORATIONS WITH FOREIGN AFFILIATES

| FILE NUMBER | N A M E                             | FOREIGN AFFILIATES |
|-------------|-------------------------------------|--------------------|
| 06008-F     | A.I. CREDIT CORP.                   | Y                  |
| 06006-F     | AL WELDING PRODUCTS, INC.           | Y                  |
| 03261-F     | AMCA INTERNATIONAL CORPORATION      | Y                  |
| 13376-D     | A & P AMERICA & PACIFIC TOURS, INC. | Y                  |
| 09716-D     | ABC ALASKA BROADCASTING CORPORATION | Y                  |
| 04598-F     | ADRIA LABORATORIES INC.             | Y                  |
| 04017-F     | ADVANCE AIR FREIGHT, INC.           | Y                  |
| 05492-F     | AGIP PETROLEUM CO., INC.            | Y                  |
| 08770-D     | AL-AQUITAINE EXPLORATION LTD.       | Y                  |
| 13293-D     | AL-ASKA TRADING CO., LTD.           | Y                  |
| 03637-D     | ALASKA BARGE AND TRANSPORT, INC.    | Y                  |
| 19550-D     | ALASKA BAY FISHERIES, INC.          | Y                  |
| 00394-D     | ALASKA EMPIRE GOLD MINING COMPANY   | Y                  |
| 09181-D     | ALASKA EXPLOSIVES LTD.              | Y                  |
| 16979-D     | ALASKA GENERAL TRADE, INC.          | Y                  |
| 04833-F     | ALASKA GOLD COMPANY                 | Y                  |
| 07289-D     | ALASKA INTERSTATE COMPANY           | Y                  |
| 02808-D     | ALASKA LUMBER & PULP CO, INC.       | Y                  |
| 02718-D     | ALASKA OVERLAND, INC.               | Y                  |
| 03012-F     | ALASKA PACKERS ASSOCIATION, INC.    | Y                  |
| 01846-F     | ALASKA PULP AMERICA, INC.           | Y                  |
| 19003-D     | ALASKA SYSTEMS ENGINEERING, INC.    | Y                  |
| 19723-D     | ALASKA WILDERNESS RECREATION, LTD.  | Y                  |
| 05722-D     | ALASKAN COACHWAYS LIMITED           | Y                  |

NOV-08H-1300  
PROGRAM 08H-1300  
DATE 08/08/79  
TIME 08:55:30

DIVISION OF BANKING AND SECURITIES  
CORPORATE DATA SYSTEM  
CORPORATION LIST  
CORPORATIONS WITH FOREIGN AFFILIATES

| FILE NUMBER | N A M E                              | FOREIGN AFFILIATES |
|-------------|--------------------------------------|--------------------|
| 13798-D     | ALASKAN MARINE PRODUCTS, INC.        | Y                  |
| 07463-D     | ALASKCO U.S.A., LTD.                 | Y                  |
| 04339-F     | ALEXANDER & ALEXANDER INC.           | Y                  |
| 05525-F     | ALL RISK MANAGEMENT SERVICES, INC.   | Y                  |
| 02512-F     | ALLIED CHEMICAL CORPORATION          | Y                  |
| 04644-F     | ALLIS-CHALMERS CORPORATION           | Y                  |
| 15992-D     | ALYU MINING CORPORATION              | Y                  |
| 05187-F     | AMERICAN APPRAISAL ASSOCIATES, INC.  | Y                  |
| 05600-F     | AMERICAN HOIST & DERRICK COMPANY     | Y                  |
| 05469-F     | AMERICAN HOSPITAL SUPPLY CORPORATION | Y                  |
| 03258-F     | AMERICAN SEATING COMPANY             | Y                  |
| 03066-F     | AMERICAN STANDARD INC.               | Y                  |
| 02969-F     | AMERON, INC.                         | Y                  |
| 04218-F     | AMFAC DISTRIBUTION CORPORATION       | Y                  |
| 04939-F     | AMFAC FOLDS, INC.                    | Y                  |
| 04751-F     | AMFAC HOTELS AND RESORTS, INC.       | Y                  |
| 04236-F     | AMFAC MORTGAGE CORPORATION           | Y                  |
| 02033-F     | AMOCO PRODUCTION COMPANY             | Y                  |
| 05934-F     | AMPEX CORPORATION                    | Y                  |
| 05355-F     | THE ANACONDA COMPANY                 | Y                  |
| 05784-D     | ANCHORAGE REFUSE, INC.               | Y                  |
| 05172-D     | ANDERSEN'S BUILDING CO., INC.        | Y                  |
| 18840-D     | ANGLO NABORS 22-D, INC.              | Y                  |
| 17960-D     | AQUATIC ENVIRONMENTS, INC.           | Y                  |

REPORT: 08H-1300  
PROGRAM: 08H-1300  
DATE: 06/03/79  
TIME: 08:25:30

DEPARTMENT OF BANKING AND SECURITIES  
CORPORATE DATA SYSTEM  
CORPORATION LIST  
CORPORATIONS WITH FOREIGN AFFILIATES

| FILE NUMBER | NAME  | FOREIGN AFFILIATES |
|-------------|---|--------------------|
| 03450-F     | ARABIAN SHIELD DEVELOPMENT COMPANY          | Y                  |
| 04603-F     | ARMCO INC.                                  | Y                  |
| 01296-F     | ASARCO INCORPORATED                         | Y                  |
| 05376-F     | ASHLAND EXPLORATION, INC.                   | Y                  |
| 02314-F     | ASHLAND OIL, INC.                           | Y                  |
| 04492-D     | ATCO STRUCTURES, INC.                       | Y                  |
| 02500-F     | ATLANTIC RICHFIELD COMPANY                  | Y                  |
| 04650-D     | AUSTRALASKA CORPORATION                     | Y                  |
| 04257-F     | B P ALASKA EXPLORATION INC.                 | Y                  |
| 02260-F     | BP ALASKA INC.                              | Y                  |
| 03730-F     | BP COMMUNICATIONS ALASKA, INC.              | Y                  |
| 04738-F     | BP PIPELINES INC.                           | Y                  |
| 03381-D     | B & R TUG AND BARGE, INC.                   | Y                  |
| 02720-F     | BACHE HALSEY STUART SHIELDS<br>INCORPORATED | Y                  |
| 04332-F     | BALDRIN PLANO & ORGAN COMPANY               | Y                  |
| 05326-F     | BALLENGER CORPORATION                       | Y                  |
| 12077-D     | BANISTER PIPELINES ALASKA, INCORPORATED     | Y                  |
| 01546-F     | BECHTEL CORPORATION                         | Y                  |
| 05397-F     | BECKER DRILLS INC.                          | Y                  |
| 05016-F     | BECKMAN INSTRUMENTS, INC.                   | Y                  |
| 04631-F     | BELUCA COAL COMPANY                         | Y                  |
| 14936-D     | BENNETT ALASKA CORPORATION                  | Y                  |
| 03716-F     | BERING, INC.                                | Y                  |

PROGRAM 08H-1300  
 DATE 08/08/79  
 TIME 08:55:30

DATA SYSTEM AND SECURITIES  
 CORPORATE DATA SYSTEM  
 CORPORATION LIST  
 CORPORATIONS WITH FOREIGN AFFILIATES

| FILE NUMBER | N A M E   | FOREIGN AFFILIATES |
|-------------|---|--------------------|
| 11593-D     | BERING SEA TRANSPORTATION CORPORATION           | Y                  |
| 14484-D     | BERTRAM DRILLING LTD. OF ALASKA                 | Y                  |
| 02123-F     | DETHELM STEEL CORPORATION                       | Y                  |
| 03524-F     | BLACK, SIVALLS & BRYSAN, INC.                   | Y                  |
| 03379-F     | BRIDGER PETROLEUM CORPORATION                   | Y                  |
| 03675-F     | BRITISH STEEL CORPORATION INC.                  | Y                  |
| 04423-F     | BUFCO, INC.                                     | Y                  |
| 05050-F     | BURGER KING CORPORATION                         | Y                  |
| 04421-F     | THE BURKE COMPANY                               | Y                  |
| 05532-F     | GURLINGTON NORTHERN AIR FREIGHT, INC.           | Y                  |
| 01295-F     | BURKHOUGHS CORPORATION                          | Y                  |
| 09467-D     | C-D DEVELOPMENT CORPORATION                     | Y                  |
| 03656-F     | C & K PETROLEUM, INC.                           | Y                  |
| 03373-F     | C M INC.  | Y                  |
| 09989-F     | C N R RESOURCES, INC.                           | Y                  |
| 02005-F     | C T CORPORATION SYSTEM                          | Y                  |
| 20441-D     | CAMERU TRADING, INC.                            | Y                  |
| 02773-F     | CAMERON IRON WORKS, INC.                        | Y                  |
| 04138-F     | J. N. CAMPBELL & ASSOCIATES LIMITED             | Y                  |
| 02506-F     | CANADIAN EQUIPMENT SALES & SERVICE<br>CC., LTD. | Y                  |
| 02668-F     | CANADIAN FREIGHTWAYS LTD.                       | Y                  |
| 00240-F     | CANADIAN PACIFIC LIMITED                        | Y                  |
| 03147-F     | CANADIAN SUPERIOR OIL (U.S.) LTD.               | Y                  |

REPORT NO. 001-001-1300  
PROGRAM 001-1300  
DATE 08/08/79  
TIME 08:55:30

DIVISION OF BANKING AND SECURITIES  
CORPORATE DATA SYSTEM  
CORPORATION LIST  
CORPORATIONS WITH FOREIGN AFFILIATES

| FILE NUMBER | NAME   | FOREIGN AFFILIATES |
|-------------|--|--------------------|
| 06017-F     | CANADIAN SUPERIOR MINING (U.S.) LTD.         | Y                  |
| 15018-D     | CANAMET ALASKA SALES, INC.                   | Y                  |
| 04991-F     | CANEVEX INC.                                 | Y                  |
| 03030-F     | CANFARGE, LTD.                               | Y                  |
| 03370-F     | CANTEEN CORPORATION                          | Y                  |
| 20253-D     | CANTON, INC.                                 | Y                  |
| 20233-D     | CANTON RESTAURANT, INC.                      | Y                  |
| 05007-F     | CAPACITY MANAGERS INTERNATIONAL, INC.        | Y                  |
| 17210-D     | CARLETON MANAGEMENT, INC.                    | Y                  |
| 02670-F     | CASTLE & COOKE, INC.                         | Y                  |
| 05985-F     | CATHODIC PROTECTION SERVICES, INC.           | Y                  |
| 06051-F     | CCO RESOURCES INC.                           | Y                  |
| 04944-F     | CHALLENGER DRILLING INC.                     | Y                  |
| 17205-D     | CHENA SALES, INC.                            | Y                  |
| 04331-F     | CHICAGO PNEUMATIC TOOL COMPANY               | Y                  |
| 06121-F     | CHIYODA INTERNATIONAL CORPORATION            | Y                  |
| 03540-F     | CHRYSLER REALTY CORPORATION                  | Y                  |
| 03015-F     | CITIES SERVICE MINERALS CORPORATION          | Y                  |
| 02519-F     | CLEARY PETROLEUM CORPORATION                 | Y                  |
| 03203-F     | COASTAL MINING COMPANY                       | Y                  |
| 02671-F     | COLT INDUSTRIES OPERATING CORP.              | Y                  |
| 02904-F     | COMBUSTION ENGINEERING, INC.                 | Y                  |
| 04545-F     | COMING AMERICAN INCORPORATED                 | Y                  |
| 06755-D     | COMMERCIAL MORTGAGE CORPORATION<br>OF ALASKA | Y                  |

REPORT NO. OBN-1300  
PROGRAM OBN-1300  
DATE 08/05/79  
TIME 08:55:30

DIVISION OF BANKING AND SECURITIES  
CORPORATE DATA SYSTEM  
CORPORATION LIST  
CORPORATIONS WITH FOREIGN AFFILIATES

PAGE 6

| FILE NUMBER | NAME   | FOREIGN AFFILIATES |
|-------------|--|--------------------|
| 05707-F     | COMPAGNIE GENERALE DE GEOPHYSIQUE, INC.                  | Y                  |
| 02130-F     | CONOCO INC.  | Y                  |
| 03510-F     | CONSOLIDATED OIL & GAS, INC.                             | Y                  |
| 04794-F     | COOPER INDUSTRIES, INC.                                  | Y                  |
| 11941-D     | COROUVA BAY FISHERIES, INC.                              | Y                  |
| 04805-F     | COREXCAL, INC.   | Y                  |
| 02156-F     | COSMOPLITIAN DEVELOPMENT CORPORATION                     | Y                  |
| 05558-F     | COUNTRY PRIDE FOODS, INC.                                | Y                  |
| 01437-F     | CRANE CO.  | Y                  |
| 05317-F     | CREDLE PRODUCTION SERVICES, INC.                         | Y                  |
| 05518-F     | CROWDER COMMUNICATIONS, LTD.                             | Y                  |
| 04350-F     | CROWN ZELLERBACH CORP.                                   | Y                  |
| 03088-F     | CUMMINGS INCORPORATED, THE<br>INTERNATIONAL SIGN SERVICE | Y                  |
| 02968-F     | CYPRUS MINES CORPORATION                                 | Y                  |
| 05508-F     | DACN CORPORATION   | Y                  |
| 15737-D     | DEA'EUN COMPANY OF ALASKA, LTD.                          | Y                  |
| 03037-F     | DEL MONTE SALES COMPANY                                  | Y                  |
| 18758-D     | DENA DRILLING, INC.                                      | Y                  |
| 04300-F     | DENNISON MANUFACTURING COMPANY                           | Y                  |
| 04375-F     | DENNY'S INC.   | Y                  |
| 07855-D     | DIGICON ALASKA, INC.                                     | Y                  |
| 04857-F     | DIGICON GEOPHYSICAL CORP.                                | Y                  |
| 05842-F     | DILLINGHAM CORPORATION                                   | Y                  |

| FILE NUMBER | NAME                                | FOREIGN AFFILIATES |
|-------------|-------------------------------------|--------------------|
| 05863-F     | DOMEX EXPLORATION (U.S.) LIMITED    | Y                  |
| 05304-F     | DOMEX PETROLEUM CORP.               | Y                  |
| 05974-F     | DOMIAR INDUSTRIES, INC.             | Y                  |
| 05547-F     | DUNK-LIVER INCORPORATED             | Y                  |
| 02777-F     | THE DOM CHEMICAL COMPANY            | Y                  |
| 02941-F     | DRAVO CORPORATION                   | Y                  |
| 02898-F     | DRESSER INDUSTRIES, INC.            | Y                  |
| 04523-F     | DUNLOP TIRE AND RUBBER CORPORATION  | Y                  |
| 00476-F     | E.I. DU PONT DE NEMOURS AND COMP.   | Y                  |
| 05315-F     | DUJCH HAKOOR SEAFOODS, LTD.         | Y                  |
| 04266-F     | DUTY FREE SHIPPERS                  | Y                  |
| 04602-F     | DUVAL CORPORATION                   | Y                  |
| 06034-F     | E & B EXPLORATION LTD.              | Y                  |
| 05555-F     | EFT DATA SERVICES INC.              | Y                  |
| 04692-F     | E SYSTEMS, INC.                     | Y                  |
| 02673-F     | EANL AND WRIGHT, INC.               | Y                  |
| 02452-F     | EASON OIL COMPANY                   | Y                  |
| 05165-F     | EASTMAN KODAK COMPANY               | Y                  |
| 05307-F     | EBASCO SERVICES INCORPORATED        | Y                  |
| 04704-F     | ECOLOGY AND ENVIRONMENT, INC.       | Y                  |
| 05980-F     | ECONOMICS LABORATORY, INC.          | Y                  |
| 05624-F     | ELECTRONIC DATA SYSTEMS CORPORATION | Y                  |
| 19486-U     | ELJIM ENTERPRISES INC.              | Y                  |
| 05095-F     | ETHYL CORPORATION                   | Y                  |

| FILE NUMBER | NAME                                  | FOREIGN AFFILIATES |
|-------------|---------------------------------------|--------------------|
| 04635-F     | EUTECTIC CORPORATION                  | Y                  |
| 05044-F     | EVANS FINANCIAL CORP.                 | Y                  |
| 03925-F     | EVANS PRODUCTS COMPANY                | Y                  |
| 05144-D     | EVERGREEN HELICOPTERS OF ALASKA, INC. | Y                  |
| 19666-D     | EXPRESS SERVICES, INC.                | Y                  |
| 04312-F     | EXXON CORPORATION                     | Y                  |
| 03415-F     | FALCON TRANSPORT, LTD.                | Y                  |
| 01895-F     | FEDERAL ELECTRIC CORPORATION          | Y                  |
| 19614-D     | FERNANDES CORPORATION                 | Y                  |
| 02938-F     | THE FIRESTONE TIRE & RUBBER COMPANY   | Y                  |
| 14841-D     | FIRST ALASKA INVESTORS, INC.          | Y                  |
| 19880-D     | FIVE VILLAGES MERCANTILE, INC.        | Y                  |
| 14457-D     | FLUOR ALASKA, INC.                    | Y                  |
| 04371-F     | THE HOWARD P. FOLEY COMPANY           | Y                  |
| 02648-F     | FORD MOTOR COMPANY                    | Y                  |
| 01242-F     | FOREMOST-MCKESSON, INC.               | Y                  |
| 02053-F     | FOREST OIL CORPORATION                | Y                  |
| 04309-F     | FRANKLIN SUPPLY COMPANY               | Y                  |
| 05595-F     | FRONTIER RESOURCES, INC.              | Y                  |
| 04982-F     | FURMANITE AMERICA, INC.               | Y                  |
| 04419-F     | GAB BUSINESS SERVICES                 | Y                  |
| 05774-F     | G.M. GEST, INC.                       | Y                  |
| 05141-F     | GARLOCK INCORPORATED                  | Y                  |
| 05478-F     | GEARHART-OWEN INDUSTRIES, INC.        | Y                  |

FILE  
NUMBER

NAME

FOREIGN AFFILIATES

|         |   |   |
|---------|---|---|
| 03219   | GENERAL AMERICAN OIL COMPANY OF TEXAS               | Y |
| 05975-F | GENERAL ELECTRIC INFORMATION SERVICES COMPANY, INC. | Y |
| 04297-F | GENERAL MOTORS CORPORATION                          | Y |
| 02288-F | GENERAL PETROLEUM INC.                              | Y |
| 03947-F | GENERAL TELEPHONE DIRECTORY CO.                     | Y |
| 13892-D | GENE'S ENTERPRISES, INC.                            | Y |
| 04002-F | GENEVA-PACIFIC CORPORATION                          | Y |
| 05988-F | GENSTAR CONSTRUCTION INC.                           | Y |
| 13977-D | GEOPOL, INC.  | Y |
| 05820-F | GEOREX, INC.  | Y |
| 03274-F | GEORGIA-PACIFIC CORPORATION                         | Y |
| 03057-F | GETTY OIL COMPANY                                   | Y |
| 14227-D | GOLDIE'S, INC.                                      | Y |
| 01236-F | B. F. GOODRICH COMPANY, INC.                        | Y |
| 02742-F | W. R. GRACE & CO.                                   | Y |
| 04397-F | GREAT WEST STEEL INDUSTRIES, INC.                   | Y |
| 04123-F | GREYHOUND LEASING & FINANCIAL CORPORATION           | Y |
| 04215-F | GRINNELL FIRE PROTECTION SYSTEMS COMPANY INC.       | Y |
| 02553-F | GULF OIL CORPORATION                                | Y |
| 03653-F | H & R BLOCK, INC.                                   | Y |
| 19792-J | H & W ALASKA, INC.                                  | Y |
| 02075-F | HALLIBURTON COMPANY                                 | Y |

| FILE NUMBER | NAME                                   | FOREIGN AFFILIATES |
|-------------|--|--------------------|
|             | HANNA MINING COMPANY, THE              | Y                  |
| 05118-D     | HARBOR SEAFOODS CO., INC.              | Y                  |
| 10316-D     | RICHARD E. HARDWICK & ASSOCIATES, INC. | Y                  |
| 14839-D     | HARDWOODS, INC., ALASKA                | Y                  |
| 05661-F     | R.H. HARDY & ASSOCIATES LTD.           | Y                  |
| 09029-D     | HARTOG OIL, INC.                       | Y                  |
| 06103-F     | HARZA ENGINEERING COMPANY              | Y                  |
| 13894-D     | HATCHER PASS LAND COMPANY INCORPORATED | Y                  |
| 15193-D     | HATRICK ENTERPRISES INC.               | Y                  |
| 03894-F     | HAUSERMAN, INC.                        | Y                  |
| 14907-D     | HERBERT INDUSTRIES INC.                | Y                  |
| 02821-F     | HERCULES INCORPORATED                  | Y                  |
| 06036-F     | HEWLETT-PACKARD COMPANY                | Y                  |
| 05277-F     | HILLS BROS. COFFEE, INC.               | Y                  |
| 02488-F     | HOLIDAY INNS, INC.                     | Y                  |
| 04837-F     | HOLLINGSWORTH-WILEY CORPORATION        | Y                  |
| 04558-F     | HOME PETROLEUM CORPORATION             | Y                  |
| 14831-D     | HUNG KONG, INC.                        | Y                  |
| 05889-F     | HOOVER HOLMES, INC.                    | Y                  |
| 02713-F     | HUSKY OIL COMPANY                      | Y                  |
| 04988-F     | HYDRIL COMPANY                         | Y                  |
| 03465-F     | HYDRO CONDUIT CORPORATION              | Y                  |
| 02242-F     | IDEAL BASIC INDUSTRIES, INC.           | Y                  |
| 03096-F     | IDEAL CEMENT COMPANY                   | Y                  |

FILE  
NUMBER

NAME

FOREIGN AFFILIATES

|         |  |   |
|---------|--|---|
| 0515-F  | IDEAL CEMENT COMPANY   | Y |
| 13879-D | INLAND EMPIRE LEASING CORPORATION                            | Y |
| 16352-D | INTERNATIONAL GIFT SHOP, INC.                                | Y |
| 04466-F | INTERNATIONAL IN-FLIGHT CATERING<br>COMPANY, LTD.            | Y |
| 10195-D | IRON ORE COMPANY OF ALASKA                                   | Y |
| 05611-F | ITEL CORPORATION   | Y |
| 04317-F | C. ITOH & CO. (AMERICA) INC.                                 | Y |
| 03228-F | ITT CONTINENTAL BAKING COMPANY                               | Y |
| 05421-F | JOHNSON-BYERS, INC.  | Y |
| 05764-F | KAISER ENGINEERS, INC.                                       | Y |
| 19001-D | KANASKA GOLD, INC.   | Y |
| 16289-D | KAPS TRANSPORT (ALASKA), INC.                                | Y |
| 04989-D | KAP TRANSPORT, INC.  | Y |
| 15802-D | KAY, CHRISTIE, FULD & SAVILLE,<br>A PROFESSIONAL CORPORATION | Y |
| 03391-F | KENTING, INC.  | Y |
| 04487-F | KENTRON INTRNATIONAL, INC.                                   | Y |
| 01760-F | KERR-MCGEE CORPORATION                                       | Y |
| 02706-F | KIMBERLY-CLARK CORPORATION                                   | Y |
| 04366-F | KINNEY SHOE CORPORATION                                      | Y |
| 19053-D | KLASSEN ENGINE CO.   | Y |
| 12110-D | KLONDIKE PLACER GOLD CORPORATION                             | Y |
| 02949-D | KLUKWAN IRON ORE CORPORATION                                 | Y |
| 03110-F | KOBE, INC.   | Y |

| FILE NUMBER | NAME                                       | FOREIGN AFFILIATES |
|-------------|--|--------------------|
| 11628-D     | KODIAK FISHING COMPANY                     | Y                  |
| 11627-D     | KODIAK KING CRAB, INC.                     | Y                  |
| 11421-D     | KODIAK LUMBER MILLS, INC.                  | Y                  |
| 19281-D     | KYOKKO SUISAN ALASKA, INC.                 | Y                  |
| 19543-D     | LGL ALASKA INC.                            | Y                  |
| 05758-F     | L M ERICSSON TELECOMMUNICATIONS, INC.      | Y                  |
| 14621-D     | LAURENTIDE ENTERPRISES INC.                | Y                  |
| 02155-F     | LEWIS REFRIGERATIONCO.                     | Y                  |
| 05106-F     | LIBBY, MCNEILL & LIBBY, INC.               | Y                  |
| 05766-F     | LINCOLN MANSON INC.                        | Y                  |
| 20260-D     | LINTH ALASKA, LTD.                         | Y                  |
| 03715-F     | LOR, INC.                                  | Y                  |
| 02356-F     | LORAM CONSTRUCTION INC.                    | Y                  |
| 09939-D     | LOST RIVER ALASKA CORPORATION              | Y                  |
| 03945-F     | LOST RIVER MINING CORPORATION LIMITED      | Y                  |
| 02872-F     | THE LOUISIANA LAND AND EXPLORATION COMPANY | Y                  |
| 07779-D     | LUTAK TRADING AND STEVEDORING, INC.        | Y                  |
| 03644-F     | LYON ASSOCIATES, INC.                      | Y                  |
| 04687-F     | MAJESTIC WILEY CONTRACTORS LIMITED         | Y                  |
| 19459-D     | MANNINGS ALASKA, INC.                      | Y                  |
| 14626-D     | MAPLELEAF, INC.                            | Y                  |
| 02637-F     | MARATHON CHEMICAL COMPANY                  | Y                  |
| 02003-F     | MARATHON OIL COMPANY                       | Y                  |

## CORPORATIONS WITH FOREIGN AFFILIATES

| FILE NUMBER | NAME  | FOREIGN AFFILIATES |
|-------------|---|--------------------|
| 0251-F      | MARATHON PETROLEUM COMPANY                            | Y                  |
| 02562-F     | MARATHON PIPE LINE COMPANY                            | Y                  |
| 02644-F     | MARATHON REFINING COMPANY                             | Y                  |
| 20278-D     | MARINE PRODUCTS, INC.                                 | Y                  |
| 03238-D     | MARSH & MCLENNAN INC. OF ALASKA,                      | Y                  |
| 04892-F     | MARTINSEN & COMPANY, INC.                             | Y                  |
| 11137-D     | MARUBENI ALASKA SEAFOODS, INC.                        | Y                  |
| 05556-F     | MARUBENI AMERICA CORPORATION                          | Y                  |
| 02713-F     | J. RAY MCDERMOTT & CO., INC.                          | Y                  |
| 01642-F     | MCGRAW EDISON COMPANY                                 | Y                  |
| 03412-F     | WILLIAM M. MERCER SECURITIES CORPORATION              | Y                  |
| 15191-D     | MERIVALE PRODUCTS INC.                                | Y                  |
| 05496-F     | MERRILL LYNCH LIFE AGENCY, INC.                       | Y                  |
| 02147-F     | MERRILL LYNCH, PIERCE, FENNER & SMITH<br>INCORPORATED | Y                  |
| 03712-F     | MERRILL LYNCH RELOCATION MANAGEMENT INC.              | Y                  |
| 02928-F     | MESA PETROLEUM CO.                                    | Y                  |
| 05362-F     | MIDCON PIPELINE EQUIPMENT CO.                         | Y                  |
| 05447-F     | MILBAR HYDRO-TEST, INC.                               | Y                  |
| 03044-F     | MITSUBISHI GAS CHEMICAL COMPANY, INC.                 | Y                  |
| 03167-F     | MITSUBISHI INTERNATIONAL CORP.                        | Y                  |
| 04238-F     | MOBIL ALASKA PIPELINE COMPANY                         | Y                  |
| 02838-F     | MOBIL CHEMICAL CORPORATION                            | Y                  |
| 05350-F     | MOBIL CORPORATION                                     | Y                  |

FILE  
NUMBER

N A M E

FOREIGN AFFILIATES

|         |  |   |
|---------|--|---|
| 06113-F | MOBIL-GC CORPORATION                                 | Y |
| 02277-F | MOBIL OIL CORPORATION                                | Y |
| 04446-F | MOBILE OIL TELCOM LTD.                               | Y |
| 03257-F | MONTGOMERY WARD & CO., INC.                          | Y |
| 04496-F | MORFLOT FREIGHTLINERS, INC.                          | Y |
| 03325-F | MORPAC, INC.   | Y |
| 19577-D | MOSER AND SWEATLAND, INC.                            | Y |
| 04403-F | MOTOROLA, INC.                                       | Y |
| 15025-D | MULDOON MOBILE HOME SALES, INC.                      | Y |
| 19176-D | MURRAY PACIFIC METALS & SUPPLY CORPORATION OF ALASKA | Y |
| 06078-F | THE L. E. MYERS CO.                                  | Y |
| 05839-D | NABORS ALASKA DRILLING, INC.                         | Y |
| 17365-D | NABORS MANAGEMENT SERVICE CORPORATION                | Y |
| 01145-F | NEW ENGLAND FISH COMPANY                             | Y |
| 07228-D | NEW ENGLAND FISH COMPANY OF ALASKA                   | Y |
| 18193-D | NEW MARUZEN OIL OF ALASKA, INC.                      | Y |
| 02774-F | NEWMONT OIL COMPANY                                  | Y |
| 04854-F | NICHIRO PACIFIC, LTD.                                | Y |
| 03876-F | NISSHO-IWAI AMERICAN CORPORATION                     | Y |
| 09309-D | NORTH OIL INC.                                       | Y |
| 01817-D | NORTH PACIFIC MARINE SERVICE, INC.                   | Y |
| 06096-F | NORTHEAST PETROLEUM CORPORATION                      | Y |
| 13761-D | NORTHERN LIGHT TIMBER COMPANY                        | Y |

| FILE NUMBER | NAME  | FOREIGN AFFILIATES |
|-------------|---|--------------------|
| 0660-D      | NORTHERN ROYALTIES, INC.                        | Y                  |
| 19980-D     | NORTHERN SEAFOODS, INC.                         | Y                  |
| 06119-F     | NORTHERN TELECOM, INC.                          | Y                  |
| 05118-F     | NORTHERN TELECOM SYSTEMS CORPORATION            | Y                  |
| 05994-F     | NORTHLAND MAINTENANCE CO.                       | Y                  |
| 06067-F     | NORTHLAND PRODUCTS, INC.                        | Y                  |
| 01395-F     | NORTHWEST AIRLINES, INC.                        | Y                  |
| 05051-F     | NORTHWEST PIPELINE CORPORATION                  | Y                  |
| 02611-F     | NORTHWEST TERMINALS LTD.                        | Y                  |
| 17197-D     | NUERA RECLAMATION CO., INC.                     | Y                  |
| 16515-D     | OB-GYN ASSOCIATES<br>A PROFESSIONAL CORPORATION | Y                  |
| 03598-F     | O P I LTD.                                      | Y                  |
| 04365-F     | OCEANEERING INTERNATIONAL, INC.                 | Y                  |
| 05280-F     | ODECO (U.K.) INC.                               | Y                  |
| 02598-F     | OFFSHORE NAVIGATION, INC.                       | Y                  |
| 02647-F     | OLIVETTI CORPORATION OF AMERICA                 | Y                  |
| 05308-F     | THE OLSTEN CORPORATION                          | Y                  |
| 19749-D     | OMNI RESOURCES (U.S.), INC.                     | Y                  |
| 06937-D     | ORCA-PACIFIC PACKING COMPANY                    | Y                  |
| 01743-F     | OTIS ELEVATOR COMPANY                           | Y                  |
| 02872-F     | OTIS ENGINEERING CORPORATION                    | Y                  |
| 04599-F     | P-H OILFIELD EQUIPMENT LIMITED                  | Y                  |
| 20203-D     | PAC-SEA COMPANY, D.I.S.C.                       | Y                  |

FILE  
NUMBER

NAME

FOREIGN AFFILIATES

03908-F PACIFIC ARCHITECTS &amp; ENGINEERS, INC.

Y

03962-D PACIFIC AND ARCTIC PIPELINES INC.

Y

00039-F PACIFIC AND ARCTIC RAILWAY AND  
NAVIGATION COMPANY

Y

01273-F PACIFIC GAMBLE ROBINSON CO.

Y

04318-F PACIFICO CREATIVE SERVICE, INC.

Y

11974-D PAN CENTRAL ALASKA, INC.

Y

03936-F PAN CENTRAL EXPLORATIONS LIMITED

Y

05869-F PANAFAX CORPORATION

Y

06020-F PANASONIC WEST, INC.

Y

03060-F PANCANADIAN PETROLEUM COMPANY

Y

05402-F PATHFINDER MINES CORPORATION

Y

08892-D PEMBIX PETROLEUM, INC.

Y

06068-F M/V PENGWIN, INC.

Y

03116-F PENNZOIL COMPANY

Y

04653-F PERINI CORPORATION

Y

04688-F PERMANENT CONCRETE INC.

Y

05518-F PHOENIX RESOURCES COMP.

Y

03666-F PICKER CORP.

Y

02496-F PINKERTON'S, INC.

Y

07091-D PIONEER ALASKA EXPRESS, INC.

Y

04843-F PIPE LINE TECHNOLOGISTS, INC.

Y

01626-F PITNEY BOWES INC.

Y

08528-D PIZZA HUTS OF ANCHORAGE, INC.

Y

| FILE NUMBER | N A M E   | FOREIGN AFFILIATES |
|-------------|---|--------------------|
| 01355-F     | PLACER AMEX INC.                                | Y                  |
| 02622-F     | POLAR LNG CORP.                                 | Y                  |
| 04354-F     | POLAROID CORPORATION                            | Y                  |
| 02836-F     | PONY EXPRESS, INC.                              | Y                  |
| 03378-F     | "POTTER DISTILLERIES, INC."                     | Y                  |
| 02331-F     | PRINCIPAL INVESTORS CORPORATION                 | Y                  |
| 03075-F     | RANGER OIL COMPANY                              | Y                  |
| 02377-F     | RAYMOND INTERNATIONAL BUILDERS, INC.            | Y                  |
| 18590-D     | REED SHAW STENHOUSE INC. OF ALASKA              | Y                  |
| 02962-F     | REPUBLIC STEEL CORPORATION                      | Y                  |
| 09520-D     | RESOURCE ASSOCIATES OF ALASKA, INC.             | Y                  |
| 05229-F     | R. J. REYNOLDS TOBACCO COMPANY                  | Y                  |
| 05273-F     | RITCHIE BROS. AUCTIONEERS INC.                  | Y                  |
| 06723-F     | RIVERSIDE TIMBER & MINING CO.                   | Y                  |
| 04363-F     | ROCKWELL INTERNATIONAL CORPORATION              | Y                  |
| 18759-D     | ROYAL COMMERCE, INC.                            | Y                  |
| 01742-F     | RUST ENGINEERING COMPANY, THE                   | Y                  |
| 16169-D     | S. A. PACKERS, INC.                             | Y                  |
| 05706-F     | SGS CONTROL SERVICES INC.<br>INC.               | Y                  |
| 01519-F     | SAFEWAY STORES, INCORPORATED                    | Y                  |
| 01438-F     | ST. EUGENE MINING CORPORATION LIMITED           | Y                  |
| 20214-D     | SANKO INTERNATIONAL SHIPPING (AMERICA),<br>INC. | Y                  |

FILE  
NUMBER

NAME

FOREIGN AFFILIATES

|         |  |   |
|---------|--|---|
|         | SANSUI ELECTRONICS CORPORATION                   | Y |
| 02554-F | SANTA FE INTERNATIONAL CORPORATION               | Y |
| 03284-F | SANTA FE PIPELINE CONSTRUCTION CO.               | Y |
| 08083-F | SCHINDLER HAUGHTON ELEVATOR CORPORATION          | Y |
| 05851-F | SCIENCE MANAGEMENT CORPORATION                   | Y |
| 05492-F | SCIENTIFIC CONTROL SYSTEMS NORTH AMERICA LIMITED | Y |
| 05021-F | SCIENTIFIC DRILLING CONTROLS (INC.)              | Y |
| 09667-D | SEA-CATCH, INCORPORATED                          | Y |
| 06205-D | SEA-LAND FREIGHT SERVICE, INC.                   | Y |
| 19099-D | SEA PRODUCTS EXPORT COMPANY                      | Y |
| 01308-F | SEARS, ROEBUCK AND CO.                           | Y |
| 05162-F | SHELL MOTORIST CLUB, INC.                        | Y |
| 01730-F | SHELL OIL COMPANY                                | Y |
| 08225-D | SIEBENS OIL & MINERALS, INC.                     | Y |
| 06071-F | SILVERADO MINES LTD.                             | Y |
| 02617-F | SINGER COMPANY, THE                              | Y |
| 11971-D | SITKA DOMESTIC INTERNATIONAL SALES CORPORATION   | Y |
| 04703-F | SITMAR CRUISES, INC.                             | Y |
| 19895-D | SKAGWAY CAR RENTALS, INC.                        | Y |
| 08119-D | SKAGWAY TERMINAL COMPANY                         | Y |
| 02168-F | SNAP-ON TOOL CORP.                               | Y |
| 02243-F | SOCONY MOBIL COMPANY INC.                        | Y |
| 06007-F | SOHIO CONSTRUCTION COMPANY                       | Y |

| FILE NUMBER | NAME                                     | FOREIGN AFFILIATES |
|-------------|--|--------------------|
| 04539-F     | SORIO NATURAL RESOURCES COMPANY          | Y                  |
| 03930-F     | SORIO PIPE LINE COMPANY                  | Y                  |
| 07693-D     | SOUTH-CENTRAL TIMBER DEVELOPMENT, INC.   | Y                  |
| 13925-D     | SOUTHILL INC.                            | Y                  |
| 05325-F     | "SPANTEC, INC."                          | Y                  |
| 03587-F     | SPERRY RAND CORPORATION                  | Y                  |
| 19928-D     | SPRINGSHAW CONSTRUCTION CO.              | Y                  |
| 04527-F     | STANLEY HOME PRODUCTS, INC.              | Y                  |
| 05718-F     | STAR OIL & GAS CORPORATION               | Y                  |
| 14298-D     | STEPHAN LAKE ADVENTURES, INC.            | Y                  |
| 02464-F     | SUMITOMO METAL AMERICA INC.              | Y                  |
| 04952-F     | SUN CHEMICAL CORPORATION                 | Y                  |
| 05576-F     | SUNLITE INTERNATIONAL INC.               | Y                  |
| 04862-F     | SUPERINTENDENCE COMPANY (CANADA)<br>LTD. | Y                  |
| 02604-F     | SUPERIOR OIL COMPANY, THE                | Y                  |
| 04697-F     | SWECO, INC.                              | Y                  |
| 03333-F     | SWIFT & CO.                              | Y                  |
| 04143-D     | SWITZERLAND, INC.                        | Y                  |
| 04917-F     | T C O RESOURCES CORPORATION<br>U.S. INC. | Y                  |
| 05134-F     | TMT CORP.                                | Y                  |
| 20255-D     | TAMAAN, INC.                             | Y                  |
| 13275-D     | TANANA MECHANICAL, INC.                  | Y                  |
| 03589-F     | TELE-TRIP COMPANY, INC.                  | Y                  |

| NUMBER  | NAME                                  | FOREIGN AFFILIATES |
|---------|---------------------------------------|--------------------|
| 03354-F | TELEDYNE INDUSTRIES, INC.             | Y                  |
| 14525-D | TERRA-FLEX EXPLORATION SUPPLY, INC.   | Y                  |
| 05127-F | TEXAS INSTRUMENTS INCORPORATED        | Y                  |
| 04501-F | TEXASGULF INC.                        | Y                  |
| 04273-F | TEXASGULF WESTERN INC.                | Y                  |
| 03812-F | THOMSON MCKINNON SECURITIES INC.      | Y                  |
| 06033-F | THYSSEN MINING CONSTRUCTION, INC.     | Y                  |
| 00618-D | TONGASS POWER & LIGHT COMPANY         | Y                  |
| 17859-D | TRACK VEHICLES OF ALASKA, INC.        | Y                  |
| 08255-D | TRANS NORTHERN RESOURCES, INC.        | Y                  |
| 02269-F | TRANSAMERICA CORPORATION              | Y                  |
| 06004-F | TRANSFRESH CORPORATION (ALASKA)       | Y                  |
| 04793-F | TRANSPORT INTERNATIONAL POOL, INC.    | Y                  |
| 03430-F | TREND EXPLORATION LIMITED             | Y                  |
| 17744-D | TRI-CON MINING INC.                   | Y                  |
| 10198-D | TRIANGLE, INC.                        | Y                  |
| 19313-D | UIC CONSTRUCTION, INC.                | Y                  |
| 05323-F | UMA ENGINEERS, INC.                   | Y                  |
| 04073-F | URSA POLARIS DEVELOPMENT CORP.        | Y                  |
| 06085-F | UCU TERMINALS, INC.                   | Y                  |
| 15029-D | UNCLE SAM SEAFOODS, INC.              | Y                  |
| 13646-D | UNDERWATER CONSTRUCTION, INC.<br>INC. | Y                  |
| 03099-F | UNDERWRITERS ADJUSTING COMP.          | Y                  |

| FILE NUMBER | NAME                                   | FOREIGN AFFILIATES |
|-------------|--|--------------------|
| 03498-F     | UNION PACIFIC RESOURCES CORPORATION    | Y                  |
| 02760-F     | UNITED GEOPHYSICAL CORP.               | Y                  |
| 05872-F     | THE UNITED STATES SHOE CORP.           | Y                  |
| 04698-F     | UNIVERSAL SEAFOODS LTD.                | Y                  |
| 03607-F     | THE UPJOHN COMPANY                     | Y                  |
| 04471-F     | URANERZ U.S.A., INC.                   | Y                  |
| 04567-F     | ORANGESELLSCHAFT U. S. A., INC.        | Y                  |
| 16856-D     | V. E. SYSTEMS SERVICES, INC.           | Y                  |
| 04593-F     | VSL CORPORATION                        | Y                  |
| 15192-D     | VALLEY VIEW ENGINEERING INC.           | Y                  |
| 03957-F     | VELCON FILTERS INC.                    | Y                  |
| 0608-F      | VIBROFLOTATION FOUNDATION COMPANY      | Y                  |
| 13687-D     | VISCOUNT INC.                          | Y                  |
| 14653-D     | WALCO, INC.                            | Y                  |
| 05638-F     | WEATHERFORD/LAMB U.S., INC.            | Y                  |
| 10859-D     | WECO MINING CORPORATION                | Y                  |
| 17423-D     | WELLINGTON LAND CORPORATION            | Y                  |
| 02850-F     | WELLS FARGO COMPANY                    | Y                  |
| 03186-F     | WESTCOAST OIL & GAS CORP.              | Y                  |
| 07477-D     | WESTERN ALASKA FISHERIES, INC.         | Y                  |
| 11276-D     | WESTERN ALASKA LUGGING COMPANY, INC.   | Y                  |
| 02480-F     | WESTERN AUTO SUPPLY COMPANY            | Y                  |
| 02933-F     | WESTERN ELECTRIC COMPANY, INCORPORATED | Y                  |

FILE  
NUMBER

N A M E

FOREIGN AFFILIATES

|         |   |   |
|---------|---|---|
| 06049-F | WESTERN GEOPHYSICAL COMPANY OF AMERICA            | Y |
| 05416-F | WESTERN MINES INC.                                | Y |
| 13563-D | WESTERN OCEANIC, INC.                             | Y |
| 11090-D | WESTWARD ALASKA INDUSTRIES, INC.                  | Y |
| 05800-F | WGH INC.  | Y |
| 03389-F | WINK INTERNATIONAL EXPLORATION DRILLING LTD.      | Y |
| 11972-D | DEAN WITTER REYNOLDS INC.                         | Y |
| 02655-F | WRANGELL DOMESTIC INTERNATIONAL SALES CORPORATION | Y |
| 03414-F | XEROX CORPORATION                                 | Y |
|         | YOUNGSTOWN SHEET AND TUBE, CO.                    | Y |

NUMBER OF RECORDS SELECTED 498

· PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

NORTH PACIFIC PROCESSORS, INC.

EXHIBIT B

| <u>Name</u>            | <u>% Ownership</u> |
|------------------------|--------------------|
| H. A. Daubenspeck      | 50                 |
| Marubeni America Corp. | 50                 |

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(Type or print legibly)

ANNUAL REPORT

FEB 27 1979

NO. X 01714

FOR YEAR ENDING DECEMBER 31, 19

78 DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

NAME OF CORPORATION NORTH PACIFIC PROCESSORS, INC.

File No. 04181-F WASHINGTON

1. CORPORATION IS ORGANIZED UNDER THE LAWS OF THE STATE OR COUNTRY OF

WASHINGTON 2155 N. Northlake Way SEATTLE, WA 98103

2. ADDRESS OF PRINCIPAL CORPORATION OFFICE

3. REGISTERED AGENT KENNETH ROEMHILDT

(FILE CHANGE ON FORM 08-184)

4. REGISTERED OFFICE IN ALASKA P O BOX 1040 CORDOVA AK 99574

(FILE CHANGE ON FORM 08-184)

5. CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA

CANNING AND FREEZING SEAFOOD PRODUCTS

6. AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE, AND SERIES, IF ANY, WITHIN A CLASS

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 50,000           | COMMON |        | 10.00               |

7. AGGREGATE NUMBER OF ISSUED SHARES, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE AND SERIES, IF ANY WITHIN A CLASS:

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 50,000           | COMMON |        | 10.00               |

8. THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31 \$ 500,000

9. YOU MUST FURNISH THE NAMES AND ADDRESSES OF BOTH DIRECTORS AND OFFICERS. IF DIRECTORS AND OFFICERS ARE THE SAME PEOPLE WRITE IN "SAME" IN THE DIRECTORS AREA

|           | NAME                     | COMPLETE ADDRESS                                |
|-----------|--------------------------|---|
| DIRECTORS | 1. SAME                  |   |
|           | 2.                       |   |
|           | 3.                       |   |
| OFFICERS  | 1. PRESH. A. Daubenspeck | 2155 N. Northlake Way, Seattle, WA 98103        |
|           | 2. V. PRESH. Okamura     | 4001 Seattle-First Nat'l Bank Bldg, Seattle, WA |
|           | 3. SEC F. McGill         | 2155 N. Northlake Way, Seattle, WA 98103        |

10. ATTACH AS EXHIBIT "A" THE NAME AND ADDRESS OF EACH NONRESIDENT ALIEN AFFILIATE. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED. NONE (SEE REVERSE FOR EXPLANATION)

11. ATTACH AS EXHIBIT "B" A NAME AND ADDRESS OF EACH PERSON HAVING A DIRECT OWNERSHIP OR CONTROL OF AT LEAST 5 PERCENT OF THE SHARES OR 5 PERCENT OF ANY CLASS OF SHARES AND THE PERCENTAGE OF SHARES OWNED BY THAT PERSON EXHIBIT "B" SHALL COVER THE OWNERSHIP AS OF SEPTEMBER 30 OF THE REPORTING PERIOD IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED.

DATED January 15, 19 79

CORPORATE SEAL

BY PRESH. A. Daubenspeck TITLE PRESIDENT

ATTESTED BY

11-7-79

Fred:

This is all of the information available on Alaskan Shores Fisheries. It does not appear to be a corporation so there is no information on it in the corporations section, as I believe that Jan Clemetson told you. She didn't know, however, that one of the participants in the company is a fellow by the name of Bud Engstrom, who is a owner of Engstrom Brothers Inc. Engstrom Brothers is a fish processing firm that is currently approved to do business in the state. It is also one of the companies to which we sent letters pointing out that the company's annual report was deficient. So far, we have not received an answer to that letter.

You will notice in the enclosed material the company's 1979 business licenses. It has a business license for a floating processor named the Gina Karen. In my checking, I found that the vessel does not have its required license from the Commercial Fisheries Entry Commission. This means that if the vessel actually operated in Alaskan waters this year, it did so illegally.

The company has a regular \$10,000 surety bond (required by the Labor Department) for its floater, and property in Anchorage as bonding for the shore-based facility. In addition, the company apparently posted an interest in the Anchorage downtown Sheffield House as security with the Department of Revenue for its taxes.

HP Donahy

KOD

INTENT TO OPERATE 1979

JUL 11 1979

JUL 10 1979

FISHERIES DIVISION  
ANCHORAGE

~~COMPUTER SERVICES~~

I. COMPANY NAME AND ADDRESS:

MAIL TO:  
ALASKAN SHORES FISHERIES  
GENERAL DELIVERY  
KODIAK, ALASKA

If your address as listed is in error or missing, please print or type the correct company name and address below.

ALASKAN SHORES FISHERIES  
1200 PARK PLACE  
6th and UNIVERSITY  
SUITE 309  
SEATTLE, WASH

II. GENERAL INFORMATION: Check the following type of operation for which you are filing this Intent to Operate form. Only one type of operation should be indicated. If you have more than one plant or buying location at which different species of fish or shellfish are bought and/or processed, additional forms must be filed, one for each location. Additional forms can be obtained by contacting the nearest Department of Fish and Game office.

THIS OPERATION IS: (check one only)

Shore Base Buyer (only)

Floating Cannery\*

Freezer Ship\*

Shore Based Fresh, Frozen, or Cured Processor

Shore Based Cannery

Fresh Processor

Floating/Flying/Buyer\*

Combination Cannery and Fresh, Frozen, or Cured Processor

\*If this is a floating operation, the following vessel information must be included. An Intent to Operate form must be filed for each vessel that buys or processes fishery resources.

Vessel Name: \_\_\_\_\_

Keel Length: \_\_\_\_\_ Net Tonnage: \_\_\_\_\_

Intended area(s) of operation are: (i.e.: Southeastern, Bristol Bay, Kodiak, Chignik, Cook Inlet, etc.): KODIAK

Home Port: SEATTLE, WA.

If this form is for a shore based operation, please give the location of the plant or buying station:

MIDDLE BAY (KODIAK) ALASKA

If any aircraft will be used in transporting raw or finished fishery products, please give the anticipated total number and types of aircraft that will be used:

The Department receives many requests to publish a list of Alaskan commercial processors and/or buyers. Would you like your firm included in such a list?  Yes  No

Salmon: Buyer Cannery Fresh Frozen Cured (specify method)  
 King X \_\_\_\_\_ X \_\_\_\_\_ X \_\_\_\_\_ soaked

**SPECIES** **TYPE OF OPERATION(S)**

Salmon: Buyer Cannery Fresh Frozen Cured (specify method)

| SPECIES | Buyer | Cannery | Fresh | Frozen | Cured (specify method) |
|---------|-------|---------|-------|--------|------------------------|
| King    | _____ | _____   | _____ | _____  | _____                  |
| Red     | _____ | _____   | _____ | _____  | _____                  |
| Coho    | _____ | _____   | _____ | _____  | _____                  |
| Pink    | X     | _____   | _____ | X      | _____                  |
| Chum    | X     | _____   | _____ | X      | _____                  |
| Roe     | X     | _____   | _____ | X      | _____                  |

**Shellfish:**

|                 |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|
| King crab       | _____ | _____ | _____ | _____ | _____ |
| Dungeness       | _____ | _____ | _____ | _____ | _____ |
| Tanner          | _____ | _____ | _____ | _____ | _____ |
| Shrimp          | _____ | _____ | _____ | _____ | _____ |
| Scallops        | _____ | _____ | _____ | _____ | _____ |
| Other(specify): | _____ | _____ | _____ | _____ | _____ |
| _____           | _____ | _____ | _____ | _____ | _____ |

**Miscellaneous:**

|                          |       |       |       |       |       |
|--------------------------|-------|-------|-------|-------|-------|
| Bait Herring             | _____ | _____ | _____ | _____ | _____ |
| Food Herring             | _____ | _____ | _____ | _____ | _____ |
| Sac Roe Herring          | _____ | _____ | _____ | _____ | _____ |
| Herring Roe              | _____ | _____ | _____ | _____ | _____ |
| On Kelp                  | _____ | _____ | _____ | _____ | _____ |
| Halibut                  | _____ | _____ | _____ | _____ | _____ |
| Sablefish<br>(Black Cod) | _____ | _____ | _____ | _____ | _____ |
| Pacific Cod              | _____ | _____ | _____ | _____ | _____ |
| Other Fish (specify):    | _____ | _____ | _____ | _____ | _____ |
| _____                    | _____ | _____ | _____ | _____ | _____ |
| _____                    | _____ | _____ | _____ | _____ | _____ |
| _____                    | _____ | _____ | _____ | _____ | _____ |
| _____                    | _____ | _____ | _____ | _____ | _____ |

PLEASE RESPOND TO THE FOLLOWING QUESTIONS IN AS COMPLETE A MANNER AS POSSIBLE.

1. List the quantity and location of all your fish ticket imprinting machines.

Number

Location

1

MIDDLE BAY (KODIAK)

2

TENDER BOATS

2. Is your company name presently embossed on a plate for your machines? If so, please print company name and any other data on your present plates.

Plate embossed now?:

Information embossed on plates:

       Yes

  X   No

3. If you do not ordinarily file an Annual Report, please list the name(s) and location(s) of the company(s) whose Annual Report(s) will include your catch information.

Company

Location

ALASKAN SHORES FISHERIES

SEATTLE, WASHINGTON

Name and title of person filling out this form: (Please print or type)

Name: ORELL L CLEM

Signature: Orell L Clem

Title: General Partner

Phone: 206/682-9282

19 79



DEPARTMENT OF REVENUE — STATE OF ALASKA

19 79

# Alaska Fish Processor License

Expires December 31, 19 79 (AS 43.75.010, 060 & 100)

79-77

INITIAL FEE **\$25.00** (Each Location)

4/27/79

Location Port Lions

This is to certify that the licensee named below\* has made application and paid the initial fee for an Alaska Fish Processor License covering the calendar year January 1, 19 79 to December 31, 19 79, or fraction thereof to engage in the business of:

Shore Based Processor

and has agreed to file, or cause to be filed, a true, correct and complete return stating the value of the Raw Fisheries Products processed for the period for which the license is issued on or before March 31, 19 80, with the Department of Revenue, Juneau, Alaska and pay the balance of the license tax due, if any PROVIDED, HOWEVER, that the license shall not be taken as permission to do business in the state without having complied with the other requirements of the laws of the State of Alaska or of the United States.

Alaskan Shores Fisheries  
1200 6th Ave. Ste. 309  
Seattle, Wa. 98101

This License Must be Posted in a Conspicuous Place at the Location.  
It is Not Transferable or Assignable.

04-700 5/78

Alaska Department of Revenue  
Audit Division

April 30, 1979

Department of Labor  
Wage and Hour/Mechanical  
Engineering Division

Bonding Certification  
of Fish Processors/Buyers

This is to certify that ALASKAN SHORE FISHERIES (Shorebased)

Name

2724 Third Avenue, San Diego, California 92103

Address

has complied with

the requirements of AS 16.10.290-296. A license may be issued to the above person  
to engage in the business of fish processor and/or primary fish buyer.

*Robert E. Amstutz*

Department of Labor  
Wage and Hour/Mechanical  
Engineering Division

*April 30, 1979*

Date

shore faced the picking  
operation to be conducted  
at Port Lyons

In lieu of the bond  
we are putting ~~you~~  
property described on  
attached

Henry J. Dams  
General Partner

LEGAL DESCRIPTION:

Parcel No. 1: Lot 1 "A" Block 53 ORIGINAL TOWN SITE OF ANCHORAGE, according to Plat C-210, filed in the Anchorage recording district third judicial district State of Alaska.

Parcel No. 2: Lots 3, 4 and East 5 feet of lot 5, block 53 original town site of Anchorage SAVING AND ACCEPTING their firm the North 10 feet thereof heretofore taken for street and sidewalk purposes in the Anchorage recording district third judicial district State of Alaska.



Perry T. Davis  
General Partner

19 79

19 79



# Alaska Fish Processor License

Expires December 31, 19 79 (AS 43.75.010, 060 & 100)

79-73

INITIAL FEE **\$25.00** (Each Location)

4/27/79

Location M/V Gina Karen - Bering Sea

This is to certify that the licensee named below\* has made application and paid the initial fee for an Alaska Fish Processor License covering the calendar year January 1, 19 79 to December 31, 19 79, or fraction thereof to engage in the business of:

Floating Processor

and has agreed to file, or cause to be filed, a true, correct and complete return stating the value of the Raw Fisheries Products processed for the period for which the license is issued on or before March 31, 1980, with the Department of Revenue, Juneau, Alaska and pay the balance of the license tax due, if any PROVIDED, HOWEVER, that the license shall not be taken as permission to do business in the state without having complied with the other requirements of the laws of the State of Alaska or of the United States.

Alaskan Shores Fisheries  
1200 6th Ave. Ste. 309  
Seattle, Wa. 98101

This License Must be Posted in a Conspicuous Place at the Location.  
It is Not Transferable or Assignable.

# MEMORANDUM

State of Alaska

TO: THE FILE

DATE: October 31, 1979

FILE NO:

TELEPHONE NO:

FROM: Jim O'Connor

SUBJECT: Alaska Shore Fisheries

Alaska Shore Fisheries is having financial difficulties.

Alaska Department of Revenue  
Audit Division

April 30, 1979

Department of Labor  
Wage and Hour/Mechanical  
Engineering Division

Bonding Certification  
of Fish Processors/Buyers

This is to certify that ALASKAN SHORE FISHERIES (Floating Processor)  
Name  
2724 Third Avenue, San Diego, California, 92103 has complied with  
Address

the requirements of AS 16.10.290-296. A license may be issued to the above person  
to engage in the business of fish processor and/or primary fish buyer.

*Robert E. Smith*

Department of Labor  
Wage and Hour/Mechanical  
Engineering Division

*April 30, 1979*  
Date

NOTE: This bond is to be duly executed and filed with the Commissioner of Labor

STATE OF ALASKA  
DEPARTMENT OF LABOR

FISH PROCESSOR OR PRIMARY FISH BUYER BOND

KNOW ALL MEN BY THESE PRESENTS:

That we Orell Clem, Perry Davis, Fred Sproule, Robert Smith & Bud Engstrom  
(Full name of applicant, of all partners, or of corporation)  
of Alaskan Shores Fisheries - 2724 Third Ave., San Diego, CA 92103  
(Complete address of Principal Executive Office of the Business)  
doing business as a FISH PROCESSOR as defined in AS 16.10.296(3)

\_\_\_\_\_ or as a PRIMARY FISH BUYER as defined in AS 16.10.296(4)  
\_\_\_\_\_ as principal and Fidelity & Deposit Company  
\_\_\_\_\_ of Maryland

as surety, are held and firmly bound to the State of Alaska in the sum of Ten Thousand Dollars (\$10,000.), lawful money of the United States of America to be paid to the people of the State of Alaska; for which payment we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents.

The condition of this obligation is that if the above bounden principal pays (1) all persons furnishing labor to the principal fish processor or primary fish buyer named herein, including contractual employee benefits; and (2) independent registered commercial fishermen for the price of the raw fishery resource purchased from them, then this obligation is to be void, otherwise it is to remain in full force and effect.

In accordance with AS 16.10.290(b), this bond shall remain in full force for a period of at least 2 years and not more than 5 years beginning with the effective date appearing hereon unless terminated or cancelled in the manner hereinafter provided.

The surety reserves the right to terminate this bond except as to any liability already incurred or accrued, and may do so upon giving the said principal and the Commissioner of Labor of the State of Alaska written notice to that effect 30 days after receipt by the Commissioner of Labor of such notice or upon a later date specified in the notice, or upon the filing and acceptance of a new bond, the surety's liability under this bond, except as to any liabilities or indebtedness already incurred or accrued, shall cease, and said bond shall terminate and be of no more force and effect, except as to any liabilities or indebtedness incurred or accrued thereunder as of the date of termination.

IN WITNESS WHEREOF the said principal and surety have hereunto set their hands and seals this 26th day of April, 19 79. The effective date of this bond is April 26, 1979 and it shall remain in force through the 26th day of April, 19 80 however if a claim is asserted within 2 years from the effective date of the bond as provided under AS 16.10.290(b), then it shall remain in force through the 26th day of April, 19 81. The number of this bond is 93 07 629 and the premium paid for this bond is \$ 100.00 per annum.

(Sign on lines below if you are a corporation.)

(If individual or partnership, sign below.)

\_\_\_\_\_  
(Corporate Principal)  
By \_\_\_\_\_  
(Title of Official)  
By \_\_\_\_\_  
By \_\_\_\_\_  
By \_\_\_\_\_

\_\_\_\_\_  
(Individual Principal)  
\_\_\_\_\_  
Fidelity & Deposit Company of Maryland  
(Surety)  
Richard W. Recob Attorney-in-Fact

Corporate Seal



Power of Attorney

FIDELITY AND DEPOSIT COMPANY OF MARYLAND

HOME OFFICE: BALTIMORE, MD.

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by C. M. PECOT, JR., Vice-President, and C. W. ROBBINS, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which reads as follows:

"The President, or any one of the Executive Vice-Presidents, or any one of the additional Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents, Resident Assistant Secretaries and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgment, decrees, mortgages and instruments in the nature of mortgages, and also all other instruments and documents which the business of the Company may require, and to affix the seal of the Company thereto."

does hereby nominate, constitute and appoint Richard W. Recob of Seattle, Washington.....

its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings.....

And the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md. in their own proper persons. This power of attorney revoked that issued on behalf of Richard W. Recob, dated, September 3, 1976.

The said Assistant Secretary does hereby certify that the foregoing is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 24th day of October, A.D. 1978.



ATTEST: FIDELITY AND DEPOSIT COMPANY OF MARYLAND

C. W. Robbins, Assistant Secretary

[Signature], Vice-President

STATE OF MARYLAND CITY OF BALTIMORE

On this 24th day of October, A.D. 1978, before the subscriber, a Notary Public of the State of Maryland, in and for the City of Baltimore, duly commissioned and qualified, came the above-named Vice-President and Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself deposed and said, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal, at the City of Baltimore, the day and year first above written.



Melinda T. Haus

Notary Public Commission Expires July 1, 1982

CERTIFICATE

I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect on the date of this certificate, and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2 of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 16th day of July, 1969:

RESOLVED: "That the facsimile or mechanically reproduced signature of any Assistant Secretary of the Company, whether made heretofore or hereafter, whenever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company, this 26th day of April, 1979.

[Signature], Assistant Secretary

March 18, 1979

Bud Engstrom  
Alaskan Shores Fisheries  
309 Park Place Bldg.  
6th and University  
Seattle, WA 98101

Dear Mr. Engstrom:

This is in response to your call of March 27, 1979. Enclosed please find all of the materials discussed and other pertinent information available from the Department.

Several State agencies have requirements of Alaskan buyers and processors. The Department of Fish and Game requires that you file an Intent to Operate, and that you submit at the end of each year a summary of that year's activity on the Commercial Operator's Annual Report Form.

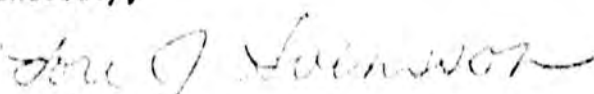
The Department of Revenue issues business licenses for fish processing. A copy of your letter has been sent to them, so you should receive the proper forms soon. Should you need to contact them, in Juneau the address is Department of Revenue, Audit Division, Pouch SA, Juneau, Alaska 99811, Attn: Patty La Pierre, 465-2370.

The Department of Labor requires that you post a \$10,000 bond, or provide proof of ownership of property in the State of Alaska. They have also received a copy of your letter. Should you need to contact them, write to the Department of Labor, Wage and Hour Division, Box 630, Juneau, Alaska 99811, Attn: Robert Smathers, 465-4839.

Other State requirements related to fish processing are those of the Department of Natural Resources. You should receive information regarding those requirements soon. If you do not, contact the Department of Natural Resources, Division of Agriculture, P.O. Box 1088, Palmer, Alaska 99645, Attn: George Hart, 745-3236.

If you have any further questions, do not hesitate to contact me.

Sincerely,



Lori J. Svensson  
Computer Services Section  
Division of Commercial Fisheries  
907-465-4150

LJS:sdb

April 2, 1979

Bud Engstrom  
Alaskan Shores Fisheries  
309 Park Place Bldg.  
6th and University  
Seattle, Washington 98101

Dear Mr. Engstrom:

Alaska Statute 16.10.290 through 16.10.295 requires that all Fish Processors and Primary Fish Buyers obtain a license and a \$10,000 bond prior to starting operations. The bond is to cover any unpaid wages or unpaid fish purchases and must remain in force for two years.

The law permits firms to satisfy the bonding requirement by posting a surety bond, cash deposit or other negotiable security. If a person or firm owns over \$10,000 worth of lienable unencumbered property located within the State of Alaska, they may post the property as their bond. Anyone wishing to take advantage of this provision should submit the following evidence.

- a) A sworn affidavit from a bank or similar financial institution or local tax assessor, or any other person having first hand knowledge of the applicants property in Alaska. It must be related to the enterprise and is valued in excess of \$10,000.
- b) Provide a legal description of the property to be offered in lieu of the bond.
- c) The affidavit referred to in (a) must be re-attested to including any changes regarding the property before the end of each calendar year it remains in effect.

If you are posting your property as your bond; the property may not be sold or transferred during the two years the bond is required to remain in force without prior arrangement being made with the Alaska Department of Labor.

If you need additional information, or we might be of further assistance, please notify this office.

Sincerely,



Robert E. Smathers  
W/H Investigator  
Wage and Hour Division

PES/me

BRC

STATE OF ALASKA DEPARTMENT OF FISH AND GAME

DEPT. OF FISH AND GAME

INTENT TO OPERATE 1979

APR 27 1979

COMPUTER SERVICES

I. COMPANY NAME AND ADDRESS:

Alaska Shore Fisheries  
309 Park Place  
6th + University  
Seattle WA 98101

If your address as listed is in error or missing, please print or type the correct company name and address below.

II. GENERAL INFORMATION: Check the following type of operation for which you are filing this Intent to Operate form. Only one type of operation should be indicated. If you have more than one plant or buying location at which different species of fish or shellfish are bought and/or processed, additional forms must be filed, one for each location. Additional forms can be obtained by contacting the nearest Department of Fish and Game office.

THIS OPERATION IS: (check one only)

- Shore Base Buyer (only)
- Floating Cannery\*
- Freezer Ship\*
- Shore Based Fresh, Frozen, or Cured Processor
- Shore Based Cannery
- Fresh Processor
- Floating/Flying/Buyer\*
- Combination Cannery and Fresh, Frozen, or Cured Processor

\*If this is a floating operation, the following vessel information must be included. An Intent to Operate form must be filed for each vessel that buys or processes fishery resources.

Vessel Name: GINA KAKEL

Keel Length: 141 Net Tonnage: 227

Intended area(s) of operation are: (i.e.: Southeastern, Bristol Bay, Kodiak, Chignik, Cook Inlet, etc.): Northern Sound - Bristol Bay

Home Port: \_\_\_\_\_

If this form is for a shore based operation, please give the location of the plant or buying station:

NA

If any aircraft will be used in transporting raw or finished fishery products, please give the anticipated total number and types of aircraft that will be used:

NA

The Department receives many requests to publish a list of Alaskan commercial processors and/or buyers. Would you like your firm included in such a list?  Yes  No

processing of each of the species. For example, if you buy and freeze and smoke king salmon, your form should look like this:

| Salmon: | Buyer    | Cannery       | Fresh         | Frozen   | Cured (specify method) |
|---------|----------|---------------|---------------|----------|------------------------|
| King    | <u>X</u> | <u>      </u> | <u>      </u> | <u>X</u> | <u>X</u> <u>smoked</u> |

| SPECIES                  | TYPE OF OPERATION(S) |               |               |               |                        |
|--------------------------|----------------------|---------------|---------------|---------------|------------------------|
|                          | Buyer                | Cannery       | Fresh         | Frozen        | Cured (specify method) |
| Salmon:                  |                      |               |               |               |                        |
| King                     | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Red                      | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Coho                     | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Pink                     | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Chum                     | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Roe                      | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Shellfish:               |                      |               |               |               |                        |
| King crab                | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Dungeness                | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Tanner                   | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Shrimp                   | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Scallops                 | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Other(specify):          | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| <u>      </u>            | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Miscellaneous:           |                      |               |               |               |                        |
| Bait Herring             | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Food Herring             | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Sac Roe Herring          | <u>X</u>             | <u>      </u> | <u>      </u> | <u>      </u> | <u>X</u>               |
| Herring Roe              | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| On Kelp                  | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Halibut                  | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Sablefish<br>(Black Cod) | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Pacific Cod              | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| Other Fish (specify):    | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| <u>      </u>            | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| <u>      </u>            | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| <u>      </u>            | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |
| <u>      </u>            | <u>      </u>        | <u>      </u> | <u>      </u> | <u>      </u> | <u>      </u>          |

PLEASE RESPOND TO THE FOLLOWING QUESTIONS IN AS COMPLETE A MANNER AS POSSIBLE.

1. List the quantity and location of all your fish ticket imprinting machines.

Number

Location

NA

NA

2. Is your company name presently embossed on a plate for your machines? If so, please print company name and any other data on your present plates.

Plate embossed now?:

Information embossed on plates:

Yes

NA

No

3. If you do not ordinarily file an Annual Report, please list the name(s) and location(s) of the company(s) whose Annual Report(s) will include your catch information.

Company

Location

Alaskan Shore Fisheries 309 Park Place

6th & University

Seattle WA 98101

Name and title of person filling out this form: (Please print or type)

Name: Perry T Davis

Signature: Perry T Davis

Title: General Partner

Phone: 206-682-9282

STATE OF ALASKA  
DEPARTMENT OF COMMERCE  
& ECONOMIC DEVELOPMENT  
BANKING & SECURITIES  
POUCH D  
JUNEAU, ALASKA 99811

September 14, 1979

Mr. Elton E. Engstrom, President  
Engstrom Brothers Company  
Box 723  
Juneau, Alaska 99801

Dear Mr. Engstrom:

It has come to our attention that your 1978 annual report is deficient.

Specifically, you did not give the percentage of shares held for each of the company's stockholders who owns five percent or more of the company's outstanding stock. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention in clearing up this matter will be appreciated.

Sincerely,

Julius J. Brecht  
Director

JJB/jar4/4

cc: Jen Clematson, Supervisor  
Corporations Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments  
Committee

STATE OF ALASKA  
DEPARTMENT OF COMMERCE  
& ECONOMIC DEVELOPMENT  
BANKING & SECURITIES  
POUCH D  
JUNEAU, ALASKA 99811

September 14, 1979

Mr. W. C. Hingston, President  
Kodiak King Crab, Inc.  
P.O. Box C-70739  
Seattle, Washington 98107

Dear Mr. Hingston:

It has come to our attention that your 1978 annual report may have been deficient.

Specifically, you stated that Kodiak King Crab has a single foreign affiliate which is Marubeni Corporation. However, we have been told that the owners of Kodiak King Crab (not including Marubeni Corporation) may also control a company called Kabushiki Kaisha Washington Fish of Tokyo, Japan. If this is accurate, then this and any other foreign (non-U.S.) corporations with direct or indirect ties (including domestic) ownership by foreign firms through wholly American subsidiaries) must be reported.

It may be helpful for you to review the statutes governing disclosure of alien affiliates (AS 10.05.702, including amendments fr. 1975 and 1976, and definitions) since they are far reaching in terms of the information that must be reported. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention to clearing up this matter will be appreciated.

Sincerely,

Julius J. Brecht  
Director

JJB/jar4/2

cc: Jan Clemetson, Supervisor  
Corporations Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments  
Committee

September 14, 1979

Mr. Thomas A. Casey, President  
Alaskan Marine Products, Inc.  
P.O. Box 2976  
Kodiak, Alaska 99615

Dear Sir:

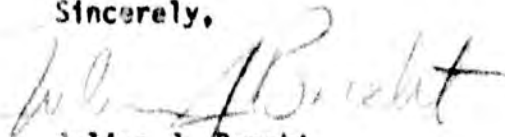
It has come to our attention that your 1978 annual report is deficient.

Specifically, you did not give the percentage of shares held by each of your company's stockholders who own 5 percent or more of the company's outstanding stock.

It may be helpful for you to review the statutes governing disclosure of 5 percent stockholders (AS 10.05.702, including amendments in 1975 and 1976, and definitions) since they are far-reaching in terms of the information that must be reported. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention to clearing up this matter will be appreciated.

Sincerely,



Julius J. Brecht  
Director

JJB/kkk5/5

cc: Jan Clemetson, Supervisor  
Corporations Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments  
Committee

September 14, 1979

Mr. James G. Ferguson  
Pelican Cold Storage Company, Inc.  
653 N.E. North Lake Way  
Seattle, Washington 98105

Dear Sir:

It has come to our attention that your 1978 annual report may have been deficient.

Specifically, do you have any stockholders who own at least 5% of the company's outstanding stock other than William H. Clapp, Drial & Company and the MacKintosh Partnership? You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention to clarifying this matter will be appreciated.

Sincerely,



Julius J. Brecht  
Director

JJB/kkk5/4

cc: Jan Clemetson, Supervisor  
Corporations Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments  
Committee

September 14, 1979

Mr. Leonard Keener, President  
Keener Packing Company, Inc.  
SR #2, Box 738  
Soldotna, Alaska 99669

Dear Sir:

It has come to our attention that your 1978 annual report may have been deficient.

Specifically, you reported that Keener Packing Company has no stockholders who own 5% or more of the company's outstanding 300 shares of stock. Such diffuse ownership is unusual in corporations the size of Keener Packing, so we would appreciate your confirming the absence of any 5% shareholders. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Sincerely,



Julius J. Brecht  
Director

JJB/kkk5/3

cc: Jan Clemetson, Supervisor  
Corporations Section

(Type or print legibly)

ANNUAL REPORT

78

DEC 22 1978

NO. X 07536

FOR YEAR ENDING DECEMBER 31, 19

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

NAME OF CORPORATION KEENER PACKING COMPANY, INC.

18392-D

File No.

CORPORATION IS ORGANIZED UNDER THE LAWS OF THE STATE OR COUNTRY OF Alaska

ADDRESS OF PRINCIPAL CORPORATION OFFICE SR #2, Box 738, Soldotna, Alaska 99669

REGISTERED AGENT DAVID B. KEENER

(FILE CHANGE ON FORM 08-184)

REGISTERED OFFICE IN ALASKA RT 2 BOX 738 SOLDOTNA, AK 99669

(FILE CHANGE ON FORM 08-184)

CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA Buying, processing and selling seafoods

AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE, AND SERIES, IF ANY, WITHIN A CLASS.

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 100,000          | COMMON |        | 1.00                |

AGGREGATE NUMBER OF ISSUED SHARES, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE AND SERIES, IF ANY WITHIN A CLASS.

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 300              | Common |        | 1.00                |

THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31. \$ 2600.00

YOU MUST FURNISH THE NAMES AND ADDRESSES OF BOTH DIRECTORS AND OFFICERS. IF DIRECTORS AND OFFICERS ARE THE SAME PEOPLE WRITE IN "SAME" IN THE DIRECTORS AREA.

|           | NAME                    | COMPLETE ADDRESS                       |
|-----------|-------------------------|--|
| DIRECTORS | 1. Same                 |  |
|           | 2. Same                 |  |
|           | 3. Same                 |  |
| OFFICERS  | 1. PRES Leonard Keener  | SR #2, Box 738, Soldotna, Alaska 99669 |
|           | 2. V. PRES David Keener | " " " " " "                            |
|           | 3. SEC Evelyn Keener    | " " " " " "                            |

ATTACH AS EXHIBIT "A" THE NAME AND ADDRESS OF EACH NONRESIDENT ALIEN AFFILIATE. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED. None (SEE REVERSE FOR EXPLANATION)

ATTACH AS EXHIBIT "B" A NAME AND ADDRESS OF EACH PERSON HAVING A DIRECT OWNERSHIP OR CONTROL OF AT LEAST 5 PERCENT OF THE SHARES OR 5 PERCENT OF ANY CLASS OF SHARES AND THE PERCENTAGE OF SHARES OWNED BY THAT PERSON. EXHIBIT "B" SHALL COVER THE OWNERSHIP AS OF SEPTEMBER 30 OF THE REPORTING PERIOD. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED. None

DATED December 15, 1978

Evelyn D. Keener, Sec.
Leonard A. Keener, Pres.
TITLE: President

ATTESTED BY

# STATE OF ALASKA

JAY S. HARRISON, GOVERNOR

## DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

DIVISION OF BANKING, SECURITIES, SMALL LOANS & CORPORATIONS

POUCH D  
JUNEAU, ALASKA 99811

September 14, 1979

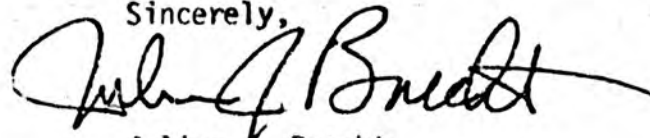
Mr. Leonard Keener, President  
Keener Packing Company, Inc.  
SR #2, Box 738  
Soldotna, Alaska 99669

Dear Sir:

It has come to our attention that your 1978 annual report may have been deficient.

Specifically, you reported that Keener Packing Company has no stockholders who own 5% or more of the company's outstanding 300 shares of stock. Such diffuse ownership is unusual in corporations the size of Keener Packing, so we would appreciate your confirming the absence of any 5% shareholders. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Sincerely,



Julius J. Brecht  
Director

JJB/kkk5/3

cc: Jan Clemetson, Supervisor  
Corporations Section



*Keener Packing Company, Inc.*

SR 2, Box 738 • SOLDOTNA, ALASKA 99669

RECEIVED

SEP 27 1979

September 24, 1979

DEPARTMENT OF COMMERCE  
DIVISION OF BANKING  
SECURITIES AND SMALL LOANS

Mr. Julius J. Brecht, Director  
State of Alaska  
Division of Banking, Securities, Small Loans & Corps.  
Pouch D  
Juneau, AK 99811

Dear Mr. Brecht:

I would like to know how we specifically reported that Keener Packing Company, Inc. has no stockholders who own 5% or more of the company's outstanding 300 shares of stock.

If this was done, it was an error as each own 33 1/3%.

Sincerely,



Leonard A. Keener, President  
Keener Packing Company, Inc.

LK:mk

(Type or print legibly)

78

NO. X 03293-177

FOR YEAR ENDING DECEMBER 31, 19

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

NAME OF CORPORATION PELICAN COLD STORAGE COMPANY

01183-D

File No.

CORPORATION IS ORGANIZED UNDER THE LAWS OF THE STATE OR COUNTRY OF 2101 EXCHANGE BLDG.

ADDRESS OF PRINCIPAL CORPORATION OFFICE SEATTLE, WA

00000

REGISTERED AGENT N.C. BANFIELD

(FILE CHANGE ON FORM 08-184)

REGISTERED OFFICE IN ALASKA 311 N. FRANKLIN ST. JUNEAU, AK 99801

(FILE CHANGE ON FORM 08-184)

CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA SEAFOOD PROCESSING & DISTRIBUTION

AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE, AND SERIES, IF ANY, WITHIN A CLASS:

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 1,000,000        | COMMON |        | \$1.00              |

AGGREGATE NUMBER OF ISSUED SHARES, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE AND SERIES, IF ANY WITHIN A CLASS:

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 337,937          | COMMON |        | \$1.00              |

THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31, 1978 \$ 337,937.00

YOU MUST FURNISH THE NAMES AND ADDRESSES OF BOTH DIRECTORS AND OFFICERS. IF DIRECTORS AND OFFICERS ARE THE SAME PEOPLE WRITE IN "SAME" IN THE DIRECTORS AREA.

|           | NAME                       | COMPLETE ADDRESS                                       |
|-----------|----------------------------|--|
| DIRECTORS | 1. William Clapp           | 13TH FLOOR NORTON BUILDING, SEATTLE, WASHINGTON 98104  |
|           | 2. Gary Macleod            | SAME   |
|           | 3. Prosper S. Gantz        | 653 N. E. NORTH LAKEWAY, SEATTLE, WASHINGTON 98105     |
| OFFICERS  | 1. PRES. JAMES G. FERGUSON | 653 N. E. NORTH LAKEWAY, SEATTLE, WASHINGTON 98105     |
|           | 2. V. PRES. GARY MACLEOD   | 13TH FLOOR NORTON BUILDING, SEATTLE, WASHINGTON, 98104 |
|           | 3. SEC. MARGARET AMES      | SAME   |

ATTACH AS EXHIBIT "A" THE NAME AND ADDRESS OF EACH NONRESIDENT ALIEN AFFILIATE. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED. NONE (SEE REVERSE FOR EXPLANATION)

ATTACH AS EXHIBIT "B" A NAME AND ADDRESS OF EACH PERSON HAVING A DIRECT OWNERSHIP OR CONTROL OF AT LEAST 5 PERCENT OF THE SHARES OR 5 PERCENT OF ANY CLASS OF SHARES AND THE PERCENTAGE OF SHARES OWNED BY THAT PERSON. EXHIBIT "B" SHALL COVER THE OWNERSHIP AS OF SEPTEMBER 30 OF THE REPORTING PERIOD. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED.

DATED JANUARY 16 1979

CORPORATE SEAL

BY PELICAN COLD STORAGE COMPANY  
TITLE J. Ferguson, President  
ATTESTED BY [Signature] Paul [Signature]

Shareholders owning 5% or more of Pelican Cold Storage Company stock:

|   |                |       |
|---|----------------|-------|
| William H. Clapp<br>1300 Norton Building<br>Seattle, Wa. 98104  | 79,157 shares  | 23.4% |
| Drial & Co.<br>1300 Norton Building<br>Seattle, Wa. 98104   | 113,890 shares | 33.7% |
| The MacKintosh Partnership<br>C/o The Bank of California<br>P. O. Box 3123<br>Seattle, Wa.<br>Attn: Trust Dept. | 20,906 shares  | 6.2%  |

PLANTS  
PELICAN COLD STORAGE COMPANY, PELICAN, ALASKA 99522

SEAFOOD SALES OFFICE  
PELICAN SALES COMPANY, SEATTLE, WASHINGTON 98105

PORT ALEXANDER COLD STORAGE  
PORT ALEXANDER, ALASKA 99839



**PELICAN**  
COLD STORAGE COMPANY

FISH AND SHELLFISH PROCESSING

BAIT AND ICE

OUTFITTING

GENERAL OFFICES: 653 N.E. NORTHLAKE WAY, SEATTLE, WASHINGTON 98105 • PHONE (206) 632-9000  
GENERAL OFFICES MAILING ADDRESS: P.O. BOX 5538, SEATTLE, WASHINGTON 98105

September 25, 1979

Mr. Julius J. Brecht, Director  
State of Alaska  
Department of Commerce and Economic Development  
Pouch D  
Juneau, Alaska 99811

RECEIVED  
SEP 27 1979


RE: Stock Ownership of Pelican Cold Storage Company DEPARTMENT OF COMMERCE  
DIVISION OF BANKING  
SECURITIES AND SMALL LOANS

Dear Mr. Brecht;

Jim Ferguson, President of Pelican Cold Storage Company, has asked me to respond to your letter dated September 14, 1979. In particular, there are no stockholders, other than those you mentioned, who own at least 5% of the company's outstanding stock.

If you require additional information, do not hesitate to contact us.

Sincerely,

  
Dale Freidig  
Controller

DF:kb

cc: Jim Ferguson

September 14, 1979

Mr. Elton E. Engstrom, President  
Engstrom Brothers Company  
Box 723  
Juneau, Alaska 99801

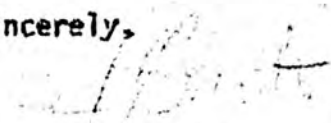
Dear Mr. Engstrom:

It has come to our attention that your 1978 annual report is deficient.

Specifically, you did not give the percentage of shares held for each of the company's stockholders who owns five percent or more of the company's outstanding stock. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention in clearing up this matter will be appreciated.

Sincerely,

  
Julius J. Brecht  
Director

JJB/jar4/4

cc: Jan Clemetson, Supervisor  
Corporations Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments  
Committee

September 14, 1979

Mr. W. C. Hingsten, President  
Kodiak King Crab, Inc.  
P.O. Box C-70739  
Seattle, Washington 98107

Dear Mr. Hingsten:

It has come to our attention that your 1978 annual report may have been deficient.

Specifically, you stated that Kodiak King Crab has a single foreign affiliate which is Marubeni Corporation. However, we have been told that the owners of Kodiak King Crab (not including Marubeni Corporation) may also control a company called Kabushiki Kaisha Washington Fish of Tokyo, Japan. If this is accurate, then this and any other foreign (non-U.S.) corporations with direct or indirect ties (including domestic) ownership by foreign firms through wholly American subsidiaries must be reported.

It may be helpful for you to review the statutes governing disclosure of alien affiliates (AS 10.05.702, including amendments in 1975 and 1976, and definitions) since they are far reaching in terms of the information that must be reported. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention to clearing up this matter will be appreciated.

Sincerely,

Julius J. Brecht  
Director

JJB/jar4/2

cc: Jan Clemetson, Supervisor  
Corporations Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments  
Committee

September 14, 1979

Mr. J. R. Gilbert, President  
Excursion Inlet Packing Company, Inc.  
3630 49th, N.E.  
Seattle, Washington 98101

Dear Mr. Gilbert:

It has come to our attention that your 1978 annual report is deficient.

Specifically, you did not give the names, addresses and percentages of shares held for each of the company's stockholders who owns five percent or more of the company's outstanding stock.

In addition, your annual report states that Excursion Inlet Packing Company has ten affiliates. However, if Excursion Inlet Packing Company is affiliated with Wards Cove Packing Company, then it also is affiliated with Marubeni Corporation of Japan, which is a stockholder in Wards Cove. This reporting requirement applies to any foreign (non-U.S.) corporation with direct or indirect ties, including American subsidiaries of foreign firms.

It may be helpful for you to review the statutes governing disclosure of alien affiliates (AS 10.05.702, including amendments in 1975 and 1976, and definitions) since they are far reaching in terms of the information that must be reported. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention to clearing up this matter will be appreciated.

Sincerely,

Julius J. Brecht  
Director

JJB/jar4/3

cc: Jan Clemetson, Supervisor  
Corporations Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments  
Committee

(Type or print legibly)

ANNUAL REPORT

MAR 28 1979

NO. **X-03295**

FOR YEAR ENDING DECEMBER 31, 19 78

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

NAME OF CORPORATION WARDS COVE PACKING COMPANY, INC.

File No. Q1536-D

- 1. CORPORATION IS ORGANIZED UNDER THE LAWS OF THE STATE OR COUNTRY OF Alaska
- 2. ADDRESS OF PRINCIPAL CORPORATION OFFICE Wards Cove, Ketchikan, Alaska
- 3. REGISTERED AGENT CT CORPORATION SYSTEM (FILE CHANGE ON FORM 08-184)
- 4. REGISTERED OFFICE IN ALASKA 200 NBA BLDG. JUNEAU, AK 99801 (FILE CHANGE ON FORM 08-184)
- 5. CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA Salmon Canning

6. AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE, AND SERIES, IF ANY, WITHIN A CLASS:

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 500,000          | COMMON |        | 1.00                |

7. AGGREGATE NUMBER OF ISSUED SHARES, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE AND SERIES, IF ANY WITHIN A CLASS:

| NUMBER OF SHARES | CLASS | SERIES | PAR VALUE PER SHARE |
|------------------|-------|--------|---------------------|
| 255,234          | n/a   | n/a    | \$1.00              |

8. THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31. \$ 255,234

9. YOU MUST FURNISH THE NAMES AND ADDRESSES OF BOTH DIRECTORS AND OFFICERS. IF DIRECTORS AND OFFICERS ARE THE SAME PEOPLE WRITE IN "SAME" IN THE DIRECTORS AREA

|           | NAME                      | COMPLETE ADDRESS                |
|-----------|---------------------------|---------------------------------|
| DIRECTORS | 1. Alec W Brindle         | 88 E Hamlin St Seattle WA 98102 |
|           | 2. see attached list      |                                 |
|           | 3.                        |                                 |
| OFFICERS  | 1. PRES see attached list |                                 |
|           | 2. V PRES                 |                                 |
|           | 3. SEC                    |                                 |

10. ATTACH AS EXHIBIT "A" THE NAME AND ADDRESS OF EACH NONRESIDENT ALIEN AFFILIATE. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED None (SEE REVERSE FOR EXPLANATION)

11. ATTACH AS EXHIBIT "B" A NAME AND ADDRESS OF EACH PERSON HAVING A DIRECT OWNERSHIP OR CONTROL OF AT LEAST 5 PERCENT OF THE SHARE, OR 5 PERCENT OF ANY CLASS OF SHARES AND THE PERCENTAGE OF SHARES OWNED BY THAT PERSON. EXHIBIT "B" SHALL COVER THE OWNERSHIP AS OF SEPTEMBER 30 OF THE REPORTING PERIOD. IF YOU HAVE NONE, INDICATE IN THE SPACE PROVIDED

DATED JAN 17 19 79

CORPORATE SEAL

BY Alec W. Brindle  
 TITLE President  
 ATTESTED BY [Signature]

01536-D

**DIRECTORS**

Alec W. Brindle  
Winn F. Brindle  
Gregory J. Brindle  
Harold A. Brindle  
Joseph A. Brindle  
Patrick J. Douglas

1620 Broadmoor Drive East, Seattle, Wa 98112  
1251 22nd East, Seattle, Wa 98112  
10552 Alton Northeast, Seattle, Wa 98125  
18035 8th Northwest, Seattle, Wa 98177  
Route 1 Box 1062, Ketchikan Ak 99901  
4757 48th N. E., Seattle, Wa

**OFFICERS**

Alec W. Brindle  
Patrick Douglas  
Harold A. Brindle  
Joseph A. Brindle

President  
Vice-President  
Vice-President/Secretary  
Treasurer

01536-D

EXHIBIT "B"

The following persons have a direct ownership or control of at least 5% of the shares or 5% of any class of shares of Wards Cove Packing Company, Inc.

| NAME                    | ADDRESS   | % SHARES |
|-------------------------|---|----------|
| Estate of A. W. Brindle | 3300 Sea-First Nat. Bk. Bldg<br>Seattle, Wa 98154 | 75%      |
| H. A. Brindle           | 18035 8th Ave N.W.<br>Seattle, Wa 98177           | 16%      |
| Marubeni Corporation    | Seattle-First Nat. Bank<br>Seattle Wa 98154       | 9%       |

FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99581  
(907) 485-4084



ALASKA  
KODIAK, ALASKA  
99581  
(907) 485-4084  
485-4081

House of Representatives

April 1, 1980

DISTRICT 14:

BELLPLATS  
CHINIAR  
KODIAK  
OUZINKIE

Industrial Credit Co.  
Attention Mr. Bevis  
P.O. Box 68418  
Seattle, Washington 98188

Dear Mr. Bevis:

Thank you for expressing your interest in the interim committee report on "Foreign Investment in the Alaska Seafood Industry." Enclosed is the requested copy. Please feel free to comment on this report or related areas of interest.

Sincerely yours,

*Levin M. Smith*

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure



House of Representatives

March 12, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAK  
KODIAK  
OUZINKIE

Kunio Adachi  
2715 - 48th Ave. S.W.  
Seattle, Washington 98116

Dear Mr. Adachi:

Thank you for expressing your interest in the interim report on Foreign Investment in the Alaska Seafood Industry. Enclosed are the two copies you requested. Please feel free to comment on the report or related areas of interest.

Sincerely yours,

for:

Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99518  
(907) 486-6284

FRED F. ZHAROFF  
KODIAK, ALASKA  
99518  
(907) 486-6284  
486-6281



House of Representatives

March 11, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAR  
KODIAR  
OUZINKIE

Comex International  
600 1st Avenue  
Suite 631  
Seattle, Washington 98104

Dear Sir/Ma'am:

Thank you for informing us of your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy and we apologize for the delay brought on by waiting for the second printing. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

ff: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

FRED F. ZHAROFF  
P.O. BOX 400  
KODIAK, ALASKA 99501  
(907) 400-0000



ALASKA  
KODIAK, ALASKA  
99501  
(907) 400-0000  
400-0001

House of Representatives

March 11, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAR  
KODIAK  
OUZINKIE

American President Lines, Ltd.  
P.O. Box C81411  
Seattle, Washington 98108

Attention: James D. Weimer, Mgr.,  
Alaska Sales and Service

Dear Mr. Weimer:

Thank you for expressing your interest in the interim committee on Foreign Investment in the Alaska Seafood Industry. Enclosed in the requested copy of their report. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Fred F. Zharoff".

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99581  
(907) 485-4304



FRED F. ZHAROFF  
KODIAK, ALASKA  
99581  
(907) 485-4304  
485-4301

House of Representatives

March 11, 1980

DISTRICT 14:

BELLEPLATE  
CHINIAK  
KODIAK  
QUZINKIE

Pacific Fishing  
2208 N.W. Market St.  
Seattle, Washington 98107

Attn: Michael Parker, Office Mgr.

Dear Mr. Parker:

Thank you for expressing an interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy of the report and we apologize for the delay brought on by waiting for the second printing. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Fred F. Zharoff".

fa  
Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

FRED F. ZHAROFF  
P.O. BOX 400  
KODIAK, ALASKA 99501  
(907) 486-4000

FRED F. ZHAROFF  
KODIAK, ALASKA  
99501  
(907) 486-4000  
486-4001



House of Representatives

March 11, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAR  
KODIAK  
OUZINKIE

University of Washington  
College of Fisheries  
Fisheries Research Institute  
260 Fisheries Center  
Seattle, Washington 98195

Dear Sir/Ma'am:

Thank you for expressing an interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy and we apologize for the delay in waiting for the second printing. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

*Fred F. Zharoff*

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

**MEMO**

**To: Rep. Fred Zharoff**

**From: W.P. Dougherty**

**Subject: Corporate annual reporting  
deficiencies**

Please find enclosed copies of current annual reports for the following corporations: Wards Cove Packing Co., North Pacific Processors, Alaskan Marine Products, Alaska Pacific Seafoods, Excursion Inlet Packing Co., Engstrom Brothers Co. and Egegik Packing Co.

You requested such forms to illustrate the types of deficiencies in corporate annual reporting that are replete in the state files maintained by the Corporations Section of the Division of Banking and Securities. The problems exhibited are as follows:

WARDS COVE PACKING CO. This company states in answer to question #10 that it has no alien affiliates. However, a glance at the ownership of the firm (Exhibit B, page 3) shows that Wards Cove is owned 9 percent by Marubeni Corp., a Japanese company active in the Alaska fishing industry. Because question #10 is answered incorrectly, the name Wards Cove Packing would not appear on any computer printout of companies with foreign affiliates. Oversights such as this greatly dilute the usefulness of any printout designed to isolate firms with foreign affiliates.

(more)

EGEGIK PACKING CO. The annual report for this company is an intriguing example of information concealment. To both the alien affiliation and 5 percent ownership questions, the company refers readers to Exhibit A, page 3. On the exhibit page, company management responds that 0 shares of the company are controlled by alien affiliated entities.

This is misleading in several ways. First, the law is not nearly as narrow as this answer implies (please examine verbatim phrasing on form). If the question were answered truthfully, in compliance with statutory requirements, Egegik's management would point out that since the firm is owned by New England Fish Co., which has foreign (Canadian) stockholders, those same foreign affiliates should be shown on the Egegik report.

If the company's answer to the 5 percent ownership question is read carefully, it becomes apparent that the company has failed to answer the question at all. While the annual report requires disclosure of the names and addresses and actual percentages of holdings of all stockholders with 5 percent or more of the stock, Egegik reveals none of this. Instead the company answers a totally different question, to wit: In what companies is Egegik a shareholder? This serves to avoid disclosing the required information.

But Egegik does reveal that it owns half of a company in partnership with a Japanese-owned American company. This further indicts the truthfulness of the answer to the alien affiliation question, since it points out another alien affiliation that should have been, but was not, noted by the company.

ENGSTROM BROTHERS CO., ALASKAN MARINE PRODUCTS In these annual reports, company management identifies stockholders with 5 percent or more of the stock, but it fails to give the actual percentage, as required by law.

EXCURSION INLET PACKING CO. I suspect that this form is deliberately false in stating that no stockholder owns 5 percent or more of the outstanding shares of stock. I have neither confirmed nor refuted this suspicion as of today.

ALASKA PACIFIC SEAFOODS This company's annual report says flatly that it has no alien affiliates. But the report shows it is owned 100 percent by NORTH PACIFIC PROCESSORS. If you will turn to the annual report for North Pacific Processors, you may note that it is owned 50 percent by the American subsidiary (Marubeni America Corp.) of Marubeni Corp. of Japan. This clearly defies the disclosure statutes relating to alien affiliates, since a Japanese stockholder is involved, either directly or indirectly, in both companies. Neither of these corporations, therefore, would appear on the computer printout of firms with alien affiliates.

Because of the difficulty of making readable copies of these annual reports, I am sending this complete memo only to you and not to other members of the committee. If you think it important enough, other packets such as this could be prepared. I did not

do so primarily because it involves a special request of the employees in the corporations section, and I find myself making enough extra work for them as it is. If this is not satisfactory with you, please let me know and I will follow your guidance.

Also, I understand that Julius Brecht sent you a copy of the computer printout of companies with alien affiliates. I will enclose here a copy of my list of companies owned in whole or in part, directly or indirectly, by the Japanese. You may want to compare the lists to check the thoroughness of the state's record.

have changed

JAPANESE OR PARTLY JAPANESE OPERATORS IN 1977

1. Alaska Far East Corp.
2. Alaska Pacific Seafoods Inc.
3. Alaska Star Inc.
4. Alaskan Marine Products Inc.
5. Bering Sea Fisheries Inc.
6. Cordova Bay Fisheries Inc.
7. Craig Fisheries Inc.
8. Dutch Harbor Seafoods Ltd.
9. Harbor Seafoods Co. Inc.
10. Juneau Cold Storage
11. Kodiak King Crab Inc.
12. Morpac Inc.
13. North Pacific Processors Inc.
14. Olympic Fish Products Inc.\*
15. Orca-Pacific Packing Co.
16. E.C. Phillips & Son Inc.
17. S.A. Packers Inc.
18. Sagaya Alaska Seafoods Ltd.
19. Sitka Sound Seafoods Inc.
20. Togiak Fisheries Inc.
21. Universal Seafoods Ltd.
22. Vita Foods
23. Wards Cove Packing Co.
24. Red Salmon Co.
25. Whitney-Fidalgo Seafoods Inc.
26. Mokuhana Fisheries
27. B&B Fisheries

THE FOLLOWING DOCUMENT(S) MAY NOT FILM  
LEGIBLY BECAUSE OF POOR QUALITY OF THE  
ORIGINAL.

OK

13798-0

DEPARTMENT OF COMMERCE, BUREAU OF CUSTOMS AND BORDER PROTECTION  
UNITED STATES CUSTOMS SERVICE

IN WASH DC MAR 21 1952  
1. NAME OF EXPORTER: JOHN P. HOLLANDER, 100 W. 21, Anchorage, Alaska 99501  
2. NAME OF IMPORTER: JOHN T. McLEOD, 100 W. 21, Anchorage, Alaska 99501  
3. NAME OF PRINCIPAL CONTRACTOR: JOHN T. McLEOD, 100 W. 21, Anchorage, Alaska 99501  
4. NAME OF BUREAU OF ORIGIN: Customs Service

REMARKS: ...  
CLASSIFICATION: ...  
DUTY: ...

ISSUED FOR EXPORT  
STATE OF ALASKA

APPROVED: ...  
SPECIAL AGENT IN CHARGE

13798-0

STATE OF ALASKA  
 P. O. Box 2076, Anchorage, Alaska 99515  
 P. O. Box 2076, Anchorage, Alaska 99515  
 P. O. Box 2076, Anchorage, Alaska 99515

6. APPROXIMATE NUMBER OF SHARES HELD BY CLASS AS OF THE CLOSE OF BUSINESS ON DECEMBER 31, 1979  
 NUMBER OF SHARES CLASS NO. VALUE PER SHARE  
 100,000 Common \$0 per value

7. AGGREGATE NUMBER OF ISSUED SHARES (HELD BY CLASS) FOR VALUE OF \$100,000 SHARES WITHOUT PAR VALUE AND CLASS IF ANY  
 NUMBER OF SHARES CLASS NO. PAR VALUE PER SHARE  
 100,000 Common \$0 per value

8. THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31, 1979

9. ATTACH AS EXHIBIT 10 THE NAME AND ADDRESS OF EACH NON-RESIDENT ALIEN AFFILIATE IF YOU HAVE NONE INDICATE IN THE SPACE PROVIDED (SEE REVERSE FOR DEFINITION)

DATED: APR 11, 1980 IN 79  
 PREPARED BY: \_\_\_\_\_  
 NAME OF COMPANY: ALASKAN BREAD PRODUCTS, INC.  
 TITLE: Executive Vice President and Manager  
 ADDRESS: \_\_\_\_\_

**EXHIBIT "A" TO ANNUAL REPORT**

**ALASKAN MARINE PRODUCTS, INC.**

**Name and Address of Each Nonresident Alien Affiliate:**

Keichi Iwahiri, or Iwahiri Suisan Co., Ltd., a Japanese Corporation  
P. O. Box 317 (RFB)  
Anchorage, Alaska 99501

**EXHIBIT "B" TO ANNUAL REPORT**

**ALASKAN MARINE PRODUCTS, INC.**

1. Thomas A. Casey  
P. O. Box 2976  
Kodiak, Alaska 99615

2. Keichi Iwahiri, or  
Iwahiri Suisan Co., Ltd.,  
a Japanese Corporation  
P. O. Box 317 (RFB)  
Anchorage, Alaska 99501

Eingstrom Brothers

THIS STATE OF NEW YORK, COUNTY OF Brooklyn, in and for the City and County of Brooklyn, do hereby certify that the within and foregoing is a true and correct copy of the original as the same appears from the records of the office of the Clerk of the County of Brooklyn.

DEED OF CONVEYANCE TO THE CITY OF NEW YORK, COUNTY OF Brooklyn, IN AND FOR THE CITY AND COUNTY OF Brooklyn.

WHEREAS, the within and foregoing is a true and correct copy of the original as the same appears from the records of the office of the Clerk of the County of Brooklyn.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the County of Brooklyn, this 15th day of April, 1920.

CLERK OF THE COUNTY OF Brooklyn.

DEED OF CONVEYANCE TO THE CITY OF NEW YORK, COUNTY OF Brooklyn, IN AND FOR THE CITY AND COUNTY OF Brooklyn.

WHEREAS, the within and foregoing is a true and correct copy of the original as the same appears from the records of the office of the Clerk of the County of Brooklyn.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the County of Brooklyn, this 15th day of April, 1920.

CLERK OF THE COUNTY OF Brooklyn.

DEED OF CONVEYANCE TO THE CITY OF NEW YORK, COUNTY OF Brooklyn, IN AND FOR THE CITY AND COUNTY OF Brooklyn.

WHEREAS, the within and foregoing is a true and correct copy of the original as the same appears from the records of the office of the Clerk of the County of Brooklyn.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the County of Brooklyn, this 15th day of April, 1920.

CLERK OF THE COUNTY OF Brooklyn.

Label 15  
Alvin E Engstrom Box 723, Jamaica

NO SERIES

11

THE SAME

DATE IN THE

DATE 5-20-41  
AT 10:00 AM  
MONTGOMERY

1. NAME OF CORPORATION BBGIC  
 2. NUMBER OF FEDERAL CORPORATION OFFICE BBGIC, AK 99579  
 3. REGISTERED AGENT C Y CORPORATION SYSTEM  
 4. REGISTERED OFFICE IN ALASKA BBGIC, AK 99501

5. CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA Acquisition and  
management of other companies for resale.

6. AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE, AND SERIES, IF ANY, WITHIN A CLASS

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 100,000          | COMMON |        | 1.00                |

7. AGGREGATE NUMBER OF ISSUED SHARES, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE AND SERIES, IF ANY WITHIN A CLASS

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 1,000            | COMMON |        | 1.00                |

8. THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31 \$1,000.00

9. YOU MUST FURNISH THE NAMES AND ADDRESSES OF BOTH DIRECTORS AND OFFICERS IF DIRECTORS AND OFFICERS ARE THE SAME PEOPLE WRITE IN SAME IN THE DIRECTORS AREA

|           | NAME | COMPLETE ADDRESS         |
|-----------|------|--------------------------|
| DIRECTORS | 1    |                          |
|           | 2    | See attached Exhibit "A" |
|           | 3    |                          |
| OFFICERS  | 1    |                          |
|           | 2    | See attached Exhibit "A" |
|           | 3    |                          |

10. ATTACH AS EXHIBIT "A" THE NAME AND ADDRESS OF EACH NONRESIDENT ALIEN AFFILIATE IF YOU HAVE NONE INDICATE IN THE SPACE PROVIDED SEE EXHIBIT "A" (SEE REVERSE FOR EXPLANATION)

11. ATTACH AS EXHIBIT "B" A LIST AND ADDRESS OF EACH PERSON HAVING A DIRECT OWNERSHIP OR CONTROL OF AT LEAST 5 PERCENT OF THE SHARES OR 5 PERCENT OF ANY CLASS OF SHARES AND THE PERCENTAGE OF SHARES OWNED BY THAT PERSON EXHIBIT "B" SHALL COVER THE PERIOD AS OF SEPTEMBER 30 OF THE REPORTING PERIOD IF YOU HAVE NONE INDICATE IN THE SPACE PROVIDED SEE EXHIBIT "B" **BBGIC PACKING COMPANY**

DATED JANUARY 10 1979  
 CORPORATE SEAL \_\_\_\_\_ BY E. C. Merrill  
 TITLE Secretary  
 ATTORNEY BY \_\_\_\_\_

Corporation Franchise Tax Statement  
State of Alaska

EXHIBIT "A"

BEGGIK PACKING COMPANY  
OFFICERS AND DIRECTORS

Officers

| <u>Name &amp; Title</u>        | <u>Address</u>                                 |
|--------------------------------|--|
| C. R. Rogers<br>President      | 4th & Vine Bldg.<br>Seattle, WA 98121          |
| P. N. Rogers<br>Vice President | 4th & Vine Bldg.<br>Seattle, WA 98121          |
| I. L. Fox<br>Vice President    | 133 Queen Anne Ave. North<br>Seattle, WA 98119 |
| S. A. Druggo<br>Treasurer      | 4th & Vine Bldg.<br>Seattle, WA 98121          |
| E. C. Merritt<br>Secretary     | 4th & Vine Bldg.<br>Seattle, WA 98121          |

Directors

|              |  |
|--------------|--|
| P. N. Rogers | 4th & Vine Bldg.<br>Seattle, WA 98121          |
| I. L. Fox    | 133 Queen Anne Ave. North<br>Seattle, WA 98119 |
| C. R. Rogers | 4th & Vine Bldg.<br>Seattle, WA 98121          |
| A. J. Petrie | 4th & Vine Bldg.<br>Seattle, WA 98121          |

This is to certify that this is a true and correct list of  
officers and directors as of this 19th day of January 1979.

Corporation Franchise Tax Statement  
State of Alaska

EXHIBIT "A" - Page Two

Egegik Packing Company has no outstanding shares controlled by an affiliate which is a non-resident alien or a corporation whose place of incorporation is outside the United States.

Egegik Packing Company has a 50% interest in a partnership known as New England-Marubeni Seafoods Company. The remaining 50% interest is held by Marubeni Alaska Seafoods, Inc., an Alaska corporation, which the Egegik Packing Company understands is controlled by certain Japanese interest.

The management responsibility for the partnership rests with a Management Committee consisting of representatives of both partners. Egegik Packing Company therefore disclaims that either New England-Marubeni Seafoods Company or Marubeni Alaska Seafoods, Inc., is an affiliate.

New England-Marubeni Export Company, a Washington corporation, is a wholly-owned subsidiary of New England-Marubeni Seafoods Company. For the reason stated above, Egegik Packing Company disclaims that New England-Marubeni Export is an affiliate.

EGEGIK PACKING COMPANY

Date: January 19, 1979

By: E. C. Merritt

E. C. Merritt, Secretary

010000-01

**SECURITIES INVESTMENT CO.**

**DELAWARE**

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

ADDRESS OF PRINCIPAL CORPORATE OFFICE  
**100 W. MARKET ST.**

REGISTERED AGENT  
**C Y CORPORATION SYSTEM**

REGISTERED OFFICE IN ALASKA  
**207 HGA BLDG  
JUNEAU , AK 99801**

FILE CHANGE ON FORM 8100

CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA  
**Refrigerate Freezing**

AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE  
SHARES WITHOUT PAR VALUE AND SERIES IF ANY WITHIN CLASS  
NUMBER OF SHARES  
1,100

CLASS  
SERIES  
PAR VALUE PER SHARE  
1.000000  
1.000000

AGGREGATE NUMBER OF ISSUED SHARES (ITEM 7) BY CLASS AND SERIES  
IF ANY WITHIN A CLASS  
NUMBER OF SHARES

THE AMOUNT OF STATED CAPITAL AS OF THE CLOSEST DATE PREVIOUS TO THE DATE OF THIS STATEMENT

YOU MUST LIST THE NAMES AND ADDRESSES OF ALL PERSONS WHOSE NAMES ARE ON THE LIST OF OFFICERS AND DIRECTORS

PEOPLE WRITE IN NAME IN THE CHECKED AREA

|           | NAME  |
|-----------|---|
| DIRECTORS | 1 Brindley, Alec<br>2 Gilbert, J.A.<br>3 Brindley, Harold |
| OFFICERS  | 1 Gilbert, J.A.<br>2 Brindley, Alec<br>3 Adams, Faber     |

COMPLETE ADDRESSES

3630 - 17th NE, Seattle, Wa  
1005 - 14th St, Seattle, Wa  
14036 - 9th St, Seattle, Wa  
same as above  
same as above  
10573 - 14th St, Seattle, Wa

ATTACH AS EXHIBIT A THE NAME AND ADDRESS OF EACH PERSON WHOSE NAME IS TO BE MAINTAINED IN THE

SPACE PROVIDED  
ITEM 11  
ATTACH AS EXHIBIT B A NAME AND ADDRESS OF EACH PERSON HAVING A 5 PERCENT INTEREST IN THE

CLASS OF THE SHARES OR 5 PERCENT OF ANY CLASS OF SHARES OWNED BY THAT PERSON

WHICH IS SMALL ENOUGH TO BE MAINTAINED IN THE SPACE PROVIDED

DATE: **Feb. 27** 1973

0000000000

0000000000

**John Adams**  
100 W. Market Street, JunEAU, Alaska  
1000000000

# Alaska Pacific Seafoods

**ALASKA PACIFIC PROCESSORS, INC.**      FILE NUMBER **12000-0**

INCORPORATED UNDER THE LAWS OF THE STATE OF ALASKA      **Alaska**

2. **REGISTRATION NUMBER:** **REVENUE 12000-0**

3. **REGISTERED AGENT:** **REVENUE 12000-0**

4. **REGISTERED OFFICE IN ALASKA:** **8 NORTH PACIFIC PROCESSORS  
CHUGOVIA, AK 99574**      FILE NUMBER **12000-0**

5. **CHARACTER OF BUSINESS IN WHICH CORPORATION IS ACTUALLY ENGAGED IN ALASKA:** **Seafood Processing**

6. **AGGREGATE NUMBER OF SHARES WHICH CORPORATION HAS AUTHORITY TO ISSUE, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE, AND SERIES, IF ANY, WITHIN A CLASS:**

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 1,000            | COMMON |        | .33                 |

7. **AGGREGATE NUMBER OF ISSUED SHARES, ITEMIZED BY CLASSES, PAR VALUE OF SHARES, SHARES WITHOUT PAR VALUE AND SERIES, IF ANY WITHIN A CLASS:**

| NUMBER OF SHARES | CLASS  | SERIES | PAR VALUE PER SHARE |
|------------------|--------|--------|---------------------|
| 10,000           | COMMON |        | 10.00               |

8. **THE AMOUNT OF STATED CAPITAL AS OF THE CLOSE OF BUSINESS ON DECEMBER 31:** \$ **100,000**

9. **YOU MUST FURNISH THE NAMES AND ADDRESSES OF BOTH DIRECTORS AND OFFICERS IF DIRECTORS AND OFFICERS ARE THE SAME. PEOPLE WRITE IN SAME IN THE DIRECTORS AREA.**

|           | NAME            | COMPLETE ADDRESS                        |
|-----------|-----------------|---|
| DIRECTORS | H. A. Debenneck | 2155 N. Northlake Way Seattle, WA 98163 |
|           | Fred M. McOill  | 2155 N. Northlake Way Seattle, WA 98163 |
| OFFICERS  | H. A. Debenneck | 2155 N. Northlake Way Seattle, WA 98163 |
|           | Fred M. McOill  | 2155 N. Northlake Way Seattle, WA 98163 |

10. **ATTACH AS EXHIBIT 'A' THE NAME AND ADDRESS OF EACH NONRESIDENT ALIEN AFFILIATE IF YOU HAVE NONE INDICATE IN THE SPACE PROVIDED:** **NONE**      (SEE REVERSE FOR EXPLANATION)

11. **ATTACH AS EXHIBIT 'B' A STATE AND ADDRESS OF EACH PERSON HAVING A DIRECT INTEREST OR CONTROL OF AT LEAST 1% OF THE SHARES OR A PORTION OF ANY CLASS OF SHARES AND THE PERCENTAGE OF SHARES OWNED BY THE PERSON. EXHIBIT 'B' SHALL COVER THE PERIOD AS OF SEPTEMBER 30 OF THE REPORTING PERIOD IF YOU HAVE NONE INDICATE IN THE SPACE PROVIDED:** **North Pacific Processors 100%**

DATE: **1/3 1971**

BY: *[Signature]*  
TITLE: **President**

THE PRECEDING DOCUMENT(S) MAY NOT FILM  
RELIABLY BECAUSE OF POOR QUALITY OF THE  
ORIGINAL.

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

SCOMM

# 29:5

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

FISHERY MANAGEMENT PLAN  
and  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
for the  
GROUNDFISH FISHERY  
in the  
BERING SEA/ALEUTIAN ISLAND AREA



March 23, 1979

FINAL

NORTH PACIFIC FISHERY MANAGEMENT COUNCIL  
P.O. Box 3136 DT  
Anchorage, Alaska 99510

**North Pacific Fishery Management Council**  
Clement V. Tillion, Chairman  
Jim H. Branson, Executive Director

Suite 32, 333 West 4th Avenue  
Post Office Mall Building



Mailing Address: P.O. Box 3138DT  
Anchorage, Alaska 99510

Telephone: (907) 274-4563  
FTS 265-5435

**FISHERY MANAGEMENT PLAN  
and  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
for the  
BERING SEA/ALEUTIAN ISLAND AREA**

March 23, 1979

The North Pacific Fishery Management Council has prepared a Fishery Management Plan and Final Environmental Impact Statement for the Groundfish Fishery in the Bering Sea/Aleutian Island Area as directed by the Fishery Conservation and Management Act of 1976 (P.L. 94-265).

The NPFMC approved this combined DEIS/DFMP on July 27, 1979, as a draft for distribution during the public comment period. It was offered for public review and comment as follows:

|           |               |
|-----------|---------------|
| Seattle   | Oct. 7, 1978  |
| Kodiak    | Oct. 10, 1978 |
| Unalaska  | Oct. 12, 1978 |
| Anchorage | Oct. 31, 1978 |

Additional opportunity for public comment was offered in

|           |               |
|-----------|---------------|
| Anchorage | Nov. 31, 1978 |
|-----------|---------------|

during the regular monthly meeting of the Council. At the close of the public comment period on Jan. 10, 1979, the draft was revised with respect to comments received during the review period.

Final Council review and acceptance was conducted March 23, 1979, in Juneau, Alaska, during the regular monthly meeting of the Council.

This Fishery Management Plan is herewith forwarded to the Secretary of Commerce as the official recommendation for the conduct of the groundfish fishery in the Bering Sea/Aleutian Island area.

Jim H. Branson  
Executive Director  
North Pacific Fishery Management Council

# North Pacific Fishery Management Council

Clement V. Tillion, Chairman  
Jim H. Branson, Executive Director

Mailing Address: P.O. Box 319807  
Anchorage, Alaska 99510

Suite 32, 333 West 4th Avenue  
Post Office Mall Building



Telephone: (907) 274-4563  
FTS 285-5435

## NOTE

Certain portions of the Management Regime section (14.0) have been reserved for final decision and are indicated in the FMP on page 161 and following.

All changes indicated are a matter of degree rather than substance and will not alter the management concept of the plan. They are included as marked for purposes of review in general.

SUMMARY SHEET

FISHERY MANAGEMENT PLAN FOR THE GROUND FISH FISHERY  
IN THE BERING SEA/ALEUTIAN ISLAND AREA

(X) Final      () Draft      Environmental Impact Statement  
Responsible Agencies:      North Pacific Fishery Management Council  
Contact:                      Jim H. Branson  
   Executive Director  
   P.O. Box 3136 DT  
   Anchorage, Alaska 99510

National Marine Fisheries Service  
Contact:                      Harry L. Rietze  
   Regional Director  
   P. O. Box 1668  
   Juneau, Alaska 99802

1. Name of Action:      (X) Administrative      () Legislative
2. Description of Action: The proposed action is to adopt and implement a fishery management plan for the groundfish fishery in the Bering Sea/Aleutian Island area under the provisions of Title III of the Fishery Conservation and Management Act of 1976 (P.L. 94-265). This act extends jurisdiction over fishery resources and establishes a program for their management. The purpose of the plan is to manage the groundfish fishery in the Bering Sea/Aleutian Island area for the optimum yield and to allocate harvest between domestic and foreign fishermen.
3. Summary:
  - (a) Environmental Impacts: Implementation of this fishery management plan within the limit of its constraints is presumed not to cause adverse impacts on the environment. Conservation measures are provided for species for which they are deemed necessary. Those measures and the conduct of the fishery as outlined will be beneficial to the ocean environment affected, to demersal and pelagic fishes and to the human environment.
4. Alternatives: The following alternatives are considered:
  - a. No action
  - b. Regulation of foreign fishery only
  - c. Continuation of present management regime
5. Comments Requested: Comments have been requested and received from the following: (See Section 20.3.8.2).
6. Hearings: (See Section 20.3.8.2.)
7. Draft Statement to CEQ:      Sept. 6, 1978
8. Final Statement to CEQ:      \_\_\_\_\_

EXECUTIVE SUMMARYMANAGEMENT OBJECTIVES TO BE ATTAINED

1. Promote conservation while providing for the optimum yield from the region's groundfish resources in terms of:
  - a. Providing the greatest overall benefit to the nation with particular reference to food production and recreational opportunities;
  - b. Avoiding long-term or irreversible adverse effects on fishery resources and the marine environment;
  - c. Insuring availability of a multiplicity of options with respect to future uses of these resources.
2. Promote, where possible, efficient use of the fishery resources but not solely for economic purposes.
3. Promote fair and equitable allocation of identified available resources in a manner that no particular group acquires an excessive share of the privileges.
4. Base the plan on the best scientific information available.

DOMESTIC ANNUAL HARVESTING CAPACITY AND INTENT

|                 |                               |
|-----------------|-------------------------------|
| Pollock         | 10,000 mt                     |
| Pacific cod     | 7,000 mt                      |
| Rockfishes      | 1,100 mt (Eastern Bering Sea) |
|                 | 1,100 mt (Aleutian)           |
| Yellowfin sole  | 1,000 mt                      |
| Turbots         | 1,000 mt                      |
| Other flounders | 1,000 mt                      |
| Sablefish       | 500 mt (Eastern Bering Sea)   |
|                 | 500 mt (Aleutian)             |
| Others          | 1,400 mt                      |
| <u>TOTAL</u>    | 24,600 mt                     |

MAXIMUM SUSTAINABLE YIELD, EQUILIBRIUM YIELD, ALLOWABLE BIOLOGICAL CATCH & OY

MSY, EY, and ABC Values for Groundfish in  
the Bering Sea/Aleutian Region during 1979 (1000's mt)

| Species                   | Sub-area <sup>1/</sup> | MSY                 | EY                  | ABC=OY    | (1978<br>OY) | (1978-79<br>change) |
|---------------------------|------------------------|---------------------|---------------------|-----------|--------------|---------------------|
| Pollock                   | BS                     | 1,100-1,600         | 1,000               | 1,000     | (950)        | (+50)               |
|                           | AL                     | ?                   | ?                   | 100       |              |                     |
| Yellowfin sole            | --                     | 169-260             | 117                 | 117       | (106)        | (+11)               |
| Turbots                   | --                     | 100                 | 90-95               | 90        | } (139)      | (12)                |
| Other flatfishes          | --                     | 44.3-76.8           | =MSY                | 61        |              |                     |
| Cod                       | --                     | 58.7                | =MSY                | 58.7      | (58)         | (+0.7)              |
| Pacific Ocean<br>perch    | BS                     | 32                  | 6.5                 | 3.25      | (6.5)        |                     |
|                           | AL                     | 75                  | 15                  | 7.5       | (15)         |                     |
| Other rockfish            | --                     | ?                   | ?                   | 7.7       |              | <u>4/</u>           |
| Sablefish                 | BS                     | 11.35               | 3.5                 | 3.5       | (5)          | (-1.5)              |
|                           | AL                     | 1.85                | 1.5                 | 1.5       | (1.5)        | (0)                 |
| Atka mackerel             | --                     | 33                  | Unknown             | 24.8      | (24.8)       | (0)                 |
| Squid                     | --                     | ≥ 10                | ≥ 10                | 10        | (10)         | (0)                 |
| Pacific halibut           | --                     | 5                   | 0.3                 | <u>2/</u> | --           | --                  |
| Other included<br>species | --                     | 67                  | 67                  | 55.5      | (93.6)       | (-38.1)             |
| Total <sup>3/</sup>       | --                     | 1,702.2-<br>2,325.7 | 1,446.5-<br>1,484.0 | 1,540.45  | (1,409.4)    | (+131.05)           |

1/ BS = Eastern Bering Sea Area (Statistical Areas I, II, III combined).  
AL = Aleutian Area (Statistical Area IV).

2/ Under management by the International Pacific Halibut Commission.

3/ Excluding Pacific halibut.

4/ Included under "others" in 1978.

TOTAL ALLOWABLE LEVEL OF FOREIGN FISHING

(TALFF) (metric tons)

| Reference:                 |                    | Annex I       | Section 13.1 | Annex II      |               |
|----------------------------|--------------------|---------------|--------------|---------------|---------------|
| Species group              | sub-area <u>1/</u> | ABC           | Reserve      | Initial       | Initial       |
|                            |                    | =OY           |              | DAH <u>3/</u> | TALFF         |
| Pollock                    | BSea               | 1,000,000     | 50,000       | 10,000        | 940,000       |
| Pollock                    | Aleutian           | 100,000       | -            | -             | 100,000       |
| Yellowfin sole             |                    | 117,000       | 5,850        | 1,000         | 110,150       |
| Turbots                    |                    | 90,000        | 4,500        | 1,000         | 84,500        |
| Other flatfishes <u>2/</u> |                    | 61,000        | 3,050        | 1,000         | 56,950        |
| Pacific cod                |                    | 58,700        | 2,935        | 7,000         | 48,765        |
| Pacific ocean perch        | BSea               | 3,250         | 162          | 550           | 2,538         |
| Pacific ocean perch        | Aleutian           | 7,500         | 375          | 550           | 6,575         |
| Other rockfish             |                    | 7,727         | 500          | 1,100         | 6,127         |
| Sablefish                  | BSea               | 3,500         | 350          | 500           | 2,650         |
| Sablefish                  | Aleutian           | 1,500         | 150          | 500           | 850           |
| Atka mackerel              |                    | 24,800        | 1,240        | 0             | 23,560        |
| Squid                      |                    | 10,000        | 500          | 0             | 9,500         |
| Others                     |                    | <u>55,500</u> | <u>2,775</u> | <u>1,400</u>  | <u>51,325</u> |
| <u>Total</u>               |                    | 1,540,477     | 72,327       | 24,600        | 1,443,490     |

1/ BS = Bering Sea (Statistical Areas I, II, III combined)

AI = Aleutian Island Area (Statistical Area IV)

2/ Excluding Pacific halibut

3/ Equals DAP, see Annex II

## ECOLOGICAL, ECONOMIC AND SOCIAL IMPACTS

### Ecological Impacts

In the context of long-term relationships, fishery managers are just now beginning to find out, understand and quantify the complex relations among species and between the biota and the environment of the ecosystem in the Bering Sea/Aleutian Island area. Until that understanding is more fully developed, it is not possible to predict the long-term effect on the ecosystem of the current, single species management strategies (as opposed to the integrated ecosystem method) or of subtle environmental changes.

The quantitative processes in the marine ecosystem are beginning to be simulated and studied with numerical, dynamic, deterministic marine ecosystem reproduction models.

It is generally recognized by fisheries scientists that the existing theories and models pertaining to fishery resources management suffer some fundamental inadequacies; concepts and theories must be developed to answer present and future management decisions. Until such new concepts supercede the old, the latter can still serve as a useful basis for deriving management decisions, providing their limited and underlying assumptions are recognized and evaluated with the best available information. This is the philosophy and approach used throughout this plan.

### Economic Impacts

The number of vessels operating in this fishery management area has been so small that specific information cannot be disclosed without violating the confidentiality of individual reports. There is a

slightly larger groundfish fishery for bait used by crabbers operating in the fishery.

In all, the total domestic commercial groundfish catch in the Bering Sea/Aleutian region (excluding halibut) is thought to be no more than 1,500 mt in any recent year.

Although substantial freezing and transshipping facilities are located at Dutch Harbor (Unalaska), with the exception of very small amounts of groundfish frozen for crab bait, no groundfish processing (except halibut) has occurred in this region in recent years.

The viability of a domestic Bering Sea groundfish fishery will ultimately depend on the ability of U.S. industry to market products at prices which cover their production costs.

The impact of this FMP on the domestic socio-economic climate will be in direct proportion to the participation of Americans in the fishery. It is presumed that any financially sound participation in the future will result in increased employment opportunities and the benefits associated with development above the present low level.

#### Social Impacts

The relatively undeveloped nature of this fishery makes obvious the fact that any development will immediately impact the social climate. Employment is in direct proportion to plant development and processing capabilities. Certainly, initial efforts will be at least tentative and exploratory in nature. The single vessel now (spring, 1979) participating in a joint-venture is being used by prospective fishermen as a bellwether. The reader is referred to a fact sheet contained in the comment section of this plan for a precise of conditions in the fishery.

## ALTERNATIVES

The only alternative to this fishery management plan that would be consistent with P.L. 94-265 would be to continue to manage the fishery by preliminary fishery management plan. Inasmuch as a PFMP can apply only to foreign fishermen, and there is a potential for the domestic groundfish fishery to cause adverse impacts on halibut, the alternative of operating under a PFMP has been rejected.

## CONSERVATION AND MANAGEMENT MEASURES

Specific management objectives are:

- A. Continue rebuilding the halibut resource so that a viable halibut setline fishery is again available to American fishermen.
- B. Rebuild depleted groundfish stocks to, and maintain healthy groundfish stocks at levels of abundance that will produce MSY.
- C. Provide an opportunity for U.S. involvement in the Bering Sea/Aleutian groundfish fishery, limited only by the OY of individual species and objectives (A) and (B) above.
- D. Allow foreign participation in the fishery, consistent with objectives (A), (B) and (C) above.

Objective (A) will be accomplished by winter restrictions on fishing in areas where juvenile halibut are known to concentrate.

Objective (B), as it pertains to Pacific ocean perch and sablefish, will be accomplished by setting OY below current EY (see Sec. 9.8.2. and Annex I) so that abundance can rebuild to the necessary level to produce MSY. Objectives (C) and (D) will be accomplished as provided for under Sections 12.2, 13.1 and 13.2.

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#### 4.0 INTRODUCTION TO THE PLAN

This Fishery Management Plan (FMP) has been developed by the North Pacific Fishery Management Council and is for the groundfish fishery, excluding halibut and herring, of the Bering Sea/Aleutian Island area. It is intended to replace all of the current Preliminary Fishery Management Plan (PFMP) for the Trawl and Herring Gillnet Fisheries of the Bering Sea and Aleutians except that portion dealing with herring, and that portion of the PFMP for the Sablefish Fishery of the Bering Sea and Northeastern Pacific Ocean which covers the Bering Sea/Aleutian Region. Both of those PFMP's were developed by the National Marine Fisheries Service and implemented by the Secretary of Commerce in early 1977.

One feature of the format of this FMP is that such items as Allowable Biological Catch, Expected Domestic Annual Harvest, Total Allowable Level of Foreign Fishing, and annual catch statistics which are likely to change from time to time have been arranged in Annexes. This should facilitate both the drafting and review process when such changes are made in the future.

#### 4.1 Description of the Management Unit

The geographical extent of this Management Unit is the entire Fishery Conservation Zone (FCZ) of the Bering Sea, including Bristol Bay and Norton Sound, and that portion of the FCZ of the North Pacific Ocean which is adjacent to the Aleutian Islands west of 170°W.

In terms of both the fishery and the groundfish resource, the Bering Sea/Aleutian groundfish fishery (excluding halibut) forms a distinct management unit. The history of fishery development, target species and species composition of the commercial catch, bathymetry, and oceanography are all much different in that Region than in the adjacent Gulf of Alaska. Although many species occur over a broader range than the Bering Sea/Aleutian Region, with only a few exceptions (e.g. halibut and perhaps sablefish) stocks of common species in this Region are believed different from those in the adjacent Gulf of Alaska.

Even though the International Pacific Halibut Commission is responsible for management of the North American halibut fishery, the potential adverse impact on halibut of a fishery for other groundfish species is so great that it must be taken into account in the management of the groundfish fishery. Therefore, certain pertinent aspects of the halibut resource and the directed fishery it supports are described in this Fishery Management Plan. Throughout this document, the terms "groundfish" and "bottomfish" exclude Pacific halibut unless otherwise noted.

This Fishery Management Plan follows almost exactly the "Outline for Fishery Management Plans" adopted by the North Pacific Council and forms the major component of an Environmental Impact Statement which assesses the effect that implementation of this Plan is expected to have on the environment of the region which encompasses the eastern Bering Sea and Aleutian Island archipelago.

#### 4.2 Goals for Management Plan

The North Pacific Fishery Management Council has determined that all its fishery management plans should, in order to meet the requirements of its constituency, the resources and FCMA, achieve the following goals:

1. Promote conservation while providing for the optimum yield from the Region's groundfish resource in terms of: providing the greatest overall benefit to the nation with particular reference to food production and recreational opportunities; avoiding irreversible or long-term adverse effects on fishery resources and the marine environment; and insuring availability of a multiplicity of options with respect to the future uses of these resources.
2. Promote, where possible, efficient use of the fishery resources but not solely for economic purposes.
3. Promote fair and equitable allocation of identified available resources in a manner such that no particular group acquires an excessive share of the privileges.

4. Base the plan on the best scientific information available.

In accomplishing these broad objectives a number of secondary objectives have been considered:

- a. Conservation and management measures have taken into account the unpredictable characteristics of future resource availability and socio-economic factors influencing the viability of the industry.
- b. Where possible, individual stocks of fish are managed as a unit throughout their range, but such management is in due consideration of other impacted resources.
- c. In such instances when stocks have declined to a level below that capable of producing MSY, management measures promote rebuilding the stocks. In considering the rate of rebuilding, factors other than biological considerations have been taken into account.
- d. Management measures, while promoting efficiency where practicable, are designed to avoid disruption of existing social and economic structures where fisheries appear to be operating in reasonable conformance with the Act and have evolved over a period of years as reflected in community characteristics, processing capability, fleet size and distribution. These systems and the resources upon which they are based are not static, but change in the existing regulatory regime should be the result of considered action based on data and public input.
- e. Management measures should contain a margin of safety in recommending allowable biological catches when the quality of information concerning the resource and ecosystem is questionable. Management plans should provide for accessing biological and socio-economic data in such instances where the information base is inadequate to effectively establish the biological parameters of the resource or to reasonably establish optimum yield. This plan has identified information and research required for further plan development.

- f. Fishing strategy has been designed in such a manner as to have minimal impact on other fisheries and the environment.

#### 4.3 Operational Definitions of Terms

##### 1. Determinants of catch levels

- a. Maximum sustainable yield (MSY) is an average over a reasonable length of time of the largest catch which can be taken continuously from a stock under current environmental conditions. It should normally be presented with a range of values around its point estimate.

Where sufficient scientific data as to the biological characteristics of the stock do not exist or the period of exploitation or investigation has not been long enough for adequate understanding of stock dynamics, the MSY will be estimated from the best information available.

- b. Equilibrium yield (EY) is the annual or seasonal harvest which allows the stock to be maintained at approximately the same level of abundance (apart from the effects of environmental variation) in successive seasons or years.
- c. Acceptable biological catch (ABC) is a seasonally determined catch that may differ from MSY for biological reasons. It may be lower or higher than MSY in some years for species with fluctuating recruitment. It may be set lower than MSY in order to rebuild overfished stocks.
- d. Optimum yield (OY) may be obtained by a plus or minus deviation from ABC for purposes of promoting economic, social or ecological objectives as established by law and public participation processes. Ecological objectives, where they primarily relate to biological purposes and factors, are included in the determination of ABC. Where biological objectives relate to resolving conflicts and accommodating competing uses and values, they are included as appropriate with economic and/or social objectives. OY

may be set higher than ABC in order to produce higher yields from other more desirable species in a multispecies fishery. It might be set lower than ABC in order to provide larger sized individuals or a higher average catch per unit effort.

1. Determination of domestic annual fishing capacity, expected harvest, and fishing capacity.

a. Domestic annual fishing capacity (DAC) is the total potential physical capacity of the fleets, modified by logistic factors. The components of the concept are:

- (1) An inventory of total potential physical capacity, defined in terms of appropriate vessel and gear characteristics (e.g. size, horsepower, hold capacity, gear design, etc.).
- (2) Logistic factors determining total annual fishing capacity (e.g., variations in vessel and gear performance, trip length between fishing locations and landing points, weather constraints, etc.).

b. Expected domestic annual fisheries harvest (DAH) is the domestic annual fishing capacity modified by other factors which will determine estimates of what the fleets will harvest (e.g., how fishermen will respond to price changes in the subject species and other species, etc.).

b. Expected domestic annual processing capacity (DAP) includes an estimation of the processors as well as the amount of harvest they intend to process in any given plan year. In this management plan, DAH is equal to DAP.

These concepts should be placed in a dynamic context of past trends and future projections. For example, physical fleet capacity should not simply be last season's inventory of vessels and hold measurements (although this is appropriate for present interim planning), but also next year's projected movement into and out of the fishery. Vessels under construction should be included and attrition should be estimated.

The determination of domestic annual fishing capacity, expected harvest and processing capacity and intent should be made on the best available information.

3. Determination of total allowable level of foreign fishing (TALFF). The foreign allowable catch is determined by deducting the expected domestic annual expected harvest from the optimum yield.

## 5.0 DESCRIPTION OF FISHERY

### 5.1 Areas and Stocks Involved

#### 5.1.1 Description of areas

The Bering Sea/Aleutian Island region with respect to U.S. extended jurisdiction is defined as those waters lying south of the Bering Strait, east of the U.S.-U.S.S.R. convention line of 1867, and extending south of the Aleutian Islands for 200 miles between the convention line and 170°W (Figures 1 and 2). Waters lying south of lines joining headlands in the eastern Aleutian Islands, east of 170°W, are considered a part of the Gulf of Alaska management area. The most prominent and unique feature of the Bering Sea is the extensive continental shelf in the eastern and northern portion of the sea. It constitutes approximately 30% of the total shelf area in the Bering Sea (Hood and Kelly 1974) and is one of the world's largest. For the Bering Sea as a whole, 44% of its 2.3 million km<sup>2</sup> area is continental shelf, 13% continental slope, and 43% deepwater basin. A number of large bays, including Bristol and

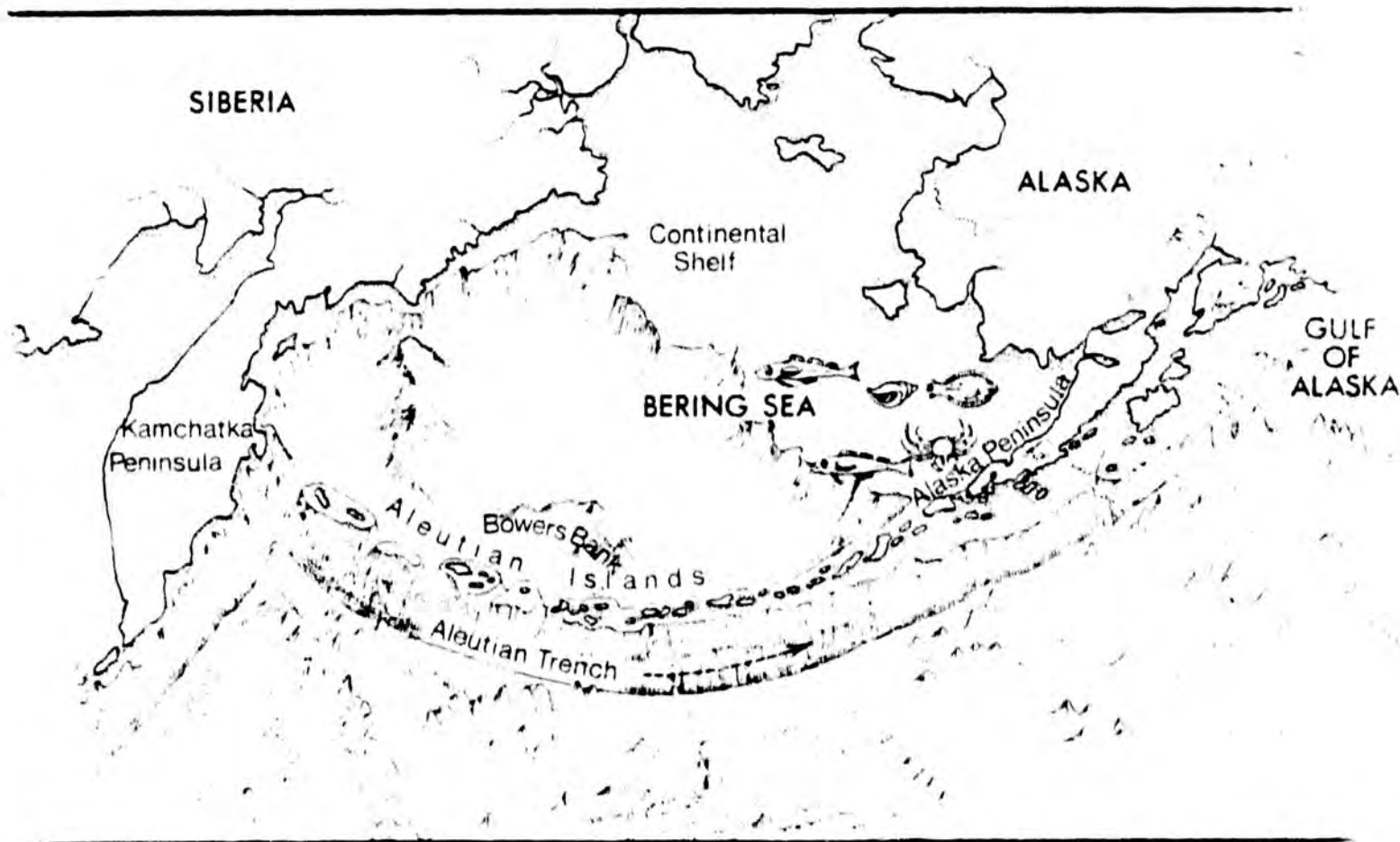


Figure 1.--Bottom features of Bering Sea and Aleutian Islands regions

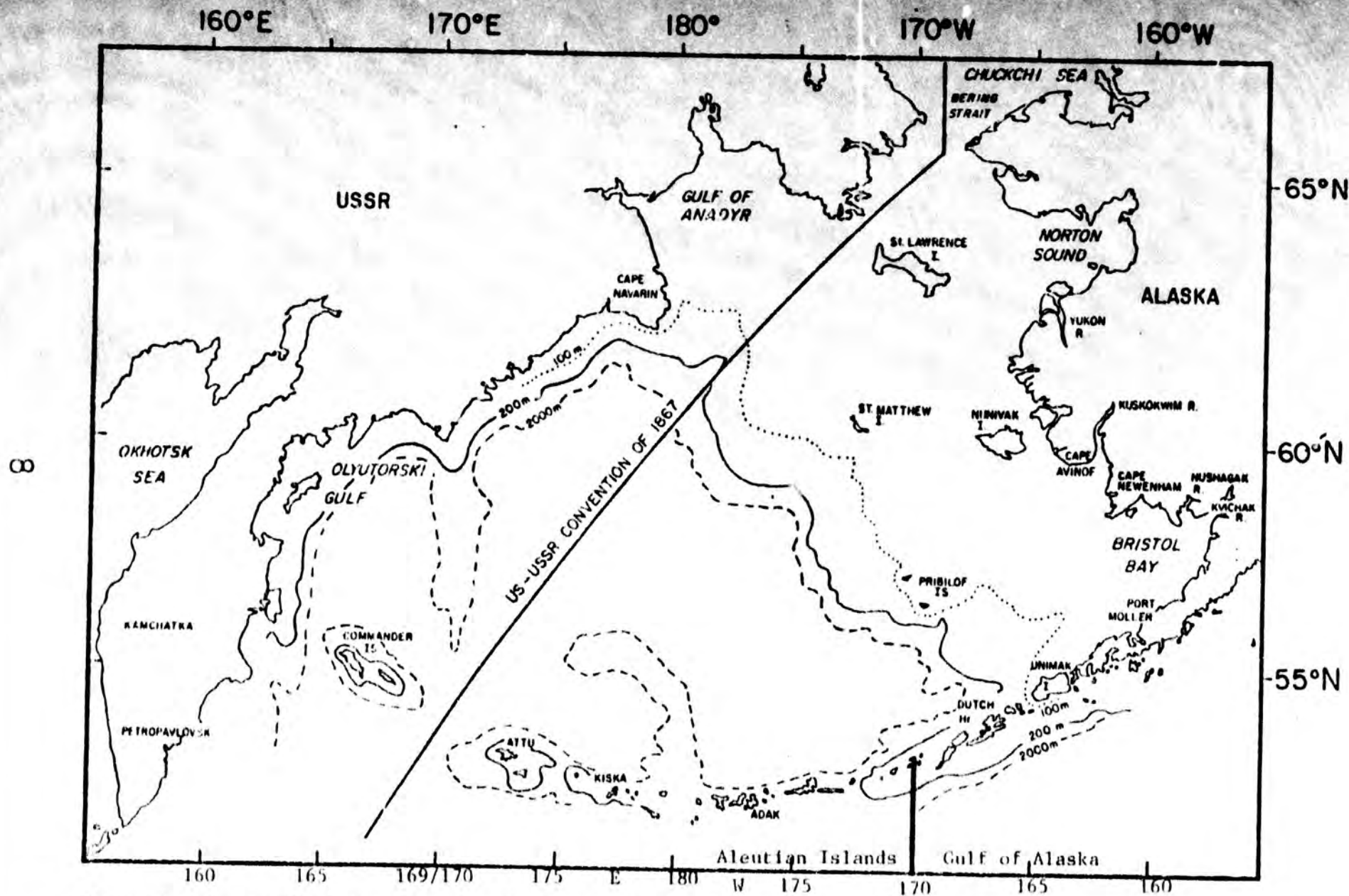


Figure 2.--Geographical locations in the eastern Bering Sea and Aleutian Islands.

Kuskokwim Bays and Norton Sound on the Alaska coast, makes the coast line of the Bering Sea highly irregular. The area of all bays in the Bering Sea makes up 11.1% of the total area of the sea (Gershanovich 1963).

The broad eastern Bering Sea shelf is extremely smooth and has a gentle uniform gradient resulting from sediment deposits (Sharma 1974). The sediments, originating along the coast and transported offshore in graded suspension by storm waves, are predominantly sands over the inner shelf and silt and clay sediments on the outer shelf and slope.

The continental slope bordering the eastern Bering Sea shelf is abrupt and very steep and is scoured with valleys and large submarine canyons (Sharma 1974).

Forming a partial barrier to the exchange of Bering Sea and Pacific Ocean water is the Aleutian-Commander Islands arc. This chain is made up of more than 150 islands and has a total length of approximately 2260 km (Gershanovich 1963). Shelf areas throughout most of the Aleutians portion of the chain are narrow (and frequently discontinuous between islands) ranging in width on the north and south sides of the island from about 4 km or less to 42-46 km. The shelf broadens in the eastern Aleutians.

An additional geographical feature of the Aleutian Island region of fishery interest is Bowers Ridge. The submerged ridge, forming an arc off the west-central Aleutian Islands, is about 550 km long and 75-110 km wide, becoming even wider in the vicinity of the Rat Islands (Gershanovich 1963). The southern portion of the ridge summit is 150-200 m deep, the central portion is 600-700 m deep, and the northern portion 800-1000 m deep.

**Exchange of water between the Bering Sea and the Pacific Ocean** occurs through the various Aleutian Island passes with an estimated 14% of the Pacific water remaining in the Bering Sea (Sharma 1974). The net gain from Pacific water and surface runoff from rivers is lost to the Arctic Ocean through the Bering Strait, creating a net movement of water northward.

The dominant water movement on the eastern Bering Sea continental shelf originates from Pacific waters entering the Bering Sea in the vicinity of Unimak Island. These waters move northward toward St. Matthews Islands and eastward toward Bristol Bay. The northward stream divides near St. Matthews Island before joining again and passing through the Bering Strait.

The eastward flowing current along the Alaska Peninsula upon reaching the head of Bristol Bay is deflected westward by waters from the Kvichak and Nushagak Rivers (Sharma 1974). These westward flowing waters are mixed with Kuskokwim River water near the mouth of Kuskokwim Bay and directed southward, forming a cyclonic gyre in the southeastern Bering Sea.

The Bering Sea is influenced mainly by subarctic climate, except for the southernmost part, which can be included in the temperate zone (Sharma 1974). It lies in a region of moderate to strong atmospheric pressure gradients and is subject to numerous storms. A major environmental feature of the Bering Sea is the pack ice which covers most of the continental shelf in the eastern and northern sections of the sea in winter and spring. The ice edge begins to intrude into the northern Bering Sea in November, and normally reaches its maximum in late March (Potocsky 1975). At its maximum the ice pack may cover the continental shelf south to the Pribilof Islands and extend from the Pribilof Islands eastward to the vicinity of Port Moller. The areas of the outer shelf between the Pribilof Islands and Unimak Island and deeper waters of the Bering Sea are generally ice free throughout the year because of the intrusion of warmer Pacific Ocean water. In April and May the ice edge begins to retreat and by early summer the Bering Sea is normally free of ice.

The physical, climatic, and oceanographic features in the eastern Bering Sea combine to create conditions highly favorable for primary biological productivity. These conditions are only surpassed by some of the upwelling regions in the eastern Pacific and Atlantic Oceans (Hood and Kelly 1974). This productivity supports some of the largest fish, marine mammal, and bird populations in the world. Although the processes for this high productivity are not fully understood, they probably originate from the upwelling of nutrient-rich water along the Aleutian Island chain (Sharma 1974), the mixing of Pacific Ocean and Bering Sea waters, the seasonable extremes in climate with a buildup of nutrients during the winter months (Gershonovich, et al 1974) and the expansive nature of the continental shelf.

#### 5.1.2 Description of stocks

The Bering Sea supports about 300 species of fishes, the majority of which are found near or on the bottom (Wilimovsky 1974). Among the pelagic species are the commercially important, or potentially important groups such as the salmon (Oncorhynchus), herring (Clupea), smelts (Osmerus), and capelin (Mallotus). The fish groups of primary concern in this plan are the bottom or near-bottom dwelling forms--the flounders, rockfish, sabelfish, cod, pollock, and Atka mackerel. Although not bottom-dwelling, squids (Cephalopoda) are also included in the plan.

There is a general simplification in the diversity of bottomfish species in the Bering Sea compared to the more southern regions of the Gulf of Alaska and Washington to California. As a result, certain species inhabiting the Bering Sea are some of the largest bottomfish resources found anywhere in the world. In terms of biomass, the bottomfish community in the Bering Sea is much larger than its counterparts in other areas of the northeastern Pacific. The commercial production by all nations from the eastern Bering Sea/Aleutians has ranged from 1.6 to 2.3 million mt during the five year period of 1971-1975, representing 69 to 86 percent of the groundfish catch for the entire region from the Bering Sea to California.

Relatively few roundfishes form aggregations in the eastern Bering Sea and Aleutian Islands areas large enough to attract target, or occasional target fisheries: Pacific cod, Pacific ocean perch, sablefish, Atka mackerel, and rattails (Table 1). A number of other rockfishes are taken while fishing for Pacific ocean perch, the most common of which are listed in Table 1.

In contrast to the relatively few species of commercially exploited roundfishes, the flatfish community of the Bering Sea is very diverse. Yellowfin sole dominates this group and has the longest history of intense exploitation by foreign fisheries. Other flounder species that are known to occur in aggregations large enough to form target species or occasional target species are Greenland turbot, Pacific halibut, rock sole, flathead sole, and arrowtooth flounder. Alaska plaice is also relatively abundant, but has not been intensively fished, apparently because of their low market value. A number of other flounders having commercial importance in regions to the south, also occur in the eastern Bering Sea (Table 1), but their abundance is low.

Elasmobranches (sharks and rays) which commonly occur off Washington to California, are relatively scarce in the eastern Bering Sea. Only skates (Rajidae) occur in significant quantities, but less so than in waters south of the Bering Sea.

Commercial catches illustrate the much greater magnitude of groundfish stocks in the eastern Bering Sea compared to the Aleutian Island region (Figure 3). For the five-year period of 1971 to 1975, the all-nation commercial catch in the eastern Bering Sea averaged 2.0 million mt compared to only 59,000 mt in the Aleutian Islands. The major share of the catch in the eastern Bering Sea from 1971 to 1975 (1.6 million mt or 81%) was made up of pollock. Other roundfish contributed 2% to the average catch and flounders 11%. Roundfish also contributed the major share of the catch in the Aleutian Island area (84%), but the principal roundfish species in the Aleutian region was Pacific ocean perch rather than pollock. Pollock catches in the Aleutians averaged only about 10,000 mt annually in 1971-1975.

Table 1.--Commercially utilized demersal fishes in the eastern Bering Sea and Aleutian Island region.

| Common name                                   | Scientific name                        |
|---|--|
| <b>TARGET SPECIES</b>                         |  |
| Pollock                                       | <u>Theragra chalcogramma</u>           |
| Pacific ocean perch                           | <u>Sebastes alutus</u>                 |
| Atka mackerel                                 | <u>Pleurogrammus monopterygius</u>     |
| Blackcod                                      | <u>Anoplopoma fimbria</u>              |
| Yellowfin sole                                | <u>Limanda aspera</u>                  |
| Greenland turbot                              | <u>Reinhardtius hippoglossoides</u>    |
| Pacific halibut                               | <u>Hippoglossus stenolepis</u>         |
| <b>OCCASIONAL TARGET SPECIES</b>              |  |
| Pacific cod                                   | <u>Gadus morhua macrocephalus</u>      |
| Rock sole                                     | <u>Lepidopsetta bilineata</u>          |
| Flathead sole                                 | <u>Hippoglossoides elassodon</u>       |
| Arrowtooth flounder                           | <u>Atheresthes stomias</u>             |
| Rattails                                      | <u>Coryphaenoides</u> sp.              |
| <b>MINOR COMMERCIAL SPECIES <sup>1/</sup></b> |  |
| Rougheye rockfish                             | <u>Sebastes aleutianus</u>             |
| Dusky rockfish                                | <u>Sebastes ciliatus</u>               |
| Northern rockfish                             | <u>Sebastes polyspinis</u>             |
| Shortspine thornyhead                         | <u>Sebastolobus alascanus</u>          |
| Shortraker rockfish                           | <u>Sebastes borealis</u>               |
| Dark botched rockfish                         | <u>Sebastes cramerii</u>               |
| Yelloweye rockfish                            | <u>Sebastes ruberrimus</u>             |
| Blue rockfish                                 | <u>Sebastes mystinus</u>               |
| Alaska plaice                                 | <u>Pleuronectes quadrituberculatus</u> |
| Rex sole                                      | <u>Glyptocephalus zachirus</u>         |
| Butter sole                                   | <u>Isopsetta isolepis</u>              |
| Longhead dab                                  | <u>Limanda proboscidea</u>             |
| Dover sole                                    | <u>Microstomus pacificus</u>           |
| Starry flounder                               | <u>Platichthys stellatus</u>           |
| Skates  | Rajidae                                |

<sup>1/</sup> Includes species that may be marketable, but have low abundance.

ALEUTIAN ISLANDS AREA

59,000 mt

EASTERN BERING SEA

2,032,000 mt

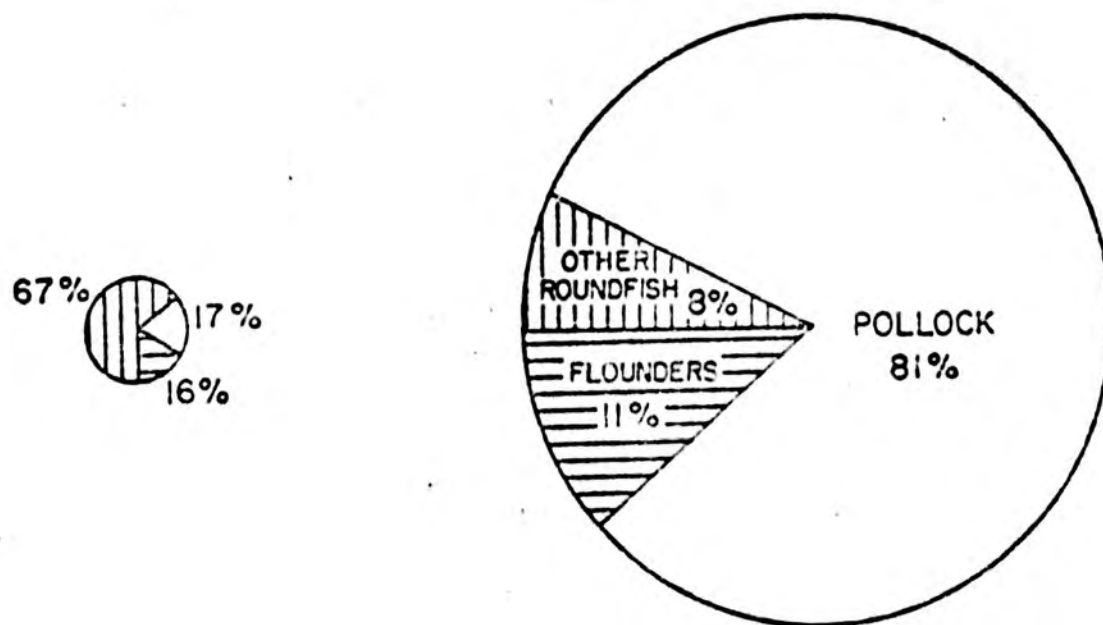


Figure 3.--Average annual catches of groundfish in the Aleutian Island area and the eastern Bering Sea, 1971-75.

The species make-up of catches in the two regions exclusive of pollock are illustrated in Figure 4. The data demonstrate that catches of both roundfish (other than pollock) and flounders were much greater in the eastern Bering Sea than in the Aleutians. Catches of flounders in the eastern Bering Sea were predominated by yellowfin sole (79,000 mt), but catches of Greenland turbot (71,000 mt) in this recent period has approached those of yellowfin sole. Rock sole, flathead sole, and arrowtooth flounders were other principal species of flounders taken in the eastern Bering Sea. Flounders form only an incidental part of the catch in the Aleutian Islands area with Greenland turbot the principal species in that area.

The principal roundfish in eastern Bering Sea catches after pollock was Pacific cod with an annual average catch in 1971-75 of 55,000 mt. The next most abundant species were Pacific ocean perch (17,000 mt) and sablefish (9,000 mt). The catch of "other groundfish" was also relatively high, averaging 69,000 mt annually, and forming 5.6% of the overall catch in the eastern Bering Sea. Although the species in this category were not identified, they most likely consist primarily of sculpins (Cottidae), eelpouts (Zoarcidae), skates (Rajidae), poachers (Agonidae) and rattails.

Pacific ocean perch have been the principal species of roundfish in Aleutian Island catches and in 1971-75 annual catches have averaged 22,000 mt. Other than pollock (10,000 mt), the next most abundant species in catches were Atka mackerel (4,000 mt), sablefish (2,700 mt), and cod (1,500 mt).

Little is known about the extent of the squid resource in the eastern Bering Sea and Aleutian Islands area. The Japanese apparently target on squid to a limited degree. They took 4,300 mt and 5,900 mt in 1975 and 1976. Fishing was mainly in the Aleutian Islands area in 1975 and mainly in the eastern Bering Sea in 1976.

The depth distribution of principal commercial species varies by species and by season. Species of flounders that occupy the shallowest depths on the continental shelf (generally shallower than 100 m during

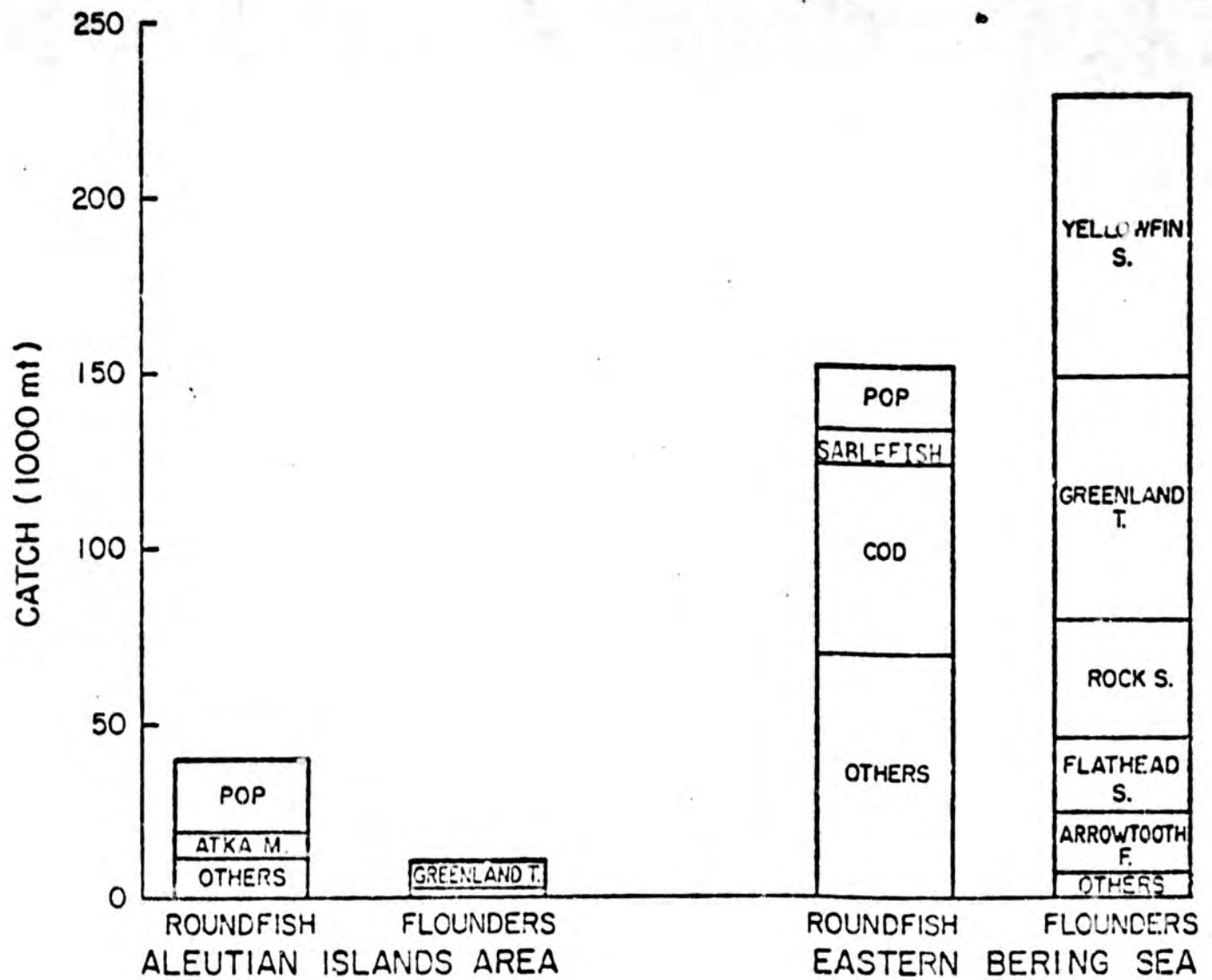


Figure 4.--Average annual catches of groundfish (excluding pollock) in the Aleutian Island area and eastern Bering Sea, 1971-75.

summer) are yellowfin sole, Pacific halibut, rock sole, and Alaska plaice. The distribution of flathead sole is centered in deeper water than the above species, mainly occupying waters on the outer shelf (100-200 m), but also ranging onto the continental slope. The large flounders (Greenland turbot and arrowtooth flounder) occupy the deepest water with adults mainly located on the continental slope; they also occupy shelf waters, but mainly only the juvenile portion of the population.

In winter most of the flounders retreat to waters of the outer shelf and upper slope to avoid the sub-zero temperatures that extend over much of the eastern Bering Sea shelf in winter and early spring. These bathymetric migrations are most extensive for those flounders occupying the inter shelf in summer such as yellowfin sole, rock sole, Alaska plaice, and Pacific halibut. The migrations of Pacific halibut result in their occupying the greatest depth range of all flounders, extending from shallow bays to slope waters of over 500 m in depth.

Major commercial species of roundfish are mainly found on the outer shelf and slope. The distributions of pollock and Pacific cod are centered on the outer shelf in summer with some shifting to upper slope water in winter. Pacific ocean perch and other rockfishes are residents of the relatively deep water of the outer shelf and upper continental slope. Sablefish inhabit the deepest waters occurring to depths of perhaps over 1000 m.

## 5.2 History of Exploitation

### 5.2.1 Domestic fishery

#### 5.2.1.1 General description of fishery

The earliest fisheries for groundfish in the eastern Bering Sea and Aleutian Islands were the Native subsistence fisheries. There were an important part of the life of Native people, and dependence on demersal species of fish may have been critical to their survival in periods of the year when other sources of food were scarce or lacking. Fishing was in near-shore waters utilizing such species as cod, halibut, rockfish, and other species. These small-scale subsistence fisheries have continued to the present time.

The first commercial venture for bottomfish occurred in 1864 when a single schooner fished for Pacific cod in the Bering Sea (Cobb 1927). The cod fishery did not commence on a regular annual basis until 1882. This domestic fishery continued until 1950 when demand for cod declined and economic conditions caused the fishery to be discontinued (Alverson et al. 1964). Fishing areas in the eastern Bering Sea were from north of Unimak Island and the Alaska Peninsula to Bristol Bay (Cobb 1927). Vessels operated from home ports in Washington and California and from shore stations in the eastern Aleutian Islands. Canadian vessels also participated in the cod fishery to a limited extent.

The cod fishery reached its peak during WWI when the demand for cod was high. Numbers of schooners operating in the fishery ranged from 1-16 up to 1914 and increased to 13-24 in the period 1915-20. Estimated catches during the peak of the fishery ranged annually from 12,000-14,000 mt (Pereyra et al. 1976). Numbers of vessels in the fishery declined following 1920 until the fishery was terminated in 1950.

Halibut were reported as being present in the Bering Sea by United States cod vessels as early as the 1800's. However, halibut from the Bering Sea did not reach North American markets until 1928 (Thompson and Freeman 1930). Small and infrequent landings of halibut were made by United States and Canadian vessels between 1928 and 1950, but catches were not landed every year until 1952 (Dunlop et al. 1964). The catch by North American setline vessels increased sharply between 1958 and 1963 and then declined steadily until 1972. Since 1972, the catch has remained stable at a relatively low level. The decline in the catch was a result of reduced abundance which led to severe restriction on the fleet. The reduction in abundance was caused by a combination of factors: the North American setline fishery, the Japanese setline fishery, incidental catches of juvenile halibut in foreign trawl fisheries, and adverse environmental conditions. The relative importance of each of these factors is not clear at this time.

In the Aleutians, exploitation by the North American setline fishery is relatively low. There was no fishing before 1960 and since then catches have been less than 200 mt. However, stocks in this area are relatively small, and tagging studies indicate that they are an intermingling component of stocks in the Gulf of Alaska. Consequently, fish from this area should not be considered unexploited.

The number of Canadian and U.S. vessels is shown in Table 2, and the units of fishing effort have been summarized by Myhre et al. (1977) and IPHC (1977). In general, fishing effort in the Bering Sea was meager before 1958, increased sharply during the late 1950's and early 1960's, and then declined steadily until the early 1970's. Effort during the 1970's has been relatively low although a modest increase did occur in 1976 and 1977. The low effort during the 1970's is the result of reduced abundance and restrictions on the North American fleet.

Fishing effort in the Aleutians is very low because halibut stocks are relatively small and the distance to major ports is long.

Present participation by North American nationals in commercial fisheries for bottomfish in the Bering Sea and Aleutian Islands is confined mainly to the relatively small longline fishery for halibut by United States and Canadian fishermen. Some crab vessels may also fish bottomfish occasionally for use as crab bait. A brief, one-vessel exploratory effort occurred for sablefish in the southeastern Bering Sea in 1977. The native subsistence fishery mainly utilizes non-demersal species such as herring and salmon.

#### 5.2.1.2 Description of vessels and gear

The domestic cod fishery was carried out mainly to sailing schooners ranging in length from 30-46 m and equipped for dory fishing (Alverson et al. 1964). The dories were approximately 4 m in length and operated by a single fisherman using handlines to take cod.

Most of the halibut fishing vessels are schooners or seine-type vessels that are over 30 net tons and land their catch in major ports. Smaller vessels out of Unalaska and Adak also fish halibut but these vessels account for less than 10% of the total landings. There is also a small subsistence fishery in the Pribilof Islands and a few other locations, but little is known about the vessels or catch involved.

**Table 2. Number of U.S. and Canadian vessels over 5 net tons that fished halibut in the Bering Sea, 1930-1977.**

| Year | United States | Canada |
|------|---------------|--------|
| 1930 | 3             | -      |
| 1931 | 8             | -      |
| -    | -             | -      |
| 1933 | 1             | -      |
| -    | -             | -      |
| 1945 | 1             | -      |
| -    | -             | -      |
| 1950 | 1             | -      |
| -    | -             | -      |
| 1952 | 9             | -      |
| 1953 | 6             | -      |
| 1954 | 2             | -      |
| 1955 | 1             | -      |
| 1956 | 3             | 2      |
| 1957 | 1             | -      |
| 1958 | 7             | 14     |
| 1959 | 19            | 20     |
| 1960 | 35            | 31     |
| 1961 | 34            | 27     |
| 1962 | 43            | 33     |
| 1963 | 51            | 53     |
| 1964 | 36            | 32     |
| 1965 | 19            | 15     |
| 1966 | 4             | 11     |
| 1967 | 17            | 19     |
| 1968 | 11            | 17     |
| 1969 | 7             | 16     |
| 1970 | 6             | 13     |
| 1971 | 4             | 13     |
| 1972 | 6             | 9      |
| 1973 | 7             | 3      |
| 1974 | 6             | 1      |
| 1975 | 8             | 3      |
| 1976 | 10            | 1      |
| 1977 | 19            | 1      |

The halibut vessels use setline gear which consists of a longline on which branchlines (gangions), each with a hook, are attached at regular intervals, usually about every 6-8 meters. A unit of setline gear is called a "skate" and is about 550 m in length. The gear is left on the bottom for periods from 4 to 30 hours (soaking time). Fishing usually is conducted at depths between 90 and 275 m, but may take place as shallow as 27 m or as deep as 550 m.

The vessels and gear used in the Aleutians are similar to those in the Bering Sea although the amount of effort is much less.

#### 5.2.1.3 Catch trends

The numbers of vessels used and estimated catches in the eastern Bering Sea during the history of the domestic cod fishery are given in Table 3. The catches shown in Table 3 are estimates for the Bering Sea in metric tons roundweight as given by Pereyra et al. (1976). The estimates are based on weights of processed products from Cobb (1927) and Bower (1927-53). As indicated by Pereyra et al. (1974) the catches should be considered as approximations because of some uncertainty about the conversion factors used and some portion of the catches may have originated from the Gulf of Alaska.

Numbers of vessels in the cod fishery and estimated catches reached their peak during World War I when the demand for cod was high. During the period of 1915-19, estimated catches ranged from about 12,000 to 14,000 mt. Following this period, catches declined until termination of the fishery in 1950.

Estimated peak catches of cod in the domestic fishery are relatively small when contrasted with those from the recent foreign fisheries in the eastern Bering Sea which have ranged over 50,000 mt in some years.

Table 4 shows the annual catch of halibut in the Bering Sea and Aleutian areas by Canadian and U.S. fishermen from 1930 to 1977. In the Bering Sea, the annual catch was less than 200 mt before 1958, but then rose sharply to about 4,900 mt in 1963. The catch then declined steadily to a low of 173 mt in 1973. Since then, the catch has increased slightly and was about 450 mt in 1977. The decline in catch since 1963 was the

Table 3.--Estimated catches of Pacific cod in the eastern Bering Sea, 1864, 1882-1950<sup>1/</sup> (from Pereyra et al. 1976).

| Year | Number Vessels | Estimated <sup>2/</sup> Catch (mt) | Year | Number Vessels | Estimated <sup>2/</sup> Catch (mt) |
|------|----------------|------------------------------------|------|----------------|------------------------------------|
| 1864 | 1              | 23                                 | 1915 | 13             | 12,016                             |
|      |                |                                    | 1916 | 13             | 13,947                             |
| 1882 | 2              | 673                                | 1917 | 16             | 13,946                             |
| 1883 | 5              | 1,944                              | 1918 | 17             | 12,719                             |
| 1884 | 3              | 1,867                              | 1919 | 17             | 12,140                             |
|      |                |                                    |      |                |                                    |
| 1885 | 3              | 1,510                              | 1920 | 24             | 8,576                              |
| 1886 | 2              | 1,219                              | 1921 | 6              | 3,102                              |
| 1887 | 1              | 944                                | 1922 | 10             | 5,923                              |
| 1888 | 2              | 1,500                              | 1923 | 17             | 8,951                              |
| 1889 | 0              | 0                                  | 1924 | 15             | 9,889                              |
|      |                |                                    |      |                |                                    |
| 1890 | 1              | 245                                | 1925 | 14             | 10,489                             |
| 1891 | 6              | 2,102                              | 1926 | 7              | 9,924                              |
| 1892 | 6              | 3,316                              | 1927 | 7              | 6,887                              |
| 1893 | 4              | 1,658                              | 1928 | 8              | 7,083                              |
| 1894 | 5              | 2,699                              | 1929 | 9              | 7,851                              |
|      |                |                                    |      |                |                                    |
| 1895 | 5              | 2,638                              | 1930 | 8              | 7,674                              |
| 1896 | 7              | 3,633                              | 1931 | 4              | 4,314                              |
| 1897 | 8              | 4,337                              | 1932 | 5              | 4,692                              |
| 1898 | 4              | 1,745                              | 1933 | 5              | 5,779                              |
| 1899 | 7              | 3,995                              | 1934 | 7              | 6,361                              |
|      |                |                                    |      |                |                                    |
| 1900 | 8              | 4,168                              | 1935 | 5              | 5,713                              |
| 1901 | 7              | 4,015                              | 1936 | 5              | 5,008                              |
| 1902 | 12             | 6,270                              | 1937 | 4              | 4,885                              |
| 1903 | 10             | 6,116                              | 1938 | 3              | 3,963                              |
| 1904 | 11             | 6,400                              | 1939 | 3              | 3,960                              |
|      |                |                                    |      |                |                                    |
| 1905 | 16             | 8,654                              | 1940 | 4              | 4,129                              |
| 1906 | 11             | 7,758                              | 1941 | 3              | 2,940                              |
| 1907 | 9              | 6,216                              | 1942 | 1              | 814                                |
| 1908 | 11             | 7,643                              | 1943 | 0              | 0                                  |
| 1909 | 12             | 8,511                              | 1944 | 1              | 656                                |
|      |                |                                    |      |                |                                    |
| 1910 | 9              | 6,589                              | 1945 | 1              | 639                                |
| 1911 | 10             | 7,867                              | 1946 | 2              | 997                                |
| 1912 | 9              | 5,485                              | 1947 | 2              | 1,041                              |
| 1913 | 9              | 6,180                              | 1948 | 1              | 1,006                              |
| 1914 | 13             | 9,817                              | 1949 | 1              | 850                                |
|      |                |                                    |      |                |                                    |
|      |                |                                    | 1950 | 1              | 668                                |

<sup>1/</sup> Original catch data in numbers of fish for 1864, 1882-1925 from Cobb (1927) and weight of cured products for 1926-1950 from Bower (1927-1953) are converted to round weight in metric tons from conversion factors provided by Cobb (1927).

<sup>2/</sup> Catches for 1916 to 1925 also include offshore catches from the North Pacific Ocean.

Table 4. Catch of halibut by Canadian and U.S. vessels in the Bering Sea and Aleutian areas, 1930-1977. Catch in metric tons, round weight.

| Year  | Bering Sea |       |       | Aleutian |      |       |
|-------|------------|-------|-------|----------|------|-------|
|       | Canada     | U.S.  | Total | Canada   | U.S. | Total |
| 1930  | -          | 62    | 62    | -        | -    | -     |
| 1931  | -          | 62    | 62    | -        | -    | -     |
| -     | -          | -     | -     | -        | -    | -     |
| 1933  | -          | 11    | 11    | -        | -    | -     |
| -     | -          | -     | -     | -        | -    | -     |
| 1945  | -          | 3     | 3     | -        | -    | -     |
| -     | -          | -     | -     | -        | -    | -     |
| 1952  | -          | 152   | 152   | -        | -    | -     |
| 1953  | -          | 137   | 137   | -        | -    | -     |
| 1954  | -          | 24    | 24    | -        | -    | -     |
| 1955  | -          | 27    | 27    | -        | -    | -     |
| 1956  | 51         | 107   | 158   | -        | -    | -     |
| 1957  | -          | 24    | 24    | -        | -    | -     |
| 1958  | 731        | 582   | 1,313 | -        | -    | -     |
| 1959  | 1,442      | 1,065 | 2,507 | -        | -    | -     |
| 1960  | 2,016      | 1,392 | 3,408 | 10       | -    | 10    |
| 1961  | 1,163      | 1,231 | 2,394 | -        | -    | -     |
| 1962  | 2,113      | 2,304 | 4,417 | -        | 12   | 12    |
| 1963  | 2,886      | 2,022 | 4,908 | 38       | -    | 38    |
| 1964  | 758        | 647   | 1,605 | -        | 1    | 1     |
| 1965  | 356        | 449   | 805   | -        | -    | -     |
| 1966  | 385        | 336   | 721   | 45       | -    | 45    |
| 1967  | 668        | 776   | 1,444 | -        | 9    | 9     |
| 1968  | 402        | 395   | 797   | 5        | -    | 5     |
| 1969  | 404        | 340   | 744   | -        | 53   | 53    |
| 1970  | 536        | 148   | 684   | 33       | 32   | 65    |
| 1971  | 440        | 83    | 523   | -        | 1    | 1     |
| 1972  | 149        | 293   | 442   | 7        | 12   | 19    |
| 1973  | 58         | 115   | 173   | 28       | -    | 28    |
| 1974  | 101        | 162   | 263   | 60       | 3    | 63    |
| 1975  | 102        | 215   | 317   | 3        | -    | 3     |
| 1976  | 37         | 278   | 315   | 56       | 11   | 67    |
| 1977* | 84         | 366   | 450   | 162      | 16   | 178   |

\* preliminary

result of reduced abundance and restrictions on the fishery. In years of high production, the catch was split about evenly between Canadian and U.S. vessels although since 1972 the U.S. share has been larger.

There was no catch reported in the Aleutian area before 1960. Until 1976, annual catches fluctuated between 1 and 67 mt; in 1977 preliminary data indicate a catch of 178 mt.

#### 5.2.2 Foreign Fishery

##### 5.2.2.1 General description of fisheries

Nationals from six foreign countries have conducted groundfish fisheries in the eastern Bering Sea and Aleutian Islands. One of these, the Canadian halibut fishery, was previously described under the domestic fishery because of its small size and similarity to the U.S. fishery for halibut. Of the other foreign fisheries, Japan has had the longest history of exploitation in the region and has mounted the greatest effort over the years. The first documented fishery for demersal species by the Japanese in the eastern Bering Sea dates back to an exploratory effort in 1930. This was followed by a relatively small-scale fishery which had its origin in 1954. Excluding Canada, the second foreign nation to send demersal fishing fleets to the eastern Bering Sea and the nation having the second largest removals of groundfish in the region has been the USSR. Their fisheries commenced in 1958.

In 1966 a trawler from the Republic of Korea (ROK) explored fishing grounds in the eastern Bering Sea and Aleutian Islands. A commercial operation followed in 1967 but the number of vessels and magnitude of the catch by ROK fishermen has remained much smaller than that by Japan and the USSR. The Republic of China (Taiwan) has also had a fishery in the eastern Bering Sea since late 1974, but involving only one or two trawlers.

Polish vessels fished briefly in the eastern Bering Sea in 1973 (Law Enforcement Division 1975). Since then, Poland has agreed to abstain from further fishing in the eastern Bering Sea. Although allowed to fish in certain waters of the Aleutian Islands, Polish vessels have not operated there.

#### 5.2.2.1.1 Japanese fishery

Following the initial exploratory effort by two trawlers in 1930, the Japanese returned to the eastern Bering Sea with a mothership-catcher boat operation in 1933 (Forrester, et al. 1974). The fleet was composed of an 8,000 ton mothership and several catcher boats including 400 gross ton side-trawlers and 88 gross ton pair trawlers. Fishing was off Bristol Bay with the emphasis on pollock for the production of fish meal. The catch was processed aboard the mothership and transported back to Japan aboard transport vessels. This fishery continued to operate until 1937 when prices of fish meal declined causing the fisheries to terminate. Catches in this period ranged up to 43,000 mt with pollock the major species taken.

A second mothership-type operation was conducted in the eastern Bering Sea by Japan in 1940-41 (Forrester, et al. 1974). Target species was yellowfin sole that were frozen for human consumption. Catches in the two-year period ranged from 9,600 to 12,200 mt (Table 5).

With the signing of the peace treaty between the United States and Japan in 1952, restrictions on Japanese distant-water fisheries were removed, and in 1954, fishing in the eastern Bering Sea was resumed. The Japanese post-war fishery for groundfish developed into several components, the four principal ones being the mothership fishery, North Pacific trawl fishery, North Pacific longline-gillnet fishery, and the landbased trawl fishery.

The number of mothership fleets and number of vessels in the other fisheries are given in Table 6 along with a description of each type of fishery in the accompanying footnotes. As shown in Table 6, the mothership fishery can be divided into four additional types depending on the target species and processing methods. These are the freezing fleets which targeted on flounders in the period 1954-60; the freezing fleets operating since 1960 that continued to target on flounders, but also targeted on other species, the meal and minced fish fleets which originally took flounders for fish meal, but since 1964 have targeted on pollock for the production of minced fish, as well as fish meal and the longline-gillnet fleet which took halibut, cod, sablefish and herring for freezing.

Table 5.—Number of Japanese vessels operating in the eastern Bering Sea and their catches, 1933-37 and 1940-41 (from Forrester et al., 1974).

| Year | Number of fleets | No. of catcher boats |       |            | Catch (metric tons) |             |                 |              |
|------|------------------|----------------------|-------|------------|---------------------|-------------|-----------------|--------------|
|      |                  | Total                | Trawl | Pair trawl | Total               | Flat-fishes | Pacific pollock | Other fishes |
| 1933 | 1                | 5                    | 5     | —          | 3,300               | ?           | ?               | ?            |
| 1934 | 1                | 5                    | 5     | —          | 14,953              | 1,385       | 11,645          | 1,923        |
| 1935 | 1                | 11                   | 3     | 8          | 28,629              | 2,869       | 23,553          | 2,207        |
| 1936 | 1                | 8                    | 4     | 4          | 26,622              | 1,003       | 23,000          | 2,610        |
| 1937 | 1                | 13                   | 3     | 10         | 43,383              | 9,310       | 31,316          | 2,757        |
| 1940 | 1                | 8                    | —     | 8          | 9,577               | 6,941       | 24              | 2,612        |
| 1941 | 1                | 12                   | 4     | 8          | 12,226              | 9,839       | 1,287           | 1,100        |

Japanese North Pacific trawl and longline-gillnet fisheries and land-based trawl fishery (data from Forrester et al. 1974; Yamaguchi 1974, 1975; Sasaki 1977).

| Year | Number of mothership fleets                      |  |                                    |  | Number of independent vessels |   |  |  |
|------|--|--|------------------------------------|--|-------------------------------|---|--|--|
|      | Freezing fleet <sup>1/</sup> for flounders only) | Freezing fleet <sup>2/</sup> (including other than flounder) | Meal and mince-fleet <sup>3/</sup> | Long-line-gill-net fleet <sup>4/</sup> | Total                         | North Pacific trawl fishery <sup>5/</sup> | North Pacific longline-gillnet fishery <sup>6/</sup> | Land-based trawl fishery <sup>7/</sup> |
| 1954 | 2  | --   | --                                 | --                                     | 2                             | 2   | --   | --                                     |
| 1955 | 2  | --   | --                                 | --                                     | 2                             | 3   | --   | --                                     |
| 1956 | 4  | --   | --                                 | --                                     | 4                             | 1   | --   | --                                     |
| 1957 | 4  | --   | --                                 | --                                     | 4                             | --  | --   | --                                     |
| 1958 | 2  | --   | 1                                  | 1                                      | 4                             | --  | --   | --                                     |
| 1959 | 4  | --   | 1                                  | 1                                      | 6                             | 2   | --   | --                                     |
| 1960 | 3  | 1  | 5                                  | 4                                      | 13                            | --  | --   | --                                     |
| 1961 | --   | 13   | 5                                  | 14                                     | 32                            | 3   | --   | 54                                     |
| 1962 | --   | 11   | 5                                  | 5                                      | 21                            | 2   | --   | 70                                     |
| 1963 | --   | 10   | 2                                  | 5                                      | 17                            | 2   | --   | 93                                     |
| 1964 | --   | 6  | 4                                  | 2                                      | 12                            | 2   | --   | 103                                    |
| 1965 | --   | 6  | 4                                  | 2                                      | 12                            | 2   | --   | 126                                    |
| 1966 | --   | 8  | 4                                  | 1                                      | 13                            | 2   | --   | 172                                    |
| 1967 | --   | 7  | 5                                  | 2                                      | 14                            | 42  | 22   | 173                                    |
| 1968 | --   | 6  | 5                                  | 1                                      | 12                            | 42  | 22   | 184                                    |
| 1969 | --   | 5  | 5                                  | 1                                      | 11                            | 42  | 21   | 182                                    |
| 1970 | --   | 3  | 6                                  | 1                                      | 10                            | 42  | 22   | 182                                    |
| 1971 | --   | 5  | 6                                  | 1                                      | 12                            | 42  | 22   | 182                                    |
| 1972 | --   | 4  | 6                                  | 8/                                     | 10                            | 42  | 22   | 182                                    |
| 1973 | --   | 4  | 6                                  | --                                     | 10                            | 42  | 26   | 182                                    |
| 1974 | --   | 4  | 6                                  | --                                     | 10                            | 42  | 30   | 182                                    |
| 1975 | --   | 3  | 5                                  | --                                     | 8                             | 35  | 27   | 182                                    |
| 1976 | --   | 3  | 5                                  | --                                     | 8                             | 54  | 32   | 182                                    |

<sup>1/</sup> Flounder fleet: The fleets, each composed of a mothership of 7,000-9,000 tons, equipped with freezing facilities and having several 300-ton class trawlers attached to it, caught mainly yellowfin sole for freezing off Bristol Bay.

<sup>2/</sup> Freezing fleet: The fleets, each composed of a mothership of 5,000-10,000 tons with freezing equipment, accompanied by trawlers as well as Danish seiners, which also fished longlines and gillnets, caught halibut, blackcod, herring, Pacific ocean perch, etc. These fleets operated along the continental slope between Unimak Pass and Cape Navarin, in the Gulf of Olyutorskii, and in Aleutian waters.

Table 6:--(continued)

3/ Fish meal (minced fish) fleet: The fleets, each composed of a mothership of 9,000-14,000 tons, equipped with fish-meal plants, accompanied by 20-30 pair trawlers and Danish seiners, caught yellowfin sole on the eastern Bering Sea flats, and turbot along the continental slope in the eastern Bering Sea for production of fish meal. From 1964, the fleet switched to production of minced fish with a minced-fish plant, utilizing pollock caught in the eastern Bering Sea. The fleet also has freezing facilities and produces frozen fish.

4/ Longline-gillnet fleet: The fleets, each composed of a small mothership of 200-2,500 tons, accompanied by gillnetters and longliners, caught halibut, cod, blackcod, and herring to be frozen. The fishing grounds were along the continental slope from the Pribilof Islands and Cape Navarin-Gulf of Olyutorskii.

5/ North Pacific trawl fishery: This fishery is conducted by independent large trawlers, and the catch is frozen on board. The number of trawlers larger than 3,000 tons engaged in this fishery, on board which minced fish and fish meal are produced, has increased since 1968. Transport vessels were not used in this fishery until 1966. However, since 1967 a considerable number of transport ships have been used to carry the products of this fishery. The figures for 1967 and thereafter indicate the numbers of vessels licensed for this fishery.

6/ North Pacific longline-gillnet fishery: This fishery is conducted by independent longline-gillnetters, and the catch is processed on board. When filled with frozen products they return to their bases in Japan. The numbers of vessels in this table are the numbers licensed annually for this fishery.

7/ Landbased trawl fishery: This fishery consists of independent operations by Danish seiners and stern trawlers of 100-350 tons. The vessels process the catch on board, produce frozen goods, and return to Japan when they are filled. Extensive areas, including the Okhotsk Sea and waters around the northern Kurile Islands, are permitted for their operation. The number of vessels operated in the Bering Sea is not known. The figures in this table indicate the number of vessels licensed.

8/ From 1972-76 these fleets are included in the freezing fleets.

The mothership fishery has accounted for the largest share of the Japanese catch in the Bering Sea since 1954. In the recent period of 1971-76 the mothership fishery took 64% of the total catch, the North Pacific trawl fishery 31%, the land-based fishery 5%, and North Pacific longline-gillnet fishery 0.3% (Sasaki 1977).

Mothership fishery.--Forrester et al. (1974) divided the history of the mothership fishery into three periods based on target species, methods of processing catches, and expansion of fishing grounds.

In the first period (1954-57), the fishery was relatively small involving two to four 8,000 gross ton motherships of the freezer-factoryship type and trawlers of the 200-300 ton class as catcher boats. The fleets operated for about one month between August and October between the salmon driftnet and Antarctic whaling seasons. Fishing was off Bristol Bay and the catch, consisting of flounders (primarily yellowfin sole) was frozen.

In the second period (1958-63), the fishery expanded throughout the Bering Sea with diversification of fishing methods and target species (Table 6). Fish meal operations were initiated in 1958 utilizing flounders in the eastern Bering Sea which were processed by 9,000 gross ton motherships operating from April to September. Each mothership was supplied with fish by 20 Danish seiners and pair trawlers. The freezing fleets described in the previous period also continued to fish and catches of yellowfin sole reached their peak in this period, ranging between 420,000 and 554,000 mt annually in 1960-62 including catches by the USSR.

Another mothership operation beginning in the 1958-63 period was the longline-gillnet fishery consisting of 500 gross ton motherships and 100 gross ton longliners. These vessels fished for halibut and sablefish for freezing along the continental slope off Cape Navarin starting in 1958. In 1960 they began fishing operations for Pacific ocean perch along the continental slope between the Pribilof Islands and Cape Navarin and in 1963 expanded their area of operations to Bowers Banks off the Aleutian Islands.

The fleets involved in the yellowfin sole fishery for freezing also extended their operations to include halibut, sablefish, and Pacific ocean perch and together with the longline-gillnet fleets expanded their area of operations to the continental slope in the central and northern Bering Sea and to Aleutian Island waters. The fishing season which had previously been about one month was lengthened to four to nine months and winter fishing was initiated in 1961-62.

The third period (1964 to present) is characterized by the development of the pollock fishery. With the decline in abundance of yellowfin sole (due to overfishing in the early 1960's), and the development in 1964 of techniques for processing minced fish (surimi) on-board motherships, the main Japanese effort shifted to pollock. Fish meal and frozen products became a by-product of these operations. Pollock has dominated Japanese catches since 1962 and from 1971-76 has formed over 80% of the total Japanese groundfish catch in the eastern Bering Sea and Aleutian Islands area. The pollock fishery has become a year-around effort while the flounder fishery principally for yellowfin sole became a winter fishery in 1969-70 with the season generally lasting from October to March. Catcher boats in the mothership fishery have been pair trawlers, Danish seiners, side-trawlers, and stern trawlers. Side-trawlers have been phased out of the fishery and the number of Danish seiners has declined with pair trawlers becoming the mainstay of the fleet.

The winter fishing grounds for flounders were mainly north of Unimak Island and occasionally west and east of the Pribilof Islands. The major fishing grounds for pollock have been along the outer continental slope and upper slope from Unimak Pass northwestward toward Cape Navarin. Typical fishing areas of the mothership fishery are shown in Figure 5.

North Pacific trawl fishery.--This second major type of Japanese fishery consists of independent factory trawlers larger than 500 tons that both fish and process their own catch (Forrester et al. 1974). Products are minced fish, frozen fish, and fish meal. The products are transshipped to Japan by refrigerated transport.

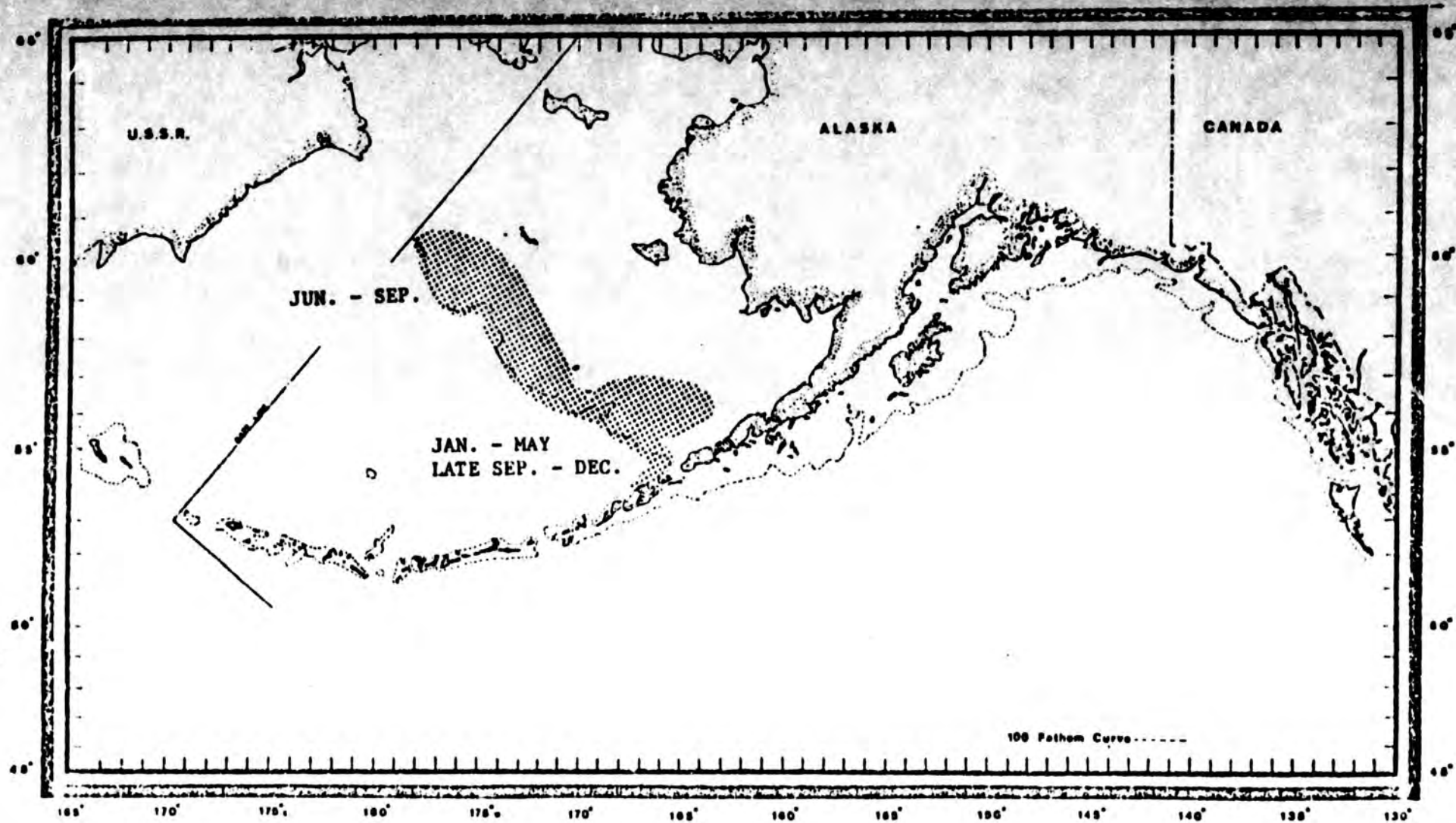


Figure 5.--Areas fished by the Japanese mothership fleets in 1972 (from Law Enforcement Division 1974).

In the initial period of this fishery (1954-59), one to three independent trawlers fished in the eastern Bering Sea for yellowfin sole. Since 1961 they have also exploited (for freezing) halibut, sablefish, Pacific ocean perch, and other species along the continental slope in the central and northern Bering Sea and in Aleutian Island waters. In 1967 the number of licenses issued for independent trawlers was increased to 42 and has ranged from 35 to 54 in later years (Table 6). Greater numbers of larger trawlers in the 3,000-5,000 ton class (equipped with machinery for producing surimi) resulted in a rapid increase in the pollock catch by this fishery. By 1970, 80% of the total groundfish catch by these vessels was pollock.

The main effort by the independent trawlers is in the eastern Bering Sea where year-around operations are conducted for pollock. Other species taken are cod and various flounders. The number of vessels generally increase from a low in mid-winter to a peak in summer involving from 20 to 40 trawlers (Enforcement and Surveillance Division 1971 and 1973; Law Enforcement Division 1974, 1975, and 1977).

In the Aleutian Islands the trawlers target on Pacific ocean perch and take lesser amounts of pollock and various other groundfish. Fishing in the Aleutians is concentrated along the shelf edge in the central and western part of the chain with some effort in the eastern Islands. Maximum effort is in summer or early fall with the number of vessels reaching 7 to 18 in peak months (Enforcement and Surveillance Division 1971 and 1973; Law Enforcement Division 1974, 1975, and 1977).

Areas of the fishery are illustrated in Figure 6.

North Pacific longline-gillnet fishery.--Herring and sablefish are the principal species taken by this fishery. The vessels operate independently, and when filled with fresh fish or frozen products, return to Japan. From 1963 to 1966 there were 18-19 vessels licensed in this fishery to operate north of 50°N and between 170°E and 170°W, but records of the number of vessels actually operating, the areas of operation, and the species taken are not available (Forrester et al. 1974).

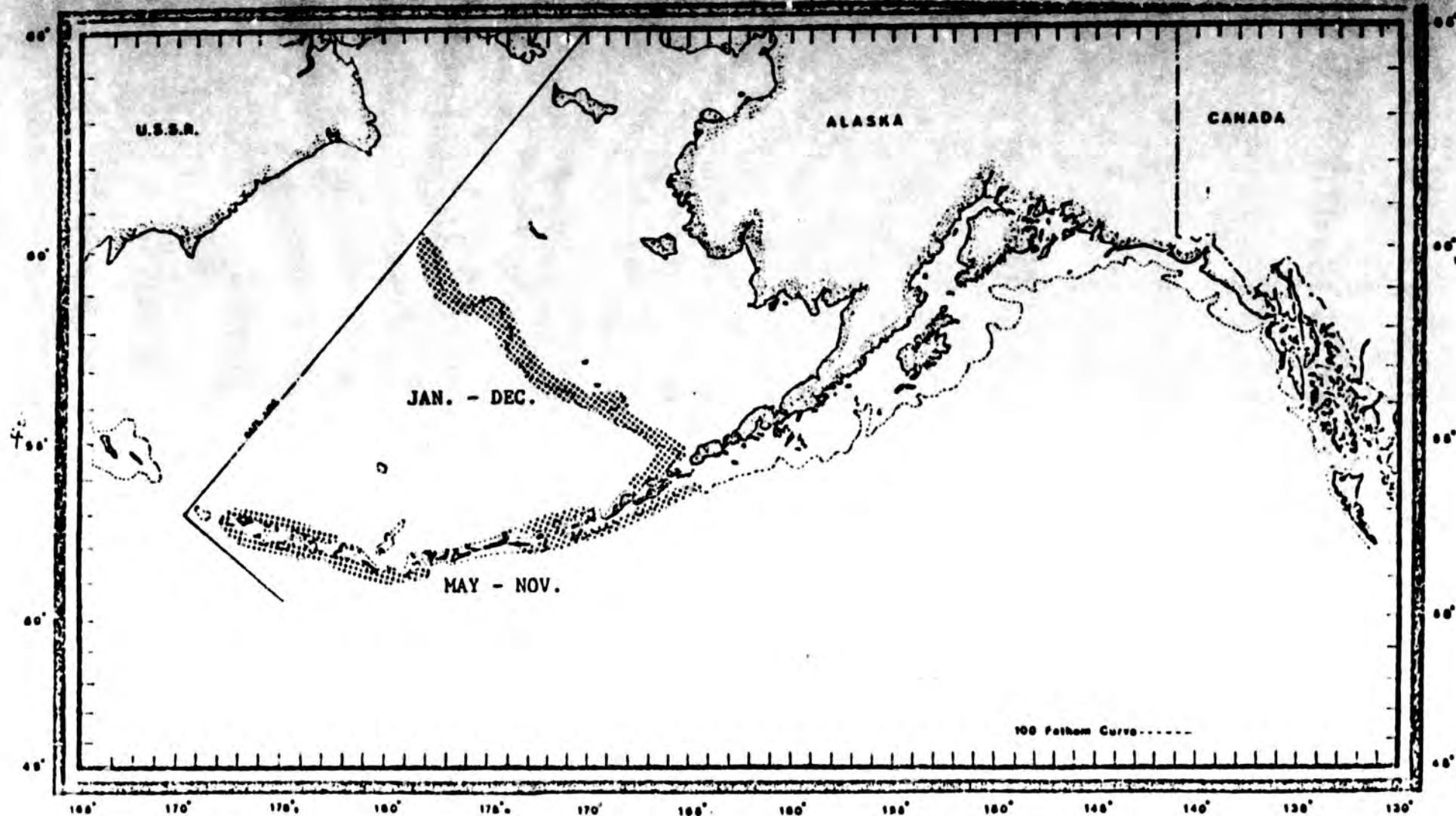


Figure 6.--Areas of the eastern Bering Sea and Aleutian Islands fished by the Japanese North Pacific trawl fishery (Law Enforcement Division 1974).

In 1967 the number of longline-gillnet vessels licensed was increased to 22. Fishing by these 200-500 gross ton vessels has mainly been in the northeastern Pacific ocean where the catch was almost exclusively sablefish with some rockfish taken. The vessels operate year-around and normally remain on the grounds for two to four month periods until their hold capacity of about 400 mt is reached (Law Enforcement Division 1974).

Fishing for sablefish in the eastern Bering Sea and along the Aleutian Islands by the North Pacific longline vessels has been sporadic with only a few vessels fishing briefly each year. The areas of fishing in these regions as well as in the Gulf of Alaska in 1974 are shown in Figure 7.

Landbased trawl fishery.--This fishery, conducted by independent trawlers of 100-350 tons are prohibited by regulation from transshipping their catch in offshore waters (Forrester et al. 1974) and therefore return to Japan when storage capacity is filled. Their catches are chiefly flounders, Pacific ocean perch, and sablefish. When initiated in the early 1960's, the fishery was restricted to waters north of 48°N and between 153°E and 170°E. In June 1963 the area was expanded eastward to 175°W and in September 1967 to 170°W. Major fishing grounds are along the continental slope from Cape Olyutorskii to Cape Navarin and off the Pribilof Islands. Gear consisted mainly of Danish seines early in the fishery but stern trawls became the major gear in later years. From the 54 vessels licensed to operate in the fishery in 1961, the number grew to 184 in 1968 and has been 182 since 1969 (Table 6). The number of licensed vessels actually operating in this fishery is unknown.

#### 5.2.2.1.2 Soviet fishery

The first commercial-scale operations by the USSR off Alaska, following exploratory work in 1957-58, was a fishery for flounders in the eastern Bering Sea starting in 1959 (Chitwood 1969). Like the Japanese, the Soviets have expanded their fisheries since its inception in terms of effort, target species, and fishing areas. There have been three major groundfish fisheries in the eastern Bering Sea and Aleutian Islands: a flounder fishery in the southeastern Bering Sea, a rockfish

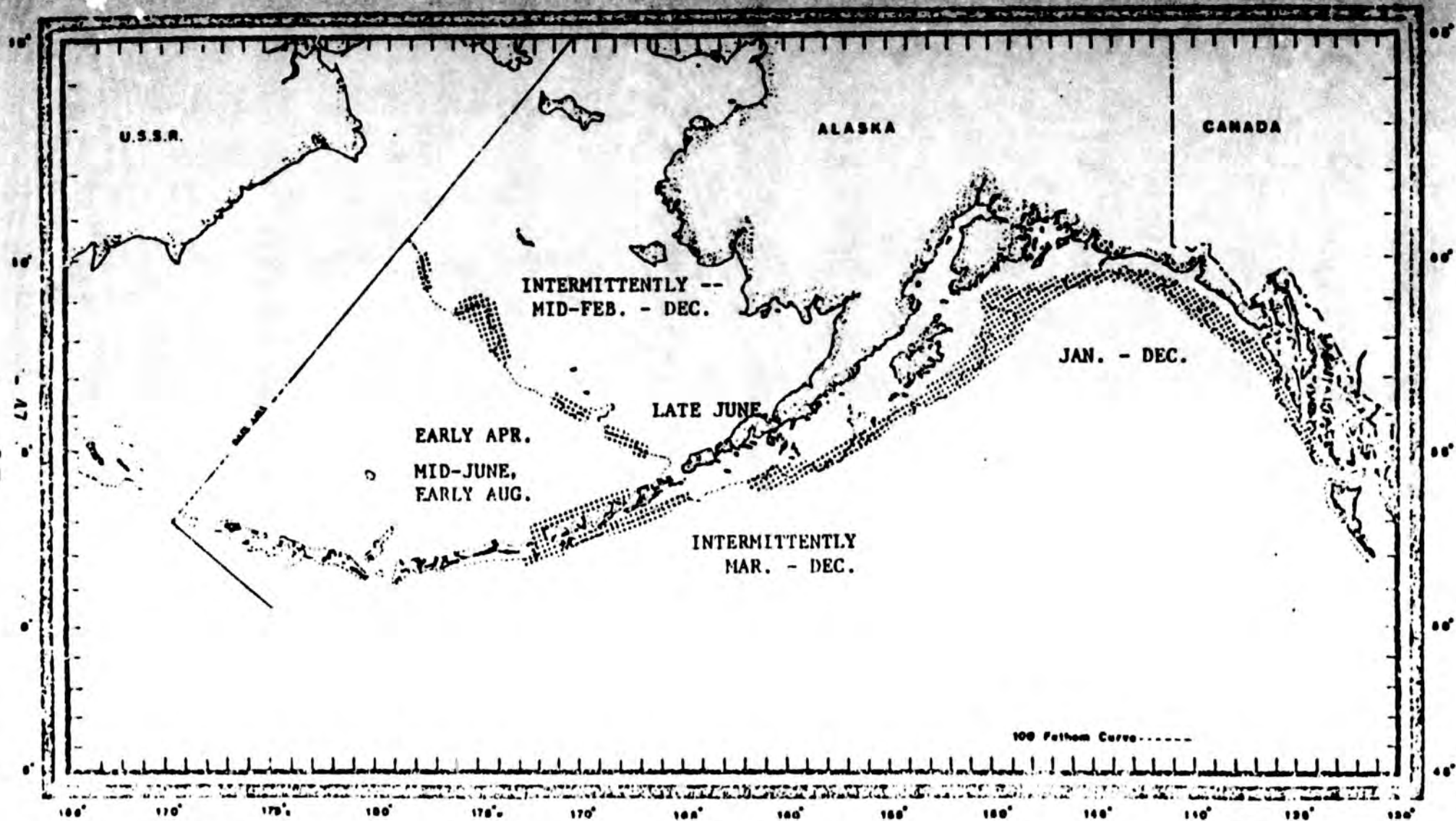


Figure 7.--Areas fished by Japanese North Pacific longline vessels in 1974 (Law Enforcement Division 1977).

fishery primarily in the Aleutian Islands, and a pollock fishery along the other continental shelf from Unimak Pass to northwest of the Pribilof Islands. In describing these fisheries, information is used from Chitwood (1969), Forrester et al. (1974), Haskell (1964), Office of Enforcement and Surveillance (1965, 1967-70), Enforcement and Surveillance Division (1971, 1973), and Law Enforcement Division (1974, 1975, 1977).

Flounder fishery.--The Soviet flounder fishery was a winter operation throughout its history extending usually from November to April and peaking in February or March. The fishing grounds (Figure 8) were in areas where aggregations of yellowfin sole and other flounders form in winter after migrations from shallower waters of the inner shelf. The primary target species was yellowfin sole which comprised a high proportion of the catches with other flounders such as rock sole, flathead sole, Alaska plaice, starry flounder, and arrowtooth flounder making up most of the remainder. Vessels participating in this fishery have ranged from smaller side trawlers (SRT) to medium (SRTM) and large independent stern trawlers (BMRT) and support vessels (see Section 5.2.2.2 for description of vessel types). Side trawlers delivered their catches to factory ships or processing refrigerated transports, which froze the fish for later transport to the Soviet Union. The larger trawlers freeze their own catches.

The first few years of the Soviet flounder fishery (1959-63) involved about 30 trawlers supported by a factory ship and refrigerated transport vessels. Catches in that period probably ranged between 60,000 and 155,000 mt. In the next three years effort was increased in this fishery with the number of trawlers rising to 40 in 1964, 50-60 in 1965, and 70-100 in 1966. The fishery peaked in terms of numbers of trawlers from 1966 and 1968 with the maximum number reaching 70-100 in the peak months of fishing in January, February or March. In those peak years, the flounder fishery represented the largest effort by the Soviets in Alaskan waters.

Starting in 1969, the Soviet effort for flounders generally declined, presumably because abundance of yellowfin sole was lower than in previous

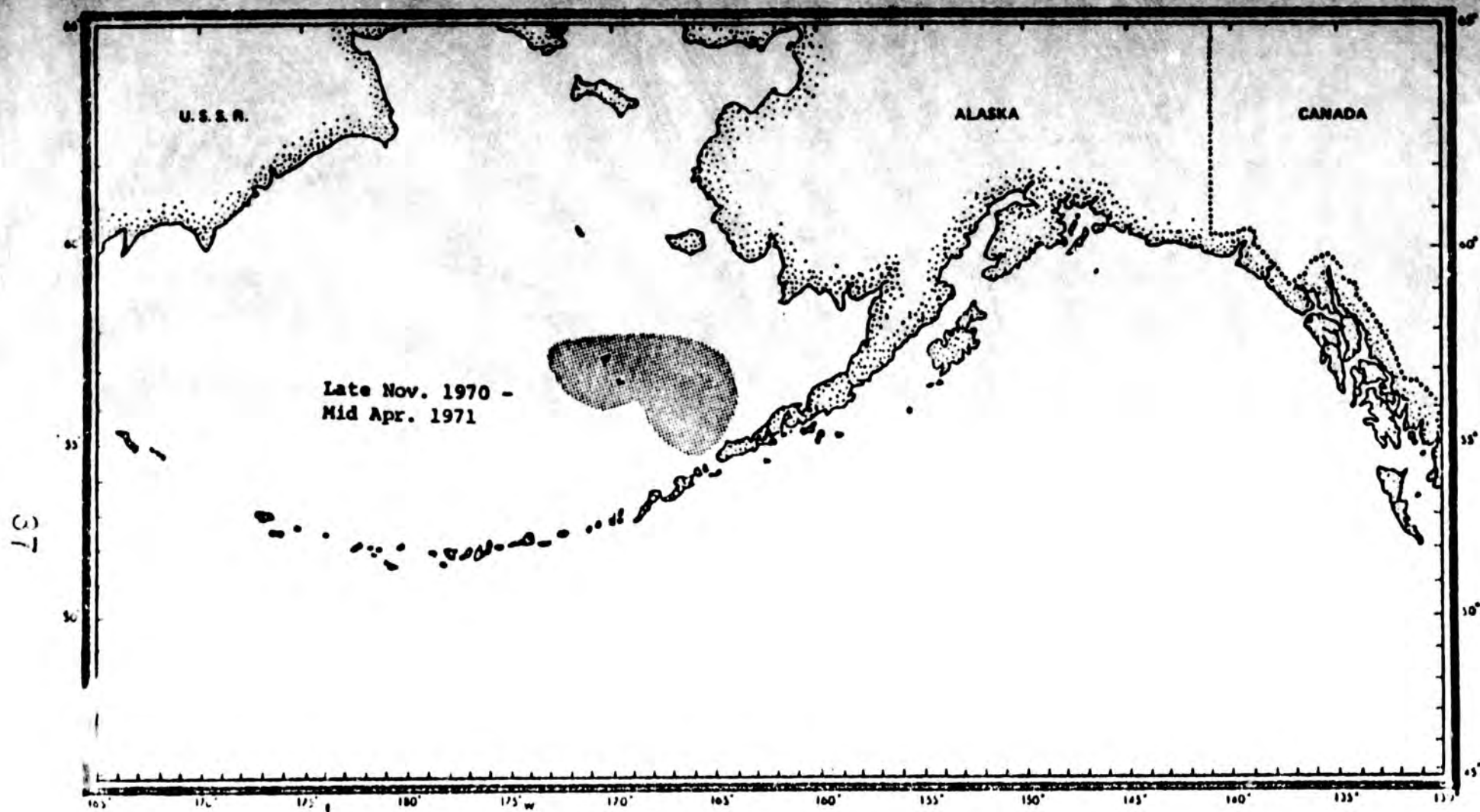


Figure 8.--USSR fishing area for flounders in the eastern Bering Sea in 1971 (Enforcement and Surveillance Division 1973).

years. The numbers of vessels in peak months decreased to between 50 and 80 in 1969-72. Although a peak of 70 vessels fished in 1972, there was a sharp drop in catches of flounders to about 13,000 mt from over 70,000 mt or more in the previous three years. In 1973 the flounder fishery failed to develop. Effort was limited to a two-week period by four trawlers. The Soviets have not resumed this fishery to the present time.

Pacific ocean perch fishery.--The Soviet fishery for Pacific ocean perch and other rockfish began in 1960 when 25 to 30 trawlers fished along the edge of the continental shelf in the eastern and central Bering Sea. In subsequent years the fishery became centered in the Aleutian Islands and Gulf of Alaska (Figure 9). The Aleutian Island fishery has been mainly by larger BMRT factory trawlers fishing along the continental shelf edge at depths of about 15-280 m. Catches were headed, eviscerated, and frozen until transferred to refrigerated transport vessels for delivery to the Soviet Union.

Following concentration of effort for Pacific ocean perch in the Aleutians and Gulf of Alaska in 1963, directed effort to Pacific ocean perch in the eastern Bering Sea decreased and was eventually eliminated. Catches from this region in later years were a by-catch of the pollock fishery. The early years of the Aleutian Island fishery were the most productive with reported catches of 61,000 mt in 1974 and 71,000 in 1965. Although the catch increased in 1965, the catch per trawler declined and search time for concentrations of perch increased substantially.

Whereas the fishery was continuous through 1965, effort in 1966 was sporadic, apparently because of reduced abundance of rockfish. The effort in 1967 and 1968 was approximately the same as in 1966 with fishing starting in spring months and continuing through the end of the year. In 1969 there was further reduction in effort with only one-half to two-thirds the number of vessels fishing compared to 1968. This level of effort generally continued in the next few years with relatively few vessels targeting on Pacific ocean perch, and then for relatively short periods in widely separated areas of the Aleutian Islands. By

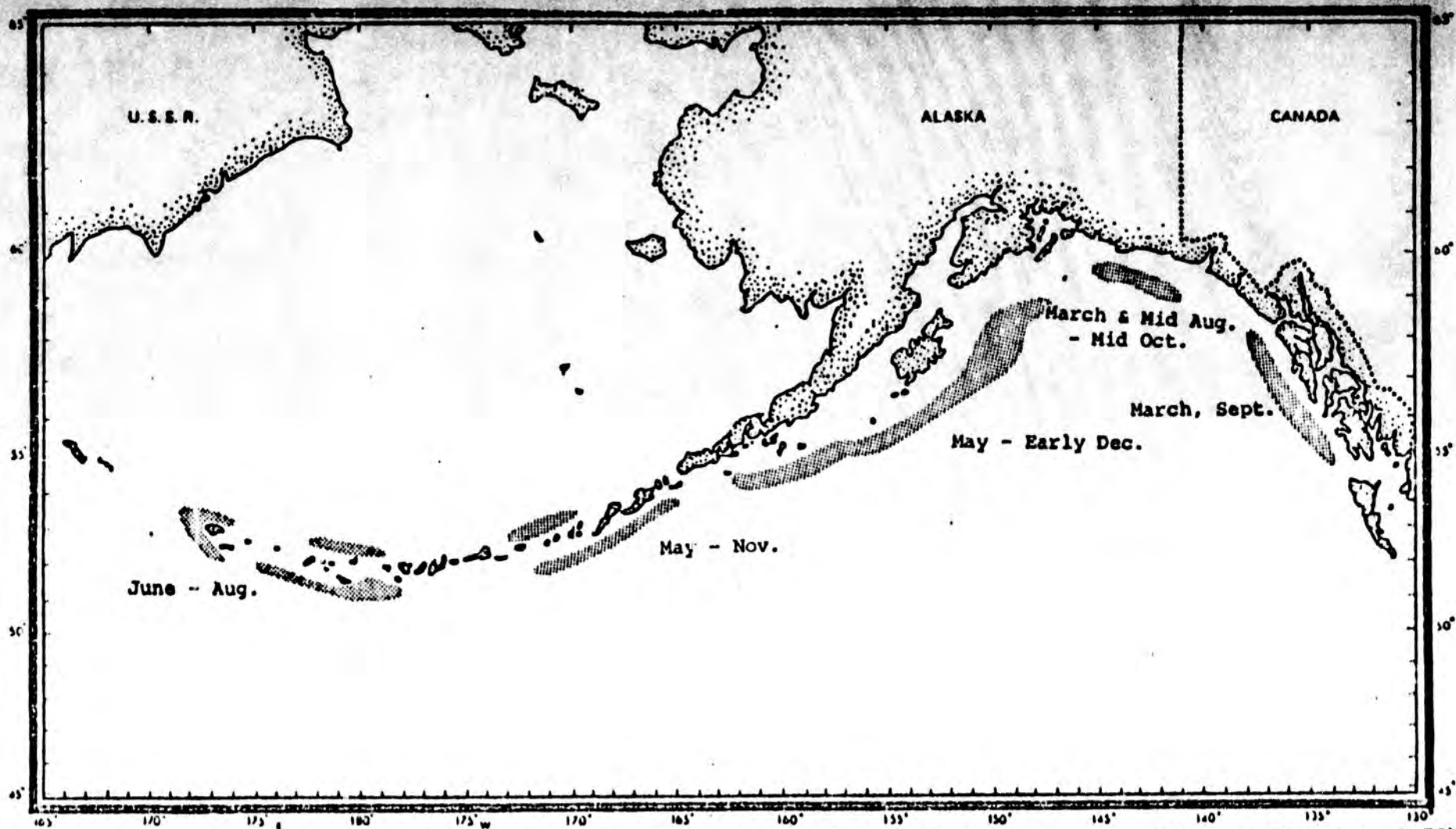


Figure 9 .--Areas fished for Pacific ocean perch by the USSR in 1971 (Enforcement and Surveillance Division, 1973).

1973 and 1974 the fishery was at an extremely low level with catches of only about 3,000 mt in 1973 and 800 mt in 1974. Catches in 1975 and 1976 were somewhat higher, ranging from 7,000 - 8,000 mt.

Pollock fishery.--The fishery that eventually developed into the pollock fishery began in 1967, but initially targeted on sablefish and large flounders (arrowtooth flounder and Greenland turbot) in the region immediately north of the eastern Aleutian Islands. Fishing was at depths of about 550 to 730 m on the fairly extensive deep-water plateau in the area immediately north of Dutch Harbor in the eastern Aleutian Islands. This fishery was continued in 1968, but the area of fishing was extended north along the edge of the continental shelf to the central Bering Sea. Sablefish and arrowtooth flounder were the principal species taken just north of Dutch Harbor, but farther north, pollock, cod, rockfish, and various flatfish were principal species. In 1969, this fishery became a year-around operation and took on the general appearance that has characterized the fishery to the present time. Vessels utilized in the fishery changed from primarily medium-sized SRTM trawlers to also include the smaller SRT trawlers and large BMRT trawlers. The two larger type trawlers processed their own catches and periodically off-loaded to refrigerated transports for shipment to the USSR. The SRT side trawlers off-loaded their catches to factory ships and other support ships for processing. The fishing area became relatively standardized (Figure 10) with two principal areas used, the first immediately north of the eastern Aleutian Islands and the other northwest of the Pribilof Islands. Effort normally peaked in late winter when fishing vessels from the herring and flounder fishery joined the pollock fleet.

In 1969 and 1970 the fishery targeted on arrowtooth flounder, sablefish, and pollock with incidental catches of cod, rockfish, and other bottomfish. Emphasis of the fishery shifted mainly to pollock in 1971 with catches rising from about 36,000 mt in 1970 to 234,000 mt in 1971. Pollock has remained the predominant species in the catch to the present time. Peak catches of pollock occurred in 1974 when almost 310,000 mt was taken. Catches of other species since 1972 have not exceeded 20,000 mt annually with the exception of rockfish in 1974 at 32,000 mt and rattails at 48,000 in 1972. Large catches of rattails were taken in 1972.

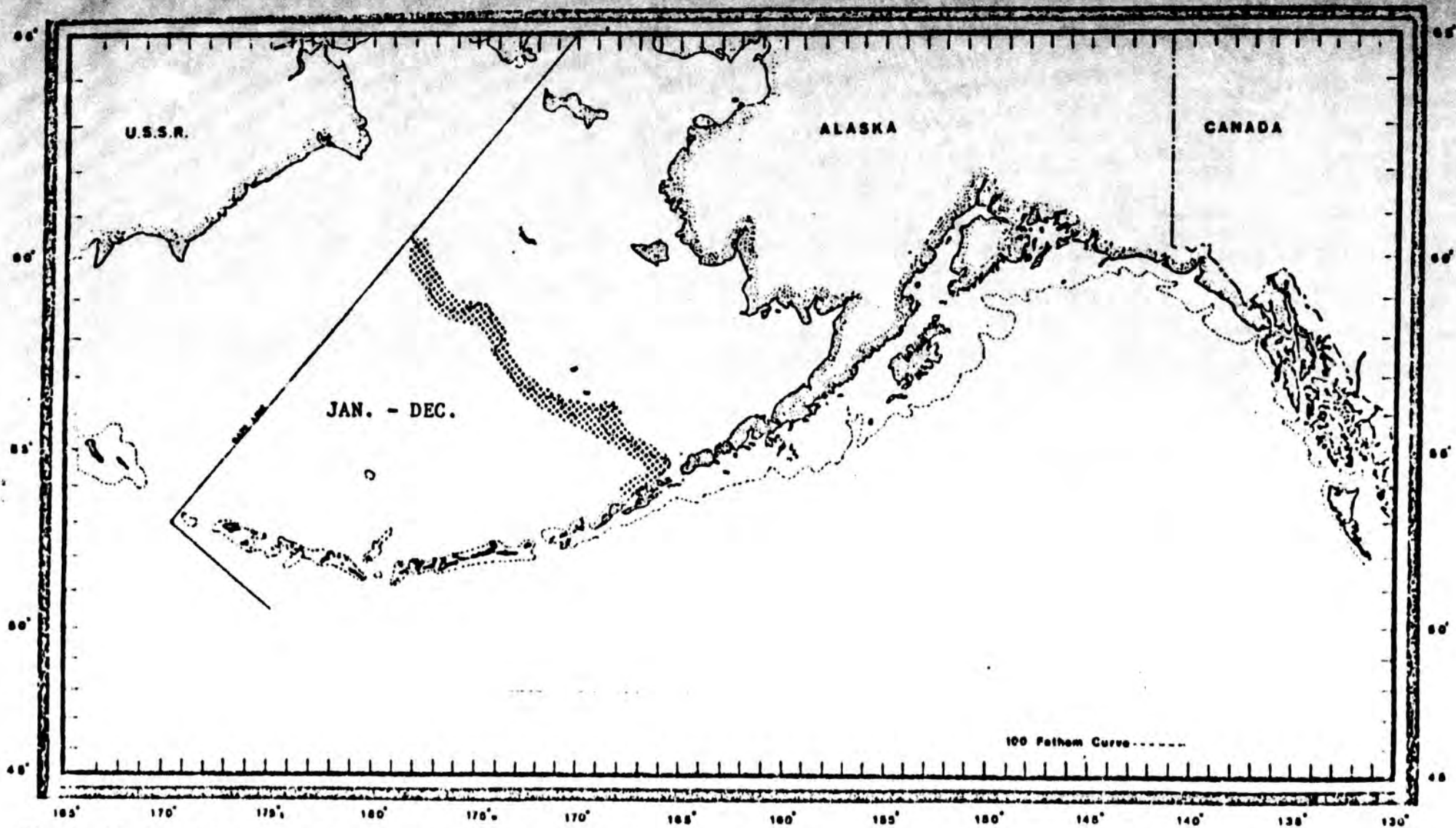


Figure 10.--Fishing areas in the eastern Bering Sea for the USSR fishery targeting mainly on pollock (Law Enforcement Division 1974).

The USSR has continued to trawl along the Aleutians in recent years, but at a relatively low level of effort. Major species in the catches besides rockfish have been pollock and Atka mackerel. Atka mackerel has become a target species of this fishery in winter and spring months.

The monthly range in numbers of vessels employed in the USSR fishery in the eastern Bering Sea and Aleutian Islands is given in Table 7. Peak periods of fishing in the eastern Bering Sea have been in winter, usually in February. In the Aleutian Islands the peak period of fishing has varied, reflecting apparent changes in target species or other factors.

#### 5.2.2.1.3 Korean (ROK) fishery

Fisheries by the Republic of Korea in the eastern Bering Sea and Aleutian Islands have been much smaller than those of Japan and the USSR (Office of Enforcement and Surveillance 1968, 1969 and 1970; Enforcement and Surveillance Division 1971 and 1973; Law Enforcement Division 1974, 1975 and 1977). Following exploratory fishing in these regions in 1966, an ROK fleet returned to Alaskan waters in September-November 1967 with a commercial operation consisting of a refrigerated transport vessel and eight pair trawlers. The operation was plagued by bad weather and tragedy. Crew members and two of the pair trawlers were lost enroute to the fishing grounds in a storm south of the Aleutian Islands. Continued stormy weather permitted only five days of fishing, two of which were south of Unimak Island and the remainder in the Gulf of Alaska.

The ROK expedition was more successful in 1968 conducting operations around the eastern Aleutian Islands and west of the Pribilof Islands from May to July. The fleet, targeting on pollock, consisted of a processor, six pair trawlers, and a refrigerated transport vessel. An independent stern trawler also operated in the eastern Bering Sea in 1968, but the purpose of their fishing activity is not known; it may have been exploratory in nature.

In later years the ROK fishing fleet was enlarged to include factory ships and additional pair trawlers and independent stern trawlers, and

**Table 7.--Monthly range in number of USSR vessels operating in the eastern Bering Sea and Aleutian Islands in 1966-77 (Office of Enforcement and Surveillance 1967-70; Enforcement and Surveillance Division 1971 and 1973; Law Enforcement Division 1974, 1975, and 1977).**

| Year                      | Range in monthly number     |                        |                |                       | Total | Month of maximum number |
|---------------------------|-----------------------------|------------------------|----------------|-----------------------|-------|-------------------------|
|                           | Factory ships <sup>1/</sup> | Factory stern trawlers | Other trawlers | Support <sup>2/</sup> |       |                         |
| <u>Eastern Bering Sea</u> |                             |                        |                |                       |       |                         |
| 1966                      | 0-14                        | 0-15                   | 0-40           | 0-3                   | 0-72  | Mar.                    |
| 1967                      | 0-15                        | 0-12                   | 0-60           | 0-3                   | 0-90  | Feb. - Mar.             |
| 1968                      | 0-13                        | 0-25                   | 2-60           | 0-2                   | 2-99  | Feb.                    |
| 1969                      | 0-8                         | 0-50                   | 6-67           | 1-23                  | 7-147 | Feb.                    |
| 1970                      | 0-7                         | 0-52                   | 8-92           | 0-22                  | 9-173 | Feb.                    |
| 1971                      | 0-8                         | 0-65                   | 5-87           | 0-21                  | 6-171 | Feb.                    |
| 1972                      | 0-8                         | 0-39                   | 1-89           | 0-21                  | 3-155 | Feb.                    |
| 1973                      | 0-6                         | 1-27                   | 6-60           | 0-6                   | 7-82  | Feb.                    |
| 1974                      | 0-5                         | 4-30                   | 6-51           | 1-10                  | 14-79 | Feb. and Apr.           |
| 1975                      | 0-4                         | 4-13                   | 5-36           | 1-7                   | 13-51 | June                    |
| 1976                      | 0-5                         | 2-30                   | 7-48           | 0-6                   | 13-86 | Apr.                    |
| <u>Aleutian Islands</u>   |                             |                        |                |                       |       |                         |
| 1966                      | 0-3                         | 0-10                   | 0-10           | 0-1                   | 0-24  | Aug.                    |
| 1967                      | 0-6                         | 0-12                   | 0-21           | 0-3                   | 0-42  | June                    |
| 1968                      | 0-4                         | 0-14                   | 0-23           | 0-1                   | 7-28  | Mar.                    |
| 1969                      | 0                           | 0-7                    | 0-13           | 0-1                   | 3-14  | Jan. and Dec.           |
| 1970                      | 0                           | 0-5                    | 0-14           | 0-1                   | 1-15  | Jan.                    |
| 1971                      | 0                           | 0-6                    | 2-15           | 0-1                   | 6-17  | May                     |
| 1972                      | 0-1                         | 0-5                    | 3-19           | 0-1                   | 4-21  | Dec.                    |
| 1973                      | 0                           | 0-4                    | 6-17           | 0-3                   | 6-20  | Apr.                    |
| 1974                      | 0                           | 0-2                    | 0-19           | 0-5                   | 0-24  | Mar.                    |
| 1975                      | 0-1                         | 0-30                   | 0-10           | 0-4                   | 2-33  | Sept.                   |
| 1976                      | 0                           | 0-27                   | 0-4            | 0-5                   | 0-32  | May                     |

<sup>1/</sup> Including all processing and refrigerated transport vessels.

<sup>2/</sup> Including tankers, tugs, cargo, and repair ships.

eventually longliners and a Danish seiner (Table 8). Based on the number of vessels in the fishery, ROK effort reached its maximum in 1976. The number of vessels shown in Table 8 includes those fishing for herring in the eastern Bering Sea and for other species in the Gulf of Alaska. The principal target species along the edge of the continental shelf in the eastern Bering Sea has continued to be pollock. Some of the trawlers have also fished in the Aleutian Islands for rockfish and pollock. Until 1972, fishing was limited to spring and summer months, but by 1973 the independent stern trawlers had begun to fish in winter months as well. By 1974 the areas of fishing by the trawl fleet had become fairly extensive (Figure 11). Estimates by U.S. surveillance of the ROK fishery indicated that pollock catches ranged between 1,200 and 26,000 mt from 1968 to 1975. The pollock catch reported by the Koreans for 1976 was 85,000 mt in the eastern Bering Sea and 500 mt in the Aleutian Islands area.

An ROK longline fleet, which has mainly fished sablefish in the Gulf of Alaska, began fishing sablefish for brief periods in the Aleutian Islands in 1974. The effort by longliners in Aleutian waters has apparently increased in more recent years.

#### 5.2.2.1.4 Taiwanese (ROC) fishery

The Taiwanese fishery, which began in December 1974, has involved only one or two independent stern trawlers. The trawlers have fished in winter and spring months along the continental shelf edge west and southwest of the Pribilof Islands. The vessels are believed to have targeted on pollock and flounders.

#### 5.2.2.2 Description of vessels and gear

##### 5.2.2.2.1 Japanese fishery

As outlined in Section 5.2.2.1, the Japanese employ two types of operations in their groundfish fishery, fleet operations involving a factory mothership and catcher boats and vessels that operate independently and process their own catch. Vessels used in each of these fisheries are discussed separately.

**Table 8.--Number of vessels operating in the Korean groundfish fishery in the eastern Bering Sea, Aleutian Islands, and Gulf of Alaska, 1968-74 (Office of Enforcement and Surveillance 1969, 1970; Enforcement and Surveillance Division 1971, 1973; Law Enforcement Division 1974, 1975, and 1977).**

| <b>Year</b> | <b>Pair trawlers</b> | <b>Stern trawlers</b> | <b>Long-liners</b> | <b>Danish seiners</b> | <b>Factory ships</b> | <b>Processors and/or transport vessels</b> | <b>Total</b> |
|-------------|----------------------|-----------------------|--------------------|-----------------------|----------------------|--|--------------|
| 1968        | 6                    | 1                     | 0                  | 0                     | 0                    | 2  | 9            |
| 1969        | 7                    | 4                     | 0                  | 0                     | 1                    | 3  | 15           |
| 1970        | 11                   | 2                     | 0                  | 0                     | 2                    | 2  | 17           |
| 1971        | 10                   | 3                     | 0                  | 0                     | 1                    | 3  | 17           |
| 1972        | 0                    | 6                     | 0                  | 0                     | 0                    | 0  | 6            |
| 1973        | 8                    | 10                    | 1                  | 0                     | 3                    | 0  | 22           |
| 1974        | 22                   | 5                     | 8                  | 1                     | 2                    | 3  | 41           |
| 1975        | 0                    | 13                    | 9                  | 1                     | 0                    | 0  | 23           |
| 1976        | 29                   | 16                    | 12                 | 0                     | 1                    | 0  | 58           |

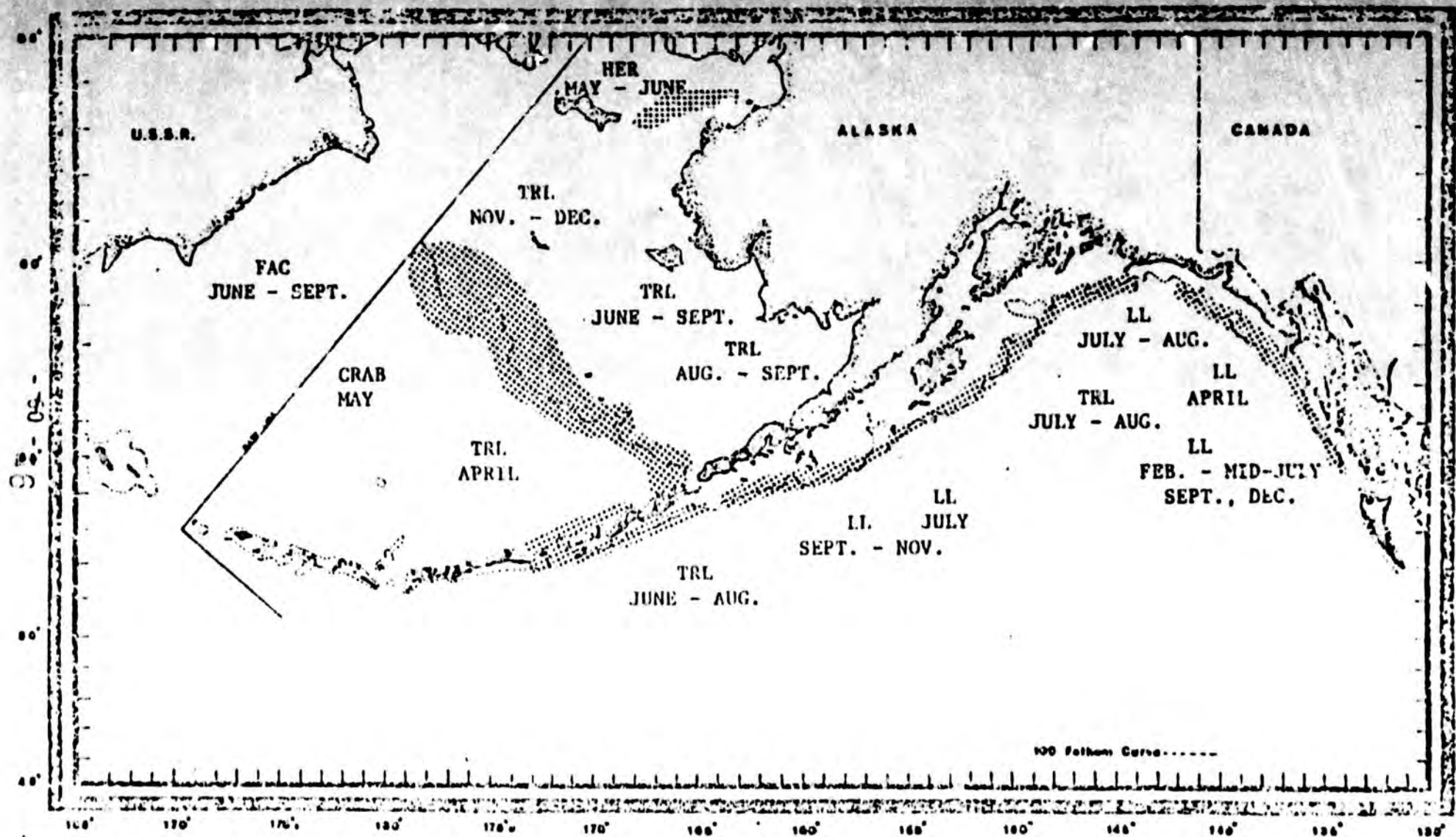


Figure 11.--Fishing areas of the Republic of Korea fisheries in 1974 (Law Enforcement Division 1977).

Types of mothership fleets and the range in size of motherships as reported by Forrester et al. 1974 are as follows:

| <u>Type of fleet</u>             | <u>Size of Motherships (gross tons)</u> |
|----------------------------------|---|
| Flounder freezing fleets         | 7,000 - 9,000                           |
| General freezing fleets          | 5,000 - 10,000                          |
| Minced fish and fish-meal fleets | 9,000 - 27,000                          |
| Longline-gillnet fleets          | 200 - 2,500                             |

The motherships are equipped to process catches into such products as frozen fish for human consumption, minced fish (surimi), and meal and oil. Catcher boats supplying the motherships with fish have been of five major types: longline-gillnetters, side trawlers, pair trawlers, Danish seiners, and stern trawlers. Side trawlers have been phased out of the fishery and the number of Danish seiners have declined. Pair trawlers have become the principal vessel type in the freezing and minced fish and fish-meal fleet.

Side trawlers that operated in the fishery were 30 to 52 m long, 150 to 370 gross tons, and had crews of 20 to 30 (Dickinson 1973). The side trawlers usually set and retrieved the trawl from the starboard side, but some were rigged to set from the stern and retrieve to the side. The trawlers usually operated within 55 'm of the mothership and used detachable codends so that a number of tows could be made prior to returning to the mothership.

Danish seiners are generally 27 to 46 m in length and 100 to 150 gross tons with crews of 18 to 20 (Dickinson 1973). Danish seiners set the net over the stern and usually retrieve on the port side. The catch is normally brailled aboard, but some newer seiners have stern ramps to haul the catch aboard. Typical gear dimensions of the Danish seiners as determined from a sample of the Japanese fleet are given in Table 9.

Pair trawlers work in two-boat teams, one vessel setting the trawl and the second vessel securing its warp to one wing of the net. When the tow is completed, the net is hauled until one wing can be passed to

Table 9 . Range in size of catcher boats in the Japanese motherhip fishery and typical trawl gear used based on a sample of the fleets in 1970 and 1975 (Data for 1969 from Forrester et al., 1974 and for 1975 from Fisheries Agency of Japan 1975).

| Year | Type         | Vessels             |                     | Typical gear type   |                       |                        |                      |
|------|--------------|---------------------|---------------------|---------------------|-----------------------|------------------------|----------------------|
|      |              | Range in gross tons | Range in horsepower | Headrope length (m) | Groundrope length (m) | Cod-end mesh size (cm) | Otter board size (m) |
| 1970 | Danish seine | 85 - 300            | 440 - 850           | 93                  | 101                   | 7.3                    | --                   |
| 1975 | Danish seine | 96 - 125            | 450 -1350           | 115                 | 130                   | 9.0                    | --                   |
| 1970 | Pair trawl   | 88 - 195            | 310 -1200           | 139                 | 152                   | 9.1                    | --                   |
| 1975 | Pair trawl   | 115 - 215           | 650 -1400           | 146                 | 162                   | 9.0                    | --                   |
| 1975 | Stern trawl  | 297 - 349           | 1200 -2500          | 48                  | 57                    | 9.0                    | 1.9 x 3.2            |

the other vessel to complete the haul. Detachable cod-ends are used on pair trawlers. Older pair trawlers are 27 to 46 m in length and 100 to 150 gross tons with crews of 15 to 20 (Dickinson 1973). Newer pair trawlers are 37 m in length and 185 gross tons with crews of 14 to 16 men. Typical trawl dimensions used by pair trawlers are observed from sampling the fleet in 1970 and 1975 are shown in Table 9. These data indicate that the average size of vessels and gear increased between 1970 and 1975.

Stern trawlers operating as catcher boats in the mothership fishery are mainly of the 300-350 ton class (Table 9). These smaller stern trawlers average 43 to 50 m in length and carry 20 to 30 men (Dickinson 1973).

Vessels in the Japanese groundfish fishery operating independently of the motherships and processing their own catches consist of stern trawlers and longliners. The independent stern trawlers range in size from about 350 gross tons to over 5,000 gross tons (Table 10). The smaller of these trawlers have operated in the flounder and rockfish fisheries while those targeting on pollock in 1974 and 1976 were larger than 2,000 gross tons. Trawl dimensions were greatest for the larger vessels operating in the pollock fishery (Table 10).

An example of a smaller independent stern trawler is a 500 gross ton vessel averaging 52 to 58 m in length and carrying a crew of 20 to 35 men (Dickinson 1973). The vessels are usually equipped with limited processing equipment, ship freezing units, and refrigerated holds. A medium sized independent stern trawler is 1,500 gross tons, averages 70 to 82 m in length, and carries 70 to 90 men. They normally have a large processing area with modern machinery for washing, heading, gutting and filleting the catch. Plate freezers and refrigerated holds are standard equipment along with reduction plants for producing fish meal. The larger stern trawlers of 2,500 to over 5,000 gross tons range in length from 88 m to over 120 m and carry crews of from 90 to 135. These vessels have equipment for heading, gutting, filleting, and skinning the catch and freezing facilities. Most have reduction plants for producing meal and oil and the larger vessels have equipment for producing minced fish.

Table 10.--Range in size of vessels in the North Pacific trawl fishery and typical gear used for principal target species from a sample of the fleet in 1974 and 1976 (Fisheries Agency of Japan 1974 and 1976).

| Target Species | Year | Range in vessel size |            | Gear                |                       |                        |                      |
|----------------|------|----------------------|------------|---------------------|-----------------------|------------------------|----------------------|
|                |      | gross tons           | horsepower | Headrope length (m) | Groundrope length (m) | Cod-end mesh size (cm) | Ottor board size (m) |
| Pollock        | 1974 | 3037-5460            | 4000-5900  | 66                  | 65                    | 10                     | 3.2 x 5.0            |
|                | 1976 | 2455-5470            | 3500-5700  | 66                  | 89                    | 10                     | 2.6 - 4.3            |
| Yellowfin sole | 1974 | 349- 499             | 2100-2500  | 53                  | 60                    | 9                      | 2.1 - 3.3            |
|                | 1976 | 349-3500             | 1600-4000  | 57                  | 69                    | 10                     | 2.4 x 3.0            |
| Rockfish       | 1974 | 499-3608             | 1500-4400  | 50                  | 64                    | 9                      | 2.4 x 3.8            |
|                | 1976 | 349-3914             | 1420-4400  | 60                  | 73                    | 10                     | 2.2 x 3.3            |

Independent longline vessels are 36 to 52 m long and 200 to 500 gross tons with crews of 25 to 30 (Dickinson 1973). Their primary target species is sablefish. Some rockfish are taken incidentally. Individual vessels fish about 23 km of longline with approximately 8,000 hooks. The gear is allowed to soak for 12 hours. Frozen squid is used for bait. Typical dimensions of fishing gear is given in Table 11. The vessels are equipped with sharp freezers and refrigerated holds. The longlines remain on the fishing grounds from two to four months until the maximum hold capacities of about 400 mt is reached, after which they return to home ports (Law Enforcement Division 1974).

#### 5.2.2.2.2 Soviet fishery

Similar to the Japanese groundfish operations, the USSR fishery also employ catcher boats that deliver their catches to factory ships or to processing and freezing transport vessels and vessels that operate independently of factoryships and process their own catches. The USSR has perhaps utilized the flotilla concept of fishing operations to a greater degree than any other nation (Pruter 1976). To allow the fishing vessels to operate at sea for long periods, they are closely supported by numerous other types of vessels including base ships that carry fleet administrators and staff and provide logistic support, factoryships for processing catches, refrigerator transports to replenish stores on the catcher vessels and to receive, freeze, and transport their catches to home ports, and oil tankers, passenger ships, tugs, patrol vessels and occasionally even hospital ships. Refrigerated transports are the mainstays of the support operations. They are of various sizes ranging from 46 to 151 m and from 650 to almost 9,700 gross tons (Law Enforcement Division 1977). Base and factory ships are 110 to 174 m and 5,000 to 18,000 gross tons.

Two basic kinds of fishing vessels have been used by the Soviets, side trawlers and factory stern trawlers (Pruter 1976). Three size classes of side trawlers have been used. Smallest and oldest of the side trawlers is the SRT of 265-335 gross tons, 38 m in length with crews of 22-26 men. The next larger of the side trawlers is the SRTR class of refrigerated medium trawlers of 505-630 gross tons and about 52 m, carrying crews of 26-28. Largest of the refrigerated side trawlers

Table 11--Range in size of longline vessels and typical fishing gear used in the North Pacific longline-gillnet fishery from a sample of the fleet in 1969, 1972 and 1976 (Fishery Agency of Japan 1969 1973 and 1976).

|      | Vessels             |                     | Groundline          |                    |                        | Gangion    |               | Size of hook (mm) or size number | Bait         |
|------|---------------------|---------------------|---------------------|--------------------|------------------------|------------|---------------|----------------------------------|--------------|
|      | Range in gross tons | Range in horsepower | Length of hachi (m) | Gear diameter (mm) | Number hooks per hachi | Length (m) | Diameter (mm) |                                  |              |
|      | 1969                | 275-499             | 510-1230            | 75                 | 9.0                    | 40         | 1.5           | 2.0                              | 63 x 14      |
| 1972 | 300-500             | 710-1800            | 75                  | 8.0                | 35                     | 1.3        | ---           | 20                               | Frozen squid |
| 1976 | 382-500             | 540-1110            | 75                  | 8.0                | 42                     | 1.3        | ---           | 20                               | Frozen squid |

is the SRTM class of about 700 gross tons and 54 m with a crew of about 30. The larger of the side trawlers, particularly the SRTM's frequently operate independently processing and freezing their own catches, but some may tranship their catches to factoryships for processing. A new class of trawler designated as SRTK's have appeared in the fishery in more recent years and are apparently an improvement on the SRTM's. The SRTK's are about 775 gross tons, have stern ramps for more efficient trawling over the stern

The largest of the Soviet fishing vessels are the factory stern trawlers, the most common of which is the BMRT of 3,170 gross tons, 85 m in length, and carrying a crew of about 90 (Pruter 1976). The factory trawlers usually process and freeze their own catch. A newer class of factory stern trawler, the RTM has come into increasing use in recent years. They are somewhat smaller than the BMRT's, the most common of which is 2,657 gross tons and 82 m long, but has the advantage of a larger deck area aft for handling gear and fish.

Dimensions of typical gear used on Soviet BMRT trawlers fishing for pollock and Atka mackerel are given in Table 12. Data from U.S. observer reports indicate that vertical openings on trawls used for pollock may range from 5-30 m.

#### 5.2.2.2.3 Korean and Taiwanese fisheries

Information on vessels and gear used in the ROK groundfish fisheries is not as well documented as that for the Japanese and the USSR fisheries. Methods of operation are similar to those of the Japanese and Soviets in that they also use factoryship-catcher boat operations as well as stern trawlers, longliners and Danish seiners operating independent of factoryships. The number and size of vessels has increased since the fishery began. Initially, the Koreans used pair trawlers of about 33 m and 133 gross tons and processed the catch aboard vessels ranging in size from 828-957 gross tons (Office of Enforcement and Surveillance 1969). In 1969 they employed a 9,400 gross ton factoryship, 142 m long to process catches of the pair trawl fleet. Independent stern trawlers also entered the fishery in 1969 ranging in size from 131-1,518 gross tons and 35 to 77 m in length (Office of Enforcement and Surveillance 1970).

Table 12.--Typical trawl dimensions used on Soviet BMRT factory stern trawlers for pollock and Atka mackerel based on data of U.S. Observers in 1976 and 1977.

| Target Species | Range in vessel size |            |            | Typical gear dimensions |                       |                        |                              | Otter boards                                  |
|----------------|----------------------|------------|------------|-------------------------|-----------------------|------------------------|------------------------------|---|
|                | Length (m)           | gross tons | Horsepower | Headrope length (m)     | Groundrope length (m) | Cod-end mesh size (cm) | Cod-end liner mesh size (cm) |   |
| Pollock        | 78-87                | 2657-3837  | 2000-2320  | 77.4                    | 77.4                  | 5.0 - 6.0              | 3                            | Round to oval variable in size 1600-1800 kgs. |
| Atka mackerel  | 78-87                | 2581-3510  | 2000       | 31.0                    | 44.0                  | 5.0                    | 3                            | Round to oval 1200 kgs.                       |

The subsequent modernization of the Korean fleet is illustrated by information from U.S. Observer reports in 1977 (Table 13). These data indicate that independent stern trawlers in the ROK fleet are comparable in size to the largest trawlers in the Japanese and Soviet fleets with some exceeding 5,000 gross tons. The three vessels observed were targeting on pollock and gear dimensions given in Table 13 may be representative of trawls used by ROK independent trawlers in the pollock fishery.

The Taiwanese have used 1 or 2 independent stern trawlers in their small scale fishery in the eastern Bering Sea. The size of the vessels and dimensions of the gear used are unknown.

#### 5.2.2.3 Catch trends

Complete catch statistics for groundfish taken by foreign fisheries in the eastern Bering Sea and Aleutian Islands regions have not been available throughout the history of the fishery. Japan has provided the longest and most detailed series of catch data. However, even the Japanese have not always identified some of the flounders to species in their catch data (INPFC 1976). Beginning in 1964, Japan has submitted detailed statistics for their groundfish fisheries to the United States and Canada through INPFC. The identification of catches and reporting of all principal commercial species has probably improved since then. The USSR began to report catch statistics to the United States through bilateral agreement in 1967. Not until 1972 was there a reasonably good breakdown of catches to individual species and even then a detailed area breakdown of their catches was not available. The ROK did not report their catch statistics in detail until 1976. Prior to the reporting of statistics by the USSR and the ROK, their catches have been estimated through U.S. surveillance of the fisheries.

Because of the lack of statistics from some nations and the irregular method of reporting certain species, available catch data for foreign fisheries may not reflect actual exploitation of all species. Statistics for primary target species such as pollock, yellowfin sole, rockfish and sablefish are assumed to be relatively accurate. Since 1970 the catch data for most other commercially important species has probably improved.

Table 13.--Vessel size and fishing gear dimensions of three ROK independent stern trawlers boarded by U.S. Observers in 1977.

| Name          | Vessels       |               |            |                   | Gear                      |                             |                            |                              |                               |
|---------------|---------------|---------------|------------|-------------------|---------------------------|-----------------------------|----------------------------|------------------------------|-------------------------------|
|               | Length<br>(m) | Gross<br>tons | Horsepower | Number<br>in crew | Headrope<br>length<br>(m) | Groundrope<br>length<br>(m) | Vertical<br>opening<br>(m) | Cod-end<br>mesh size<br>(cm) | Otter<br>board<br>size<br>(m) |
| Salvia        | 84            | 2285          | 3200       | 58                | 59                        | 78                          | 6                          | 10                           | 2.5 x 3.8                     |
| Shin An Ho    | 106           | 5680          | 6000       | 157               | 80                        | 75                          | 7                          | 10                           | 3.0 x 5.0                     |
| Heung Yang Ho | 104           | 5377          | 5800       | 92                | 74                        | 105                         | 38                         | 10                           | 3.0 x 4.8                     |

(1)  
(2)

Eastern Bering Sea.--Historical trends in total groundfish catches by foreign fisheries in the eastern Bering Sea since 1954 are illustrated in Figure 12; catch statistics by individual species and nation are given in Annex IV. Total catches of groundfish in the eastern Bering Sea have reached two peaks. The first and smaller of these peaks occurred between 1959 and 1963 when Japan and the USSR were targeting on yellowfin sole. Total estimated catches of yellowfin sole and other species reached a maximum of 715,000 mt in 1961. Catches dropped sharply in the succeeding two years, because of a decline in abundance of yellowfin sole, ranging between 300,000 and 400,000 mt during 1963-65. With the development of the Japanese pollock fishery, total groundfish catches rose rapidly after 1965 and by 1971 exceeded 2 million mt. The total catches of groundfish peaked at 2.2 million mt in 1972 and then declined as catch restrictions were placed on pollock and other species through bilateral agreements between the United States and Japan and the USSR. These catch restrictions stemmed from evidence of deterioration of the various resources. By 1976 total catches had been reduced to less than 1.5 million mt. Throughout the history of foreign exploitation of groundfish in the eastern Bering Sea, Japan has been by far the major user nation (Figure 12). In the early years of the fishery, when yellowfin sole was the major target species, Japan accounted for 68-90% of the total annual groundfish catch in the eastern Bering Sea. This proportion has remained high in later years as pollock became the major target species, ranging from 76-89% annually. Japanese catches peaked at 1.8 million mt in 1972.

Through 1970, the USSR fished primarily for flounders in the eastern Bering Sea and until that year their total catches of groundfish remained less than 200,000 mt (Figure 12). In subsequent years, as their pollock fishery developed, catches of groundfish increased, peaking at 410,000 mt in 1974.

Catches by the ROK have apparently been relatively small. Estimated catches based on U.S. surveillance of their fisheries were no larger than 26,000 mt through 1975 (Annex IV). In 1976, however, the ROK reported a total groundfish catch in the eastern Bering Sea of 88,000 mt. Pollock accounted for 85,000 mt of this total.

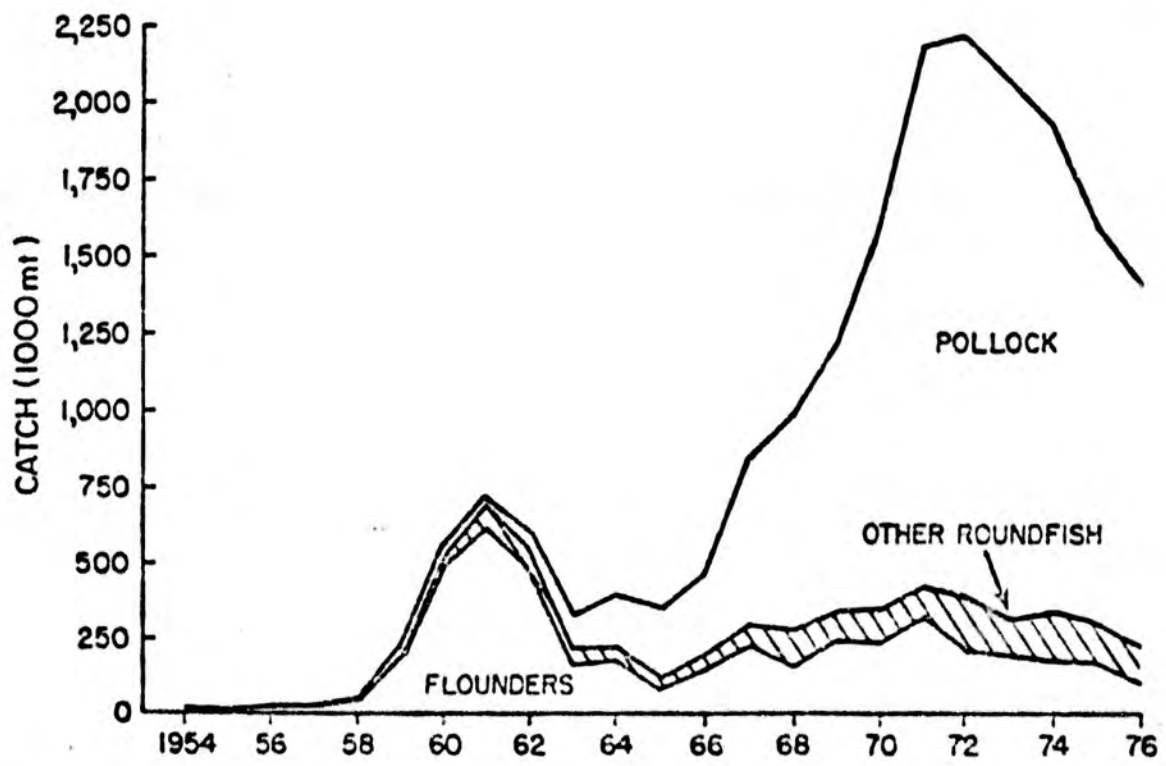
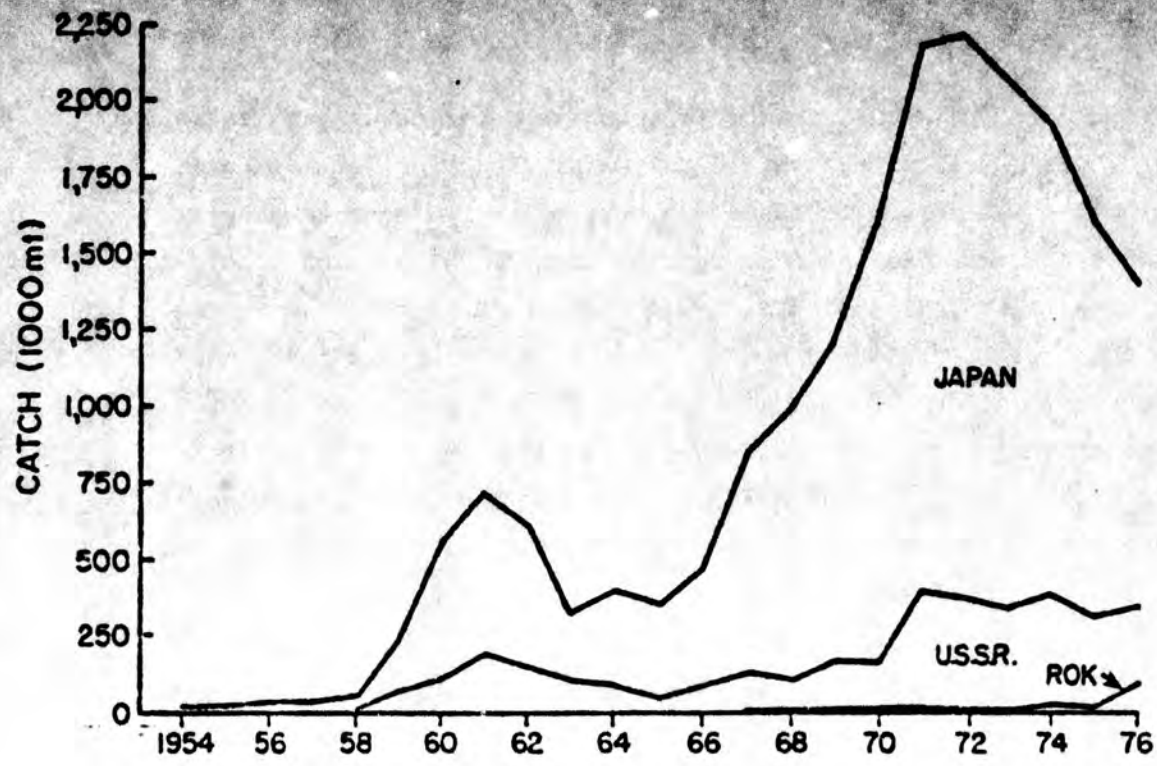


Figure 12.--Foreign catches of groundfish in the eastern Bering Sea (east of 180°) by nation (upper panel) and by species or species group (lower panel), 1954-76.

Flounders (primarily yellowfin sole) were the major species in the eastern Bering Sea catches until 1964, after which pollock predominated (Figure 12). The proportions of pollock in foreign catches generally increased between 1965 and 1970 ranging from 57-79%. From 1971 to 1976 they formed 81-85% of the total groundfish catch. Species of roundfish, other than pollock, have been less abundant than pollock and flounders in catches.

Catch trends of individual species of flounders in the eastern Bering Sea are illustrated in Figure 13. Catches of yellowfin sole reached extremely high levels from 1960 to 1962 with removals of over 1.4 million mt by Japan and the USSR. Catches of this magnitude were more than the stock could sustain and abundance of yellowfin sole declined. Following this deterioration of the resource, catches fell to about 100,000 mt or less, but increased again to reach the 160,000-170,000 mt level in some years between 1967 and 1971. Since 1971, catches have fallen well below 100,000 mt, in part due to the absence of a directed fishery on flounders by the USSR and perhaps to winter area closures in the southeastern Bering Sea which may have reduced catches of yellowfin sole by Japan.

As discussed previously, rock sole, flathead sole, and Alaska plaice have not always been identified in catches, particularly prior to about 1970. Reported catch statistics may therefore inaccurately reflect actual catch trends for these species. Catches of flathead sole apparently peaked in 1971 at 51,000 mt and those for rock sole in 1972 at 61,000 mt (Figure 13). Catches have declined substantially in more recent years which may have resulted to some degree from the reduction in the yellowfin sole fishery where these species are taken incidental to yellowfin sole. There have been no indications of recent substantial reductions in abundance of these species (Bakkala and Wakabayashi 1977).

Catches of Alaska plaice have not shown major fluctuations (Annex IV). This species is also taken incidentally in the yellowfin sole fishery and may not always have been identified in catches. The largest reported catch for this species was about 6,900 mt in 1969. Catches since 1969 have ranged from about 300 mt to 3,400 mt.

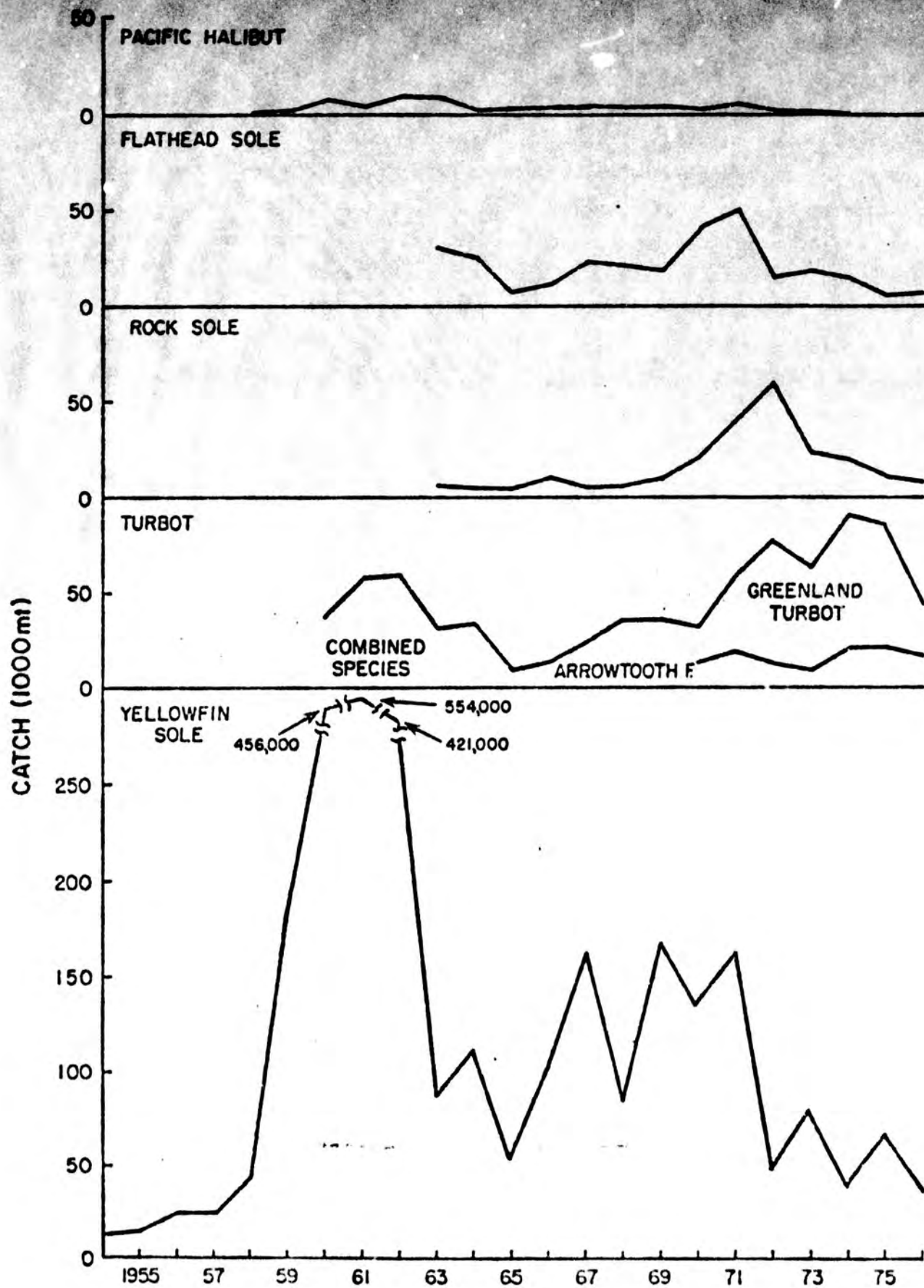


Figure 13.--Catch trends of flounders by foreign fisheries in the eastern Bering Sea, 1954-76.

Catches of turbot (arrowtooth flounder and Greenland turbot) were relatively high in early years of the eastern Bering Sea fishery ranging over 50,000 mt in 1961 and 1962. Japanese fisheries targeted on arrowtooth flounder in this period for the production of fish meal (Takahashi 1976). Catches dropped below 40,000 mt in 1963-70 as these species were only taken incidentally in the pollock and other directed fisheries. Catches of Greenland turbot increased markedly after 1970 in both the Japanese and the USSR fisheries (Annex IV). Total catches of Greenland turbot reached almost 70,000 mt in 1974 and since 1972 have approached or exceeded catches of yellowfin sole.

Reported catches of Pacific halibut in the eastern Bering Sea were relatively small compared to those of other principal flounders. Largest annual catches were made in 1960 (6,900 mt), 1962 (7,900 mt), and 1963 (7,500 mt), and 1971 (4,900 mt). Catches have declined in subsequent years reaching a low of 145 mt in 1976.

Not shown in Annex IV are incidental catches of halibut taken by Japanese trawl fisheries targeting on other species. Japan is prohibited from retaining trawl-caught halibut in the eastern Bering Sea, but most released fish die from injuries received during capture. Estimates from observer data indicate that the incidental catch in the eastern Bering Sea increased from about 50 mt in 1954 to over 2,000 mt in 1961; after declining during 1962-63, the catch again increased and peaked at about 3,000 mt in 1971-72 (Hoag and French 1976). Since then, the incidental catch has declined as a result of reduced fishing effort and time/area closures, designed to protect halibut.

Before 1977, Soviet trawlers retained trawl-caught halibut in the Bering Sea. Their catch of halibut, however, was included with other species and not reported separately until 1972. The reported catch since then declined from 490 mt in 1972 to 58 mt in 1976 (Annex IV). The reported catch, however, may be too low. Hoag and French (1976) estimated that the Soviet halibut catch averaged about 750 mt during 1959-1970 and then increased sharply to about 2,000 mt during 1971-1974. The catch has probably declined since then due to restrictions on the Soviet fishery.

With the concentration of Japanese fishing effort on pollock starting in 1964, catches of this species rose rapidly to reach 700,000 mt in 1968 (Figure 12). With the entry of the USSR and the ROK into the pollock fishery and greater effort by the Japanese, catches continued to increase reaching a peak of over 1.8 million mt in 1972. With the implementation of catch limitations stemming from evidence of overfishing on pollock, catches declined, falling to about 1.2 million mt in 1976.

Catch trends of demersal roundfish, other than pollock, are illustrated in Figure 14. Peak catches of sablefish and Pacific ocean perch were taken rather early in the fishery. Maximum harvests of sablefish occurred in 1961 and 1962 when 26,000 and 28,500 mt were taken. Catches were relatively stable at a lower level of 9,500-16,000 mt from 1966 to 1972, but declined thereafter falling to 2,700 mt in 1976. Following the peak catch of Pacific ocean perch in 1961 of 47,000 mt, catches dropped to a level of 17,000-29,000 mt from 1962 to 1968 and then declined to 3,600 mt in 1973. A second peak of 39,000 mt was reached in 1974 which was followed by another decline to 16,000 mt in 1976.

Catches of Pacific cod increased steadily in earlier years of the fishery to reach levels of more than 50,000 mt by 1968. Annual catches have been relatively stable since then, ranging around 50,000 mt with the largest catch of 70,000 mt taken in 1970.

The "other groundfish" category represents catches of various species of non- or low commercial value that are taken incidental to target species. Major species groups in this category are probably sculpins, poachers, eelpouts, skates and rattails. Reported catches of this group increased sharply after 1970. A large catch of rattails (48,500 mt) by the USSR mainly accounted for the exceptionally large total catch of "other groundfish" in 1972. The recent general increase in catches of this species category may stem from better reporting rather than an actual increase in catches.

Aleutian Island.--Characteristics of the foreign fisheries in the Aleutian Island region differ from those in the eastern Bering Sea in a number of respects. Overall catches have been much lower in the Aleutians, trends in catches and major species in catches have differed in the two

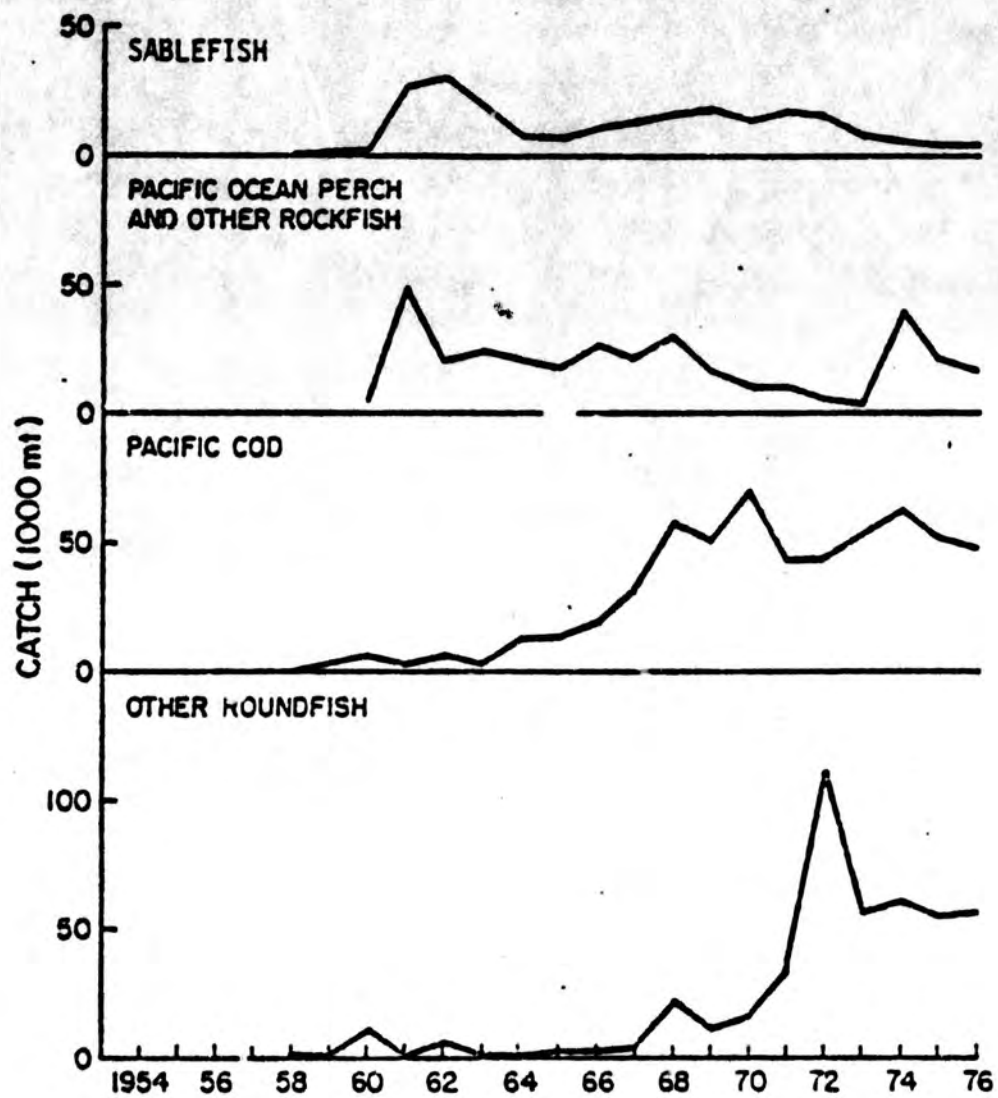


Figure 14.--Catch trends of roundfish (other than pollock) by foreign fisheries in the eastern Bering Sea, 1954-76.

regions, and the USSR rather than Japan has taken the greatest share of the catches in the Aleutians (Figure 15, Annex IV). Total catches of groundfish reached their peak early in the history of foreign exploitation of the Aleutian Island resources (Figure 15). Due almost entirely to catches of Pacific ocean perch and other rockfish, catches of all groundfish reached a peak of 114,000 mt in 1965. Since then, total catches have fluctuated at a lower level and shown a general overall decline. In 1975 and 1976, catches were in the range of 55,000-60,000 mt. The USSR has taken the largest share of the catches in the Aleutians with the exception of some recent years. Rockfish (mainly Pacific ocean perch) has been the primary target species in the Aleutians of both Japan and the USSR. Catches of demersal roundfish have increased markedly since 1973, perhaps due in part to better reporting of these species, but also because the USSR has had a target fishery on Atka mackerel in this period. Catches of Atka mackerel reached 20,000 mt in 1976. Catches of "other roundfish" have exceeded those of rockfish since 1973 because of the decline in abundance of Pacific ocean perch (Low et al. 1977) and the increase in catches of Atka mackerel and better reporting or actual increases in catches of such species as pollock and Pacific cod.

Flounders have formed a relatively small proportion of the total catches in the Aleutians. The small flounders (yellowfin sole, rock sole, flathead sole and Alaska plaice) occupy this region in low abundance based on catch statistics (Annex IV). The main species of flounders taken have been Greenland turbot and arrowtooth flounder.

Catches of Pacific ocean perch and other rockfish reached their peak in 1965 at 109,000 mt (Figure 15). Since then they have shown an almost continual decline with minor increases in 1970, 1972, and 1974. Catches fell again following 1974 to range from about 17,000-18,000 mt in 1975 and 1976.

Catch trends for individual species of roundfish, other than rockfish, are illustrated in Figure 16. Catches of Pacific cod have been small, showing some increases in recent years with a peak catch of 3,800 mt in 1976. This increase may simply reflect better identification and reporting

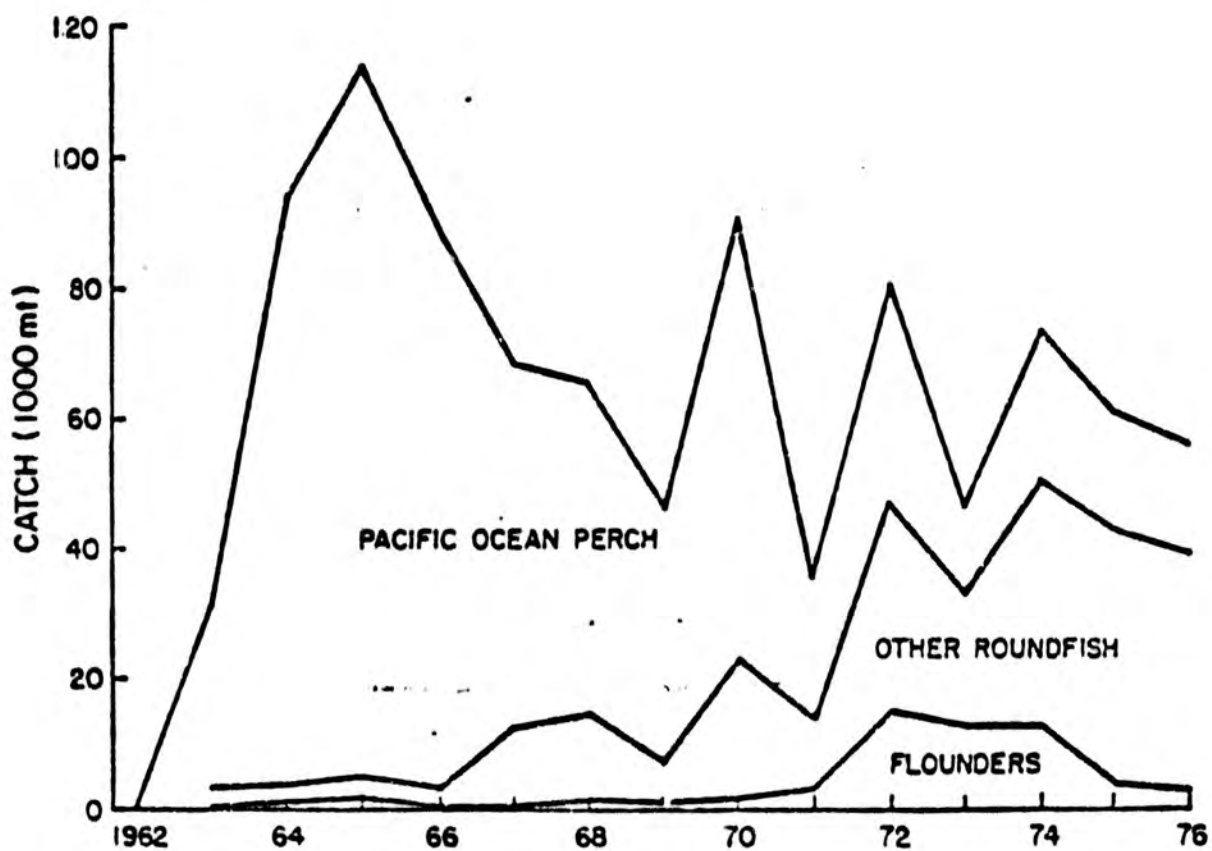
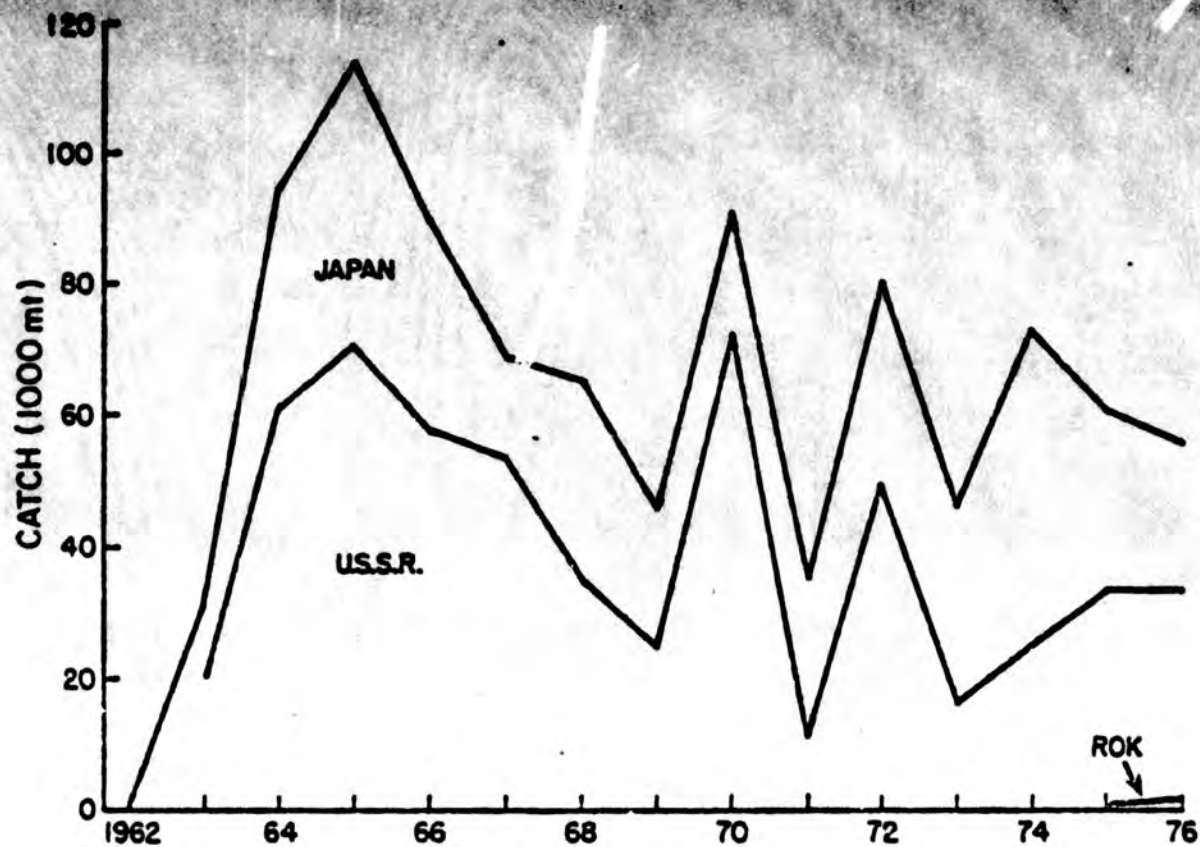


Figure 15.--Foreign catches of groundfish in the Aleutian Island area (170°W - 170°E) by nation (upper panel) and by species or species group (lower panel), 1962-76.

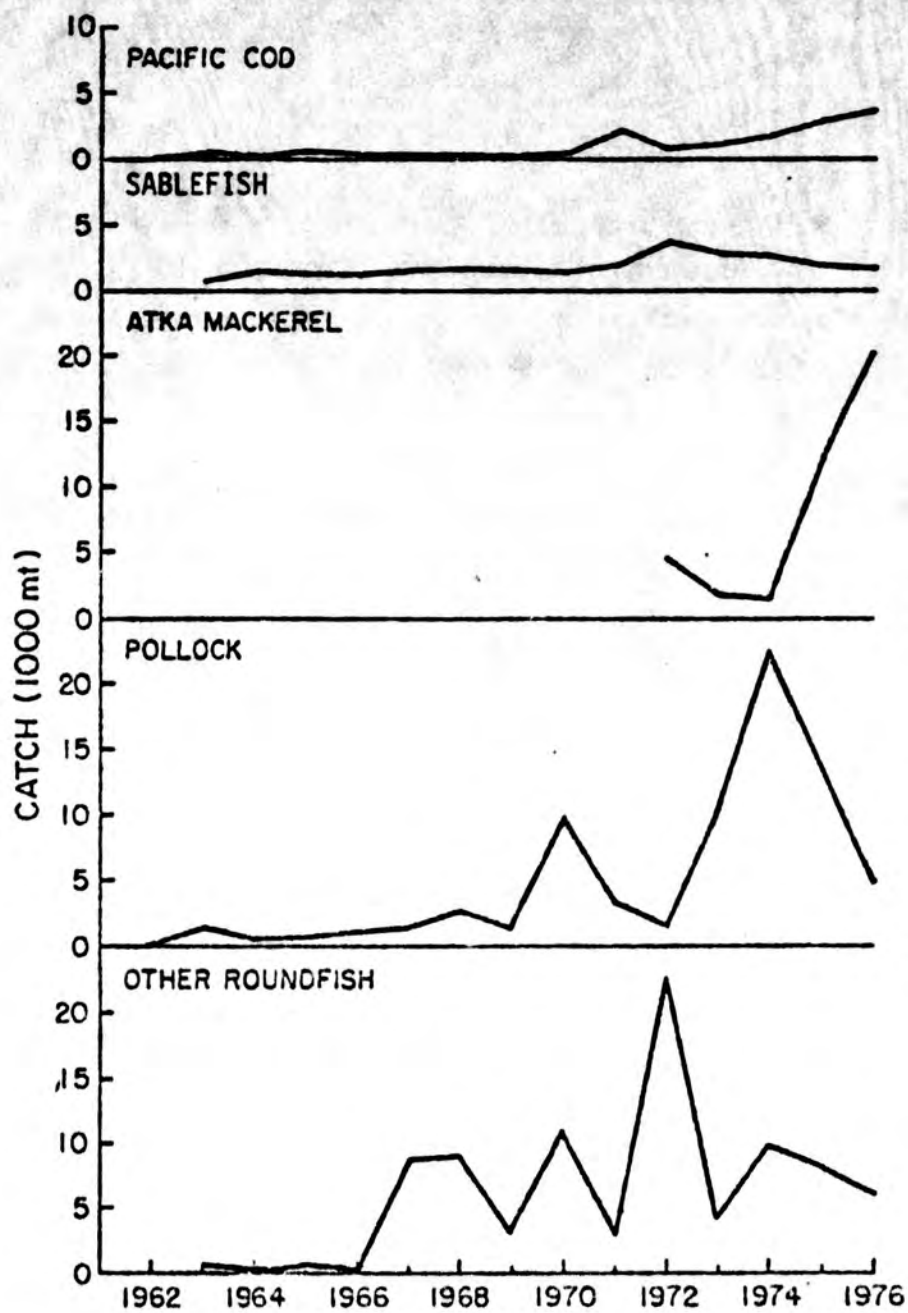


Figure 16.--Foreign catches of commercially-important species of roundfish (other than Pacific ocean perch) in the Aleutian Island area, 1962-76.

of cod in the fisheries. Catches of sablefish have remained relatively stable at a low level throughout the period of foreign fishing in the Aleutians. The largest catch of 3,600 mt was taken in 1972. Sablefish have been a target species of longline fisheries by Japan and the ROK in Aleutian Island waters.

The USSR began to report significant catches of Atka mackerel in 1972. From 1974 to 1976 catches rose rapidly as the Soviets concentrated effort on this species, reaching 20,000 mt in 1976 and exceeding catches of any other groundfish species in the Aleutians in that year. Reported catches of pollock have also increased in recent years reaching a peak of 23,000 mt in 1974. Almost all of the catch in 1973-76 was taken by USSR fisheries. It is unknown whether the Soviets directed some effort to pollock in the Aleutian region in these years or whether they were an incidental part of catches in other fisheries.

Catches of "other groundfish" have shown fluctuations from year to year, but no definite trend. This category probably consists mainly of non-commercial species or species of low commercial value such as sculpins and rattails. Fluctuations in this catch category may result partially from methods of recording and reporting these species. In 1972, when the largest catch of "other groundfish" occurred, the USSR reported 5,300 mt of rattails and 9,700 mt of sculpins. In later years the Soviets did not identify these species in their catch statistics and their total annual catches of "other roundfish" ranged from only about 200-1,600 mt. The reported Japanese catches of "other groundfish" increased from 1968 reaching 8,000 mt in 1974 and 1975.

Flounders have in most years formed only a minor part of the total groundfish catch in the Aleutian Islands area (Figure 17). Reported annual catches of small flounders have usually been less than 100 mt. After reaching a peak of almost 1,300 mt in 1975, annual catches of Pacific halibut have ranged from about 400 mt to less than 150 mt. Reported catches of arrowtooth flounder and Greenland turbot were also low until 1970, after which they increased sharply, with Greenland turbot the primary species taken. Catches in 1972-75 ranged from about 12,000 to 14,000 mt. Japanese fisheries were responsible for this rise in catches of turbot (Annex IV).

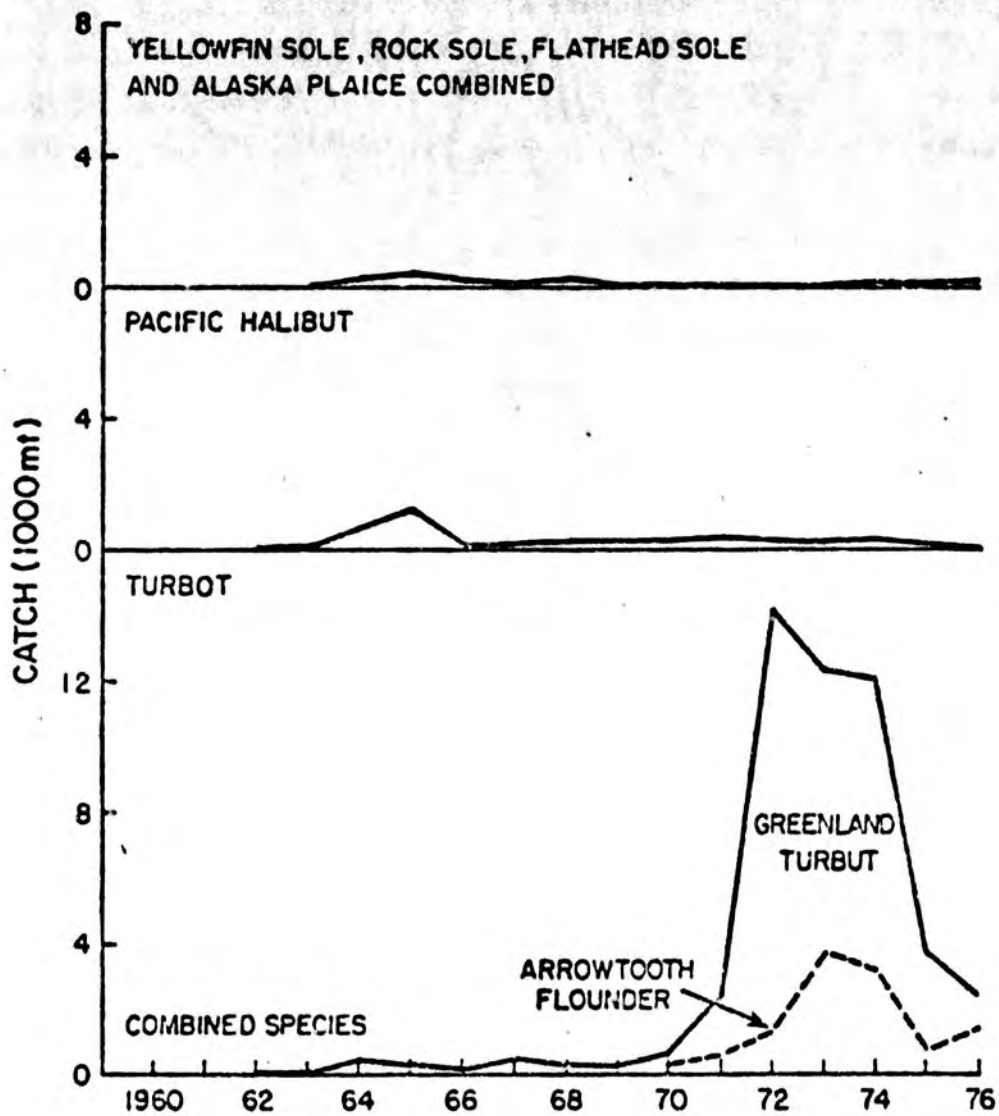


Figure 17.--Catch trends of flounders by foreign fisheries in the Aleutian Island area, 1962-76.

## 6.0 HISTORY OF MANAGEMENT

### 6.1 Domestic

#### 6.1.1 Measures employed to regulate fishery

Fishery restrictions on U.S. Nationals have been established by the U.S. Bureau of Commercial Fisheries (the predecessor of the National Marine Fisheries Service), the State of Alaska and the International Pacific Halibut Commission. The BCF was responsible for both research and management of domestic fisheries in Alaska before statehood in 1958. The BCF imposed restrictions on the size, character, and operation of trawls to be used to capture groundfish (Table 14). In 1959 the State of Alaska assumed responsibility for regulating the groundfish fisheries of Alaska. A history of the state's groundfish regulations is included in Table 14. Many of the regulations were specific to the Gulf of Alaska where domestic fisheries have been more active.

In addition to regulations given in Table 14, the State of Alaska requires all commercial fishermen landing any species of fish or shellfish in Alaska to possess a commercial fishing license, and the captain or owner of all fishing vessels are required to license their vessels and the fishing gear employed. Buyers are required to keep records of each purchase and show the number and name of the vessel, the State license number of the vessel, date of landing, pounds purchased of each species, statistical area in which the fish was caught, and the kind of gear used in taking the fish.

The chronology of different regulatory measures for the Pacific halibut fishery as well as their rationale are discussed by Dunlop et al. (1964), Bell (1967) and Skud (1977). Before 1963, the North American halibut fishery in the Bering Sea was managed by the International Pacific Halibut Commission (IPHC). From 1963 to 1977, IPHC recommended regulations, but these had to be approved by the International North Pacific Fisheries Commission (INPFC). Since the onset of regulations in 1932, several changes have occurred in the boundaries defining regulatory areas in the Bering Sea and Aleutians. Some of the changes were in response to tagging studies that indicated a relationship between halibut

Table 14. —Historical summary of Alaska groundfish regulations.

| Year   | Legal gear, definitions, and other regulations   |
|--|--|
| - - - - - Earlier records not available- - - - - |  |
| 1940   | Use of trawls prohibited except for shrimp, flounders when not capturing, injuring or destroying other food fish, and spider and King crab west of 150°W. longitude exclusive of Cook Inlet.   |
| 1942   | Trawls prohibited in fishing for salmon, herring, and Dungeness crab.  |
| 1948   | <p>Gear restrictions: Trawls. The size, character, and operation of otter trawls in Alaskan waters are limited as follows:</p> <p>(a) Otter trawls having mesh smaller than 5 inches stretched measure between knots in the bag and 6 inches stretched measure between knots in the wings are prohibited: Provided, that otter trawls now in use having mesh smaller than that specified may be used through the calendar year 1949 if registered with the Regional Director, Fish and Wildlife Service, Juneau, Alaska.</p> <p>(b) The use of any devices attached to the footrope or elsewhere, such as chain "ticklers", which may cause undue disturbance or destruction of the bottom, is prohibited.</p> <p>(c) The use of otter trawls in any area which the International Fisheries Commission has found to be populated by small immature halibut and accordingly has closed to all halibut fishing, is prohibited.</p> <p>(d) All operators of otter trawls shall maintain a running log on forms furnished showing date, type and size of mesh of trawl used, each locality fished, the time and duration of each tow and the estimated poundage and number or average weight of each species caught. Such logs shall be available for inspection by representatives of the Fish and Wildlife Service at any reasonable time, and the duplicate sheets shall be transmitted to the Fish and Wildlife Service at periodic intervals. On or before December 15 of each year complete statistics of operation shall be submitted to the Fish and Wildlife Service on forms provided for the purpose.</p> <p>(e) The use of any trawl in commercial fishing for salmon, herring, and Dungeness crabs is prohibited.</p> |

Table 14. --Historical summary of Alaska groundfish regulations. (Cont'd)

| Year | Legal gear, definitions, and other regulations  |
|------|---|
| 1949 | <p>The following species besides salmon were defined as commercial fish:</p> <p>Albacore (<u>Germo alalunga</u>) tuna<br/>           Cod (<u>Gadus macrocephalus</u>) codfish, true cod, grey cod<br/>           Sulachon (<u>Thaleichthys pacificus</u>) smelt, hooligan<br/>           Halibut (<u>Hippoglossus stenolepis</u>)<br/>           Herring (<u>Clupea pallasii</u>)<br/>           Lingcod (<u>Ophiodon elongatus</u>)<br/>           Rockfish (all species of genus <u>Sebastes</u> also known as rockcod and sea bass)<br/>           Sablefish (<u>Anoplopoma fimbria</u>) black cod<br/>           Sheefish (<u>Stenodus mackenzii</u>) inconnu<br/>           Sole and flounder (all species of family Pleuronectidae)</p> |
| 1958 | Trawl fishermen no longer required to fill out log books.   |
| 1959 | <p><u>Alaska Statehood</u><br/>           Trawls illegal for taking crab.</p>   |
| 1960 | <p>Longlines and trawls may be used to take groundfish.<br/>           Longlines are the only legal gear with which to take sablefish within S.E. Alaska. Halibut are to be regulated according to IPHC regulations 5AAC 39.390.</p>  |
| 1961 | All defined legal gear became legal for the taking of groundfish excepting S.E. sablefish.  |
| 1967 | S.E. sablefish: a 2 $\frac{1}{2}$ ", #20 thread or less gillnet may be aboard vessel for taking bait.   |
| 1968 | S.E.: sablefish taken incidentally by longline or otter trawl may be retained in an amount not to exceed ten percent, by weight, of each landing.   |
| 1970 | Pots became legal sablefish gear within S.E.  |
| 1972 | <p>Incidental allowable catch of sablefish increased to 20%.</p> <p>1962 regulation (5 AAC 39.390) referring to IPHC management of halibut repealed.</p>  |

Table 1A. — Historical summary of Alaska groundfish regulations. (Cont'd)

| Year | Legal gear, definitions, and other regulations   |
|------|--|
| 1976 | <p>An untreated cotton escape for sablefish pots required within S.E.</p> <p>Also under General Provisions, Groundfish Fishery, Gear for Groundfish.</p> <p>(a) Groundfish may be taken by trawls, hand troll gear, seines, longlines and pots except as legal gear may be further restricted by groundfish gear regulations of chs. 03-39 of this title and except as follows:</p> <p>(1) king and tanner crab pots as defined in chs 34 and 35 of this title may not be used to take groundfish in the areas where the regulations define those pots:</p> <p>(2) groundfish taken by power gurdy troll gear being fished for salmon consistent with applicable state laws and regulations are legally taken and possessed.</p> <p>(3) All commercial longline or skate gear buoys or kegs shall be marked with the permanent department registration number of the vessel fishing this gear.</p> |
| 1977 | <p>Crab pots are not defined for all areas. The most restrictive definitions are as follows:</p> <p>A king crab pot is a pot with rigid tunnel eye openings and which individually are a <u>minimum</u> of five inches in one dimension, and tunnel eye opening perimeters which individually are larger than 30 inches.</p> <p>A tanner crab pot is a pot with rigid tunnel eye openings which individually are a <u>maximum</u> of five inches in one dimension, and tunnel eye opening perimeters which individually are larger than 30 inches; or a pot which tapers from its base to a top consisting of one horizontal opening of undescribed size.</p> <p>Same as 1976 except that sunken or diving gillnets may be used for groundfish upon issuance of a permit by the commissioner (ADF&amp;G).</p>  |

stocks in the Aleutians and the Gulf of Alaska. However, most of the changes were designed to obtain a desired distribution of fishing effort and to facilitate enforcement.

Except for a period in the late 1940's and early 1950's and again in 1963-64, quotas have not been used to manage Bering Sea halibut stocks. Instead, restrictions have been based on the length of the season. Until the late 1950's, the Bering Sea season coincided with that of IPHC Area 3 (the Gulf of Alaska west of Cape Spencer), but by the early 1960's, the opening of the Bering Sea often was a month earlier than in Area 3. The earlier opening was established to encourage fishermen to exploit Bering Sea stocks. Since 1965, the fishing time has been limited to three weeks or less in the spring and fall or both. This curtailment was necessary because of the drastic decline in abundance of halibut.

Other regulations include licensing requirements, gear restrictions, minimum size limits, and closed areas. IPHC requires that all setline vessels over 5 net tons be licensed; there is no fee and annual renewal is not required. Licensed vessels must maintain a log book showing the daily catch, effort, and the fishing area. From 1932 to 1973, vessels also were required to "clear" for fishing a particular area and submit a "statistical return" at the completion of each trip. These requirements have since been deleted.

In 1938, the regulations prohibited the use of set nets for catching halibut. Nets of any kind were prohibited in 1944, and this restriction has continued to the present day. The definition of nets was expanded to include pots in 1972. IPHC's justification of trawl prohibition was based on evidence that halibut caught by trawls usually are below the optimum harvesting size.

The size limit of halibut was introduced into the regulations in 1940. The minimum size that that time was 5 pounds, head-off, dressed. The purpose of the size limit was to reduce the catch of halibut that were below the optimum harvest size, but there also was an economic reason. The industry favored the regulation because small halibut were often of poorer shipping quality and of lower value. In 1973, the minimum size

limit was increased and expressed in terms of length: 32 inches from the tip of the lower jaw to the end of the middle of the tail. The increase was justified based on an increase in growth rate.

In 1967, IPHC Area 4E in southeastern Bering Sea was declared a nursery area and a year-round closure was instituted that still is in effect.

#### 6.1.2 Purposes of regulatory measures

The limited number of groundfish regulations implemented by the State of Alaska were primarily designed for the protection of species of high commercial value such as salmon, herring, juvenile halibut, and shellfish. Examples of such regulations were the restrictions on use of pot gear, gillnets, otter trawls, and seines (Table 14).

With regard to halibut, IPHC is restricted by the present convention to manage for MSY and cannot consider other goals or economic factors. Regulations in the Bering Sea and Aleutians were designed to accomplish this goal. Specifically, season and quota restrictions controlled fishing mortality; minimum size limits, gear restrictions, and closed areas reduced the mortality on optimum sized halibut; the timing of the seasons and the area designations affected the distribution of fishing effort and facilitated enforcement; licensing, and statistical requirements provided scientific information on stock condition.

## 6.2 Foreign

### 6.2.1 Measures employed to regulate the fishery

A number of regulatory measures affecting groundfish fisheries have been implemented through public laws and international agreements prior to enactment of the U.S. Fishery Conservation and Management Act of 1976. Initial regulatory measures originated from the International Convention for the High Seas Fisheries of the North Pacific Ocean involving Canada, Japan, and the United States, which was brought into force in 1953. The Convention provided for establishment of the International North Pacific Fisheries Commission (INPFC) to provide and coordinate scientific studies necessary to ascertain and recommend conservation

measures required to ensure maximum sustained productivity of fishery resources in the Convention area (Forrester et al. 1974). One of the provisions of the Convention prohibited Japan from fishing halibut in certain areas and, starting in 1958 Japan agreed to abstain from fishing halibut providing that stocks of halibut continued to meet qualifications for abstention, e.g., that the stocks were under substantial exploitation by two or more of the contracting parties.

In 1962 member nations of INPFC agreed that halibut east of 175° W in the Bering Sea no longer continued to qualify for abstention (Forrester et al. 1974) Following the removal of halibut from the abstention list, joint conservation measures were implemented by member nations of INPFC in 1963 which included a catch quota of 5,000 mt in a triangular area east of 170° W. Following a catch of 5,000 mt in the quota area in 1963, catches dropped abruptly and Japan withdrew her longline fleet from the quota area after 1964. Although agreement between INPFC member nations was never reached to return halibut to the abstention list, Japan has not chosen to conduct a target fishery on halibut east of 175° W since 1964.

U.S. Public Law 88-308, enacted in May 1964, made it unlawful for foreign vessels to fish within the 3-mile territorial waters of the United States or to fish for designated fishery resources of the adjacent U.S. Continental Shelf. In October 1966, U.S. Public Law 89-658 established a 9-mile contiguous fishery zone adjacent to the U.S. 3-mile territorial sea. The law provided that the United State would have the same jurisdiction over fisheries within this newly created zone as it had within its 3-mile territorial waters subject to the continuation of traditional fisheries by foreign nations.

In 1964, the U.S. initiated bilateral agreements with Japan and the USSR to allow continuation of their traditional fisheries within the contiguous zone in certain areas of Alaska (Office of Enforcement and Surveillance 1968). One provision of the 1964 agreements was the establishment of a king crab pot sanctuary adjacent to the north side of Unimak Island and the western Alaska Peninsula that prohibited trawling

year-round. The purpose of the sanctuary was to prevent gear conflicts between mobile foreign gear and domestic fixed gear. An adjacent area, closed to trawling during winter, in order to reduce incidental catches of juvenile halibut, was added in later bilateral agreements.

The agreements with Japan and the USSR were renegotiated at two-year intervals. Subsequent agreements created some changes in areas of fishing within the U.S. contiguous zone, and provided areas within the zone for transshipment of cargo between foreign fishing and support vessels. This series of agreements was expanded to include Canada in 1970, allowing for reciprocal fishing privileges within the contiguous fishing zone. Agreements were also signed with the ROK in November 1972, and with Poland in May 1975. No fishery agreements have been signed with Taiwan.

Starting in 1973, the bilateral agreements between the United States and Japan and the USSR begin to include catch quotas for these nations in the eastern Bering Sea and Aleutian Island regions. Annual quotas for the years 1973-76 are given in Table 15.

In addition to the crab pot sanctuary, the bilateral agreements have provided other area-time closures to Japanese and Soviet trawl fisheries for the protection of halibut. These closures are designed to reduce the incidental catch of halibut by trawl fisheries in areas and time periods that halibut form concentrations. Area-time closures currently in effect for these fisheries are shown in Figures 17 and 18.

Restrictions on Polish and ROK fishing vessels in the eastern Bering Sea and Aleutian Island regions are shown in Figures 19 and 20.

Current regulations pertaining to foreign groundfish fisheries are found in Section V-A of the Preliminary Fishery Management Plan for the Trawl Fishery of the Bering Sea and Aleutian Islands, and include catch limitations, prohibition on the retention of certain species of importance to the United States, and time-area closures to prevent gear conflicts and provide protection to halibut. Catch limitations imposed on foreign fisheries in 1977 are listed in Table 16.

Table 15.—Catch quotas applicable to Japanese and Soviet fisheries in the eastern Bering Sea and Aleutian Island region in 1973-76. (MT)

| Area/fishery   | Species                             | 1973                         | 1974                   | 1975-76                        |
|--|-------------------------------------|------------------------------|------------------------|--------------------------------|
|  |                                     | <u>Japan</u>                 |                        |                                |
| Eastern Bering Sea<br>Mothership-North<br>Pacific Trawl                      | Pollock                             | 1,500,000                    | 1,200,000              | 1,100,000                      |
|  | Groundfish<br>other than<br>pollock | —                            | —                      | 160,000                        |
|  | Herring                             | 1969 level<br>(33,000)       | 1969 level<br>(33,000) | 15,000                         |
| North Pacific<br>Longline-Gillnet  | Herring                             | 1971 level<br>(4,600)        | 1971 level<br>(4,600)  | 3,000                          |
| Landbased Dragnet  | Groundfish<br>(All species)         | —                            | —                      | 35,000                         |
| Aleutian Region<br>Mothership-North<br>Pacific Trawl and<br>Longline-Gillnet | Pacific ocean<br>perch              | —                            | —                      | 9,600                          |
|  | Sablefish                           | —                            | —                      | 1,200                          |
| Landbased Dragnet  | Groundfish<br>(All species)         | —                            | —                      | 8,500                          |
|  |                                     | <u>U.S.S.R.</u><br>(1973-74) |                        |                                |
| Eastern Bering Sea   | Flatfish                            | 100,000                      |                        | (Included in<br>other species) |
|  | Pollock                             | —                            |                        | 210,000                        |
|  | Herring                             | —                            |                        | 30,000                         |
|  | Other species                       | —                            |                        | 120,000                        |
| Aleutian Region  | Rockfish                            | —                            |                        | 12,000                         |
|  | Other species                       | —                            |                        | 16,000                         |

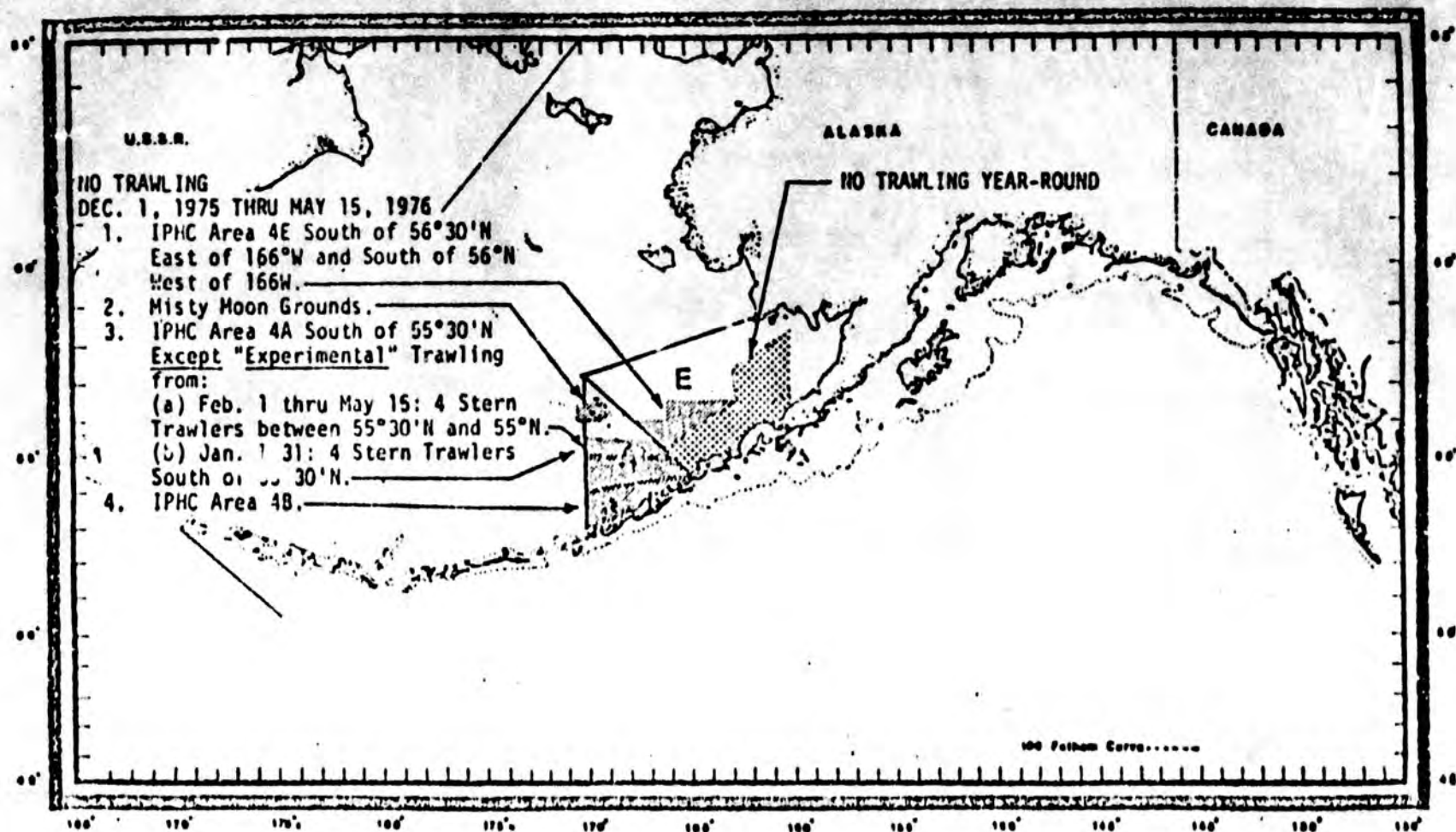


Figure 17--Area-time closures and restrictions for Japanese trawl fisheries in southeastern Bering Sea, effective through December 31, 1976.

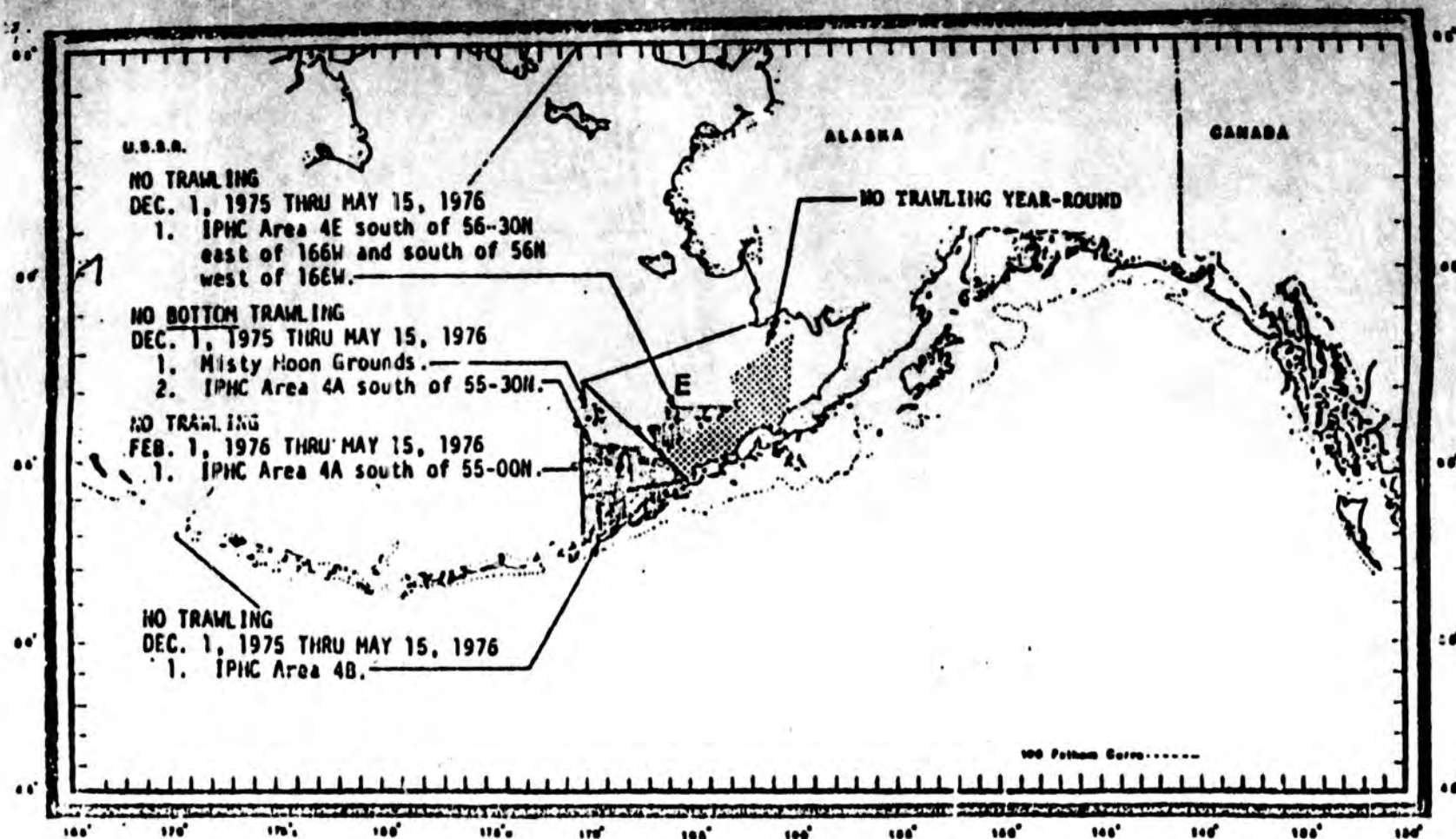


Figure 18.--Area-time closures and restrictions for Soviet trawl fisheries in southeastern Bering Sea, effective through December 31, 1976.

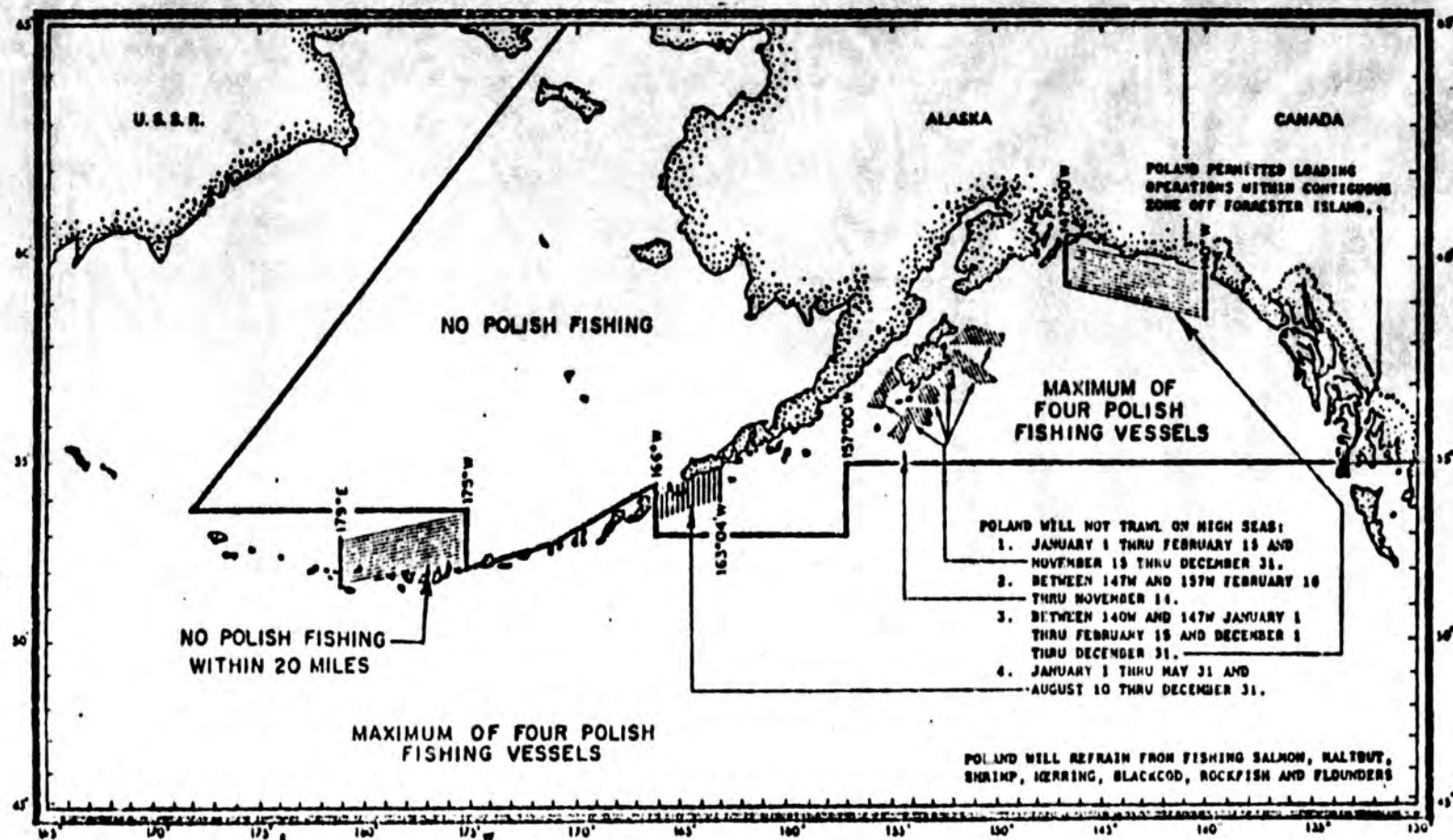


Figure 19.--Area-time closures and restrictions for fisheries of the Polish People's Republic in the Gulf of Alaska and Bering Sea, effective through December 31, 1976.

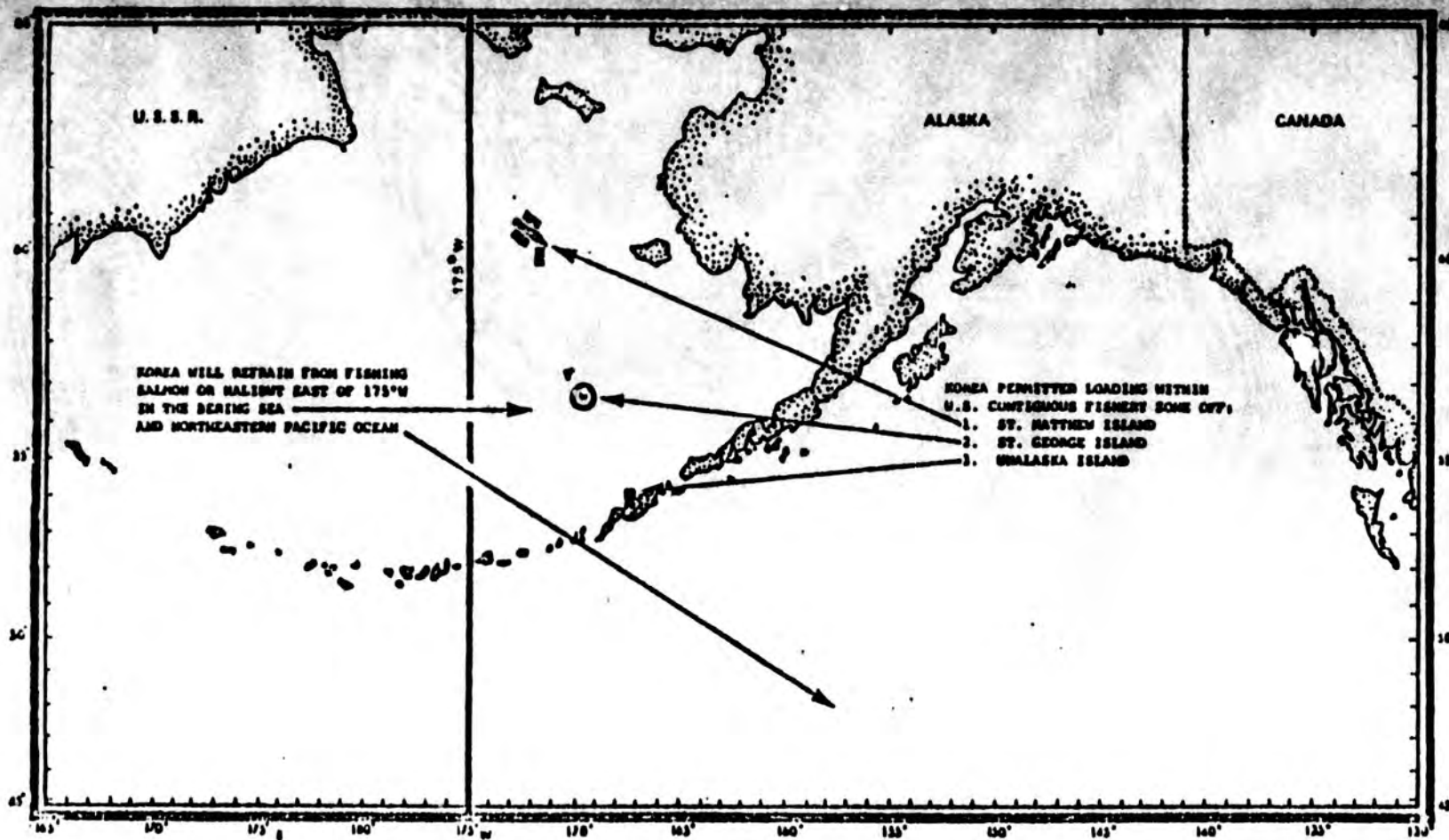


Figure 20.--Provisions of the United States-Republic of Korea Fisheries Agreement effective through December 12, 1977.

Table 16.—1977 Groundfish and squid catch limitations (1000 mt) for foreign fisheries in the eastern Bering Sea and Aleutian Islands region.

| Species             | Area                     | Nation            |                   |                   |                   | Total assigned | Unassigned <sup>1/</sup> | Total foreign allocation |
|---------------------|--------------------------|-------------------|-------------------|-------------------|-------------------|----------------|--------------------------|--------------------------|
|                     |                          | Japan             | USSR              | ROC               | Taiwan            |                |                          |                          |
| Pollock             | Bering Sea/<br>Aleutians | 792.3             | 112.7             | 40.0              | 5.0               | 950.0          | 0                        | 950.0                    |
| Sablefish           | Bering Sea               | 3.6 <sup>2/</sup> | 0.6 <sup>3/</sup> | 0.4 <sup>2/</sup> | 0.2 <sup>3/</sup> | 4.8            | 0.2                      | 5.0                      |
|                     | Aleutians                | 2.0 <sup>2/</sup> | 0.2 <sup>3/</sup> | 0.2 <sup>1/</sup> | 0                 | 2.4            | 0                        | 2.4                      |
| Pacific cod         | Bering Sea/<br>Aleutians | 38.1              | 17.2              | 0                 | 0                 | 55.3           | 2.7                      | 58.0                     |
| Yellowfin sole      | Bering Sea/<br>Aleutians | 62.1              | 40.8              | 0                 | 0                 | 102.9          | 3.1                      | 106.0                    |
| Other flounders     | Bering Sea/<br>Aleutians | 61.5              | 40.4              | 0                 | 0                 | 101.9          | 3.1                      | 105.0                    |
| Pacific ocean perch | Bering Sea               | 2.8               | 3.5               | 0                 | 0                 | 6.3            | 0.2                      | 6.5                      |
|                     | Aleutians                | 6.5               | 8.1               | 0                 | 0                 | 14.6           | 0.4                      | 15.0                     |
| Other groundfish    | Bering Sea               | 40.4              | 17.4              | 1.6               | 0.2               | 59.6           | 0                        | 59.6                     |
|                     | Aleutians                | 23.1              | 9.9               | 0.89              | 0.11              | 34.0           | 0                        | 34.0                     |
| Squid               | Bering Sea/<br>Aleutians | 10.0              | 0                 | 0                 | 0                 | 10.0           | 0                        | 10.0                     |

<sup>1/</sup> Portion of total foreign allocation unassigned for possible use by a domestic fishery.

<sup>2/</sup> Includes incidental trawl catch.

<sup>3/</sup> Incidental catch only.

### 5.2.2 Purposes of regulatory measures

Most of the regulatory measures pertaining to foreign groundfish fisheries in the eastern Bering Sea and Aleutian Islands were implemented for conservation of halibut stocks and to prevent gear conflicts between foreign trawlers and domestic fixed gear (crab pots and halibut setlines). In negotiating these restrictions on foreign fisheries in international waters, certain concessions were provided the fisheries involved in terms of fishing and landing privileges within the U.S. contiguous fishing zone.

With the decline in abundance of halibut in the eastern Bering Sea in the mid-1960's, negotiations were directed toward reducing or preventing foreign fisheries from targeting on halibut. When it became apparent that these measures were not creating the desired improvement in the condition of the halibut stock, other measures involving time-area closures were negotiated to reduce the incidental catch of halibut by foreign trawl fleets. The retention of trawl-caught halibut was also prohibited.

As evidence became available of deterioration in the condition of other bottomfish stocks in the eastern Bering Sea and Aleutian Islands, negotiations were initiated to limit or reduce foreign catches of these species in an attempt to arrest these declines and restore the resources to higher productivity. Catch quotas for Japanese and Soviet fisheries were first implemented in 1973 and were carried forward, with some modifications, until 1977 when foreign fisheries came under jurisdiction of the U.S. Fishery Conservation and Management Act.

### 6.3 Effectiveness of Management Measures (foreign and domestic)

Closures to foreign trawling of crab and halibut fishing areas have undoubtedly reduced conflicts between the foreign trawlers and U.S. fixed gear. Gear losses have continued, but recent losses have occurred outside areas closed to foreign trawling.

Restrictions on the North American setline fishery have reduced fishing mortality on stocks of adult halibut, but the primary problem

appears to be a reduction in the number of young halibut entering the fishery. Recent time-area closures have reduced the incidental catch by foreign trawlers and the abundance of young has increased since 1972 (Table 17). Although the increase is encouraging, it will not improve conditions in the setline fishery for several years, and abundance is still well below that in the 1960's. The present poor condition of the resource probably is a result of several factors: excessive setline removals in the early 1960's, high incidental catches of juvenile halibut by foreign trawlers in the 1960's and early 1970's, and reduced productivity from adverse environmental conditions (Hoag, 1976). Because halibut are a long-lived species, rehabilitation of the resource will be a lengthy process regardless of present management measures.

Regulations in the form of catch quotas implemented in 1973 and later years to mitigate the deterioration in condition of other groundfish species in the eastern Bering Sea and Aleutians have perhaps begun to show some benefit for certain species while not for others. Other factors such as year-class strength, time-area closures designed to protect halibut but also beneficial to other species, and the reduction of effort on some species, may have also influenced the current status of some stocks.

Catch limitations have reduced the catch of pollock from over 1.8 million mt in 1972 to 950,000 mt in 1977. Based on analysis of catch and effort data from the commercial fishery the abundance of pollock declined through 1975 (Low et al. 1977). Preliminary evidence that abundance in 1976 was similar to that in 1975 (INPFC 1977) offers some indication of an arrest in the decline of pollock abundance in the eastern Bering Sea. Lower fishing mortality, stemming from the catch limitations, have probably helped to lessen the decline in the pollock stock and may be contributing to a halt in this decline.

For species such as Pacific ocean perch and sablefish there has been, as yet, no evidence that catch restrictions have improved the poor condition of these stocks. In the case of long-lived and slow growing species like Pacific ocean perch and sablefish several years will be required before evidence is available to judge the effectiveness of current management policies.

Table 17. Relative abundance of juvenile halibut by age groups from the Bering Sea Index Stations, 1966-1977 (from IPHC 1977b).

| Year | Age<br>2                       | Age<br>3 | Age<br>4 | Age<br>5 | Age<br>6 | Age<br>7 | Total |
|------|--------------------------------|----------|----------|----------|----------|----------|-------|
|      | <u>Number per hour trawled</u> |          |          |          |          |          |       |
| 1966 | 0.2                            | 17.2     | 4.9      | 7.6      | 0.9      | 0.2      | 31.0  |
| 1967 | 0.6                            | 4.3      | 4.6      | 6.0      | 0.5      | 0.6      | 16.6  |
| 1968 | 0.3                            | 6.4      | 1.8      | 3.1      | 0.5      | 0.4      | 12.5  |
| 1969 | 2.7                            | 4.1      | 4.7      | 0.4      | 0.7      | 0.2      | 12.8  |
| 1970 | 0.4                            | 8.8      | 2.0      | 0.7      | 0.2      | -        | 12.1  |
| 1971 | 3.7                            | 2.6      | 7.6      | 0.3      | -        | -        | 14.2  |
| 1972 | 0.1                            | 2.0      | 0.5      | 0.4      | 0.1      | -        | 3.1   |
| 1973 | 0.1                            | 3.7      | 1.9      | 0.7      | 0.2      | -        | 6.6   |
| 1974 | 0.1                            | 1.2      | 3.7      | 0.8      | 0.3      | -        | 6.1   |
| 1975 | 0.5                            | 3.2      | 5.3      | 2.0      | 0.7      | 0.1      | 11.8  |
| 1976 | 0.3                            | 6.5      | 4.5      | 1.2      | 0.3      | 0.1      | 12.9  |
| 1977 | 0.4                            | 5.4      | 9.5      | 2.1      | 1.4      | 0.1      | 18.9  |

There is evidence that the condition of stocks of yellowfin sole, rock sole, flathead sole and Alaska plaice have improved or remained relatively stable in recent years (Wakabayashi and Bakkala 1977; Bakkala and Wakabayashi 1977). Their condition has benefited from a series of relatively strong year-classes originating in the late 1960's. Winter time-area closures in the southeastern Bering Sea, designed for the protection of halibut, also benefit these species because they form winter concentrations in this area as well. The absence of a directed Soviet fishery on these species of flounders since 1972 may have additionally benefited the stocks. Thus, factors other than management measures directly applicable to the four small flounder species may be responsible for their current status. Catch limitations, however, are designed to maintain and improve their productivity.

For other principal species considered in the plan (Pacific cod, Atka mackerel, arrowtooth flounder, Greenland turbot, and squid) information is lacking to adequately assess the current condition of the stocks relative to the recent past. There is no evidence to suggest that the stocks are depressed and catch limitations are designed to maintain the population at current levels.

## 7.0 HISTORY OF RESEARCH

Investigations of groundfish resources of the eastern Bering Sea have been conducted by the United States, Canada, Japan, and USSR. U.S. research efforts have been of the longest duration (1880 to present) and were initiated to assist the development of U.S. cod and halibut fisheries. As these and other fishery resources of the eastern Bering Sea became increasingly utilized, and in some cases overfished in the decades of the 1960's and 1970's, investigations became more directed towards providing guidelines for resource management and conservation.

### 7.1 United States<sup>1/</sup>

The first major study of the demersal fishery resources of any consequence occurred in 1894 when the U.S. Fish Commission's steamer Albatross was directed into the southeastern Bering Sea to determine the locations and characteristics of important cod-fishing grounds (Rathbun 1894). Later in 1911, the Albatross also investigated halibut banks just north of Unimak Island (Alexander 1913). In 1930 the International Pacific Halibut Commission (IPHC) conducted exploratory setline fishing along the Aleutian Islands and tagging of halibut in Makushin Bay on the north side of Unalaska Island (Dunlop et al. 1964).

The first extensive and systematic survey of demersal fishery resources of the eastern Bering Sea was conducted in 1941 by the U.S. Fish and Wildlife Service (Fishery Market News 1942). Bottom trawling was conducted in the southeastern Bering Sea north to St. Lawrence Island, and in Norton Sound. Although the primary purpose of the survey was to locate areas of king crab abundance, information was also collected on the quantities and types of demersal fish encountered.

Continued interest in the commercial potential of crab and groundfish of the eastern Bering Sea resulted in further investigations after World War II. There were cooperative U.S. Government-industry ventures in the northeastern Bering Sea in 1947 (King 1949) and in 1948 (Wigutoff and Carlson 1950). The IPHC resumed exploratory setline fishing and tagging of halibut in the eastern Bering Sea in the 1950's (Dunlop et al. 1964).

<sup>1/</sup> Includes Canadian research done in cooperation with the U.S., within the framework of the International Pacific Halibut Commission.

With the development and intensification of fisheries in the eastern Bering Sea in the 1950's and 1960's, U.S. and IPHC research surveys began to be conducted in a more systematic and standardized manner. These investigations initially sought improved information on changes in abundance and recruitment of king crab and halibut, but other species were also later included. The U.S. Bureau of Commercial Fisheries (now the National Marine Fisheries Service) began systematic annual bottom trawl surveys in the southeastern Bering Sea in 1955 to obtain information on the distribution, abundance, biology, and recruitment of king crab. These surveys were interrupted for the period 1962-1965, but were continued in 1966. In 1968, Tanner crab was included in these surveys and received special study, and in 1971 biological studies of important groundfish species were also added. These annual crab-groundfish surveys are a continuing activity by the NMFS. In the late summer of 1975 and spring of 1976, NMFS conducted multivessel groundfish and shellfish surveys in the eastern Bering Sea to provide baseline environmental information to the Bureau of Land Management's Outer Continental Shelf Environmental Assessment Program.

Beginning in 1963 and annually since 1965, the IPHC has been systematically monitoring by means of bottom trawl surveys the distribution and abundance of young halibut in the eastern Bering Sea (Best 1969a and b; 1970; 1974).

In recent years, U.S. observers have been placed aboard foreign fishing and processing vessels to examine catches of target species (primarily pollock), and incidentally-caught halibut.

## 7.2 Foreign

Japanese research investigations in the eastern Bering Sea began in the mid-1950's, although there had been some experimental trawl fishing on bottomfish by Japanese commercial interests in this region in the early 1930's (Kibesake 1965). In 1956 the Oshoro Maru engaged in limited exploratory trawl fishing in the eastern Bering Sea. The Oshoro Maru has continued investigations from the 1950's to present time (Hokkaido

University 1957, 1960, 1964-66). Other limited trawling investigations were conducted in 1961 through 1964 (Shimonoseki University of Fisheries 1966; Tsuruta et al. 1962).

Extensive and systematic surveys of eastern Bering Sea groundfish by the Japanese were begun in 1963 by the Japan Fishery Agency (JFA), and have continued annually with the exception of 1972 (Japan Fishery Agency 1975 b). These surveys have covered broad areas of the continental shelf, and in some years the shelf edge and upper continental slope. Included in the Japanese investigations have been tagging studies on halibut, sablefish, pollock, and yellowfin sole.

The Japanese have been collecting catch and effort statistics and biological information from their groundfish fisheries since 1964, and providing these data to the U.S. through the International North Pacific Fisheries Commission.

Although the Soviet Union conducted limited exploratory surveys in the eastern Bering Sea in the early 1930's and early 1950's (Moiseev 1963), their first extensive investigations of demersal fish and shellfish resources in the eastern Bering Sea were during 1957-63. The main purpose of these surveys was the determination of the extent and potential uses of resources prior to commercial exploitation by the Soviet fleet. Information was also gathered on the biology of important species populations and environmental features associated with their distributions (Moiseev 1963-64; 1970).

Since 1963, the Soviet Union has continued its research on eastern Bering Sea fishery resources, which have included pollock and other demersal fishes.

## 8.0 SOCIO-ECONOMIC CHARACTERISTICS OF THE DOMESTIC FISHERY

### 8.1 Commercial Fishery

#### 8.1.1 Commercial fishing fleet

In 1977 less than 100,000 pounds of groundfish was landed and sold for human consumption. The number of vessels operating in the fishery has been so small that specific information cannot be disclosed without violating the confidentiality of individual reports. There is a slightly larger groundfish fishery for bait for use by crab boats operating in the area, although fish tickets are not made out systematically when the groundfish are caught or sold. Alaska Department of Fish and Game biologists, extrapolating from a similar bait fishery operating in the Gulf of Alaska, and considering the size of the crab fishery and number of boats known to be catching groundfish for bait in the Bering Sea area, have estimated the harvest for this purpose at about 450 mt in 1977, and as high as 1,300 mt in 1978.

In all, the total domestic commercial groundfish catch in the Bering Sea/Aleutian region (excluding halibut) is believed to have been no more than 1,500 mt in any recent year.

#### 8.1.2 Domestic commercial processing industry

Although substantial freezing and transshipping facilities are located at Dutch Harbor, with the exception of very small amounts of groundfish frozen for crab bait no groundfish processing (except halibut) has occurred in this region in recent years.

#### 8.1.3 Products and Markets

The viability of a domestic Bering Sea groundfish fishery will ultimately depend on the ability of U.S. industry to market products at prices which cover their production costs. An understanding of these market conditions will be important for the accurate determination of DAH. Although the U.S. and world groundfish markets are not fully understood, it appears that there are not at present significant opportunities to market Bering Sea groundfish at prices which will cover U.S. costs of production. For at least the near term, the domestic groundfish fishery in the Bering Sea will be limited to local markets

for bait and to demonstration projects. The market for fishery products is in a state of change, however, and it is entirely possible that new markets could open up in the near future. One possible change might come from management actions taken to deliberately influence market conditions.

It is at least theoretically possible that the determination of OY could influence markets and prices. For any commodity a reduction in supply from one source, such as foreign groundfish landings, may improve market opportunities for other suppliers, such as U.S. fishermen. At present there is no information on whether this relationship is significant for Bering Sea stocks, or whether it might be sufficient to overcome costs of U.S. operations.

Table 18 illustrates the importance of the Northeast Pacific (FAO area 67), including the Pacific Coast above California) in production of pollock, flounders, and cod. In 1975 the Northeast Pacific produced 20% of the world's pollock, 16% of the world's flounders, and 3% of the world's cod. For these groundfish species the likelihood of influencing world price through manipulation of OY is low due to the relatively small share of world production coming from the northeastern Pacific. For example, if the pollock OY for the eastern Bering Sea was to be set 30 percent below ABC in an attempt to increase the world price for that species, world pollock supply would be reduced by something less than 6 percent ( $30\% \times 20\% = 6\%$ ). However, for particular markets (e.g., the Japanese market for "surimi", it might be possible for reductions in foreign allocations to have an influence on either price offered for U.S. products or the willingness of customers to consider buying such specific products from U.S. processors.

If it were found that such a relationship did exist, its exploitation would present an additional set of tradeoffs between the management objectives of domestic industry development, consumer interest and price, full utilization of the resource and U.S. foreign policy interests. No such relationship has yet been identified; therefore, no adjustments to OY for this purpose have been made.

|                          | World Total | Northeast Pacific<br>(FAO Area 67) | Percentage Produced in<br>Northeast Pacific |
|--------------------------|-------------|------------------------------------|---|
| Pollock and Saith        | 5709117     | 1117858                            | 20  |
| Flounders                | 1146276     | 179145                             | 16  |
| Atlantic and Pacific Cod | 2589086     | 70815                              | 3   |

NS  
 Table 18. 1975 World and Northeast Pacific production of selected groundfish (metric tons).

Published information on U.S. groundfish utilization and prices is reported in Table 18a. Apparent consumption for any period is a derived figure; the sum of beginning stocks, domestic productions and imports, less ending stocks and exports.

In 1977 U.S. apparent groundfish consumption was 803.4 million pounds, 364 million pounds of fresh and frozen fillets and 438.9 million pounds of sticks and portions. Eighty percent of fillets and essentially all the frozen blocks used in sticks and portions were imported.

1977 retail prices for groundfish fillets ranged from \$3.32 per pound for fresh flat fillets to \$1.68 per pound for frozen ocean perch fillets. An average price for all sticks and portions was \$1.77 per pound. Historically groundfish prices have risen at a greater rate than general inflation, while prices of substitutes such as beef, pork and poultry have not kept pace.

The distribution of groundfish consumption by region and market type is not available from published sources. However, approximations were obtained by consultation with industry. Over half the stick and portion production is sold to institutions; the remainder is sold to households. Within the institutional category, most fish sticks are sold to such public institutions as schools, hospitals, and military installations, whereas restaurants are the major institutional buyers of fish portions.

Institutions buy an even greater proportion of frozen fish fillets. Within the institutional category, most fillets are sold to restaurants.

On a geographic basis, frozen groundfish consumption is higher in the midwest and south where alternate fish products are not as readily available.

## 8.2 Recreational Fishery

Historically, there was no recreational fishing in the Bering Sea/Aleutian area; presently, the effort is small, if indeed it exists, and is conducted in inshore waters.

## 8.3 Subsistence Fishery

Subsistence fishing activities of Native Alaskans in the Bering Sea/Aleutian area pre-date history. To what extent the subsistence effort was conducted in offshore waters can be based only on scant

Table 18a.

## U.S. GROUND FISH UTILIZATION AND PRICES

Supplies and Utilization (Millions pounds product weight)

| <u>Product and Species</u>      | <u>Beginning<br/>Stocks</u> | <u>Domestic<br/>Production</u> | <u>Imports</u> | <u>Total</u> | <u>Ending<br/>Stocks</u> | <u>Apparent<br/>Consumption</u> |
|---------------------------------|-----------------------------|--------------------------------|----------------|--------------|--------------------------|---------------------------------|
| <u>Fresh and frozen fillets</u> | 53.2                        | 70.7                           | 303.9          | 427.8        | 63.3                     | 364.5                           |
| Cod                             | 16.2                        | 25.4                           | 122.2          | 163.8        | 27.2                     | 136.6                           |
| Flatfish (Flounder and Turbot)  | 17.6                        | 24.2                           | 95.6           | 137.4        | 18.9                     | 118.5                           |
| Haddock                         | 5.1                         | 10.5                           | 40.9           | 56.5         | 7.7                      | 48.8                            |
| Ocean perch                     | 14.3                        | 10.0                           | 45.2           | 70.1         | 9.5                      | 60.6                            |
| <u>Sticks and Portions</u>      | 31.1                        | (437.8)*                       | .6             | 469.4        | 30.5                     | 438.9                           |
| <u>Sticks, Cooked</u>           |                             |                                |                |              |                          |                                 |
| Cod                             |                             |                                |                |              |                          |                                 |
| Haddock                         |                             |                                |                |              |                          |                                 |
| Pollock                         |                             |                                |                |              |                          |                                 |
| Whiting                         |                             |                                |                |              |                          |                                 |
| <u>Portions, raw breaded</u>    |                             |                                |                |              |                          |                                 |
| Cod                             |                             |                                |                |              |                          |                                 |
| Haddock                         |                             |                                |                |              |                          |                                 |
| Pollock                         |                             |                                |                |              |                          |                                 |
| Whiting                         |                             |                                |                |              |                          |                                 |
| <u>Blocks</u>                   | 61.1                        | 4.6                            | 385.1          | 450.8        | 75.2                     | (377.6)**                       |
| Cod                             |                             |                                |                |              |                          |                                 |
| Cod minced                      |                             |                                |                |              |                          |                                 |
| Flounder                        |                             |                                |                |              |                          |                                 |
| Haddock                         |                             |                                |                |              |                          |                                 |
| Pollock                         |                             |                                |                |              |                          |                                 |
| Pollock, Alaska                 |                             |                                |                |              |                          |                                 |
| Whiting                         |                             |                                |                |              |                          |                                 |
| Wolffish                        |                             |                                |                |              |                          |                                 |
| TOTAL                           | 145.4                       | 75.3*                          | 689.6          |              | 167.0                    | 803.4**                         |

Table X 1977 U.S. Groundfish Supplies, Utilization and Prices

Source: National Marine Fisheries Service, NOAA, Foodfish Market Review and Outlook, December 1977

\* Excludes production of sticks and portions from imported blocks

\*\* Excludes blocks but includes sticks and portions.

Table 18a. continued

## U.S. GROUND FISH UTILIZATION AND PRICES

Prices (cents per pound 1977 dollar)

|                                 | Wholesale       |              |               | Retail       |               |
|---------------------------------|-----------------|--------------|---------------|--------------|---------------|
|                                 | <u>Exvessel</u> | <u>Fresh</u> | <u>Frozen</u> | <u>Fresh</u> | <u>Frozen</u> |
| <u>Fresh and frozen fillets</u> |                 |              |               |              |               |
| Cod                             | 25.5            | 162.3        | 91.1          | 253.1        | 169.7         |
| Flatfish (Flounder and Turbot)  | 47.6            |              | 116.7         | 331.5        | 235.5         |
| Haddock                         | 33.6            | 161.6        | 104.9         | 253.7        | 185.3         |
| Ocean perch                     | 15.3            |              | 93.1          |              | 168.0         |
| <u>Sticks and Portions</u>      |                 |              |               |              | 177.0         |
| <u>Sticks, cooked</u>           |                 |              |               |              |               |
| Cod                             |                 |              | 109.1         |              |               |
| Haddock                         |                 |              | 111.3         |              |               |
| Pollock                         |                 |              | 74.9          |              |               |
| Whiting                         |                 |              | 72.3          |              |               |
| <u>Portions, raw breaded</u>    |                 |              |               |              |               |
| Cod                             |                 |              | 109.7         |              |               |
| Haddock                         |                 |              | 111.7         |              |               |
| Pollock                         |                 |              | 73.7          |              |               |
| Whiting                         |                 |              | 70.3          |              |               |
| <u>Blocks</u>                   |                 |              |               |              |               |
| Cod                             |                 |              | 97.8          |              |               |
| Cod minced                      |                 |              | 36.1          |              |               |
| Flounder                        |                 |              | 95.6          |              |               |
| Haddock                         |                 |              | 101.4         |              |               |
| Pollock                         |                 |              | 60.4          |              |               |
| Pollock, Alaska                 |                 |              | 60.7          |              |               |
| Whiting                         |                 |              | 54.4          |              |               |
| Wolffish                        |                 |              | 87.9          |              |               |

historical reference and oral tradition. The vast majority of these efforts were concentrated on salmon, anadromous char and river herring, taken for the most part by various methods in inshore waters.

Additional efforts were conducted offshore on halibut and cod. One example of the cod fishery is that of the village of Mekoryuk, on Nunivak Island, where fishing activity offshore was conducted until the late 1940's, when, for reasons unknown, the cod failed to appear in their accustomed waters. As a consequence, that fishery does not exist at the present time. The bulk of the subsistence effort offshore was directed against otter, seal, sea lion, walrus, polar bear and birds and eggs inhabiting islands and rocks.

#### 8.4 Indian Treaty Fishery

No Indian (Native Aleut-Indian-Eskimo) treaty fishing rights are reserved in the Fishery Conservation Zone.

#### 8.5 Area Community Characteristics

Profiles for over 100 Alaskan coastal communities, several of which are located in or near the Bering Sea/Aleutian region, are available for reference at the following sites:

North Pacific Fishery Management Council headquarters, Anchorage, AK  
National Marine Fisheries Service, Alaska Regional Office, Juneau, AK  
National Marine Fisheries Service, Northwest Regional Office,  
Seattle, WA

Alaska Department of Fish and Game headquarters, Juneau, AK

A sample community profile is shown in Appendix I.

#### 8.6 Interaction Between User Groups

##### 8.6.1 Trawl vs halibut

The halibut fishery in the Bering Sea and Aleutians is affected by domestic fisheries for crab and shrimp and by foreign fisheries for groundfish. The kind of impacts include destruction of gear, preemption of fishing grounds, and a reduction in abundance that results from the incidental capture of halibut. The North American setline catch peaked in 1963 at 4,900 mt but has been below 500 mt since 1972.

The effects of current domestic operations on both the halibut fishery and resource are less than those of foreign fisheries. Gear conflicts are minimal, and the annual incidental catch of halibut by domestic trawlers is probably less than 100 mt (however, domestic king crab and shrimp fisheries may take incidentally up to 1,000 mt of halibut). A greater impact on the halibut fishery could occur if domestic effort toward groundfish increases.

Regarding foreign fisheries, halibut fishermen occasionally report instances of gear destruction or preemption of grounds. The most important effect of foreign fishing is that of incidental catches. Foreign vessels target on species other than halibut but halibut are taken incidentally in substantial numbers; although regulations require that halibut be released, most die from injuries received during capture.

Hoag and French (1976) used data collected by observers on Japanese trawlers to examine the incidental catch of halibut. The average incidence and size during 1969-1974 is shown by area and month in Table 19. The incidence was highest in the southeastern Bering Sea in the winter and spring. The majority of the halibut were 3 to 7 years old and less than 5 kg. More recent data from observers (Hoag and French, ms.) show a similar seasonal picture, although the rate of incidence is lower because critical areas have been closed to trawling. In February and March 1978, observers were, for the first time, aboard two Japanese longline vessels fishing the southeastern Bering Sea. Their data show that when the longliners fished in shallow water (220-320 m) for Pacific cod the incidence of halibut became extremely high (30 halibut per mt of catch; about 14% by weight). The incidence was much lower (1.5 halibut per mt) when the vessels fished in deeper water (500-620 meters) and the target species were Greenland turbot and sablefish. The average weight of halibut was about 5 kg and the observers reported that most of the halibut were released alive.

Hoag and French (1976) estimated the annual incidental catch of halibut by the Japanese and Soviet trawl fisheries from 1954 to 1974. Their estimates show that the total incidental catch in the Bering Sea peaked in 1971 at 11,500 mt but then dropped to about 5,800 mt in 1974.

Table 19 The average incidence and weight of halibut in Japanese trawls in the Bering Sea, by month and area, 1969-1974.

| Month     | Area                              |       |       |       |       |        |
|-----------|-----------------------------------|-------|-------|-------|-------|--------|
|           | A                                 | B     | C     | De    | Dw    | E      |
|           | Incidence (Number per metric ton) |       |       |       |       |        |
| January   | —                                 | —     | 0.054 | —     | 0.070 | 25.437 |
| February  | 0.163                             | —     | 2.787 | —     | 0.196 | 2.629  |
| March     | 5.779                             | 4.930 | 0.476 | —     | 0.720 | 8.073  |
| April     | 2.935                             | 1.341 | 1.465 | —     | 0.012 | 2.516  |
| May       | 7.145                             | 6.976 | 1.155 | —     | 0.131 | 3.062  |
| June      | —                                 | 0.000 | 1.155 | —     | 1.114 | 1.937  |
| July      | —                                 | —     | 0.040 | 0.013 | 0.066 | 0.000  |
| August    | 0.021                             | —     | 0.157 | 0.013 | 0.103 | —      |
| September | 0.008                             | 0.000 | 0.187 | —     | 0.007 | —      |
| October   | 0.018                             | 0.000 | 0.023 | —     | 0.037 | 0.022  |
| November  | 0.064                             | —     | —     | —     | 0.049 | 1.266  |
| December  | 0.014                             | —     | 0.249 | —     | 0.074 | 27.643 |
|           | Average size (kg)                 |       |       |       |       |        |
| January   | —                                 | —     | 3.20  | —     | 2.28  | 0.39   |
| February  | 0.69                              | —     | 1.14  | —     | 5.90  | 1.07   |
| March     | 0.90                              | 0.81  | 1.46  | —     | 2.66  | 0.48   |
| April     | 0.93                              | 0.80  | 1.00  | —     | 0.68  | 1.33   |
| May       | 0.64                              | 0.41  | 1.22  | —     | 1.59  | 1.13   |
| June      | —                                 | —     | 2.76  | —     | 6.11  | 1.94   |
| July      | —                                 | —     | 3.01  | 3.50  | 7.45  | —      |
| August    | 17.73                             | —     | 7.42  | 3.50  | 2.03  | —      |
| September | 7.30                              | —     | 3.68  | —     | 4.44  | —      |
| October   | 3.55                              | —     | 8.70  | —     | 4.70  | 2.38   |
| November  | 1.33                              | —     | —     | —     | 5.15  | 2.17   |
| December  | 0.66                              | —     | 5.37  | —     | 2.57  | 0.85   |

However, about one-third to one-half of this catch occurs in the western Bering Sea and may have only limited effect on the North American fishery. Since 1974, foreign trawling has been prohibited in specific areas of the southeastern Bering Sea during the winter and spring to reduce the incidental catch of halibut. These closures along with a reduction in fishing effort have sharply reduced the incidental catch. Preliminary projections indicate that the incidental trawl catch in the eastern Bering Sea has declined from about 7,000 mt in 1971 to less than 2,000 mt in 1976.

The incidental catch of halibut in the Aleutians is much less than in the Bering Sea, probably around 500 mt.

Hoag (1976) used estimates of the incidental halibut catch and assessed the effect of trawling on the North American setline fishery. The results showed that trawling reduced the survival of juvenile halibut and, therefore, recruitment to the setline fishery. Because the incidental catch consists of juvenile halibut, the yield loss to the setline fishery occurs for many years after a given incidental catch, i.e. over the projected lifetime of the fish in the setline fishery. Also, the magnitude of the eventual loss is about 20 percent greater than the magnitude of the incidental trawl catch itself because growth exceeds natural mortality at young age. In the eastern Bering Sea, the estimated annual yield loss in recent years has been about 5,000 mt and represents over 95% of the total potential catch (i.e. of the total potential production, setlines take less than 5 percent). The recent reductions in the incidental catch will not significantly benefit the setline fishery for several years.

In 1977, the average incidence rate for halibut in all foreign trawl fisheries is estimated to have been 0.267 individuals per metric ton of total groundfish catch; average weight of incidentally caught halibut was 8.99 kg.

### 8.6.2 Trawl vs crabs

U.S. observers aboard foreign trawlers sample the catch prior to sorting by species and count the number of crabs in each sample per unit weight of the entire sample. This provides an incidence rate, expressed as number of crabs per metric ton of total catch. Average incidence rates for particular statistical areas and quarters are then multiplied by the corresponding total catch of each country, and summed over quarters to arrive at an estimate of total incidental crab catch, by nation, for the year.

Before 1977, U.S. observers were only aboard Japanese independent stern trawlers (large trawlers) and groundfish motherships. No valid technique was available for extrapolating incidence rates observed in those two fleets over the Japanese landbased dragnet (small trawlers), Soviet, or Korean trawl fleets. In 1977, however, all fleets were observed and estimated incidental catches of crabs are as follows (number of crabs):

| <u>Country</u> | <u>King Crab</u> | <u>Tanner Crab</u> |
|----------------|------------------|--------------------|
| Japan          | 583,400          | 17,446,000         |
| USSR           | 1,200            | 3,500              |
| ROK            | <u>11,200</u>    | <u>54,000</u>      |
| Total          | 595,800          | 17,503,500         |

Between 65 and 70 percent of the incidental Tanner crab catch was C. opilio. Incidence rates for both king and Tanner crabs were highest in the Japanese landbased dragnet fleet.

To provide some insight into recent trends, estimates of incidental crab catches by the Japanese mothership and independent stern trawl fleets during 1973-77 are (number of crabs):

| <u>Year</u> | <u>King Crab</u> | <u>Tanner Crab</u> |
|-------------|------------------|--------------------|
| 1973        | 465,600          | 112,000,000        |
| 1974        | 489,900          | 155,000,000        |
| 1975        | 155,900          | 60,000,000         |
| 1976        | ?                | 26,000,000         |
| 1977        | 297,300          | 9,600,000          |

In 1977, the average incidence rate for king crabs in all foreign trawl fisheries is estimated to have been 0.481 individuals per metric ton of total groundfish catch; average weight of incidentally caught king crabs was 1.15 kg. Comparable values for Tanner crabs are estimated to have been 12.970 individuals/mt and 0.33 kg average weight.

#### 8.6.3 Trawl vs salmon

Using the same sampling methods as for halibut and crabs, data collected by U.S. observers produced the following estimates of incidental salmon catches in 1977:

| <u>Country</u> | <u>Total number<br/>of salmon</u> |
|----------------|-----------------------------------|
| Japan          | 23,890                            |
| ROK            | 23,798                            |
| USSR           | <u>42</u>                         |
| Total          | 47,730                            |

Of this total, 91 percent were chinook salmon (O. tshawytscha) and 9 percent chum salmon (O. keta).

In 1977, the average incidence rate for salmon in all foreign trawl fisheries is estimated to have been 0.030 individuals per metric ton of total groundfish catch; average weight of incidentally caught salmon was 4.0 kg.

#### 8.6.4 Trawl vs sablefish longlines and pots

Japanese longline fishermen report that the trawl fishery has expanded geographically and bathymetrically to the point where traditional sablefish longline grounds have been pre-empted. If the condition of sablefish stocks in this region improve to the point where they could support a viable domestic fishery (see Section 9.6.6), the stated interest of U.S. fishermen for developing a longline and pot fishery for that species could be thwarted by the risk of gear conflicts with trawlers unless gear separation measures are affected.

#### 8.6.5 Foreign vs. domestic trawling

With the exception of a very small crab bait fishery, no domestic trawling has taken place in the region. Many U.S. fishing interests perceive the presence of fleets of large foreign trawlers as a de facto impediment to the development of a domestic groundfish trawl fishery in the Bering Sea because of the possibility of: (1) preemption of favored grounds by concentrations of foreign vessels that are 2-3 times the size of the largest U.S. trawlers, and (2) competition for fish by foreign vessels that can apparently operate successfully at levels of abundance and average fish sizes that are less than that required for economic operation of domestic trawlers. (See also Section 10.4).

### 8.7 Revenues Derived from Fishery

Federal revenues are based on charges placed on foreign fisheries, while state (Alaska) revenues are based on fees and taxes placed on the domestic fishery.

### 8.7.1 Federal revenues

A summary of U.S. revenues expected in 1978 from charges placed on foreign nations fishing for groundfish within the FCMA zone in the Bering Sea/Aleutians area is presented below:

#### Expected revenue from foreign nations, Bering Sea/Aleutians, groundfish, 1978

| <u>Type of revenue</u>                      | <u>Total<br/>dollars</u> | <u>Source of dollars</u> |                  |                |               |
|---|--------------------------|--------------------------|------------------|----------------|---------------|
|   |                          | <u>Japan</u>             | <u>U.S.S.R.</u>  | <u>R.O.K.</u>  | <u>Taiwan</u> |
| Income - vessel fee                         | 566,700                  | 226,000                  | 269,500          | 65,800         | 4,800         |
| Income - poundage fee                       | 7,230,600                | 4,995,400                | 2,012,900        | 202,400        | 19,900        |
| Reimbursable income<br>(U.S. observer cost) | 294,100                  | 224,900                  | 54,500           | 14,700         | --            |
| Fines and penalties                         | --                       | --                       | --               | --             | --            |
| <b>TOTAL</b>                                | <b>8,090,800</b>         | <b>5,446,300</b>         | <b>2,336,900</b> | <b>282,900</b> | <b>24,700</b> |

Revenues from vessel and poundage fees total \$7,796,700 for 1978. Reimbursable income (to cover the cost of placing U.S. observers aboard foreign fishing vessels in the Bering Sea/Aleutians area) is tentatively estimated at \$294,100. Fines and penalties are tied to violations and are, therefore, variable income items. The expected total federal revenue for 1978 is around \$8,090,800.

### 8.7.2 State revenues

Aside from the halibut fishery, virtually no domestic groundfish fishery has existed in the Bering Sea/Aleutians area in recent times. The approximate state revenues derived from the fishery in 1977 are presented below:

| Type of revenue                              | State-wide<br>total, 1977 <u>1/</u> | Bering Sea/Aleutians<br><u>groundfish fishery</u> |       |
|--|-------------------------------------|---|-------|
|  |                                     | Halibut   | Other |
| DOLLARS                                      |                                     |   |       |
| Raw fish tax                                 | 3,830,280                           | 5,000   | *     |
| Cold storage tax<br>(including freezer ship) | 2,372,785                           | 5,000   | *     |
| Vessel and gear license                      | 654,220                             | 200   | *     |
| Commercial fish licenses                     | 430,836                             | 50  | *     |
| TOTAL  | 7,288,121                           | 10,250  | *     |

\* negligible to none

1/ Source: Alaska State Department of Revenue

## 9.0 BIOLOGICAL AND ENVIRONMENTAL CHARACTERISTICS OF THE FISHERY

### 9.1 Life History Features

Most of the principal groundfish species spawn either in the winter or early spring. Cod, sablefish, and the large flounders, Pacific halibut, arrowtooth flounder, and Greenland turbot, spawn during the winter months in deep water. Most other groundfish species reproduce during the spring (March-June). Atka mackerel is a summer spawner.

The principal groundfish species can be placed into three groups based on their reproduction. Cod, rock sole, and Atka mackerel lay adhesive demersal eggs. Pollock, sablefish, and most flatfish have pelagic eggs. Pacific ocean perch have internal fertilization and release pelagic larvae.

There is considerable variation between species in the amount of eggs or young produced (Table 20). Upon reaching maturity, cod may release over 1,000,000 eggs. Halibut and sablefish are also highly fecund. Pacific ocean perch and Atka mackerel are the least fecund of the groundfish group. Fecundity of all species is generally directly related to size of the female, a characteristic which, among vertebrates, is unique.

Among the principal groundfish species are the long-lived fishes which reach sexual maturity late in life, such as the Pacific ocean perch and the large flounders, Pacific halibut and Greenland turbot. Mortality due to natural causes is relatively low in these species. In contrast, pollock, cod, and Atka mackerel are short-lived and mature at an early age (3-4). Both pollock and cod have relatively high natural mortality and growth rates. Sablefish, Alaska plaice, and the various species of sole mature at ages intermediate to those species groups mentioned above.

Squid is made up of several species where life history features are poorly known. They live at midwater and near surface depths as compared to the near or on-bottom habitat of groundfish. The season of spawning for at least some species may extend from spring to fall. Sexual maturity may be reached in two years or less. Like Pacific ocean perch, fertilization

Table 2Q—Life history characteristics of principal groundfish species in the eastern Bering Sea and Aleutians.

| Life history characteristics                            | SPECIES          |                        |                    |                  |                 |                    |                  |                  |                 |                 |                |                    |
|---|------------------|------------------------|--------------------|------------------|-----------------|--------------------|------------------|------------------|-----------------|-----------------|----------------|--------------------|
|   | Pollock          | Cod                    | Sablefish          | Ocean perch      | Halibut         | Affognath flounder | Greenland turbot | Flathead sole    | Rock sole       | Yellowfin sole  | Alaska plaice  | Arctic mackerel    |
| Bottom depths of common occurrence (fath.)              | 30-200           | 10-150                 | 50-450             | 50-250           | 10-250          | 30-300             | 50-350           | 30-200           | 10-100          | 10-300          | 20-90          | coastal & open sea |
| Depths of high availability by season (fath.)           | 100-200 (winter) | 50-150 (winter)        | 200-400 (winter)   | 150-250 (winter) | 50-225 (winter) | 150-300 (winter)   | 300-500 (winter) | 100-200 (winter) | 20-100 (winter) | 50-150 (winter) | 50-70 (winter) | offshore (winter)  |
|   | 50-150 (summer)  | less than 100 (summer) | 100-450 (summer)   | 80-150 (summer)  | 10-100 (summer) | 80-200 (summer)    | 80-450 (summer)  | 50-150 (summer)  | 20-50 (summer)  | 20-50 (summer)  | 20-50 (summer) | inshore (summer)   |
| Spawning period   | March to July    | Jan. to May            | Dec. to April      | March to June    | Nov. to March   | Dec. to Feb.       | Oct.-Dec.        | March to June    | March to June   | June to August  | May-June       | June to Sept.      |
| Maximum age   | 17 years         | 12 years               | 20 years           | 30 years         | 42 years        | 22 years           | 25 years         | 21 years         | 16 years        | 21 years        | 19 years       | ?                  |
| Average age at maturity (female)                        | 3 years          | 4 years                | 7 years            | 7 years          | 12 years        | 9-11 years         | 13-14 years      | 6 years          | 4-5 years       | 9 years         | 8 years        | 3-4 years          |
| Average size at maturity (female)                       | 30 cm            | 73 cm                  | 71 cm              | 27 cm            | 125 cm          | 55 cm              | 70 cm            | 29 cm            | 22 cm           | 26 cm           | 30 cm          | 33-35 cm           |
| Instantaneous natural mortality rate, $M$ <sup>3/</sup> | 0.43             | 0.30-0.45              | 0.22               | 0.27             | 0.17            | 0.2                | ?                | 0.2              | 0.26            | 0.25            | 0.2            | ?                  |
| Growth completion rate, $K$ (female)                    | 0.28             | 0.30                   | 0.14 <sup>2/</sup> | 0.11             | 0.10            | 0.10               | 0.10             | 0.11             | 0.15            | 0.11-0.18       | 0.1            | ?                  |
| Fecundity at average size at maturity                   | 100,000          | 1,000,000 to 2,000,000 | 400,000            | 10,000           | 700,000         | ?                  | 25,000           | 50,000           | 200,000         | 800,000         | 100,000        | 9,000              |

<sup>1/</sup> Values and time periods given to this table are approximations.

<sup>2/</sup> Sexes combined.

<sup>3/</sup> Many of the biological and population parameters shown in this table are being reevaluated with ecosystem modeling techniques and, therefore, are subject to change.

is internal for squid. The fertilized eggs are released enmeshed in a gelatinous material, and the number of eggs spawned per individual is low compared to that of groundfish species.

## 9.2 Stock Units

The groundfish and squid resources considered in this Plan consist of species that are wide ranging in their general distribution, occurring in the eastern Bering Sea, Aleutian waters, and in the Gulf of Alaska. Within each of these major geographical regions separate stocks or populations of these species may exist, but our state of knowledge is such that we cannot be certain of this possibility for most species. Research results and fisheries information indicate that for most species resident stocks exist in each major region (E. Bering Sea, Aleutians, and Gulf of Alaska). For other species, such as Pacific halibut and those of squid, this may not be the case.

Those species that are generally considered to have separate stocks residing in the Aleutians as well as the eastern Bering Sea are pollock, yellowfin sole, sablefish, Atka mackerel, Pacific ocean perch, Pacific cod, Greenland turbot, arrowtooth flounder and various species of sole.

For pollock the eastern Bering Sea stock is larger than that of the Aleutians. There has also been some speculation that in the eastern Bering Sea proper, this species may be further subdivided into a northern and a southern stock, primarily because spawning concentrations have been found north as well as south of the Pribilof Islands. (Japan Fishery Agency 1974 b). However, it is difficult to confirm such a separation since there apparently is a considerable amount of mixing of fish through seasonal north-south movements as evidenced from tagging studies.

Tagging studies indicate the existence of separate spawning stocks for eastern Bering Sea yellowfin sole, one of which resides in waters north of a line between the Pribilof Islands and Cape Avinof and another south of this line, with only a limited exchange between them (Wakabayashi 1974). Studies of differences in growth rate, meristic features, and

genetic characters, however, have not been conclusive (Wakabayashi et al. 1977). Furthermore, U.S. researchers estimate that about 90% of the total yellowfin sole biomass of the eastern Bering Sea lies in the southern stock area, making the question of less practical importance. Therefore, until more definitive results are obtained, all yellowfin sole of the eastern Bering Sea will be considered as belonging to one stock.

Adult sablefish live mainly in offshore waters at bottom depths of 200 meters and greater throughout their geographical range. Their movements appear to be localized from tagging studies which show that most recovered fish have been taken in the same general area where they are had been tagged and released (Low 1977). A few tagged fish, however, have been recovered a considerable distance from their area of release, and some of these movements have been between major geographical areas, such as the Gulf of Alaska and Bering Sea. These extensive movements, although few, demonstrate that some exchange of fish between major areas does occur, and that separate stocks, if they do exist, may be biologically closely related. At this stage of our knowledge it may be best to consider sablefish as being comprised of separate stocks throughout its geographical range, but that minor intermixing of the stocks does occur. For managing fisheries on these stocks, it may be convenient to treat these stocks as four major and distinct groups; an eastern Bering Sea group, an Aleutian group, a Gulf of Alaska group, and a U.S. west coast group.

There is some circumstantial evidence that Atka mackerel may be comprised of localized stocks throughout its geographical range which includes waters off Kamchatka and the Aleutians, and the eastern Bering Sea and western Gulf of Alaska. The species seeks certain bottom areas for spawning and will return to these areas year after year to reproduce (Rass 1970). Only a few of these areas have been determined, but it is likely that more exist and the spawning concentrations associated with each probably should be considered to be discrete stocks. Until more precise evidence of the location of specific spawning areas becomes

available, concentrations in the Aleutian area, the eastern Bering Sea area, and the western Gulf of Alaska will be assumed to comprise separate stocks.

For Pacific ocean perch, differences in biological features (e.g., growth rate) between eastern Bering Sea and Aleutian fish suggest that each of these areas has its own unique stock (Chikuni 1974).

Evidence for the separation of other principal groundfish species (cod, turbot, flathead sole, rock sole, and plaice) is not available, but as a conservative measure, each of these species will be considered to be comprised of separate stocks in the Aleutians and eastern Bering Sea.

Available evidence suggests significant movement of halibut between the eastern and western Bering Sea and between the eastern Bering Sea and the northeastern Pacific Ocean (Best 1977, Dunlop et al. 1964). Circulation patterns indicate that eggs and larvae spawned in the eastern Bering Sea should remain within the Bering Sea. However, the cyclonic circulation in the area will transport eggs and larvae in a northwesterly direction and the current is sufficient to transport larvae to the Asian Coast. It is also likely that larvae originating in the Gulf of Alaska are transported into the Bering Sea.

Large numbers of juvenile halibut inhabit the eastern Bering Sea, and this region may serve as a nursery ground for other regions. Recoveries of tagged juveniles are meager but indicate a movement into the Gulf of Alaska. One juvenile tagged west of the Pribilof Islands was recovered in southeastern Alaska five years later. Tagging data are more extensive for adult halibut and show movements as far south as northern California; Dunlop et al (1964) estimated an emigration rate of 24% over a 7-year period. Tagging also indicates movements from the Gulf into the Bering Sea and between eastern and western Bering Sea, but these movements appear to be relatively infrequent.

In the Aleutians, tagging and other studies indicate that the halibut in the region are an intermingling component of stocks in the Gulf of Alaska and British Columbia (Bell 1967). The total amount of

bottom area suitable for halibut in the Aleutians is small and the overall productivity of the region is much less than in the Bering Sea and other regions of the northeast Pacific. Nevertheless, halibut are sufficiently concentrated in local areas to provide good catches for a few vessels.

Squid resources of the eastern Bering Sea and Aleutian waters are believed to be mainly comprised of five species that are wide ranging in their distribution in northern waters. Four of these species (Gonatus fabricii, Gonatus magister, Gonatopsis borealis, and Moroteuthis robustus) inhabit the near surface and mid-waters of the outer continental shelf and beyond the shelf. The other species (Rossia pacifica) prefers inshore waters where it forages throughout the water column. All these squid species are, therefore, much more mobile than most of the groundfishes and apparently roam quite freely throughout their range. Because of this capability, it is assumed that there is considerable intermingling of individuals from different regions; hence, each squid species may be considered as having one interbreeding population common to the Bering Sea, Aleutians, and the western Gulf of Alaska.

### 9.3 Data Sources

#### 9.3.1 Catch and effort data

Catch and effort statistics are collected on a continuing basis from two main sources: from the commercial fishery and from research surveys. Commercial fishery data are used mainly to compute CPUE trends to monitor the relative abundance of stocks under exploitation. In addition to CPUE computation, trawl survey information can also be used to estimate standing stocks. Commercial fishery data of sufficient detail and precision for Bering Sea/Aleutian stock assessment studies are:

- (1) Catch and effort statistics of the Japanese mothership, longline-gillnet, and North Pacific trawl and land-based trawl fisheries, as provided through INPFC;

(2) Catch and effort statistics collected by U.S. observers stationed aboard foreign vessels.

Under the FCMA, similar types of rather precise catch and effort statistics will soon become available from all nations participating in this region's groundfish fishery.

Catch and effort statistics are also obtained from research trawl surveys conducted by the United States' National Marine Fisheries Service, Fishery Agency of Japan, and the International Pacific Halibut Commission. Data from the Fishery Agency of Japan are made available to the U.S. in publications, the INPFC and during bilateral scientific meetings. The International Pacific Halibut Commission conducts an annual assessment of juvenile halibut abundance in the Bering Sea which provides catch and effort information concerning not only halibut but many other groundfish species as well.

Statistics from Japanese fishing operations have been among the most detailed and complete of any nation in the world. In general, they are by species,  $\frac{1}{2}^{\circ}$  Latitude by  $1^{\circ}$  Longitude statistical areas, month, gear type, and vessel class. An exception however, has been Japan's land-based trawl fishery from which the available statistics have been less timely and in less detail. This appears to reflect the fact that they have been collected at the provincial level in Japan rather than by the Fishery Agency of Japan, as has been the case for the other fisheries.

Although improving since the early 1970's, statistics provided by the U.S.S.R. have generally reflected only gross catches of imprecise species groupings for very large statistical areas. Until very recently, effort information has either been lacking entirely or in a form that had little utility for assessing relative abundance (e.g., catch per tow without reference to tow duration).

As regards other nations fishing for bottomfish in the Bering Sea/Aleutian Region, Poland has provided statistics in detail comparable to those of Japan for its very limited fishery. Since 1968, South Korea has conducted a growing groundfish fishery in the Region but no statistics

concerning it are available for the period prior to 1976 and those acquired since have been incomplete. Operations by Taiwanese vessels have been few and no statistics have yet been reported.

For status of stock evaluations, the catch and effort data bases generally relied upon are those of the Japanese fisheries, and research surveys conducted by Japan, the United States, and IPHC.

#### 9.3.2 Biological data

Biological data concerning Bering Sea/Aleutian groundfish resources are collected on a continuing basis from the commercial fishery and from research surveys. Those from the commercial fisheries have generally been limited to length-frequency samples from the Japanese fisheries until U.S. observers were placed aboard foreign vessels to sample the catch. The observer program covers a significant portion of the several foreign fishing fleets and has been constructing an extensive data base on length, weight, age and sex of the principal species taken by foreign fisheries.

The most comprehensive source of biological information is that collected during trawl surveys conducted by the United States' National Marine Fisheries Service. In these surveys, length, weight, age, and sex information and at times, sexual maturity and stomach content data, are collected for all species encountered during the surveys. Annual research surveys conducted by the Fishery Agency of Japan and the Soviet Pacific Scientific Research Institute of Fisheries and Oceanography have also provided excellent sources of information on life history, abundance, and distribution of principal species.

#### 9.4 Quality of Data

To be most useful in the evaluation of stock condition and sustainable yield, data from the commercial fisheries should include the catch by species and the quality and quantity of effective effort expended to take this catch; they should be provided for relatively small geographical areas and time periods. In this way trends in catch and standardized

catches-per-unit-of-effort (CPUE) can be monitored by precise time-area units so reliable inferences may be drawn concerning stock abundance. In addition, biological sampling should be adequate to estimate size and age composition of the catch, by time and area. These basic fisheries data (catch, effective effort, age and size composition) provide much of the input for determining mortality rates, relative year class strength, changes in stock density, recruitment, and other population characteristics upon which the condition of stocks can be measured.

Japan provides very detailed statistics on her fisheries (see Section 9.3), but even these are deficient in terms of fishing effort, age and size data, and completeness in reporting catches by species. The fishing power of the Japanese fleet has increased because of increases in vessel horsepower, improvements in fish detecting and harvesting gears, and experience acquired by the fishermen of the grounds, making difficult (perhaps impossible) adjustments to the reported nominal effort to reflect true fishing power. There is also the problem of determining what proportion of the total fishing effort was expended on each major species.

Until recent years data on size composition of the principal species harvested by Japan were insufficient because of incomplete areal and seasonal coverages, and the lack of associated age data to accompany the size information.

The U.S.S.R. has had a very poor history of reporting on her fisheries. There was virtually no breakdown of the catch by statistical areas that is useful in stock assessment nor were there data on the age and size composition of the catch. Likewise, data provided by other nations have virtually no utility for stock assessment purposes.

The problem of inadequate detail of commercial fishery information has been partially solved as the U.S. observer program has expanded in scope to sample the foreign commercial catch. This program is also addressing the question of the accuracy and precision of reported catch data.

In addition to the observer program which provides a reliable source of catch, effort, and biological data, research vessel surveys provide an independent and, at times, less biased means of estimating the condition of groundfish stocks. The surveys are conducted in such a manner that estimates of age and size composition and other population characteristics can be obtained for the resource complex as a whole within the survey area, whereas commercial fisheries often concentrate on certain species, sizes of fish, and specific areas. Since research surveys can be done in a standardized manner, CPUE from the surveys serves as a very meaningful indicator of changes in fish density by time and area. Furthermore, surveys of juvenile or pre-recruit fish can best be done by means of research surveys; such surveys provide one of the few means by which predictions of incoming year class strengths can be obtained. There is also the relatively new approach of assessing stock size by acoustical sounding.

The main deficiency in existing survey data is the lack of areal coverage. Because of limitations in budget and physical aspects of the gear and vessels, the deeper waters (greater than 200 m) are generally not surveyed. Therefore, portions of the stocks of deep water flounders (arrowtooth flounder and Greenland turbot), sablefish, Pacific ocean perch and even pollock are not fully sampled. What the research surveys lack in coverage, however, is made up in detail which augments the broader but less precise data base obtained from the commercial fisheries.

## 9.5 Ecological Relationships

### 9.5.1 Environmental characteristics

The Bering Sea shelf, with an area of some 1 million km<sup>2</sup>, is about twice the size of that of the Barents Sea or the North Sea. On the average, it is slightly deeper than the North Sea but shallower than the Barents Sea. The bottom is trawlable over most of the shelf. The Aleutian Island shelves are relatively narrow and rocky, similar to that of the Gulf of Alaska.

Relatively weak tidal currents dominate the Bering Sea shelf. The permanent flow is sluggish and, therefore, the exchange of water masses between shallow and deep areas is very slow. On the other hand, the tidal currents around the Aleutian Islands are relatively strong and strong semi-permanent currents flow through the passes between the islands, effecting the water exchange between the deeper part of the Bering Sea and the central North Pacific.

Central and northern parts of the Bering Sea shelf are ice covered part of the year. Due to the absence of temperature and salinity stratification in the waters over the shelf during autumn and winter, cold water ( $0^{\circ}\text{C}$ ) is formed there under the ice from surface to bottom. This cold water on the bottom can persist until mid-summer and affects the distribution and migrations of demersal fish.

The annual range of temperature change over the Bering Sea continental shelf (from surface to about 150 m depth) can exceed  $10^{\circ}\text{C}$ . Over deep water near the Aleutian chain this annual change is less than  $5^{\circ}\text{C}$ . There is a subsurface temperature maximum of about  $3.5^{\circ}\text{C}$ , with associated high salinity, at a depth of about 150 m in the whole region under consideration. The areas along the continental slope, where this warmer subsurface layer intercepts the slope, are important overwintering areas for many demersal and even some pelagic fish (e.g. herring).

Of the oceanographic processes and their year-to-year variations, the following are the most significant in respect to the biota; 1) year-to-year variation of ice cover in the central and south-central part of the Bering Sea shelf; 2) the autumnal turnover of water masses on the shelf (returning nutrients from deeper layers and near the bottom to surface layers); 3) considerable monthly surface layer temperature anomalies (up to  $3^{\circ}\text{C}$ ) in the central and southern Bering Sea; 4) formation of subzero bottom temperatures on the Bering Sea shelf; and 5) rapid flushing of the Aleutian Island shelves.

### 9.5.2 Biological characteristics

The Bering Sea is a typical high latitude area, with relatively few species, among which some dominate quantitatively to a high degree over the others. In scarcely any other ocean region is one fish species quantitatively so dominant as pollock in the Bering Sea. Rather pronounced cannibalism occurs in dominant species in general and cannibalistic interactions cause long-term quantitative changes in the ecosystem complex.

The most pronounced biological characteristic of the Bering Sea and Aleutian Islands are the presence of large numbers of marine mammals (e.g. 1.4 million fur seals alone) and birds (ca. 10 million shearwaters arriving each summer), which consume together at least as many fish as the commercial catch of all nations from this region.

Another basic biological characteristic of the Bering Sea is the presence of benthos on the extensive continental shelf, providing a food source (and support) for flatfish communities and for commercially exploitable crabs. The abundant benthos in the northern half of the Bering Sea contains, however, little "fish food"; most of it is made up of large, hard shelled clams. This northern benthos is similar to other high-latitudes benthos, where a phenomenon called "successive accumulation of generations" occurs.

A fourth general biological characteristic of the Bering Sea/Aleutian region is the relatively high basic organic productivity. This high productivity is largely caused by deep autumn/winter turnover which returns regenerated nutrients to the surface layers. This high organic production (combined with relatively slow decomposition rate of organic detritus in colder waters) causes the presence of a high standing crop of larger zooplankters (euphausids) and boreal squids (gonatid squids), which in turn serve as an important food source for fish (and partly for mammals and birds). Thus, several semi-demersal fish species (e.g. pollock, rockfishes, etc.) are less dependent upon benthic food and can live a pelagic life over deep water in the Bering Sea/Aleutian region.

### 9.5.3 Ecosystem characteristics

In the marine ecosystem there are intensive interactions between different species, their prey items, and environmental factors. Changes in abundance and distribution of one species (e.g. caused by fishery) affect the abundance and distribution of other species as well. Therefore, wise fisheries management requires the quantitative knowledge of all of these interactions; single species population dynamics' approaches are no longer fully adequate for modern fisheries management.

The quantitative processes in the marine ecosystem are beginning to be simulated and studied with numerical, dynamic, deterministic marine ecosystem reproduction models. A few results, pertinent to management of the Bering Sea groundfish fishery are presented briefly in this section. These results originate from the Dynamical Numerical Marine Ecosystem Model (DYNUMES III), currently in use at the Northwest and Alaska Fisheries Center, Seattle.

The DYNUMES III model permits the determination of equilibrium biomasses of individual species and groups of species (Table 21). Individual biomasses have also been calculated for both the juvenile and exploitable portions of populations (Figure 21). It is of interest to note that the total biomass of, for instance, all finfish varies but little from one year to another in a given region, but individual species can have considerable long-period fluctuations (periods usually larger than 10 years) in abundance, whereby some species incline and other decline in abundance.

The DYNUMES model permits the computation of the main component of "natural mortality"--i.e. grazing and the determination of the portions grazed, for instance, by mammals and by other fish (Figure 22). Grazing (consumption) is computed in trophodynamic computations. The results also allow the computation of annual turnover rates of the biomasses (Table 21).

In ecosystem sense, there is no "surplus" production in the sea for man to take. The question is mainly one of balance between ecosystem components, i.e. changes in target species biomasses and the resultant

Table 21

Biomass, annual consumption, annual turnover rate, and relative monthly consumption of different species and/or ecological groups in the eastern Bering Sea, as computed with DYNUMES II.

| Species/ecological group | Mean biomass (B)<br>10 <sup>3</sup> tons | Annual (C)<br>consumption<br>10 <sup>3</sup> tons | Annual turnover rate<br>$\frac{C}{B}$ | % of biomass consumed per month |
|--------------------------|--|---|---------------------------------------|---------------------------------|
| Pollock                  | 8,235                                    | 5,820   | 0.7                                   | 5.8                             |
| Herring                  | 3,260                                    | 2,970   | 0.9                                   | 7.7                             |
| Other pelagic fish       | 6,870                                    | 6,595   | 1.0                                   | 8.7                             |
| Yellowfin sole           | 1,475                                    | 866   | 0.6                                   | 4.9                             |
| Other flatfish           | 2,030                                    | 1,630   | 0.8                                   | 6.7                             |
| Other gadids             | 2,840                                    | 2,680   | 0.9                                   | 8.1                             |
| Other demersal fish      | 2,550                                    | 2,790   | 1.1                                   | 9.0                             |
| Total finfish            | 27,260                                   | 23,350  | 0.86                                  |                                 |
| Squids                   | 4,050                                    | 3,020   | 0.75                                  | 6.4                             |
| Benthos                  | 25,600                                   | 19,730  | 0.77                                  | 6.3                             |
| Zooplankton              |  | 83,970  |                                       |                                 |
| Phytoplankton            |  | (52,500)  |                                       |                                 |

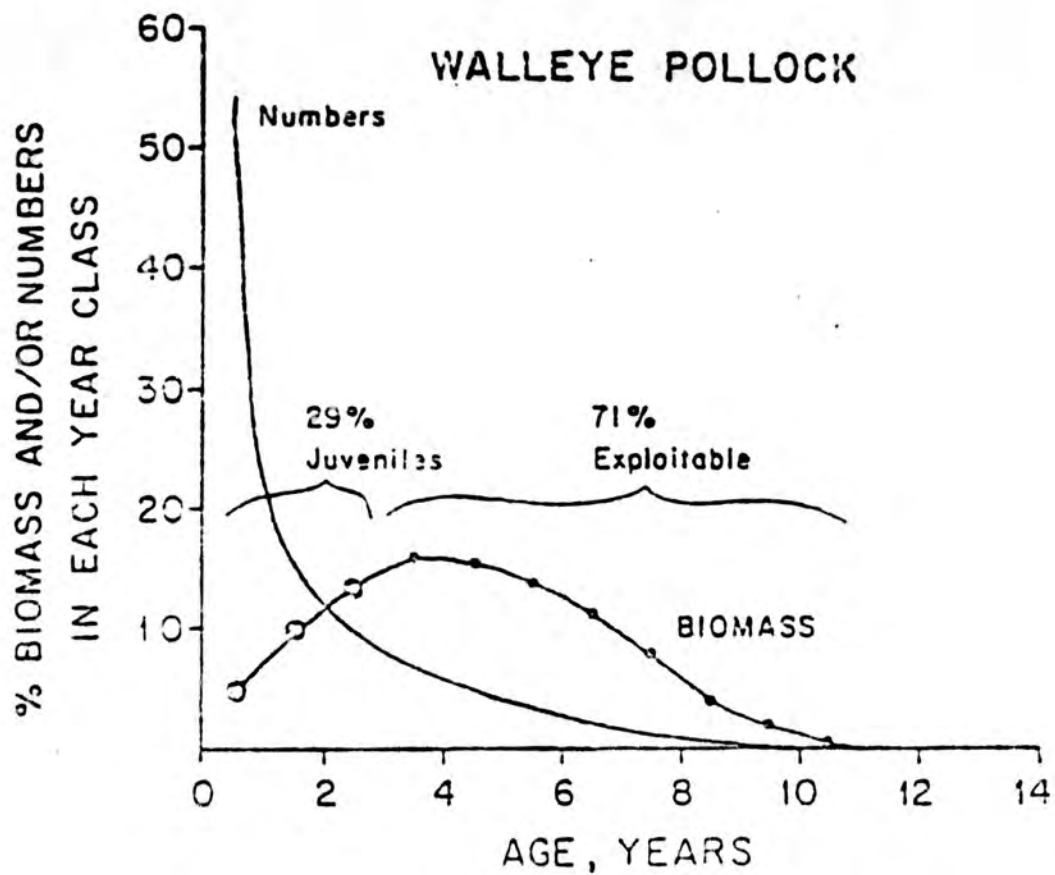


Figure 21--Distribution of biomass and numbers of walleye pollock within different year classes (% of total).

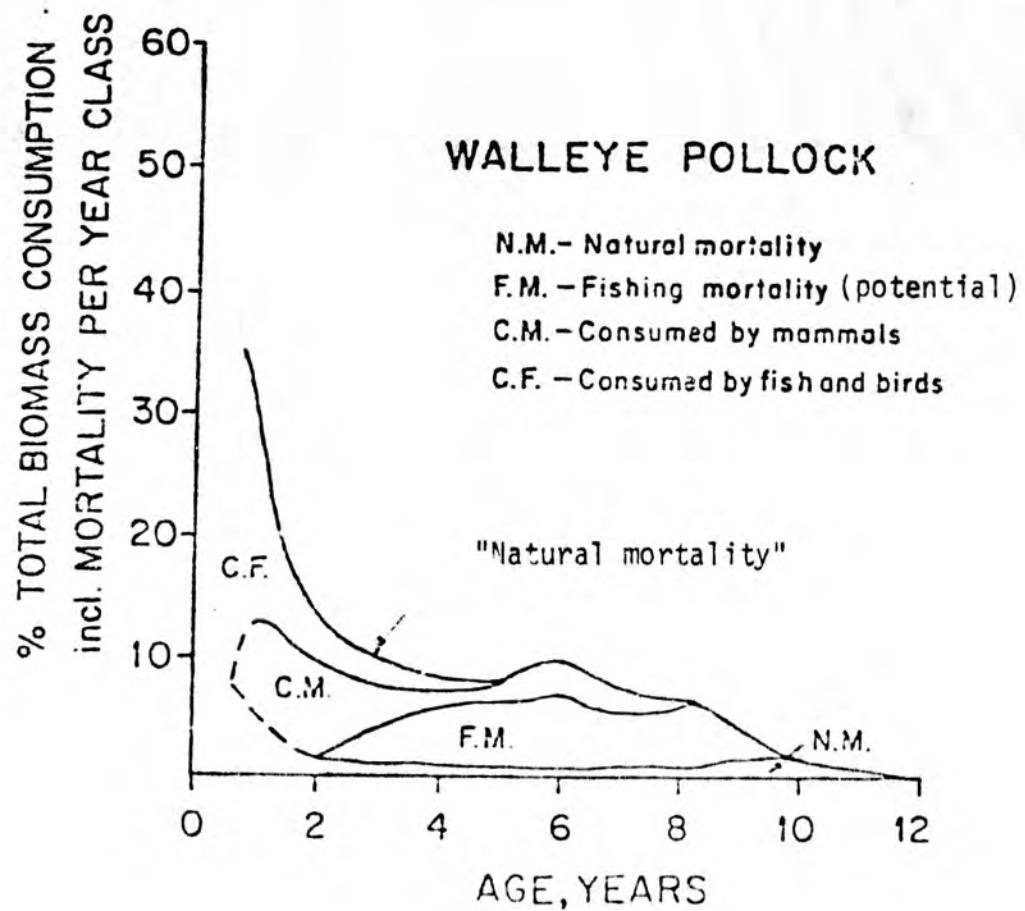


Figure 22.--Distribution of "consumption" with age of walleye pollock, as percent of total biomass.

changes in the biomasses of pray, predator, and competitor species. The determination of such fishery-induced changes is one of the major objectives of the DYNUMES model.

The results of conservative computations of the consumption of fish and other ecological groups by marine mammals and birds in the eastern Bering Sea are given in Table 22 (the computations are conservative in the sense that the lowest estimates of the number of mammals and their food requirements were used). The results show that mammals consume more than twice as much finfish as is taken in the total commercial catch. This strongly implies that finfish yield is at least as much a function of marine mammal abundance as it is a function of the finfish fishery itself.

The DYNUMES model shows that an intensive fishery can be, in some cases, beneficial to the production of biomass. Adult pollock are cannibalistic on juvenile pollock. The growth rate of juvenile fish, which feed mainly on euphausiids, is considerably higher than the growth rate of older fish. When an intensive fishery removes older, cannibalistic pollock, the grazing pressure on juveniles is relieved and productivity of the pollock biomass, at large, is enhanced. The model also indicates that in an underexploited population, cannibalistic interaction would result in a self-generating cycle of pollock abundance with a period of about 12 years.

Intraspecific cannibalism, as well as interspecific predator-prey relations cause a partial spatial separation of juveniles and adults (see Figures 23 and 24).

#### 9.6 Current Status of Stocks

Stock assessment studies leading to determination of OY have been conducted on the following Bering Sea/Aleutian groundfish species categories:

- Alaska pollock
- Pacific halibut
- Yellowfin sole

Table 22 --Annual consumption by marine birds and mammals in the eastern Bering Sea (in 10<sup>3</sup> tons), as computed with DYNAMES II ("conservative" inputs).

| Species/group of species           | Species/group of species consumed |               |        |         |              |          | Total finfish | Zooplankton | Squids | Benthos | "Others" (Unspecified) |
|------------------------------------|-----------------------------------|---------------|--------|---------|--------------|----------|---------------|-------------|--------|---------|------------------------|
|                                    | Herring                           | Other pelagic | Salmon | Pollock | Other gadids | Flatfish |               |             |        |         |                        |
| Marine birds                       | 11.7                              | 40.3          | 1.5    | 26.3    | +            | 1.9      | 81.7          | 105.2       | 13.2   | 2.8     | 14.3                   |
| Fur seal                           | 26.5                              | 8.8           | 8.8    | 322.3   | 22.1         | -        | 388.5         | -           | 44.2   | -       | 8.8                    |
| Sea lion                           | 16.8                              | 11.2          | 22.4   | 182.2   | 19.6         | -        | 252.2         | -           | +      | -       | +                      |
| Bearded seal                       | 25.0                              | 25.0          | 8.3    | 83.5    | 41.7         | 41.7     | 225.2         | -           | 66.8   | 509.2   | 33.4                   |
| Harbor seal                        | 66.9                              | 31.2          | 6.7    | 89.2    | 13.4         | 8.9      | 216.3         | -           | 89.2   | 104.8   | 13.4                   |
| Ringed/ribbon seal                 | 24.2                              | 47.5          | 3.0    | 84.7    | 30.3         | -        | 189.7         | -           | 30.3   | +       | 9.1                    |
| Walrus                             | +                                 | +             | 1.6    | 6.6     | +            | 4.9      | 13.1          | -           | +      | 311.4   | 3.3                    |
| Total pinnipeds                    | 159.4                             | 123.7         | 50.8   | 768.5   | 127.1        | 55.5     | 1,285.0       | -           | 230.5  | 925.4   | 68.0                   |
| Baleen whales                      | 20.7                              | 27.7          | -      | 13.8    | 6.9          | -        | 69.1          | 1,189.3     | 124.5  | -       | +                      |
| Toothed whales                     | 231.5                             | 408.5         | 0.5    | 340.4   | 68.1         | 68.1     | 1,117.1       | -           | -      | -       | 245.1                  |
| Total, whales, porpoises, dolphins | 252.2                             | 436.2         | 0.5    | 354.2   | 74.0         | 68.1     | 1,186.2       | 1,189.3     | 124.5  | -       | 245.1                  |
| Total by birds and mammals         | 423.3                             | 600.2         | 52.8   | 1,149.0 | 201.1        | 125.5    | 2,552.9       | 1,294.5     | 479.5  | 928.2   | 327.4                  |

FINAL POLLOCK DISP. MODEL. CANNED. 1 KG/2CKM, 00 96900P, 3

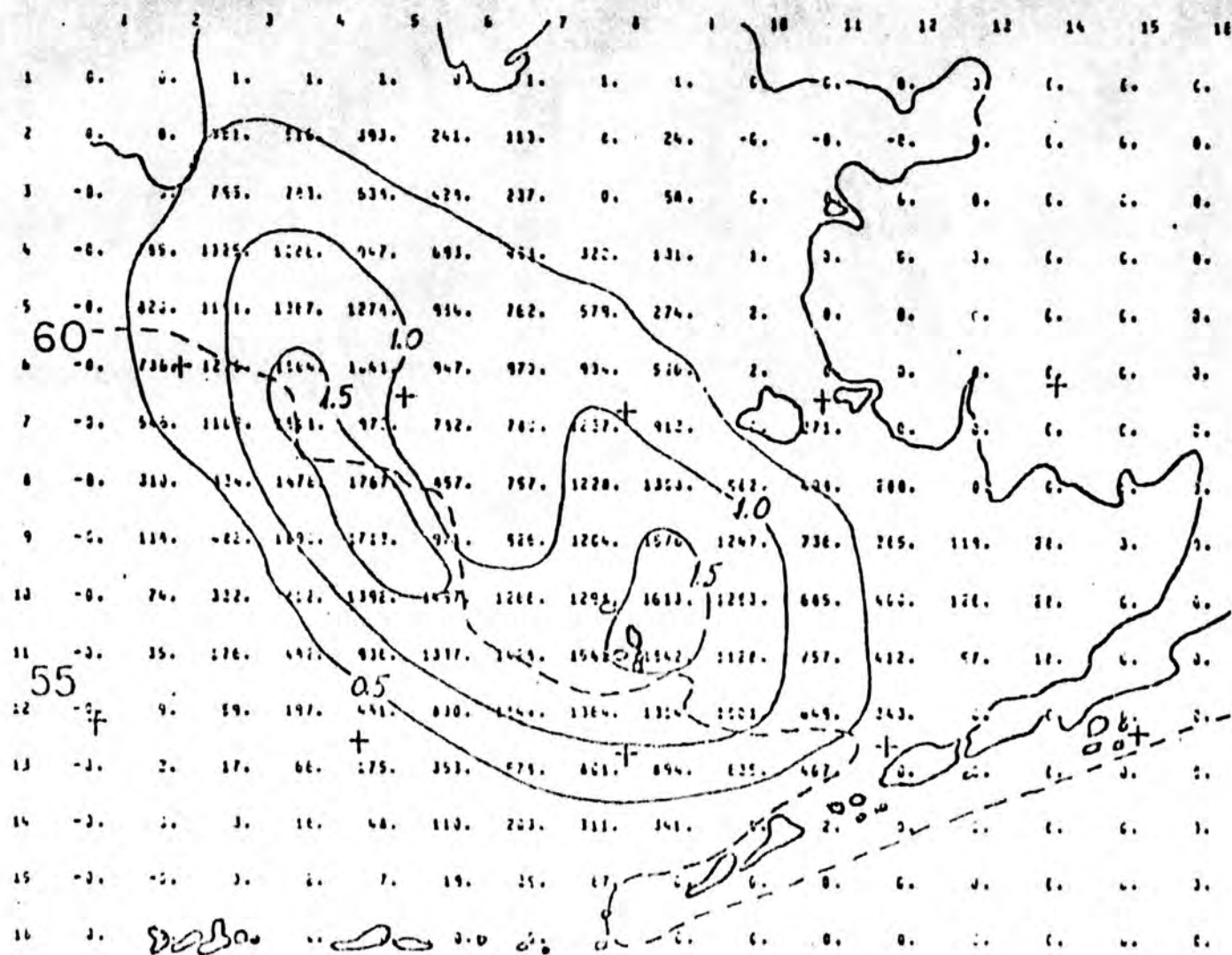
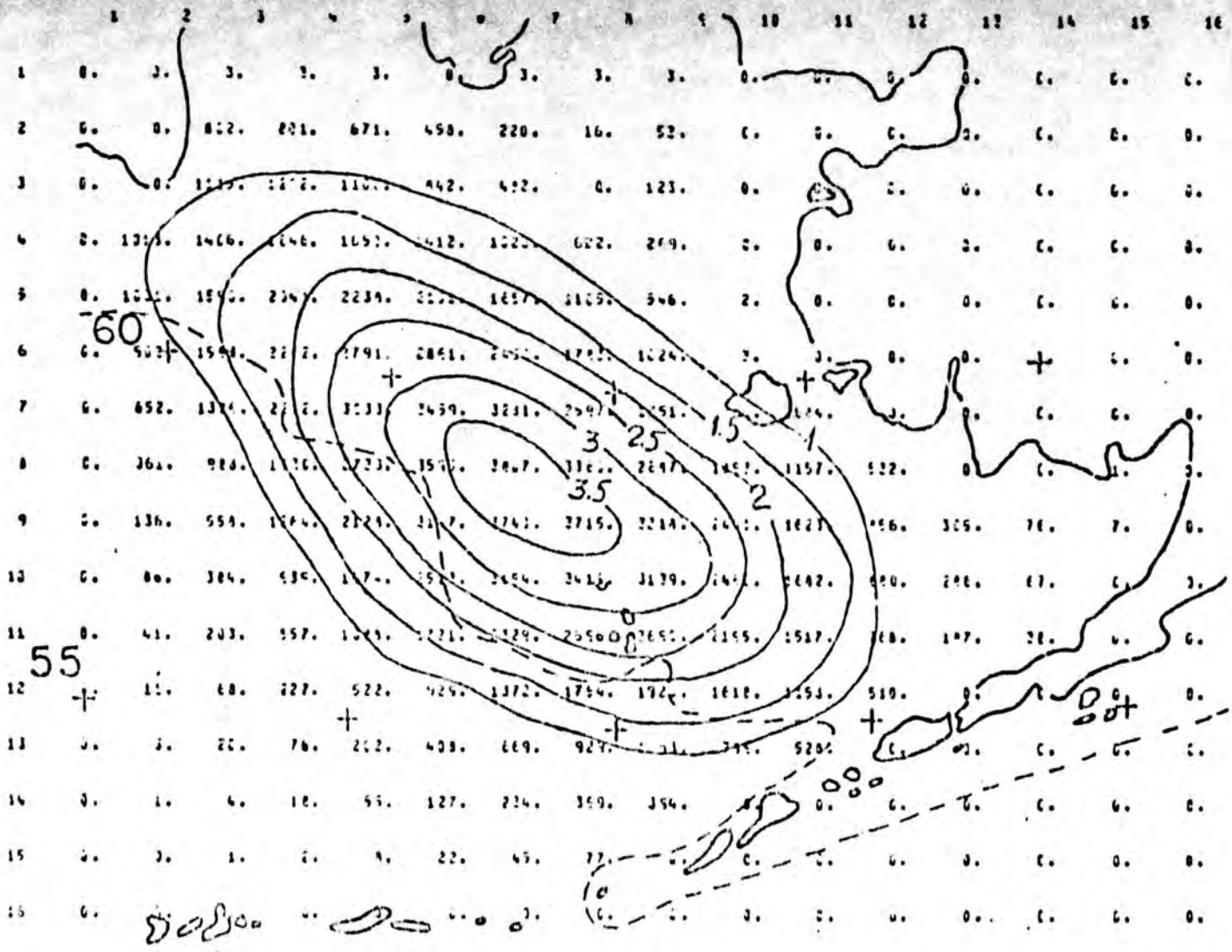


Figure 23 -- Distribution of group 3 pollock (35 cm long) in August, computed with DYNAMES II (isopleths in mt/km<sup>2</sup>).

485.81 274.10 072.80 1713.20 970.02 148.00 221.00 224.00 401.20 249.00

FINAL POLLOCK DIST. INCL. EARLY 3 KG/SQ KM, P. GROUP 1



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Figure 24 -- Distribution of group 1 pollock (juvenile) in August, computed with DYNUNES II (isopleths in mt/km<sup>2</sup>).

Turbots (arrowtooth flounder, Greenland turbot)

Other flatfishes

Pacific cod

Rockfishes (primarily Pacific ocean perch)

Sablefish

Atka mackerel

Squid

Others

Results of those studies, including the determination of maximum sustainable yield, current equilibrium yield, and acceptable biological catch are contained in Annex I to this Plan.

The approach used in Bering Sea groundfish assessment is to (1) determine statistical trends that relate to stock condition and/or (2) apply applicable population dynamics theories and models to determine stock characteristics and their dynamics, and finally (3) assess the overall condition of the stock, often-times empirically, by taking into account statistical trends and population dynamics theories and models. The techniques used to analyze the data vary considerably from species to species depending on the quality and completeness of the available data bases. For each of the above species or species groups, the biological production potential, in terms of maximum sustainable yield (MSY), current equilibrium yield (EY), and acceptable biological catch (ABC), has been determined. The units for which these biological potentials have been derived are species or species groupings rather than the broader multiple species or ecosystem.

Maximum sustainable yield (MSY) is the largest average catch which can be taken from a stock over a period of years (in this case, generally since the development of significant fisheries in the 1960's) under the environmental conditions which persisted during that same period. This assumes an equilibrium in the population associated with a degree of stability in the environment during the time period considered. Even for such a relatively short time period neither the environment nor the

dynamics of many fish populations can be expected to have been constant. The concept of MSY, therefore, is more applicable to longer-lived species in which variations in biomass are buffered by the presence of many year classes. Any long term stability in survival and recruitment, even in these populations is probably exceptional. As a general rule, therefore, MSY cannot be directly applied as a goal for fisheries management without proper evaluation of statistical trends in stock condition, such as can be inferred from current CPUE and age composition. In some instances, recent changes in environmental conditions may constrain current population growth to level far below historic levels of MSY. Under such circumstances the population would be at a lower level of equilibrium which may permit only a correspondingly low level of harvest, and even the most drastic of management measures may not restore a stock to some former level of productivity.

The present state of the science is inadequate to predict the capacity of environment for the production of fishery resources, ascertain with any certainty whether the depletion was a consequence of natural factors of overfishing, or to predict with confidence the consequences of remedial management action. The complicated interaction processes associated with the productivity of marine fish populations in an ecosystem are not very well understood and even such fundamental assumptions as the association between stock size and recruitment strength, which are implicit in manipulation of harvest to achieve MSY, have not been verified or quantified. In fact, it is generally recognized by fisheries scientists that the existing theories and models pertaining to fishery resources management suffer some fundamental inadequacies, and concepts and theories must be developed to answer present and future management demands. Until such new concepts supercede the old, the latter can still serve as a useful basis for deriving management decisions, providing their limitations and underlying assumptions are recognized and evaluated with the best available information. This is the philosophy and approach used throughout this plan.

In contrast to MSY, equilibrium yield (EY) is based on the best estimates of the current condition of stocks. It is the annual or seasonal harvest which, theoretically, will maintain a stock at approximately the same level of abundance (apart from the effects of environmental variation) in succeeding seasons or years. In both under- and overexploited stocks, EY is less than MSY. When, on the basis of statistical trends, survey data, or other information, there is reason to believe that the abundance of stock is below that required to produce MSY, EY is then the maximum production that can be sustained under current population conditions. To rebuild such stocks to more productive levels, the annual or seasonal catch would have to be set below EY. This leads to the concept of acceptable biological catch (ABC).

By definition, ABC is a seasonally determined catch that may differ from MSY for biological reasons. It may be lower or higher than MSY in some years for species with fluctuating recruitment. It may be set lower than MSY in order to rebuild overfished stocks. Operationally, ABC is the final, biologically-based estimate in the process leading to the determination of optimum yield (OY). The determination of OY is accomplished through the following steps: MSY to EY to ABC and, considering socio-economic elements of the fishery, to OY.

An important factor in determining ABC is an appraisal of the biological data base to evaluate its quality and completeness. If it is found lacking, a conservative approach to exploitation may be called for until evidence is produced to support a contention that higher yields can be sustained. In the absence of such evidence only catch levels which are equal to or less than the low end of the MSY-EY ranges can be considered relatively free from the risk of overexploitation. This concept acknowledges the possibility of overexploitation but, in the biological sense, overexploitation can lead to reduced abundance or undesirable ecosystem imbalance that might prevail for years while underexploitation leaves the resource base in a healthy condition, need only have a temporary effect on user groups, and, to some extent, the temporary loss to the users may be made up the following year.

In instances where a reasonably firm data base indicates that a stock is "healthy" in the context of current environmental and ecosystem conditions--i.e., is capable of producing the maximum equilibrium yield that then prevailing environmental conditions will allow--ABC may appropriately be set well into (rather than at the low end of) the current EY range, even though EY is believed to be lower than MSY. Similarly, next year's ABC may be set higher than this year's EY if higher than average recruitment is predicted (for instance, from prerecruit surveys).

#### 9.7 Estimate of Future Stock Conditions

With the exception of Pacific ocean perch, Pacific halibut, and sablefish all other groundfish species in the Bering Sea/Aleutian Region are believed to be at levels of abundance equal to or greater than those that would produce MSY. The management regime described in Section 14.0 is designed to keep those healthy stocks at or somewhat above the level of abundance required for MSY, while providing sufficient relief to halibut, ocean perch, and sablefish so that their stocks can rebuild.

With particular regard to halibut, winter trawl closures of the past several years (which are continued in this Plan) appear to have been responsible for reversing the downward trend in juvenile halibut abundance.

In addition, there is no evidence of natural phenomena that could be expected to cause either serious biological or socio-economic consequences, although the possibility of undetected year class failures, declines in growth rate, or other adverse symptoms cannot be completely discounted. On the other hand, unforeseen enhancements of stocks condition are equally likely.

With the implementation of this plan, the short-term outlook for stock conditions is good.

In the context of long-term expectations, we are just now beginning to understand and quantify the complex relations among species and between the biota and the environment of this ecosystem (see Section 9.5). Until this understanding is much further developed, we are unable to predict the long-term effect on the ecosystem of the current, single species management strategies or of subtle environmental changes.

## 10.0 OTHER CONSIDERATIONS WHICH MAY AFFECT THE FISHERY

### 10.1 International Pacific Halibut Commission (IPHC)

The fishery for Pacific halibut, a species that is part of this region's groundfish community, remains under the jurisdiction of IPHC and is, therefore, exempt from the provisions of this Plan. A major source of the fishing mortality on this species--that by incidental trawl catches--is, however, beyond IPHC control. As long as Council and IPHC objectives concerning halibut utilization remain identical, coordination between the two organizations is easily affected. Should halibut management philosophies diverge--for example, because the broader-based Council constituency objects to constraints on trawl fishery developed caused by overriding halibut-saving measures--a major social, political, and, perhaps, diplomatic (because of Canadian involvement in IPHC and in the halibut fishery) confrontation could be precipitated. Furthermore, management actions taken in the Bering Sea that adversely affect halibut are likely to have a significant impact on the Gulf of Alaska halibut stock and fishery because of the interchange of halibut between the two regions.

### 10.2 Marine Mammal Protection Act of 1972

The FMPA of 1972 specifies that FMP's must be "consistent with...any other applicable law." The Marine Mammal Protection Act of 1972 is one that has a most serious impact on this FMP. There are large populations of many marine mammal species in the Bering Sea which are covered by the 1972 Act. The Act declares that marine mammals have "esthetic and recreational, as well as economic" value. To further these values, it provides that the "primary objective" of marine mammal management "should be to maintain the health and stability of the marine ecosystem." The Act further provides that "whenever consistent with this primary objective, it should be the goal to obtain an optimum sustainable population (of marine mammals) keeping in mind the optimum carrying capacity of the environment."

Pursuant to provisions of both Acts, this FMP is cognizant of the ecosystem and mammal population requirements. As reported in an earlier section on "Ecosystem Characteristics," a dynamic numerical marine ecosystem model is currently in use to study ecosystem interactions, including those by marine mammals. The Plan Development Team of this FMP is acutely aware and is striving for an "ecosystem approach" for managing the marine resources. It will, however, be some time (3-5 years) before an appropriate ecosystem model has become far enough developed, and empirically tested, to begin to be relied upon for resource management. Until that time, single species models will be applied to the fishery resources, but in a manner that will retain balance among the various fish components, be generally conservative, and be determined to be not detrimental to current marine mammal populations. The manner in which MSY, EY, and ABC were derived for each fish stock in Annex I has indirectly taken into consideration the volume of fish needed by marine mammals for their sustenance. For example, natural mortality of fish stocks is taken into consideration in stock assessments and in its present application, includes the predation component by marine mammals.

Concerning marine mammal populations in the Bering Sea/Aleutian region, the Team has solicited expert advice from the Marine Mammal Division of the Northwest and Alaska Fisheries Center and summarized information on their distribution and migration, abundance and trends, feeding habits, and any problems induced by fisheries. Accounts of seven important species that are affected by the fisheries are given in Annex V. These species are the northern sea lion, northern fur seal, bearded seal, ringed seal, harbor seal, larga seal, and ribbon seal. Although specific ranges of optimum sustainable population has not been clearly determined for these species, the impact of

fisheries can be inferred from marine mammal population trends. The Final Environmental Impact Statement on Consideration of a Waiver of the Moratorium and Return of Management of Certain Marine Mammals to the State of Alaska (DOC and DOI, 1977) considered the population of six species, other than fur seals, to be at levels above the lower level of optimum sustainable population. Northern fur seals are managed for maximum productivity and may also be at or above the lower level of optimum sustainable population.

Of the seven species, the sea lions and fur seals might be significantly affected by groundfish harvest levels. Although the northern sea lion population in Alaska has generally increased since the early 1900's and is now at a relatively high level, a 50% decline in sea lion population has been noted since the late 1950's in the eastern Aleutian Islands. The factors that may have caused this decline are not certain but probably include (1) a westward shift in distribution since population abundance to the western Aleutians appears to be high; (2) commercial fisheries interaction since groundfish (primarily pollock) forms a significant portion of their diet; (3) disease such as leptospirosis; and (4) other unknown population control factors. This decline in abundance is of concern and should be watched more closely. The proposed total groundfish OY for 1980 for the Aleutian region is below past catch levels and if the abundance of fish is limiting for sea lions in this region, this FMP should leave more fish for sea lion consumption.

The northern fur seal is the other species that may be significantly impacted by groundfish fisheries in that fur seals compete with Man for groundfish for their sustenance. Fishes are estimated to constitute about 80% of their diet and pollock is the only groundfish species covered by this FMP which forms a dominant portion of their diet. The average size of

pollock observed in fur seal stomachs is 20 cm indicating that the pollock utilized by fur seals have not yet been subjected to the commercial fishery which take pollock larger than 25 cm. The actual impact of diet on the fur seal populations is, however, more intricate and has not yet been quantified. Based on population size trends which became stable during the period of highest fish harvest and the proposal that pollock catches remain below historical high levels, it appears that measures in this FMP should also leave more pollock for fur seal consumption. The ecosystem modelling studies have shown that the removal of larger sized pollock from the population may actually increase the abundance of juvenile pollock as effects of cannibalism is reduced.

The other five species of marine mammals do not seem to be adversely impacted by the groundfish fishery in that these mammals feed primarily on pelagic fish, cephalopods, benthos, and crustaceans. Four of these seal (bearded, ringed, harbor, and larga) populations are known to be high and stable. The ribbon seal population is believed to be relatively low, which has been attributed to commercial hunting by the Soviet sealing fleet. In recent years, this species has been afforded increased protection by Soviet sealing regulations and its numbers may be increasing again. Some groundfish are eaten by ribbon seals but little direct competition is known to exist between ribbon seals and Man for fishery resources.

Although direct competition for food fish is one of many factors that affect marine mammal populations, the other factors are not readily quantifiable. Some of these mammals may be sensitive to disturbances created by fishing activities and may leave the area under such harassments Harbor seals and ribbon seals are known to display such sensitivity, but it is difficult to quantify the effect of fishing on their behavior and abun-

dance. It is noted that some harassments take place, such as the use of explosives to scare away mammals during fishing operations. It is also important to note that the groundfish fishery covered by this FMP account for some marine mammal mortality by the fishing gear. Preliminary estimates of marine mammal incidental mortality due to foreign fishing vessels in 1978 (Marine Mammal Division, George Harry, pers. comm.) were 8.57 animals per 10,000 metric tons of groundfish by the Japanese fishing fleet, 1.69 by the Soviet fleet, and 9.84 in the Korean fleet. Assuming an overall incidental mortality rate of 8.57 animals per 10,000 mt of groundfish, the total incidental mortality on marine mammals, most of which are expected to be northern (stellar) sea lions, is estimated to be 1,237 animals based on a total OY of 1,443,500 mt of groundfish proposed by this FMP.

Overall, the proposed groundfish FMP should reduce competition with marine mammals for fish when compared to the past decade. The proposed total groundfish OY is about 25 percent below the average catch of 1969-76, thereby leaving more fish for marine mammal consumption.

On the other hand, restrictions on killing or harassing seals and sea lions according to the Marine Mammal Protection Act results in an unknown but probably significant economic loss to the fishermen. First, in the setline fishery, some of these seals and sea lions mutilate or remove part of the catch before it can be taken aboard. Second, large numbers of the animals often gather around trawlers and attack halibut, salmon, and crabs which, as a conservation measure, are required to be returned to the sea. Third, and of greatest import, the maintenance of large populations of marine mammals--seals, sea lions, porpoises, and whales--has a profound impact on the abundance of commercial fish species. This impact is both direct, through predation on commercial species, and indirect, through grazing on the same food organisms utilized by commercial fish species.

The effect of such interaction is being studied by an ecosystem simulation model. In order to develop the model to encompass the ecosystem approach for managing the marine resources of the region, better information on the mammals and their interactions with other components of the ecosystem must be obtained. It will take time to refine and test this model for management purposes.

All fishermen, foreign and domestic, are required under the provisions of the Marine Mammal Protection Act of 1972 to obtain a marine mammal certificate of inclusion if any marine mammals might be taken incidental to the conduct of their fishing operation.

#### 10.2.1 Endangered Species Act

The Federal action proposed in this fishery management plan is not likely to jeopardize the continued existence of endangered or threatened species, or result in the destruction or modification of habitat critical to those species.

#### 10.3 Offshore Petroleum Production

Large areas of the eastern Bering Sea Continental Shelf have been identified as proposed sites for the production of oil and gas (Figure 25). Once drilling and production begin, there will arise a potential for oil pollution and physical hazards to fishing, such as sea-floor well heads and tanker traffic.

#### 10.4 Bio-economic Factors

U.S. fishery interests have suggested that development of a domestic groundfish fishery in the Bering Sea will be based on the production of fillets and that the size of fish necessary to economically produce fillets is greater than that needed for such products as fish sausage and meal which form a large part of the output of the foreign fisheries.

The average size of pollock caught in the Bering Sea has decreased through the history of the fishery. During the early years (1964-69), the average size of fish taken by Japan varied between 42 and 44 cm (16.5 and 17.3 inches). Subsequently, average size decreased to 40 cm (15.7 inches) in 1972 and as low as 31 cm (12.2 inches) in 1975 before recovering to 33 cm (13 inches) in 1976. Current average size may be too small for efficient machine filleting.

# ALASKA

## Outer Continental Shelf Areas Under Consideration For Leasing



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The cohort analysis technique has been used to quantify the growth of a pollock year-class to its maximum biomass and subsequent decay as mortality overtakes growth. In theory, a year-class of pollock is subject to natural death (which reduces the number) and growth (which increases individual weight). The combined effect of these factors is that the cohort biomass will increase to a maximum and then decrease thereafter. Utilizing these concepts one can determine the age when a pollock cohort is maximized and what gain or loss in biomass from the theoretical maximum occurs from restructuring the population. In this analysis, species interactions are not taken into consideration; the analysis is concerned only with material change to the pollock population.

In order to explore the growth and decay phases of a pollock cohort, the equation (Alverson & Carney, 1975) is used:

$$p_t = (N_o e^{-Mt}) W_{oo} (1 - e^{-Kt})^b$$

where  $P_t$  is the population weight at any specific time,

$N_{oo}$  is the beginning number of individuals,  $W_{oo}$  is the maximum weight at the maximum average theoretical size where  $W_{oo} = aL_{oo}^b$

( $a$  = constant,  $L_{oo}$  = maximum length,  $b$  = exponent),

$M$  is the instantaneous natural mortality rate,

$K$  is the Von Bertalanffy growth factor, and

$t$  is time.

The sources of data used in the equation are as follows:

---

Von Bertalanffy growth parameters -- Yamaguchi and Takahashi (1972)

|        |                  |              |               |
|--------|------------------|--------------|---------------|
| Male   | $L_{oo} = 75.40$ | $K = -0.165$ | $t_o = 0.273$ |
| Female | $L_{oo} = 76.20$ | $K = -0.163$ | $t_o = 0.291$ |

Length-weight relationship parameters --

|        |               |             |
|--------|---------------|-------------|
| Male   | $a = 0.00952$ | $b = 2.916$ |
| Female | $a = 0.00820$ | $b = 2.958$ |

Other input parameters

$N_o = 10,000$  (any assumed number)

$M = 0.43$  (best estimate of  $M$ ) ( $M = 0.35, 0.375, 0.4, 0.45, 0.5, 0.6$  were also investigated)

ratio of male to female = 1:1

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Results of the cohort analysis (Appendix II) show that a pollock cohort (both sexes combined) maximizes its biomass at about age 4 (average size = 38 cm or 15 inches, average weight - 393 gm or 0.9 lbs) when  $M = 0.43$ . If that cohort is exploited at later ages, the exploitable biomass will decrease as follows:

| Age | Biomass (%<br>of maximum) | Average<br>length (inches) | Average<br>weight (lbs) |
|-----|---------------------------|----------------------------|-------------------------|
| 4   | 100                       | 15.1                       | 0.9                     |
| 5   | 98                        | 17.3                       | 1.3                     |
| 6   | 86                        | 19.2                       | 1.8                     |
| 7   | 71                        | 20.8                       | 2.2                     |
| 8   | 56                        | 22.2                       | 2.7                     |
| 9   | 42                        | 23.3                       | 3.1                     |
| 10  | 31                        | 24.3                       | 3.5                     |

Exploitable biomass will, theoretically, decrease to about 50% of the maximum if average length is maintained at 22.2 inches (average age = 8; average weight = 2.7 pounds) instead of at 15 inches (the average length when yield is maximized).

Two other factors which appear to bear on this matter have been tentatively identified in a developing, numerical ecosystem model (Laevastu et al. 1976 1/). A major source of natural mortality within the pollock population is cannibalism. Therefore, maintenance of large numbers of large fish would result in a high rate of cannibalism of young which would, in turn, decrease recruitment and exploitable biomass, and ultimately lead to violent, self-generating cycles in total abundance and size structure of the population.

1/ Laevastu, T., F. Favorite and B. McAlister. 1976. A dynamic numerical marine ecosystem model for evaluation of marine resources in eastern Bering Sea. Northwest & Alaska Fisheries Center, Natl. Mar. Fish. Serv. Processed report, 69 p.

#### 10.5 Crab-bait Trawl Fishery

The only domestic trawl fishery which occurs in the Bering Sea/Aleutian region at present is a relatively small effort for crab bait. This activity is pursued by a few crab vessels, using very small (as required by State of Alaska regulation) trawl nets and by 1-3 otter trawlers which sell their catches directly to crab vessels on the grounds. Total trawl catches for bait are estimated to have been about 450 mt in 1977 and 900 mt in 1978. Although a groundfish fishery, this trawl operation is more properly considered as an adjunct of the U.S. Bering Sea king and Tanner crab fishery. Because of this close relationship, the potential for gear conflicts--which is high when mobile (trawl) and fixed (crab pot) gear is used on the same grounds--is negligible in this unique situation.

#### 11.0 OPTIMUM YIELD (OY)

With the expectation over the near term of only a modest domestic involvement in this fishery (see Section 12.0 below), and having identified no social or economic reasons for reducing the yield of stocks in this fishery below ABC, Optimum Yield for all species will be considered equal to ABC, as shown in Annex I.

It should be noted, especially by foreign participants in the fishery, that such economic factors as higher catch rates or greater average size than can be expected when production is at the level of ABC, or limited seasonal availability to this fishery by domestic fishing vessels could be introduced as OY considerations if they are considered necessary for U.S. fishery development and can be shown to not have an unreasonable impact on the U.S. consumer.

## 12.0 CATCH AND CAPACITY DESCRIPTORS

### 12.1 Domestic Annual Capacity

#### 12.1.1 Domestic commercial processing characteristics

Since the domestic groundfish fishery in the Bering Sea and Aleutians consists of a part time trawl operation for king and Tanner crab bait, and a few weeks of longlining for halibut each year, there essentially is no industry to describe. The information presented is more of a description of the latent groundfish capacity of the current shellfish industry including some expansion plans.

A survey was made of the majority of the companies which process shellfish in the eastern Aleutian Islands (Unalaska and Akutan) and the western end of the Alaska Peninsula. The central and northeastern Alaska Peninsula and Bristol Bay plants, except as they might represent investment and contribute to gross sales of the parent companies with operations further west, were not considered because of their inability to be operated year round either because of ice or specialization for summer salmon processing.

Representatives of ten companies with 16 operations in the Aleutians and western Alaska Peninsula were contacted. Responses to all questions were not obtained due to the tentative nature and lack of completeness of plans for groundfish operations in 1979, or because company policy precluded divulging certain information.

Seven of the companies with operations in the area indicate gross annual sales of a total of 192.5 million dollars. This amounts to 43% of the total first wholesale value of all fisheries products processed in Alaska in 1976, the latest year for which data are available.

Since several of Alaska's major processing companies are represented in the relatively small number of companies with operations in the area, an average gross expanded to include all operators is not included in this section because it would likely provide an inflated representation of the size of the marketing structure of the westward processors.

Of the fifteen companies known to have operations in the western Alaska Peninsula-Aleutian Islands, nine indicated current plant investments

totalling 61.5 million dollars. As in the case of total sales, this is considered atypical since almost all the major companies operating in Alaska are represented in the sample.

It should be noted however, that the companies with operations in the area are heavily involved in the fish processing business in Alaska through plant investment, and account for a substantial portion of the resources processed in the state.

The processing industry in westward Alaska is highly dependent upon transient labor. The small villages of Unalaska and Akutan have inadequate workforces to handle the catches of the large, modern Bering Sea crab fleet. In the early period of the fishery, workers from the Pribilof Islands and the coastal Eskimo villages were recruited for processing work. While the industry still depends on Alaskan help to a considerable extent, the expansion of processing capacity as a result of the growing Tanner crab fishery and the displacement of the Japanese and Russian king crab fisheries in the Bering Sea have necessitated increased recruitment from the other states.

One of the problems processors have had to cope with is processing the crabs, especially king crab, fast enough to get the catcher boats turned around and back to the fishing grounds. As the fleet grows in size and efficiency, the processor is faced with a shorter season in which to get enough product to make a profit, while keeping the "turn around" time for the vessels delivering crab short so that the skippers do not find it in their best interest to seek markets elsewhere.

The solution to these particular problems has been to create a large transient work force and the facilities to house it. Shoreside and shipboard bunkhouse facilities in the eastern Aleutians currently have the capacity to house approximately 2,400 workers.

To the extent that the current and planned capacity would be suitable for groundfish, the daily freezing and holding capacity has been used as an indication of the domestic processor's groundfish capacity.

Plans for 1979 include some processing capacity at Unalaska which will be dedicated entirely to groundfish. There are indications that

such plans are being considered, by several companies, but target dates are indefinite. Several of the company representatives interviewed believed that groundfish and crab operations are not compatible, i.e., groundfish cannot be processed in a vacant corner of a crab plant, nor can crab processing lines be torn out or modified for short periods of time to convert a plant to finfish processing. The consensus seemed to be that if there were to be a serious attempt to process groundfish on a production basis, the plant would have to be planned and built from the ground up in order to provide for the efficiency necessary to profit from a high volume-low priced product. None of the shellfish processors indicated that groundfish could be handled while the crab season is open, for reasons discussed above.

Estimates of freezing and holding capacities, and the percentage of time a plant would be available for processing groundfish were obtained from seven companies involving eleven operators. Estimates of from 20% to 50% were made of the plants' annual capacity that would be available for diversification.

The seven companies represent a cumulative daily freezing capacity of 520 metric tons. This capacity would be available 37 percent of the year, on the average. Therefore, if it is assumed, as it was for the Gulf of Alaska groundfish fishery, that a processing plant can operate 250 days a year, then

$$520 \text{ mt} \times .37 \times 25 = 48,100 \text{ mt}$$

would represent the estimated annual capacity of the processors in the area during the crab off-season. Since there is some question as to the ability to process and freeze groundfish during crab seasons, no attempt has been made to estimate capacity during those periods of time.

In addition to the estimated off-season capacity in the shellfish fishery, there are plans to have 6,250 mt of capacity exclusively designed for groundfish. Total estimated capacity would then be 54,350 mt.

Nine processors indicated a cumulative holding capacity of 13,900 mt. This would hold about a twenty day run of the off-season freezing capacity in the area.

### 12.1.2 Commercial fishing fleet

A projection of domestic annual capacity for groundfish in the Bering Sea is limited by the fact that to date there has been virtually no effort directed at the harvesting of groundfish in the Bering Sea by U.S. fishermen. Since a domestic trawl fishery has yet to be developed, an estimate of domestic capacity must rely upon a determination of the types of existing vessels that are likely to succeed in the fishery and how much fishing time will be available to them.

NORFISH, a Sea Grant program at the University of Washington, has been involved in an analysis of the shellfish fleet in the state of Alaska, with reference to the future development of a domestic trawl fishery. A classification system was developed for characterizing shellfish vessels on the basis of such characteristics as length, horsepower, hull type and gear types employed <sup>1/</sup>. Certain types of shellfish vessels are likely candidates for entry into a trawl fishery, based on their trawling capability and other features. In particular, combination crabber-trawler type vessels (classes 8.1 to 8.5) have the largest potential fishing power of the existing shellfish vessels for the harvesting of groundfish. Subsequent estimates of capacity are based on these vessel classes, since they are expected to provide most of the initial future capacity.

An initial estimate of domestic harvest capacity can be obtained by examining the hold capacity of the combination vessels, shown in Table 23. This estimate assumes a packing factor of 40 pounds of iced fish per cubic foot of space. Also included are the number of vessels in each class which have made shrimp landings and provide a minimum estimate of the number of combination vessels currently equipped to trawl. Table 24 indicates the change in number of combination vessels between 1975 and 1977. The net increase in number of combination vessels has resulted in an overall increase in total hold capacity of 10 per cent over the past two years.

<sup>1/</sup> NORFISH Technical Report #61. The Classification, Enumeration, Characteristics and Economic Performance of Alaskan Fishing Vessels, NEPAC Progress Report II. 1976. 23 pp.

Table 23. Hold Capacity of Combination Crabber-Trawler Vessels.

| NORFISH class | No. of registered vessels | Keel length (feet) | Ave. hold capacity <sup>1</sup> (cu. ft.) | Total capacity (40 lbs./cu.ft.) | Class total (lbs.)           | Number to trawl shrimp |
|---------------|---------------------------|--------------------|---|---------------------------------|------------------------------|------------------------|
| 8.1           | 30                        | 59.1-70.           | 2800                                      | 112,000                         | 3,360,000                    | 11                     |
| 8.2           | 65                        | 70.1-82.           | 3000                                      | 120,000                         | 7,300,000                    | 24                     |
| 8.3           | 38                        | 82.1-90.           | 3500                                      | 140,000                         | 5,320,000                    | 8                      |
| 8.4           | 32                        | 90.1-100.          | 5500                                      | 220,000                         | 7,040,000                    | 1                      |
| 8.5           | <u>14</u>                 | 100.1-120.         | 7500                                      | 300,000                         | <u>4,200,000</u>             | 0                      |
|               | 179                       |                    |   |                                 | 27,720,000<br>(or 12,375 MT) |                        |

<sup>1</sup>Revised figures provided from shellfish research group sessions held by Alaska Commercial Fisheries Entry Commission, 1977.

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Table 24. Changes in Number of Registered Shellfish Vessels, Western Alaska, 1975-1977.

| Class | No. registered<br>1975 | No. boats<br>gained | No. boats<br>lost | Net gain | No. registered<br>1977 | No. registered <sup>1</sup><br>SE Alaska<br>1977 |
|-------|------------------------|---------------------|-------------------|----------|------------------------|--|
| 8.1   | 25                     | 5                   | 1                 | 4        | 29                     | 1  |
| 8.2   | 65                     | 9                   | 10                | -1       | 64                     | 1  |
| 8.3   | 31                     | 4                   | 0                 | 4        | 35                     | 3  |
| 8.4   | 28                     | 4                   | 0                 | 4        | 32                     | 0  |
| 8.5   | 13                     | 3                   | 2                 | 1        | 14                     | 0  |

<sup>1</sup>Southeast Alaska vessels were tabulated separately since the 1975 survey did not include them.

Another factor affecting capacity is the amount of fishing time available. If it can be assumed that the domestic trawl fishery will begin primarily as an off-season fishery for shellfish fishermen, currently unused fishing time within the fleet would provide an estimate of time available for harvest of groundfish. To determine if there is unused capacity within the combination vessel classes, an analysis of the landing record of each vessel was performed 2/. The frequency distribution of interlanding times was used to derive an estimate of maximum trip length for each species fished. The maximum trip length was adjusted to take into consideration the limitation of holding time on board for various species. Allowing for a layup of 60 days per vessel, the number of additional fishing trips available by vessel class and trip length were calculated. Table 25 summarizes these results.

Given the current limitations in holding catches on board, particularly in the case of pollock, a 4 to 7 day trip length seems reasonable to expect. If 20 to 30 metric tons per day is a realistic catch rate in the Bering Sea, then the domestic annual capacity could be expected to be about 157 thousand metric tons, as indicated in Table M. This estimate was calculated by ignoring 1 to 3 day intervals and adding in the appropriate number of 4 to 7 day trips which could be made from within the longer time intervals listed in Table 26.

It should be noted that this estimate of domestic annual capacity assumes that all combination vessels are currently equipped to trawl. In fact, perhaps half of the fleet would require extensive modification beforehand. This figure is also high considering unused effort that might be directed towards Gulf of Alaska groundfish fisheries instead of the Bering Sea. Conversely, if trawling for groundfish in the Bering Sea proves to be more profitable than participating in alternative fisheries, the estimate of domestic annual capacity would need to be adjusted upward.

2/ Methods used are detailed in NORFISH Paper NPB3, Pragmatic Approaches to Fisheries Management for Optimum Yield -- Determination of Supply Curve for a Domestic Alaska Pollock Fishery, 1977, 7 pp; and in Technical Report #79 (In prep.).

Table 25. Number of Additional Fishing Trips Available by Combination Vessel Class and Trip Length for 1976.<sup>1</sup>

| Potential Trip Length       | Vessel Class |     |     |     |     |
|-----------------------------|--------------|-----|-----|-----|-----|
|                             | 8.1          | 8.2 | 8.3 | 8.4 | 8.5 |
| 1-3 days                    | 20           | 108 | 22  | 21  | 6   |
| 4-7 days                    | 24           | 76  | 25  | 23  | 10  |
| 8-14 days                   | 19           | 47  | 23  | 25  | 6   |
| 15-21 days                  | 9            | 26  | 14  | 12  | 4   |
| 22-30 days                  | 5            | 40  | 13  | 13  | 6   |
| 31-60 days                  | 11           | 31  | 8   | 5   | 3   |
| >60 days                    | 23           | 74  | 38  | 40  | 11  |
| No. of vessels <sup>2</sup> | 21           | 65  | 31  | 28  | 10  |

<sup>1</sup> These figures allow for 60 days layup per vessel

<sup>2</sup> These totals vary from Tables 1 and 2 because they are based on the actual number of vessels which made landings.

Table 26. Harvest Capacity of Groundfish Based on Utilization of Unused Fishing Time, Estimated from 1976 Landing Times.

|   | Vessel Class |       |      |      |      |
|---|--------------|-------|------|------|------|
|   | 8.1          | 8.2   | 8.3  | 8.4  | 8.5  |
| Number of 4-7 day trips available                     | 302          | 1007  | 433  | 426  | 139  |
| Number of vessels available                           | 21           | 65    | 31   | 28   | 10   |
| Number of trips per vessel                            | 14           | 15    | 14   | 15   | 14   |
| Number of days to fill boat at catch rate of 24MT/day | 2            | 2.5   | 3    | 4.5  | 6    |
| Annual Capacity in 10 <sup>6</sup> pounds             | 33.8         | 120.8 | 60.6 | 93.7 | 41.7 |
| Total: 156,518 M.T.                                   |              |       |      |      |      |

## 12.2 Expected Domestic Annual Harvest/Processing Capacity

U.S. groundfish processing capacity is currently estimated to be 54,350 mt annually (Section 12.1.1). U.S. commercial fishing fleet capacity is currently estimated to be 156,518 mt (Section 12.1.2). Neither of these estimates, however, allow a projection of the domestic intent to catch and process except to define physical maximums.

In order to estimate the expected U.S. harvest, all processors located in or adjacent to this region were surveyed to determine their specific plans for handling groundfish during the next year. This approach was taken because the desire of fishermen to enter the groundfish fishery, has been predicted by available markets (i.e. processors who will buy groundfish from them).

The results of this survey are given in Annex II.

If the Council determines that some amount of any DAH will not be taken by the domestic fishery, that amount will be transferred to Reserve unless such transfer is likely to have an adverse biological, economic, or social consequence.

### 13.0 ALLOCATIONS BETWEEN FOREIGN AND DOMESTIC FISHERMEN

#### 13.1 Reserve

As mentioned in Section 12.2 and Annex II, U.S. participation in the fishery in the near future is expected to consist of a relatively modest catch for crab bait and limited pilot efforts for foodfish production.

In order to prevent OY's from being exceeded without preventing unexpected domestic fishery development; i.e. an unanticipated increase in U.S. catching capability and intent, 500 mt or 5 percent of the OY (whichever is the greater) of each species will be held in reserve for allocation late in the year on the basis of domestic need. Specific reserve amounts are shown in Annex III.

Unless specifically withheld by the NMFS Regional Director acting with the advice of the Council, up to 25 percent of the reserve of each species will be released to TALFF every two months, beginning with the end of the second month of the fishing year, with the intention that by the end of the eighth month of the fishing year, all of the reserve will either be made available to foreign fishermen or reserved for domestic use.

#### 13.2 Total Allowable Level of Foreign Fishing (TALFF)

The initial TALFF for each species shall be determined by the equation:

$$\text{TALFF} = \text{OY} - \text{DAH} - \text{Reserve}$$

TALFF may increase during the year as reserves are apportioned between domestic and foreign fishermen. Initial TALFF's are shown in Annex III. The estimation of DAH is equal to DAP, (See Annex II).

## 14.0 PROPOSED MANAGEMENT REGIME

### 14.1 Specific Management Objectives

- A. Continue rebuilding the halibut resource so that a viable halibut setline fishery is again available to American fishermen.
- B. Rebuild depleted groundfish stocks to, and maintain healthy groundfish stocks at levels of abundance that will produce MSY.
- C. Provide an opportunity for U.S. involvement in the Bering Sea/ Aleutian groundfish fishery, limited only by the OY of individual species and objectives A and B above.
- D. Allow foreign participation in the fishery, consistent with objectives A, B, and C above.

Objective A will be accomplished by winter restrictions on fishing in areas where juvenile halibut are known to concentrate. Objective B, as it pertains to Pacific ocean perch and sablefish, will be accomplished by setting OY below current equilibrium yield (see Section 9.3.2 and Annex I) so that abundance can rebuild to the level necessary to produce MSY. Objectives C and D will be accomplished as provided for under Sections 12.2, 13.1, and 13.2.

### 14.2 Area, Fisheries, and Stocks Involved

This Fishery Management Plan and its Management Regime applies:

- A. To the U.S. Fishery Conservation Zone of that portion of the North Pacific Ocean adjacent to the Aleutian Islands which is west of 170°W, and of the entire Bering Sea (see Figure 26).
- B. To all foreign and domestic fishing vessels operating in the area described in A above, except:
  1. U.S. and Canadian fishermen when they are operating under IPHC regulations;
  2. Those U.S. vessels which are operating legally in any fishery for shellfish.

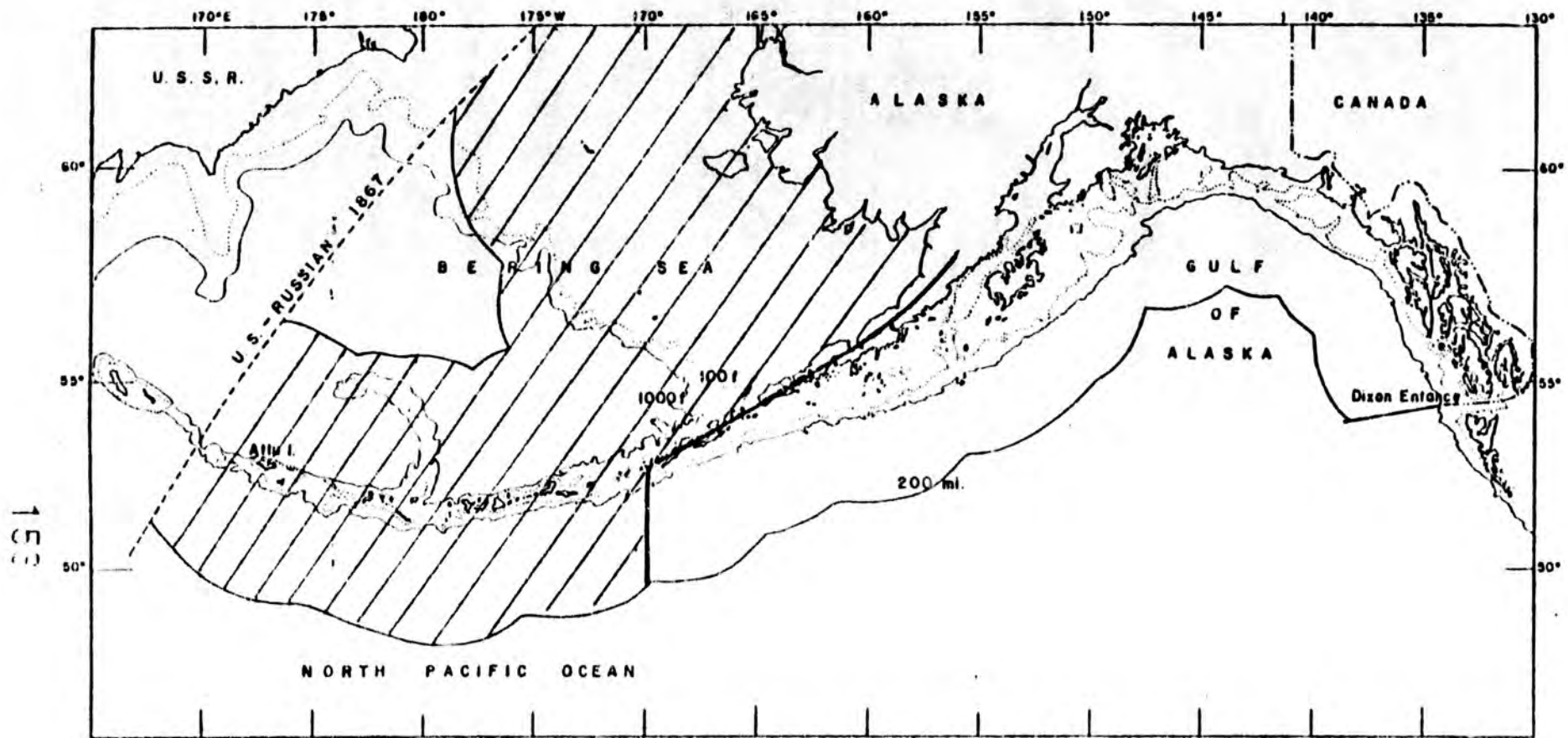


Figure 26.--Area (diagonal lines) over which this Fishery Management Plan applies.

- C. To all stocks of finfish and squid except salmon, steelhead trout, Pacific halibut, and herring which are distributed or are exploited predominantly in the area described in A, above.

#### 14.3 Management Measures and Their Rationale

##### 14.3.1 Domestic

###### 14.3.1.1 Permit requirements

All U.S. vessels operating in that part of the Bering Sea/Aleutian groundfish fishery which is under Council jurisdiction must have on board a current permit issued by the Secretary of Commerce or, if considered acceptable by the Secretary, a State of Alaska vessel license.

###### 14.3.1.2 Prohibited species

In accordance with existing state and federal statutes.

###### 14.3.1.3 Area closures

###### A. General

None

###### B. Trawl

1. "Bristol Bay Pot Sanctuary" (as described in Appendix III and Figure 27) -- domestic trawling will only be permitted during open seasons of the U.S. Bering Sea crab fisheries.
2. "Winter Halibut-savings Areas" (as described in Appendix III and Figure 27):
  - (i) December 1 - May 31 -- domestic trawling will be permitted only until the total U.S. trawl catch from this area exceeds 2,000 mt;
  - (ii) June 1 - November 30 -- no closures.
3. Other areas -- no closures

###### Rationale:

To prevent high incidental catches and mortality of juvenile halibut which are known to occur in winter concentrations in the "Bristol Bay Pot Sanctuary" and the "Winter Halibut-savings Areas" while allowing for some expansion in primarily the traditional crab-bait trawl fishery and the initial development of a human consumption fishery.

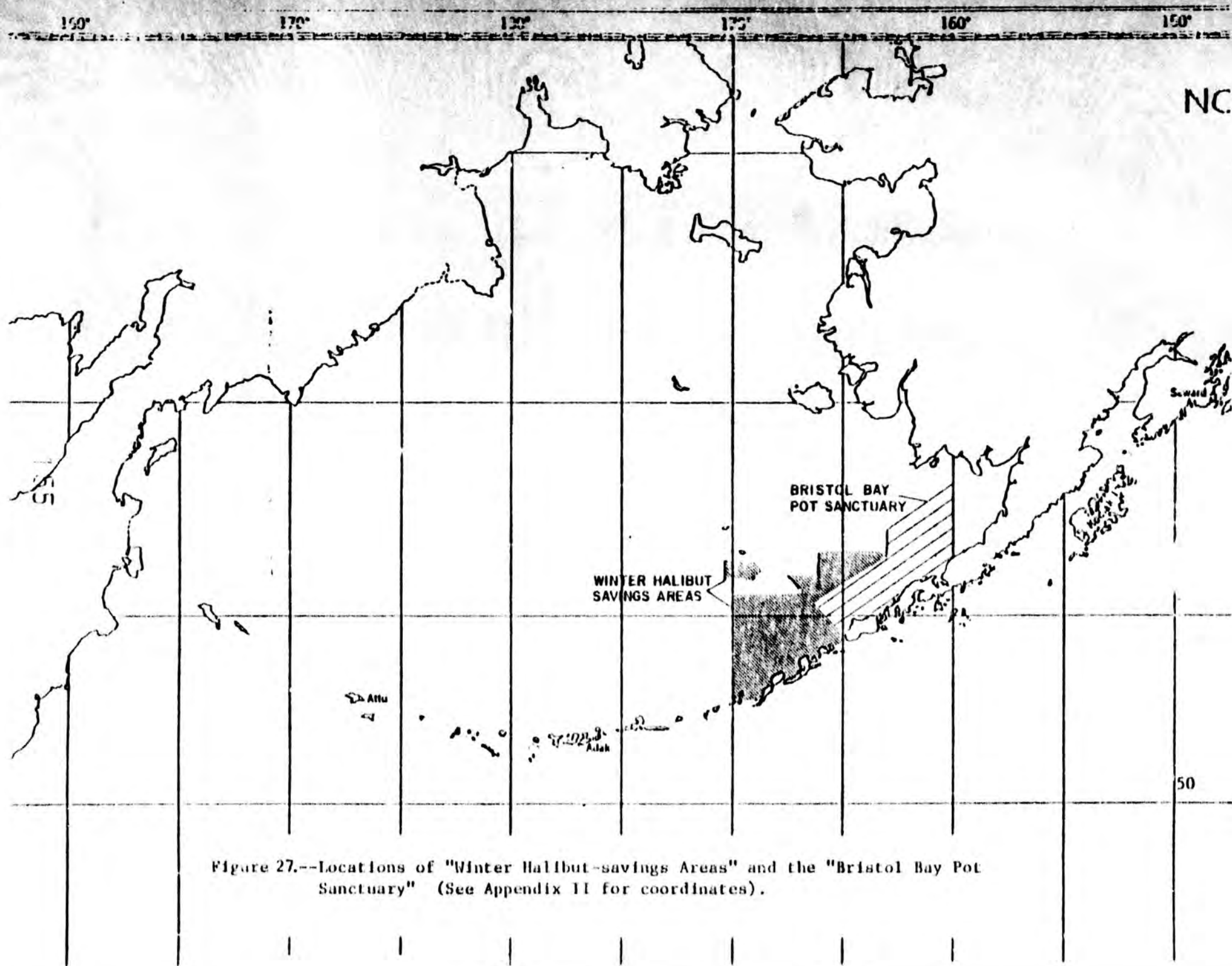


Figure 27.--Locations of "Winter Halibut-savings Areas" and the "Bristol Bay Pot Sanctuary" (See Appendix II for coordinates).

C. Longline

1. "Winter Halibut-savings Areas" (as described in Appendix III and Figure 27):

(i) December 1 - May 31 -- domestic longlining will be permitted landward of the 500 m isobath until the total U.S. longline catch (excluding halibut) from this area exceeds 2,000 mt.

(ii) June 1 - November 30 -- no closures.

2. Other areas -- no closures.

Rationale:

To prevent high incidental catch and mortality of juvenile halibut which are known to occur in winter concentrations in the "Winter Halibut-savings Areas" while allowing for some expansion in the domestic setline fishery for species other than halibut.

14.3.1.4 Gear restrictions

None.

14.3.1.5 Statistical Reporting Requirements

Fishery data compiled for the domestic groundfish fishery should be of the same general degree of precision as those required of foreign fishermen: catch by species, by  $\frac{1}{2}^{\circ}$  Lat. x  $1^{\circ}$  Long. areas, by gear type and vessel class, and by month; effort (e.g., hours towed, # hooks, # pots) by  $\frac{1}{2}^{\circ}$  Lat. x  $1^{\circ}$  Long. areas, by gear type and vessel class, and by month.

In order to compile such data sets, the performance of individual vessels must be made available. To do so will probably require, in addition to fish sales tickets made out for each delivery, one or a combination of the following: logbooks; port sampling; interviews with fishermen.

In addition to collecting this information from domestic vessels which land their catches at Alaskan ports, it must also be collected from those vessels which sell or use their catch for bait on the fishing grounds, from vessels which land their catches in other states, and from vessels which deliver their catches to foreign processing vessels.

Annual data compilations, in the above format, should be available to the Secretary by May 31 of the following year. In addition, preliminary catch data -- by species and by major statistical area (i.e. Areas I, II, III, IV) -- should be compiled by month and made available to the Secretary by the end of the following month.

Arrangements, including financing and schedule of implementation, for the collection, compilation, and summarization of these fishery data will be developed through consultations between officials of NMFS, State of Alaska, and other states in which landings of catch from this fishery are likely.

#### 14.3.1.6 Limited Entry

Implementation of a limited entry program will not be necessary for this fishery during the first few years that it operates under this plan. However, a limited entry program should be designed by the Council during the early stages of domestic fishery development so that it can be implemented well before the time that the fishery becomes fully or over-capitalized.

#### 14.3.2 Foreign

##### 14.3.2.1 Permit requirements

All foreign vessels operating in this Management Unit must have on board a permit issued by the Secretary of Commerce. Required by FCMA.

##### 14.3.2.2 Prohibited species

No retention of salmon, steelhead trout, halibut, or Continental Shelf Fishery Resources to prevent covert targetting on species of special importance to U.S. fishermen.

##### 14.3.2.3 Area closures

#### A. General

- (i) No fishing year-round within 12 miles of the baseline used to measure the Territorial Sea, except in the western Aleutian Islands as described in Appendix III to prevent conflicts with U.S. fixed gear and small, inshore fishery vessels; to prevent catch of localized inshore species important to U.S. fishermen and natives.

(ii) This management unit (or individual sub-area where specific quotas apply) will be closed to all fishermen of a nation for the remainder of the calendar year when that nation's allocation of any species or species group listed in Annex III is exceeded, except that such closures will affect longline fishing only if the national allocation of any of the following species is exceeded: sablefish; Pacific cod; Greenland turbot; and, "others" to discourage foreign fleets from covertly targetting on depleted species/stocks and to prevent damaging by-catches after the allowed catch has been taken; this provision places the burden of responsibility on the foreign fleets to avoid taking such species/stocks and to develop fishing gear and fishing practices which will minimize or eliminate their incidental capture.

B. Trawl

(i) No trawling year-round in the "Bristol Bay Pot Sanctuary", (as described in Appendix III and Figure 72) to prevent conflicts between foreign mobile gear and concentrations of U.S. crab pots; to prevent incidental catch of juvenile halibut which are known to concentrate in this area.

(ii) No trawling from December 1 to May 31 in the "Winter Halibut-savings Areas" (as described in Appendix II and Figure 27) to protect winter concentrations of juvenile halibut, to protect spawning concentrations of pollock and flounders.

(iii) No trawling year-round in that part of the FCZ adjacent to the Aleutian Islands between 172 degrees West longitude and 178 degrees 30 minutes West longitude south of a line drawn between the following coordinates:

53-14'N - 172-00'W

52-13'N - 176-00'W

52-00'N - 178-30'W

To provide a sanctuary for foreign and domestic longline fishing in recognition of the situation in which highly developed trawl fisheries in both the Bering Sea/Aleutian area and the Gulf of Alaska have tended to preempt fishing grounds from the traditional longline fishing method.

Prior to 1977, no Danish seiners, side trawlers or pair trawlers operated in this area, and less than one percent of the foreign stern trawl effort occurred in this area.

Because of the displacement of the Japanese land-based dragnet fleet from the Soviet 200-mile zone, that fleet has, since 1977, increased its utilization of trawl grounds surrounding the Aleutian archipelago. As a result, during the first seven months of 1978, of the total foreign stern trawl effort in the Bering Sea/Aleutian region, about three percent occurred in this longline sanctuary area.

- (iv) No trawling January 1 - June 30 in the area known as Petrel Bank on the north side of the Aleutian Islands comprising those waters bounded by lines drawn to include the following coordinates:

52-51'N - 178-30'W

51-15'N - 178-30'W

51-15'N - 179-00'E

52-51'N - 179-00'E

52-51'N - 178-30'W

between 178-30'W and 179-00'E landward of 12 nautical miles. Trawling is permitted seaward of three nautical miles from July 1 - December 31.

To avoid gear conflicts during the conduct of the domestic king crab fishery and to avoid the incidental catch of king

crab by trawling. Data available from the fishery in the Petrel Bank area indicates a substantial incidental trawl catch of red, blue and golden king crab. The crab savings effected by the trawl closure is a direct benefit to the domestic fleet in terms of potential catch and of long-range benefit in terms of conservation of crabs not subject to the rigors of a trawl effort during the softshell or moulting period.

- (v) No trawling January 1 - April 30 in other areas west of 178-30'W EXCEPT trawling is permitted seaward of three nautical miles from May 1 - December 31.
- To avoid gear conflicts during the conduct of the domestic king crab fishery and the development of the domestic bottomfish effort and to avoid the adverse effects of the incidental catch of king crabs by trawl.

C

Longline

- (1) "Winter Halibut-Savings Areas" (as described in Appendix III and Figure 27):

- (i) December 1 - May 31 -- no longlining landward of the 500 m isobath.
- (ii) June 1 - November 30 -- No closures.

To prevent high incidental catch and mortality of juvenile halibut which are known to occur in winter concentrations in the "Winter Halibut-Savings Areas."

- (2) Other areas -- No closures.
- (3) Throughout the area west of 172-00'W, longlining is permitted seaward of three nautical miles.

#### 14.4 Operational Needs and Costs (1000's dollars)

|  |               |
|--|---------------|
| 11.4 man-months of foreign fishery observer coverage | 370 <u>1/</u> |
| NWAFRC allocation compliance analyses                | 10            |
| NIFS computerized foreign fishery information system | 36            |
| NIFS Alaska Regional Office Management Division      | 435           |
| NWAA/Justice administration of penalties             | 12            |
| 800 Coast Guard ship patrol days                     | 2800          |
| 2500 Coast Guard aerial patrol hours                 | 1900          |
| State of Alaska fishery data collection              | 11            |
| Total  | 5574          |

Costs of federal, state, and IPHC biological research are not included inasmuch as they would be financed in the absence of this management plan.

#### 14.5 Effects of the Management Regime on Availability, Cost, and Quality of Fishery Products

Except where necessary to restore depleted stocks (Pacific ocean perch, Pacific halibut, and sablefish), optimum yields have been set equal to maximum biological production. The total OY for the Bering Sea/Aleutian groundfish fishery during 1979 is 1,409,400 mt, some 34,000 mt greater than that allowed by the Preliminary Management Plan for 1978 -- hence, availability of fishery products will not be reduced.

Although any management measure is likely to add expense to a fishery, the fishery restrictions proposed by the FMP are the minimum necessary to assure healthy stocks of all species, and most are carry-overs from the past several years -- therefore, costs of fishery products should neither be unreasonably inflated nor significantly increased as a result of implementation of this FMP.

1/ Reimbursed by foreign governments to the U.S. Treasury

The management regime of this FMP is not expected to have any effect on the quality of commodities produced from Bering Sea/Aleutian groundfishes,

As has been discussed earlier in Section 8.1.3, it seems highly unlikely that management actions taken in the Bering Sea will have any significant effect on the availability, cost, or quality of groundfish products to U.S. consumers. Therefore, specific management actions including the determination of optimum yield, have not been taken for the express purpose of addressing consumer interests. However, in future years this situation may change. At that time it will be necessary to more explicitly take into account consumer interests. Several studies are currently under way to provide the information upon which such decisions can be based. The largest of these is a contract let by the U.S. Department of Commerce to examine both international and national opportunities for the development of underutilized species in the U.S. fisheries conservation zone. Although primarily focused on opportunities for domestic industry development, this study should provide a good deal of useful information on patterns of groundfish consumption and prices. Particularly, it will fill important gaps in our understanding of foreign groundfish markets.

Other studies funded by the National Marine Fisheries Service, Northwest and Alaska Fisheries Center, and the Pacific and North Pacific Councils will provide further useful information. The proper orientation of near term research efforts to reflect consumer interests is probably the most important thing that can be done at this stage. If accomplished, it will insure that the information is available upon which decisions representative of consumer interests can be made when they are required in future Bering Sea and Aleutian groundfish management plans.

#### 14.4 Operational Needs and Costs (1000's dollars)

|  |                   |
|--|-------------------|
| 114 man-months of foreign fishery observer coverage  | 370 <sup>1/</sup> |
| NWAFRC allocation compliance analyses                | 10                |
| NMFS computerized foreign fishery information system | 36                |
| NMFS Alaska Regional Office Management Division      | 435               |
| NOAA/Justice administration of penalties             | 12                |
| 800 Coast Guard ship patrol days                     | 2800              |
| 2500 Coast Guard aerial patrol hours                 | 1900              |
| State of Alaska fishery data collection              | 11                |
| Total  | 5574              |

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## 15.0 RELATIONSHIP OF RECOMMENDED MANAGEMENT MEASURES TO FCMA NATIONAL STANDARDS AND OTHER APPLICABLE LAWS

This management plan can be considered an extension of the Preliminary Fishery Management Plan (PFMP) for the Bering Sea and Aleutian Trawl Fishery and portions of the PFMP for the Sablefish Setline/Trap Fishery, both prepared and implemented by the Secretary of Commerce, and which are superceded by this plan.

The management regime described in Section 14.0 is considered to be in conformance with the seven national standards set forth in Section 301 of the FCMA.

The U.S. is party to the following international conventions which directly or indirectly address conservation and management needs of groundfish in the Bering Sea/Aleutian Region: the International Convention for the High Seas Fisheries of the North Pacific Ocean (INPFC), and the Convention Between the United State of American and Canada for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea (IPHC).

This plan has a most significant relationship to the management of the Pacific halibut fishery which continues to be vested in the International Pacific Halibut Commission. Many of the management measures contained herein are for the expressed purpose of mitigating a severe crisis in the domestic halibut fishery by recognizing a situation in which the trawl fishery (and possibly the sablefish setline fishery) could be a major contributor to declining halibut abundance.

There are no Indian treaty fishing rights for groundfish in the fishery conservation zone in the Bering Sea/Aleutian region.

The Constitution of the State of Alaska states the following in Article XIII:

Section 2. General Authority. The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the State, including land and waters, for the maximum benefit of its people.

Section 4. Sustained Yield. Fish, forest, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses.

Section 15, No Exclusive Right of Fishery, has been amended to provide the State the power "to limit entry into any fishery for purposes of resource conservation" and "to prevent economic distress among fishermen and those dependent upon them for a livelihood".

Research will be required to (1) find means of improving the accuracy of commercial catch statistics, (2) refine estimates of abundance and biological characteristics of stocks through research resource surveys, (3) improve the capability for predicting changes in resource abundance, composition, and availability, (4) develop means of reducing the incidental catch of non-target species, and (5) identify subpopulations.

Catches reported by the foreign fishing fleets provide a means of monitoring the progress of the fisheries towards catch quotas. Later these catch statistics are examined with associated fishing effort to compute CPUE, an index of stock abundance. Discrepancies have been found between reported catches by foreign vessel skippers and those estimated by U.S. observers aboard these vessels. Observer's estimates have been generally greater than those reported by the vessel's master, suggesting under-reporting of catches by the foreign fleets. This problem needs to be examined and steps taken to improve the accuracy of reported catch statistics.

Estimates of biomass of specific groundfish resources have been obtained through resource surveys using bottom trawls. For such semi-demersal species as pollock and cod, biomass estimates through research vessel trawl surveys have so far been underestimated because of the lack of knowledge of the portion of the stocks in the water column that lie above the stratum sampled by the trawl. Studies are required to determine the efficiency at which research trawls capture pollock, cod, and other semi-demersal forms in order to improve the accuracy of biomass estimates of these species.

Long-term fisheries management requires reliable forecasting of stock conditions. Until now forecasts have been based mainly on past events, such as trends in abundance indices (CPUE's) and size and age composition of specific resources without any consideration of the interactions of these resources with each other and the environment. Studies need to be continued to determine for predictive purposes those

factors that have major influences on the abundance, composition, and distribution of resources, and there is a critical need for annual pre-recruit surveys (i.e., of young fish before they enter the fisheries) so that a measure of their abundance can be used to forecast later contributions to the exploitable stock.

For purposes of conservation and harvesting efficiency, fishing gear should be modified or developed which will reduce the by-catch of halibut, crabs, and other important species in the trawl fisheries. Although these species are immediately returned to the sea after capture, they still suffer an added source of mortality from their capture and handling.

Within the eastern Bering Sea-Aleutian region there undoubtedly exist subpopulations of species that, because of their unique biological features (e.g. growth and mortality) should be managed as separate stocks. Research, therefore, is required to provide a firm basis for the identification and delineation of specific stock units.

The paucity of specific information concerning sablefish, Pacific ocean perch, Atka mackerel, arrowtooth flounder, and Greenland turbot has required an empirical approach to management. Although some information on these species has recently been gathered by U.S. observers aboard foreign fishing vessels and from foreign fisheries statistics, direct assessment of abundance and stock condition has not been accomplished. In the past, surveys have essentially been restricted to the Continental Shelf of the eastern Bering Sea with very little effort directed to the Continental Slope where these and other species are known to concentrate. No assessment surveys have been conducted in the Aleutian region where important stocks of Pacific ocean perch, sablefish, and Atka mackerel occur. Geographic and bathymetric extensions of research surveys to these areas should be considered.

The several squids which are present in the region form another resource for which very little information is available. The squid fishery is presently of small magnitude but, because of intuitive indications of very large abundances, exploitation is expected to

increase substantially. If the sustainable potential of this resource is to be realized, basic taxonomic, distributional, biological, and abundance studies will soon have to be initiated.

Finally, but in the long run most importantly, the complex ecosystem will have to be accurately modelled so that bio-environmental processes can be understood and inter-species -- including birds and marine mammals -- relationships can be quantified and relied upon in determining optimum yields.

17.0 STATEMENT OF COUNCIL INTENTIONS TO REVIEW THE PLAN  
AFTER APPROVAL BY THE SECRETARY OF COMMERCE

The North Pacific Fishery Management Council will, after approval and implementation of this plan by the Secretary, maintain a continuing review of the fisheries managed under this plan through the following methods:

1. Maintain close liaison with the management agencies involved, usually the Alaska Department of Fish and Game and the National Marine Fisheries Service, to monitor the development of the fisheries and the activity in the fisheries.
2. Promote research to increase their knowledge of the fishery and the resource, either through Council funding or by recommending research projects to other agencies.
3. Conduct public hearings at appropriate times and in appropriate locations, usually at the close of a fishing season and in those areas where a fishery is concentrated, to hear testimony on the effectiveness of the management plans and requests for changes.
4. Consideration of all information gained from the above activities and development if necessary, of amendments to the management plan. The Council will also hold public hearings on proposed amendments prior to forwarding them to the Secretary for possible adoption.

- Alexander, A. B. 1913. Preliminary examination of halibut fishing grounds of the Pacific Coast. U.S. Bureau Fish., Doc. No. 763: 13-56.
- Alverson, D. L., A. T. Pruter, and L. L. Ronholt. 1964. A study of demersal fishes and fisheries of the northeastern Pacific Ocean. H. R. MacMillan Lectures in Fisheries, Univ. British Columbia, Inst. Fish., Vancouver, B.C., Canada, 190 p.
- Alverson, D. L. and M. J. Carney. 1975. A graphic review of the growth and decay of population cohorts. J. Cons. Int. Explor. Mer, 36(2): 133-143.
- Bakkala, R. and K. Wakabayashi. 1977. Status of Bering Sea stocks of Pacific cod, rock sole, flathead sole, and turbot in 1976. U.S. Dep. Commer., NOAA, Natl. Mar. Fish. Serv., Northwest and Alaska Fisheries Center, Seattle, Wash. Unpubl. manuscr.
- Bell, F. Heward. 1967. The halibut fishery, Shumagin Islands and westward not including Bering Sea. Int. Pac. Halibut Comm., Rep. No. 45, 34 p.
- Best, E. A. 1969a. Recruitment investigations: trawl catch records Bering Sea, 1967. Int. Pac. Halibut Comm., Tech. Rep. 1, 23 p.
- \_\_\_\_\_ 1969b. Recruitment investigations: trawl catch records eastern Bering Sea, 1968 and 1969. Int. Pac. Halibut Comm., Tech. Rep. 3, 24 p.
- \_\_\_\_\_ 1970. Recruitment investigations: trawl catch records eastern Bering Sea, 1963, 1965, and 1966. Int. Pac. Halibut Comm., Tech. Rep. 7, 52 p.
- \_\_\_\_\_ 1974. Juvenile halibut in the eastern Bering Sea: trawl surveys, 1970-1972. Int. Pac. Halibut Comm., Tech. Rep. 11, 32 p.
- Bower, W. T. 1927-53. Alaska fishery and fur seal industries in 1926-50. U.S. Dep. Commer., Bur. Fish. App. to Rep. Comm. Fish. for the years 1926-1939, Stat. Digest for the years 1940-50: various pagination.
- Chitwood, P. E. 1969. Japanese, Soviet, and South Korean fisheries off Alaska: development and history through 1966. U.S. Fish Wildl. Serv., Circ. 310, 34 p.
- Cobb, J. N. 1927. Pacific cod fisheries. Rep. U.S. Comm. Fish. for 1929, App. VII (Doc. No. 1014): 385-499.

- Dickinson, William R. 1973. Japanese fishing vessels off Alaska. Mar. Fish. Rev. 35 (1-2): 6-18.
- Dunlop, H. A., F. H. Bell, R. J. Myhre, W. H. Hardman, and G. M. Southward. 1964. Investigation, utilization and regulation of the halibut in southeastern Bering Sea. Int. Pac. Halibut Comm., Rep. No. 35, 72 p.
- Ellson, J. G., D. E. Powell, and H. H. Hildebrand. 1950. Exploratory fishing expedition to the northern Bering Sea in June and July, 1949. U.S. Fish. Wildl. Ser., Fish. Leaflet. 369, 56 p.
- Enforcement and Surveillance Division. 1971, 1973. Foreign fishing activities Bering Sea and Gulf of Alaska, 1970, 1971. U.S. Dep. Commer., NOAA, Natl. Mar. Fish. Serv., Juneau, Alaska. Unpubl. manuscrrs.
- Fishery Agency of Japan. 1968, 1973, 1974, 1975a, 1976a, 1976b. Vessel and gear specifications of the Japanese fishery operated in the northeast Pacific Ocean in 1968, 1972, 1974, 1975, 1976. Fishery Agency of Japan, Tokyo. Unpubl. manuscrrs.
- \_\_\_\_\_ 1975b. Groundfish research in the Bering Sea. Int. N. Pac. Fish. Comm., Annu. Rep. 1973: 65-69.
- Fishery Market News. 1942. Pre-World War II king crab investigations May 1942. Fish. Market News 4(5a), 107 p.
- Forrester, C. R., A. Beardsley and Y. Takahashi. 1974. Groundfish, shrimp, and erring fisheries in the Bering Sea and northeast Pacific--historical catch statistics through 1970. Int. N. Pac. Fish. Comm., Vancouver B.C., Canada. Unpubl. manuscrr.
- Gershanovich, D.E. 1963. Bottom relief of the main fishing grounds (shelf and continental slope) and some aspects of the geomorphology of the Bering Sea. Tr. Vses. Nauchno-issled. Inst. Morsk., Rybn. Khoz. Okeanogr. 48 (Izv. Tikhookean. Nauchno-issled. Inst. Morsk. Rybn. Khoz. Okeanogr. 50). (Transl. in Soviet Fisheries Investigations in the Northeast Pacific, Part I, p. 9-78 by Israel Program Sci. Transl., 1968. Avail. Natl. Tech. Inf. Serv., Springfield, VA as TT67-51203.)
- Gershanovich, D. E., N. S. Fadeev, T. G. Lyubimova, P. A. Moiseev, and V. V. Natanov. 1974. Principal results of Soviet oceanography investigations in the Bering Sea. In D. W. Hood and E. J. Kelley (eds.): Oceanography of the Bering Sea. Inst. Mar. Sci., Univ. Alaska, pp. 363-370.
- Haskell, Winthrop H. 1964. Foreign fishing activities Bering Sea and Gulf of Alaska, 1963. Fish and Wildl. Serv., Bur. Comm. Fish., Office of Resource Management, Juneau, Alaska, unpubl. manuscrr.

- Hoag, Stephen H. 1976. The effect of trawling on the setline fishery for halibut. I.P.H.C., Sci. Rep. No. 61, 20 p.
- Hoag, Stephen H. and Robert R. French. 1976. The incidental catch of halibut by foreign trawlers. Int. Pac. Halibut Comm., Sci. Rep. No. 60, 24 p.
- Hokkaido University. 1957, 1960, 1964, 1965, 1966a, 1966b, 1968. Data record of oceanographic observations and exploratory fishing of the Oshoro Maru cruises to the Bering Sea in 1956, June-July 1959, May-July 1963, June-August 1964, May-August 1965, June-August 1966, and June-August 1967. Hokkaido Univ., Fac. Fish. Publ. 1, 4, 8, 9, 10, 11, and 12. Various pagination.
- Hood, D. W. and E. J. Kelley. 1974. Introduction. In D. W. Hood and E. J. Kelley (eds.). Oceanography of the Bering Sea. Inst. Mar. Sci., Univ. Alaska, pp. XV-XXI.
- INPFC (International North Pacific Fisheries Commission). 1976. Report of the sub-committee on Bering Sea groundfish. In Proceedings of the 23rd annual meeting, 1976. Int. N. Pac. Fish. Comm., Vancouver, B.C., Canada, App. 2: 147-235.
- \_\_\_\_\_ 1978. Report of the sub-committee on Bering Sea groundfish. In Proceedings of the 24th annual meeting, 1977. Int. N. Pac. Fish. Comm., Vancouver, B.C., App. 2. In Press.
- IPHC (International Pacific Halibut Commission). 1977(a). Annual Report 1976. Int. Pac. Halibut Comm., 40 p.
- \_\_\_\_\_ 1977(b). Items of information on the halibut fishery in the Bering Sea and the northeastern Pacific Ocean requested by INPFC. Int. Pac. Halibut Comm., Seattle, Wash. Unpubl. manuscr.
- Kibesaki, O. 1965. Demersal fish resources in the northern Pacific. Japanese Fish. Res. Conser. Assoc., Fish. Res. Serv. No. 11: 1-45. (Prelim. transl., 1964, by U.S. Joint Publications Res. Serv for Bur. Comm. Fish., Seattle).
- King, J. E. 1949. Experimental fishing trips to the Bering Sea. U.S. Fish Wildl. Serv., Fish. Leafl. 330, 13 p.
- Law Enforcement Division. 1974, 1975, and 1977. Foreign fishery activities Bering Sea and Gulf of Alaska, 1972-1974. U.S. Dep. Commer., NOAA, Natl. Mar. Fish. Serv., Juneau, Alaska. Unpubl. manuscrs.
- Low, Loh-Lee, Sally A. Mizroch, and Robert J. Wolotira, Jr. 1977. Status of Pacific ocean perch stocks in the eastern Bering Sea and the Aleutian region through 1975. U.S. Dep. Commer., NOAA, Natl. Mar. Fish. Serv., Northwest and Alaska Fisheries Center, Seattle, Wash. Unpubl. manuscr.

Moiseev, P.A. 1963. Some scientific prerequisites for the organization of a Bering Sea fishery research expedition. Tr. Vses. Nauchno-issled. Inst. Morsk. Rybn. Khoz. Okeanogr. 48 (Izv. Tikhookean. Nauchno-issled. Inst. Morsk. Rybn. Khoz. Okeanogr. 50): 7-12. (Transl. in Soviet Fisheries Investigations in the Northeastern Pacific Pt. I, P. 1-8, by Israel Program Sci. Transl., 1968, avail. Natl. Tech. Inf. Serv., Springfield, VA as TT67-51203.)

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1964. Some results of the work of the Bering Sea expedition. Tr. Vses. Nauchno-issled. Inst. Morsk. Rybn. Khoz. Okeanogr. 53 (Izv. Tikhookean Nauchno-issled. Inst. Morsk. Rybn. Khoz. Okeanogr. 52): 7-29. (Transl. in Soviet Fisheries Investigations in the Northeast Pacific, Part III, P. 1-21, by Israel Program Sci. Transl., 1968, avail. Natl. Tech. Inf. Serv., Springfield, VA, as TT67-51205.)

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1970. Some problems of estimating biological resources of the oceans in the light of the results of the Bering Sea expedition. Tr. Vses. Nauchno-issled. Inst. Morsk. Rybn. Khoz. Okeanogr. 70 (Izv. Tikhookean. Nauchno-issled. Inst. Rybn. Khoz. Okeanogr. 72): 8-14. (Transl. in Soviet Fisheries Investigations in the Northeastern Pacific, art V, p. 1-6 by Israel Program Sci. Transl. 1972, avail. Natl. Tech. Inf. Serv., Springfield, VA, as TT71-50127.)

Myhre, Richard J., Gordon J. Peltonen, Gilbert St. Pierre, Bernard E. Skud, and Raymond E. Walden. 1977. The Pacific halibut fishery: catch, effort and CPUE, 1920-1975. Int. Pac. Halibut Comm., Tech. Rep. No. 14, 94 p.

Office of Enforcement and Surveillance. 1965, 1967-1970. Foreign fishing activities Bering Sea and Gulf of Alaska, 1964-1969. U.S. Dep. Commer., NOAA, Natl. Mar. Fish. Serv., Juneau, Alaska. Unpubl. manuscrrs.

Pereyra, Walter T., Jerry E. Reeves, and Richard G. Bakkala (Principal Investigators). 1976. Demersal fish and shellfish resources of the eastern Bering Sea in the baseline year 1975. U.S. Dep. Commer., NOAA, Natl. Mar. Fish. Serv., Northwest Fish. Center, Seattle, Wash. Proc. Rep. in two parts: Narrative report, 619 p.; Data appendices, 534 p. (Processed.) Various portions of the two parts are written by various authors.

Potocsky, G. J. 1975. Alaska area 15- and 30-day ice forecasting guide. Naval Ocean. Office, Spec. Publ. 263: 190 p.

Pruter, A. T. 1976. Soviet fisheries for bottomfish and herring off the Pacific and Bering Sea coasts of the United States. Mar. Fish. Rev. 38(12): 1-14.

- Rathbun, R. 1894. Summary of the fishery investigations conducted in the North Pacific Ocean and Bering Sea from July 1, 1888 to July 1, 1892, by the U.S. Fisheries Commission steamer Albatross. U.S. Fish. Comm. Bull. 12: 127-201.
- Sasaki, Takashi. 1976. Data on the Japanese blackcod fishery in the Bering Sea and the northeastern Pacific Ocean - IV (Development and history of the Japanese blackcod fishery through 1975, and status of the blackcod resource). Far Seas Fish. Res. Lab., Shimizu, Japan. Unpubl. manuscr.
- \_\_\_\_\_ 1977. Outline of the Japanese groundfish fishery in the Bering Sea, 1976 (November 1975-October 1976). Fishery Agency of Japan, Tokyo. Unpubl. manuscr.
- Sharma, G. D. 1974. Contemporary depositional environment of the eastern Bering Sea. Part I. Contemporary sedimentary regimes of the eastern Bering Sea. In D. W. Hood and E. J. Kelly (eds.). Oceanography of the Bering Sea. Inst. Mar. Sci., Univ. Alaska, pp. 119-136.
- Shimonoseki University of Fisheries. 1966. Fisheries oceanography and exploratory trawl fishing in the Bering Sea. Data. Shimonoseki Univ. Fish., Oceanogr. Obs. Explor. Fish. 2, 109 p.
- Skud, Bernard E. 1977. Regulations of the Pacific halibut fishery, 1924-1976. Int. Pac. Halibut Comm., Tech. Rep. 15, 47 p.
- Takahashi, Yoshiya. 1976. Resources of rock sole, flathead sole, Pacific cod, turbot and Pacific herring in the Bering Sea. Far Seas Fisheries Research Laboratory, Shimizu, Japan. Unpubl. manuscr.
- Thompson, William F. and Norman L. Freeman. 1930. History of the Pacific halibut fishery. Int. Pac. Halibut Comm., Rep. No. 5, 61 p.
- Tsuruta, A., A. Hirano and A. Kataoka. 1962. Test trawling in the northeast Bering Sea. J. Shimonoseki Coll. Fish. 11(3); 1-18.
- Wakabayashi, K. and R. Bakkala. 1977. Estimated catches of flounders by species in the Bering Sea. U.S. Dep. Commer., NOAA, Natl. Mar. Fish. Serv., Northwest and Alaska Fisheries Center, Seattle, Wash. Unpubl. manuscr.
- Wigutoff, N. B. and C. B. Carlson. 1950. Pacific Explorer's fishing and processing operations in 1948. U.S. Fish. Wildl. Serv., Fish. Leaflet. 361, 161 p.

Wilimovsky, N. J. 1974. Fishes of the Bering Sea: the state of existing knowledge and requirements for future effective effort. In D. W. Hood and E. J. Kelley (eds.). Oceanography of the Bering Sea. Univ. Alaska, Inst. Mar. Sci., pp. 243-256.

Yamaguchi, Hirotsune. 1974. Outline of the Japanese groundfish fishery in the Bering Sea, 1973. Fishery Agency of Japan, Tokyo. Unpubl. manuscr.

\_\_\_\_\_ 1975. Outline of Japanese fishery in the Bering Sea, 1974. Fishery Agency of Japan, Tokyo. Unpubl. manuscr.

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APPENDICES

- I -- Sample community profile
- II -- Pollock cohort analyses
- III -- Descriptions of closed areas

## APPENDIX I. ALEUTIAN SUBREGION COMMUNITY PROFILE (Ref. Sec. 8.5)

### Water

Settled areas in the subregion are accessible only by air or water transport. Even these modes are severely limited by weather conditions. Communities are small and far apart, making the feasibility of waterborne commercial transportation systems marginal.

Passenger service by water is limited. The Alaska Marine Highway does not serve this area. Residents wishing to travel by water depend primarily on unscheduled service provided by fishing boats. A Dutch Harbor resident provides scheduled passenger and freight service with the M/V ISLANDER between Amaknak and Unalaska Islands and is considering expanding to a ferry system serving Umnak, Unalaska, Amaknak, Akutan, and Akun Islands.

Deep water occurs along the south shores of the Aleutian Islands. Unimak Pass is the most frequently used passage between the North Pacific and Bering Sea. Although sheltered harbors and coves capable of handling deep-draft vessels occur frequently throughout the Chain, improved harbor facilities are few.

Monthly waterborne freight service is provided from Seattle to Captains Bay on Unalaska Island, to Unalaska and to Adak, service to Sand Point and Dutch Harbor is twice monthly. The vessel carries containerized cargo, some of which comes from Anchorage. Atka has no airport but is served monthly by a tug from Adak Naval Station. Attu and Shemya receive the major portion of their supplies annually through a military-contracted private operation. The M/V PRIBILOF, operated by the Aleutian Pribilof Island Association, provides waterborne freight service to St. Paul and St. George, Pribilof Islands, and the M/V North Star III, operated by the Bureau of Indian Affairs, services certain communities on an annual basis.

### Air

The Cold Bay International Airport, constructed by the U.S. Army Corps of Engineers in the early 1940's, is a major transportation hub

for the Aleutian Chain and a key refueling station for trans-Pacific flights between the Far East and the continental United States. Flight time through Cold Bay is an hour or more shorter to the San Francisco and Los Angeles area than by way of Anchorage. Sixteen major air carriers or charter airlines used this airport during the past two years.

Many smaller air taxi services and charter airlines use the Cold Bay Airport and, while the volume is not great, the service to the people in the area is most significant.

Local service is available by Reeve Aleutian Airways serving the Alaska Peninsula, the Aleutian Chain, and St. Paul in the Pribilof Islands. This airline provides access to all military sites and many of the smaller communities. Although St. George Island in the Pribilofs lacks facilities for handling large commercial aircraft, National Marine Fisheries has inaugurated a charter service from King Salmon and Dillingham to St. George approximately once a week.

#### Land

With the minor exception of a few local roads within the communities, no highway system exists in the Aleutian Subregion.

APPENDIX II. (Ref. Section 10.4)

Cohort analyses which show growth and decay of a pollock biomass under different instantaneous rates of natural mortality (Tables A - G).

TABLE A. COHORT ANALYSIS TO DETERMINE THE GROWTH AND DECAY OF A POLLOCK COHORT  
STARTING WITH 10000 INDIVIDUALS AND ASSUMING .350 NATURAL MORTALITY RATE

| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|-------|-------------------|------------------------|-------------|-------------|-----------------|------------------------|-------------|-------------|----------------|------------------------|-------------|-------------|
| AGE   | FEMALE POPULATION |                        |             |             | MALE POPULATION |                        |             |             | COMBINED SEXES |                        |             |             |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|       | BIOMASS           | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS         | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS        | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
| 1     | 344               | 15                     | 5.6         | .0          | 344             | 15                     | 5.7         | .0          | 344            | 15                     | 5.7         | .0          |
| 2     | 1047              | 47                     | 9.3         | .2          | 1051            | 46                     | 9.3         | .2          | 1049           | 46                     | 9.3         | .2          |
| 3     | 1711              | 77                     | 12.4        | .5          | 1731            | 76                     | 12.5        | .5          | 1721           | 76                     | 12.4        | .5          |
| 4     | 2114              | 95                     | 15.0        | .9          | 2154            | 94                     | 15.1        | .9          | 2134           | 94                     | 15.1        | .9          |
| 5     | 2231              | 100                    | 17.2        | 1.3         | 2286            | 100                    | 17.3        | 1.3         | 2258           | 100                    | 17.3        | 1.3         |
| 6     | 2129              | 95                     | 19.1        | 1.7         | 2193            | 96                     | 19.2        | 1.8         | 2161           | 96                     | 19.2        | 1.8         |
| 7     | 1897              | 85                     | 20.7        | 2.2         | 1962            | 86                     | 20.9        | 2.3         | 1930           | 85                     | 20.8        | 2.2         |
| 8     | 1609              | 72                     | 22.1        | 2.6         | 1670            | 73                     | 22.2        | 2.7         | 1639           | 73                     | 22.2        | 2.7         |
| 9     | 1315              | 59                     | 23.3        | 3.1         | 1369            | 60                     | 23.4        | 3.2         | 1342           | 59                     | 23.3        | 3.1         |
| 10    | 1045              | 47                     | 24.2        | 3.5         | 1091            | 49                     | 24.4        | 3.6         | 1068           | 47                     | 24.3        | 3.5         |
| 11    | 812               | 36                     | 25.1        | 3.8         | 850             | 37                     | 25.2        | 4.0         | 831            | 37                     | 25.2        | 3.9         |
| 12    | 620               | 28                     | 25.8        | 4.1         | 651             | 28                     | 26.0        | 4.3         | 636            | 28                     | 25.9        | 4.2         |
| 13    | 467               | 21                     | 26.4        | 4.4         | 491             | 21                     | 26.6        | 4.6         | 479            | 21                     | 26.5        | 4.5         |
| 14    | 348               | 16                     | 26.9        | 4.7         | 366             | 16                     | 27.1        | 4.9         | 357            | 16                     | 27.0        | 4.8         |
| 15    | 257               | 12                     | 27.3        | 4.9         | 271             | 12                     | 27.5        | 5.2         | 264            | 12                     | 27.4        | 5.0         |
| 16    | 188               | 8                      | 27.7        | 5.1         | 199             | 9                      | 27.9        | 5.4         | 193            | 9                      | 27.8        | 5.2         |

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TABLE B. COHORT ANALYSIS TO DETERMINE THE GROWTH AND DECAY OF A POLLOCK COHORT STARTING WITH 10000 INDIVIDUALS AND ASSUMING .375 NATURAL MORTALITY RATE

| ***** |                   |                |             |             |                 |                |             |             |                |                |             |             |
|-------|-------------------|----------------|-------------|-------------|-----------------|----------------|-------------|-------------|----------------|----------------|-------------|-------------|
| AGE   | FEMALE POPULATION |                |             |             | MALE POPULATION |                |             |             | COMBINED SEXES |                |             |             |
| ***** |                   |                |             |             |                 |                |             |             |                |                |             |             |
|       | BIO MASS          | PERCENT OF MAX | LENGTH (IN) | WEIGHT (LB) | BIO MASS        | PERCENT OF MAX | LENGTH (IN) | WEIGHT (LB) | BIO MASS       | PERCENT OF MAX | LENGTH (IN) | WEIGHT (LB) |
| ***** |                   |                |             |             |                 |                |             |             |                |                |             |             |
| 1     | 336               | 17             | 5.6         | .0          | 336             | 17             | 5.7         | .0          | 336            | 17             | 5.7         | .0          |
| 2     | 996               | 51             | 9.3         | .2          | 1000            | 50             | 9.3         | .2          | 998            | 50             | 9.3         | .2          |
| 3     | 1587              | 81             | 12.4        | .5          | 1606            | 80             | 12.5        | .5          | 1596           | 80             | 12.4        | .5          |
| 4     | 1913              | 97             | 15.0        | .9          | 1949            | 97             | 15.1        | .9          | 1931           | 97             | 15.1        | .9          |
| 5     | 1969              | 100            | 17.2        | 1.3         | 2017            | 100            | 17.3        | 1.3         | 1993           | 100            | 17.3        | 1.3         |
| 6     | 1833              | 93             | 19.1        | 1.7         | 1887            | 94             | 19.2        | 1.8         | 1860           | 93             | 19.2        | 1.8         |
| 7     | 1593              | 81             | 20.7        | 2.2         | 1647            | 82             | 20.9        | 2.3         | 1620           | 81             | 20.8        | 2.2         |
| 8     | 1317              | 67             | 22.1        | 2.6         | 1367            | 68             | 22.2        | 2.7         | 1342           | 67             | 22.2        | 2.7         |
| 9     | 1050              | 53             | 23.3        | 3.1         | 1093            | 54             | 23.4        | 3.2         | 1072           | 54             | 23.3        | 3.1         |
| 10    | 814               | 41             | 24.2        | 3.5         | 850             | 42             | 24.4        | 3.6         | 832            | 42             | 24.3        | 3.5         |
| 11    | 617               | 31             | 25.1        | 3.8         | 646             | 32             | 25.2        | 4.0         | 631            | 32             | 25.2        | 3.9         |
| 12    | 460               | 23             | 25.8        | 4.1         | 482             | 24             | 26.0        | 4.3         | 471            | 24             | 25.9        | 4.2         |
| 13    | 338               | 17             | 26.4        | 4.4         | 355             | 18             | 26.6        | 4.6         | 346            | 17             | 26.5        | 4.5         |
| 14    | 245               | 12             | 26.9        | 4.7         | 258             | 13             | 27.1        | 4.9         | 252            | 13             | 27.0        | 4.8         |
| 15    | 177               | 9              | 27.3        | 4.9         | 186             | 9              | 27.5        | 5.2         | 181            | 9              | 27.4        | 5.0         |
| 16    | 126               | 6              | 27.7        | 5.1         | 133             | 7              | 27.9        | 5.4         | 130            | 7              | 27.8        | 5.2         |
| ***** |                   |                |             |             |                 |                |             |             |                |                |             |             |

TABLE C. COHORT ANALYSIS TO DETERMINE THE GROWTH AND DECAY OF A POLLOCK COHORT STARTING WITH 10000 INDIVIDUALS AND ASSUMING .400 NATURAL MORTALITY RATE

| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|-------|-------------------|------------------------|-------------|-------------|-----------------|------------------------|-------------|-------------|----------------|------------------------|-------------|-------------|
| AGE   | FEMALE POPULATION |                        |             |             | MALE POPULATION |                        |             |             | COMBINED SEXES |                        |             |             |
|       | BIOMASS           | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS (LB)    | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS (LB)   | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
| 1     | 328               | 19                     | 5.6         | .0          | 327             | 18                     | 5.7         | .0          | 327            | 19                     | 5.7         | .0          |
| 2     | 947               | 55                     | 9.3         | .2          | 951             | 53                     | 9.3         | .2          | 949            | 54                     | 9.3         | .2          |
| 3     | 1472              | 85                     | 12.4        | .5          | 1490            | 84                     | 12.5        | .5          | 1481           | 84                     | 12.4        | .5          |
| 4     | 1731              | 100                    | 15.0        | .9          | 1763            | 99                     | 15.1        | .9          | 1747           | 99                     | 15.1        | .9          |
| 5     | 1737              | 100                    | 17.2        | 1.3         | 1780            | 100                    | 17.3        | 1.3         | 1759           | 100                    | 17.3        | 1.3         |
| 6     | 1577              | 91                     | 19.1        | 1.7         | 1624            | 91                     | 19.2        | 1.8         | 1601           | 91                     | 19.2        | 1.8         |
| 7     | 1337              | 77                     | 20.7        | 2.2         | 1383            | 78                     | 20.9        | 2.3         | 1360           | 77                     | 20.8        | 2.2         |
| 8     | 1079              | 62                     | 22.1        | 2.6         | 1119            | 63                     | 22.2        | 2.7         | 1099           | 62                     | 22.2        | 2.7         |
| 9     | 839               | 48                     | 23.3        | 3.1         | 873             | 49                     | 23.4        | 3.2         | 856            | 49                     | 23.3        | 3.1         |
| 10    | 634               | 36                     | 24.2        | 3.5         | 662             | 37                     | 24.4        | 3.6         | 648            | 37                     | 24.3        | 3.5         |
| 11    | 469               | 27                     | 25.1        | 3.8         | 490             | 28                     | 25.2        | 4.0         | 480            | 27                     | 25.2        | 3.9         |
| 12    | 341               | 20                     | 25.8        | 4.1         | 357             | 20                     | 26.0        | 4.3         | 349            | 20                     | 25.9        | 4.2         |
| 13    | 244               | 14                     | 26.4        | 4.4         | 256             | 14                     | 26.6        | 4.6         | 250            | 14                     | 26.5        | 4.5         |
| 14    | 173               | 10                     | 26.9        | 4.7         | 182             | 10                     | 27.1        | 4.9         | 177            | 10                     | 27.0        | 4.8         |
| 15    | 121               | 7                      | 27.3        | 4.9         | 128             | 7                      | 27.5        | 5.2         | 125            | 7                      | 27.4        | 5.0         |
| 16    | 85                | 5                      | 27.7        | 5.1         | 89              | 5                      | 27.9        | 5.4         | 87             | 5                      | 27.8        | 5.2         |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |

TABLE D. COHORT ANALYSIS TO DETERMINE THE GROWTH AND DECAY OF A POLLOCK COHORT  
STARTING WITH 10000 INDIVIDUALS AND ASSUMING .430 NATURAL MORTALITY RATE

| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|-------|-------------------|------------------------|-------------|-------------|-----------------|------------------------|-------------|-------------|----------------|------------------------|-------------|-------------|
| AGE   | FEMALE POPULATION |                        |             |             | MALE POPULATION |                        |             |             | COMBINED SEXES |                        |             |             |
|       | BIOMASS           | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS         | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS        | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
| 1     | 318               | 21                     | 5.6         | .0          | 318             | 20                     | 5.7         | .0          | 318            | 21                     | 5.7         | .0          |
| 2     | 892               | 58                     | 9.3         | .2          | 896             | 57                     | 9.3         | .2          | 894            | 58                     | 9.3         | .2          |
| 3     | 1346              | 88                     | 12.4        | .5          | 1362            | 87                     | 12.5        | .5          | 1354           | 87                     | 12.4        | .5          |
| 4     | 1535              | 100                    | 15.0        | .9          | 1564            | 100                    | 15.1        | .9          | 1549           | 100                    | 15.1        | .9          |
| 5     | 1495              | 97                     | 17.2        | 1.3         | 1532            | 98                     | 17.3        | 1.3         | 1514           | 98                     | 17.3        | 1.3         |
| 6     | 1318              | 86                     | 19.1        | 1.7         | 1357            | 87                     | 19.2        | 1.8         | 1337           | 86                     | 19.2        | 1.8         |
| 7     | 1084              | 71                     | 20.7        | 2.2         | 1121            | 72                     | 20.9        | 2.3         | 1102           | 71                     | 20.8        | 2.2         |
| 8     | 848               | 55                     | 22.1        | 2.6         | 881             | 56                     | 22.2        | 2.7         | 864            | 56                     | 22.2        | 2.7         |
| 9     | 640               | 42                     | 23.3        | 3.1         | 666             | 43                     | 23.4        | 3.2         | 653            | 42                     | 23.3        | 3.1         |
| 10    | 470               | 31                     | 24.2        | 3.5         | 490             | 31                     | 24.4        | 3.6         | 480            | 31                     | 24.3        | 3.5         |
| 11    | 337               | 22                     | 25.1        | 3.8         | 353             | 23                     | 25.2        | 4.0         | 345            | 22                     | 25.2        | 3.9         |
| 12    | 238               | 15                     | 25.8        | 4.1         | 249             | 16                     | 26.0        | 4.3         | 243            | 16                     | 25.9        | 4.2         |
| 13    | 165               | 11                     | 26.4        | 4.4         | 174             | 11                     | 26.6        | 4.6         | 169            | 11                     | 26.5        | 4.5         |
| 14    | 114               | 7                      | 26.9        | 4.7         | 120             | 8                      | 27.1        | 4.9         | 117            | 8                      | 27.0        | 4.8         |
| 15    | 77                | 5                      | 27.3        | 4.9         | 82              | 5                      | 27.5        | 5.2         | 79             | 5                      | 27.4        | 5.0         |
| 16    | 52                | 3                      | 27.7        | 5.1         | 55              | 4                      | 27.9        | 5.4         | 54             | 3                      | 27.8        | 5.2         |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |

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TABLE E. COHORT ANALYSIS TO DETERMINE THE GROWTH AND DECAY OF A POLLOCK COHORT  
STARTING WITH 10000 INDIVIDUALS AND ASSUMING .450 NATURAL MORTALITY RATE

| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|-------|-------------------|------------------------|-------------|-------------|-----------------|------------------------|-------------|-------------|----------------|------------------------|-------------|-------------|
| AGE   | FEMALE POPULATION |                        |             |             | MALE POPULATION |                        |             |             | COMBINED SEXES |                        |             |             |
|       | BIOMASS           | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS (LB)    | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS (LB)   | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
| 1     | 312               | 22                     | 5.6         | .0          | 311             | 22                     | 5.7         | .0          | 311            | 22                     | 5.7         | .0          |
| 2     | 857               | 60                     | 9.3         | .2          | 841             | 60                     | 9.3         | .2          | 859            | 60                     | 9.3         | .2          |
| 3     | 1267              | 89                     | 12.4        | .5          | 1282            | 89                     | 12.5        | .5          | 1275           | 89                     | 12.4        | .5          |
| 4     | 1417              | 100                    | 15.0        | .9          | 1444            | 100                    | 15.1        | .9          | 1430           | 100                    | 15.1        | .9          |
| 5     | 1353              | 95                     | 17.2        | 1.3         | 1386            | 96                     | 17.3        | 1.3         | 1370           | 96                     | 17.3        | 1.3         |
| 6     | 1169              | 82                     | 19.1        | 1.7         | 1203            | 83                     | 19.2        | 1.8         | 1186           | 83                     | 19.2        | 1.8         |
| 7     | 942               | 66                     | 20.7        | 2.2         | 974             | 67                     | 20.9        | 2.3         | 958            | 67                     | 20.8        | 2.2         |
| 8     | 723               | 51                     | 22.1        | 2.6         | 750             | 52                     | 22.2        | 2.7         | 737            | 52                     | 22.2        | 2.7         |
| 9     | 535               | 38                     | 23.3        | 3.1         | 557             | 39                     | 23.4        | 3.2         | 546            | 38                     | 23.3        | 3.1         |
| 10    | 384               | 27                     | 24.2        | 3.5         | 401             | 28                     | 24.4        | 3.6         | 393            | 27                     | 24.3        | 3.5         |
| 11    | 270               | 19                     | 25.1        | 3.8         | 283             | 20                     | 25.2        | 4.0         | 277            | 19                     | 25.2        | 3.9         |
| 12    | 187               | 13                     | 25.8        | 4.1         | 196             | 14                     | 26.0        | 4.3         | 191            | 13                     | 25.9        | 4.2         |
| 13    | 127               | 9                      | 26.4        | 4.4         | 134             | 9                      | 26.6        | 4.6         | 131            | 9                      | 26.5        | 4.5         |
| 14    | 86                | 6                      | 26.9        | 4.7         | 90              | 6                      | 27.1        | 4.9         | 88             | 6                      | 27.0        | 4.8         |
| 15    | 57                | 4                      | 27.3        | 4.9         | 60              | 4                      | 27.5        | 5.2         | 59             | 4                      | 27.4        | 5.0         |
| 16    | 38                | 3                      | 27.7        | 5.1         | 40              | 3                      | 27.9        | 5.4         | 39             | 3                      | 27.8        | 5.2         |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |

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TABLE F. COHORT ANALYSIS TO DETERMINE THE GROWTH AND DECAY OF A POLLOCK COHORT  
STARTING WITH 10000 INDIVIDUALS AND ASSUMING .500 NATURAL MORTALITY RATE

| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|-------|-------------------|------------------------|-------------|-------------|-----------------|------------------------|-------------|-------------|----------------|------------------------|-------------|-------------|
| AGE   | FEMALE POPULATION |                        |             |             | MALE POPULATION |                        |             |             | COMBINED SEXES |                        |             |             |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|       | BIOMASS           | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS         | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS        | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
| 1     | 297               | 26                     | 5.6         | .0          | 296             | 25                     | 5.7         | .0          | 296            | 25                     | 5.7         | .0          |
| 2     | 776               | 67                     | 9.3         | .2          | 779             | 66                     | 9.3         | .2          | 777            | 66                     | 9.3         | .2          |
| 3     | 1091              | 94                     | 12.4        | .5          | 1104            | 93                     | 12.5        | .5          | 1097           | 94                     | 12.4        | .5          |
| 4     | 1160              | 100                    | 15.0        | .9          | 1182            | 100                    | 15.1        | .9          | 1171           | 100                    | 15.1        | .9          |
| 5     | 1054              | 91                     | 17.2        | 1.3         | 1080            | 91                     | 17.3        | 1.3         | 1067           | 91                     | 17.3        | 1.3         |
| 6     | 866               | 75                     | 19.1        | 1.7         | 891             | 75                     | 19.2        | 1.8         | 879            | 75                     | 19.2        | 1.8         |
| 7     | 664               | 57                     | 20.7        | 2.2         | 687             | 58                     | 20.9        | 2.3         | 675            | 58                     | 20.8        | 2.2         |
| 8     | 485               | 42                     | 22.1        | 2.6         | 503             | 43                     | 22.2        | 2.7         | 494            | 42                     | 22.2        | 2.7         |
| 9     | 341               | 29                     | 23.3        | 3.1         | 355             | 30                     | 23.4        | 3.2         | 348            | 30                     | 23.3        | 3.1         |
| 10    | 233               | 20                     | 24.2        | 3.5         | 243             | 21                     | 24.4        | 3.6         | 238            | 20                     | 24.3        | 3.5         |
| 11    | 156               | 13                     | 25.1        | 3.8         | 163             | 14                     | 25.2        | 4.0         | 160            | 14                     | 25.2        | 3.9         |
| 12    | 103               | 9                      | 25.8        | 4.1         | 108             | 9                      | 26.0        | 4.3         | 105            | 9                      | 25.9        | 4.2         |
| 13    | 66                | 6                      | 26.4        | 4.4         | 70              | 6                      | 26.6        | 4.6         | 68             | 6                      | 26.5        | 4.5         |
| 14    | 43                | 4                      | 26.9        | 4.7         | 45              | 4                      | 27.1        | 4.9         | 44             | 4                      | 27.0        | 4.8         |
| 15    | 27                | 2                      | 27.3        | 4.9         | 29              | 2                      | 27.5        | 5.2         | 28             | 2                      | 27.4        | 5.0         |
| 16    | 17                | 1                      | 27.7        | 5.1         | 18              | 2                      | 27.9        | 5.4         | 18             | 1                      | 27.8        | 5.2         |

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TABLE G. COHORT ANALYSIS TO DETERMINE THE GROWTH AND DECAY OF A POLLOCK COHORT  
STARTING WITH 10000 INDIVIDUALS AND ASSUMING .600 NATURAL MORTALITY RATE

| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
|-------|-------------------|------------------------|-------------|-------------|-----------------|------------------------|-------------|-------------|----------------|------------------------|-------------|-------------|
| AGE   | FEMALE POPULATION |                        |             |             | MALE POPULATION |                        |             |             | COMBINED SEXES |                        |             |             |
|       | BIOMASS           | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS (LB)    | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) | BIOMASS (LB)   | PERCENT OF MAX BIOMASS | LENGTH (IN) | WEIGHT (LB) |
| ***** |                   |                        |             |             |                 |                        |             |             |                |                        |             |             |
| 1     | 268               | 33                     | 5.6         | .0          | 268             | 33                     | 5.7         | .0          | 268            | 33                     | 5.7         | .0          |
| 2     | 635               | 79                     | 9.3         | .2          | 638             | 78                     | 9.3         | .2          | 636            | 78                     | 9.3         | .2          |
| 3     | 808               | 100                    | 12.4        | .5          | 818             | 100                    | 12.5        | .5          | 813            | 100                    | 12.4        | .5          |
| 4     | 778               | 96                     | 15.0        | .9          | 792             | 97                     | 15.1        | .9          | 785            | 97                     | 15.1        | .9          |
| 5     | 639               | 79                     | 17.2        | 1.3         | 655             | 80                     | 17.3        | 1.3         | 647            | 80                     | 17.3        | 1.3         |
| 6     | 475               | 59                     | 19.1        | 1.7         | 489             | 60                     | 19.2        | 1.8         | 482            | 59                     | 19.2        | 1.8         |
| 7     | 330               | 41                     | 20.7        | 2.2         | 341             | 42                     | 20.9        | 2.3         | 335            | 41                     | 20.8        | 2.2         |
| 8     | 218               | 27                     | 22.1        | 2.6         | 226             | 28                     | 22.2        | 2.7         | 222            | 27                     | 22.2        | 2.7         |
| 9     | 139               | 17                     | 23.3        | 3.1         | 144             | 18                     | 23.4        | 3.2         | 141            | 17                     | 23.3        | 3.1         |
| 10    | 86                | 11                     | 24.2        | 3.5         | 90              | 11                     | 24.4        | 3.6         | 88             | 11                     | 24.3        | 3.5         |
| 11    | 52                | 6                      | 25.1        | 3.8         | 54              | 7                      | 25.2        | 4.0         | 53             | 7                      | 25.2        | 3.9         |
| 12    | 31                | 4                      | 25.8        | 4.1         | 32              | 4                      | 26.0        | 4.3         | 32             | 4                      | 25.9        | 4.2         |
| 13    | 18                | 2                      | 26.4        | 4.4         | 19              | 2                      | 26.6        | 4.6         | 19             | 2                      | 26.5        | 4.5         |
| 14    | 11                | 1                      | 26.9        | 4.7         | 11              | 1                      | 27.1        | 4.9         | 11             | 1                      | 27.0        | 4.8         |
| 15    | 6                 | 1                      | 27.3        | 4.9         | 6               | 1                      | 27.5        | 5.2         | 6              | 1                      | 27.4        | 5.0         |
| 16    | 3                 | 0                      | 27.7        | 5.1         | 4               | 0                      | 27.9        | 5.4         | 4              | 0                      | 27.8        | 5.2         |

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APPENDIX III (Ref. Sections 14.3.1 and 14.3.2)

"Bristol Bay Pot Sanctuary"

The portion of the Fishery Conservation Zone encompassed by straight lines connecting the following points, in the order listed:

Cape Sarichef Light (54°36'N - 164°55'42"W)

55°16'N - 166°10'W

56°20'N - 163°00'W

57°10'N - 163°00'W

58°10'N - 160°00'W

Intersection of 160°00'W with the Alaska Peninsula

"Winter Halibut-savings Areas"

That portion of the Fishery Conservation Zone encompassed by straight lines connecting the following points, in the order listed:

Cape Sarichef Light (54°36'N - 164°55'42"W)

52°40'N - 170°00'W

55°30'N - 170°00'W

55°30'N - 166°47'W

56°00'N - 167°45'W

56°00'N - 166°00'W

56°30'N - 166°00'W

56°30'N - 163°00'W

56°20'N - 163°00'W

55°16'N - 166°10'W

55°16'N - 166°10'W

Cape Sarichef Light (54°36'N - 164°55'42"W)

and

56°18'N - 170°24'W

56°20'N - 169°03'W

56°12'N - 168°46'W

55°56'N - 169°10'W

More than three hundred species of fish are found in these waters. The target species of the groundfish fishery are pollock, Pacific Ocean perch, Atka mackerel, blackcod, yellowfin sole, Greenland turbot and Pacific halibut. An additional five species are occasional target species for the commercial fishery and another fifteen or so species are of minor commercial interest.

The present participation in this fishery of American and Canadian fishermen is confined almost exclusively to the relatively small longline fishery for halibut.

#### 20.2 Relationship of the Proposed Action to Land Use Plans

To date the State of Alaska does not have an approved coastal zone management plan. At the earliest practicable time the State will be consulted to determine whether the fishery management plan is consistent with the approved coastal zone management plan.

The fishery management plan under consideration presupposes an increase in the amount of effort in this fishery. Existing port and processing facilities, offseason use of vessels currently engaged in other fisheries and available manpower will be sufficient for the foreseeable future.

There are no recommendations at this time for the identification of potential marine sanctuary sites under Title III of the Marine Protection Research and Sanctuaries Act of 1972 in the area under which this fishery management plan will be implemented. Future coordination between the North Pacific Fishery Management Council and the Director, Alaska Region, Office of Coastal Zone Management, will be necessary to integrate plans developed by both agencies.

Therefore, this fishery management plan is not anticipated to have any significant impact on current land use plans.

#### 20.3 Probable Impact of Current Land Use Plans

##### 20.3.1 Physical Environment

No change is expected on the physical environment as a consequence of this management plan. Estimates of the amount of discharge of sewage, solid wastes, waste heat and products of combustion into the ocean

during fishing efforts are not available but their effects are judged minor in the open ocean environment. It is not possible to quantify hazard or nuisance effects from lost or discarded gear.

#### 20.3.2 Biological Environment

The primary objective of this fishery management plan is to prevent overfishing and conserve the resource while providing the greatest amount of food. The removal of the various target and incidentally caught species in the amounts determined biologically safe is presumed to be beneficial to the fishery and poses no threat to the biological environment.

#### 20.3.3 Socio-economic Environment

The impact of this plan on the domestic socio-economic climate is expected to be in direct proportion to the participation in the fishery. It is, for all intents and purposes, a new fishery for American fishermen. Presumably, there will be additional processing capabilities offered in the area. This will be a direct benefit in the form of job opportunities beyond those now available in the area. Thus, the impact of this plan on the domestic socio-economic climate will be highly beneficial. It will be in proportion to the growth of the fishery.

At the present time, the domestic industry does not have the fleet capacity facilities, capabilities nor man power to enter into substantial production of the region's groundfish species. It remains to be seen to what extent funds will be made available through various government and private sources for the exploitation of this new area. Certainly initial investments will be tentative and exploratory in nature. The capture of a share of the international market through a guaranteed portion of the total yield of the fishery will provide a great many answers toward how fast this fishery will develop. In the beginning the international market will be more than partially satisfied by foreign production. Perhaps to the extent that prices for some species will remain too low to support U.S. fishermen. Included among factors which inhibit the growth of any domestic fishery is the distance from U.S. markets, higher processing costs in Alaska and imported supplies from other areas.

The lack of information concerning the world fish market and how it will respond to boundary expansions makes it necessary to rely upon limited knowledge of the domestic markets for species affected by the plan to determine its impact on consumers.

Theoretically, larger supplies of species available on the U.S. market would exert downward pressure on prices to the benefit of consumers. Historically, industry has resisted that effect on the market. Prices, once established, tend to build from that point by the simple expedient of controlling supply.

#### 20.3.4 Unavoidable Adverse Impacts

No unavoidable adverse impacts on the environment are anticipated as a result of implementing this fishery plan. A sizeable foreign fishery is conducted in the area and the displacement of that effort can occur only in direct proportion to the domestic effort mounted. No undesirable land use pattern is anticipated or damage to life system or water or air pollution.

#### 20.3.5 Alternatives to the Proposed Action

The only alternative to this action that would be consistent with P.L. 94-265 would be to continue to manage the fishery by preliminary fishery management plan. Inasmuch as a PFMP can apply only to foreign fishermen there is a high potential for the domestic groundfish fishery to cause adverse impacts on halibut, the alternative of operating under a PFMP with no control of the domestic fishery is rejected.

#### 20.3.6 Relationship Between Local Short-Term Use and Maintenance and Enhancement of Long-Term Productivity

The plan establishes catch quotas for all species which are no greater than the maximum sustainable yield; this factor alone will maintain long-term resource productivity. Continued monitoring of the domestic and foreign fisheries and periodic reevaluation of the population dynamics of the stocks will also provide protection against the erosion of long-range productivity. Halibut savings measures and the quota for Pacific ocean perch proposed in the plan will enhance the productivity of those populations and result in long-term benefits to both the resource and the resource users.

### 20.3.7 Irreversible and Irretrievable Commitments of Resources

None.

No permanent loss of aquatic floral or faunal resources have been identified. Periodic monitoring of the catch is required and the current management plan is flexible. No irreversible or irretrievable commitments of water or air or land resources have been identified.

### 20.3.8 Consultation and Coordination with Others

#### 20.3.8.1 Coordination in Development of the Fishery Management Plan

Development of this fishery management plan calls for close Federal/State cooperation in the management of adjacent fisheries and furthers the ideal of "joint basis management" by the various fishery Management Councils and the individual states as set forth in the legislative history of the Fishery Conservation and Management Act of 1976.

#### 20.3.8.2 Coordination in the Review of the Fishery Management Plan and Environmental Impact Statement

The separate DEIS and DFMP were consolidated and edited to respond to comments received on the separate documents forwarded through NMFS, NOAA (CEQ). The CEQ notice of availability of the combined DEIS/DFMP appeared in the Federal Register on September 6, 1978. Nearly 300 copies were made and distributed to government agencies, organizations and individuals for comment.

These included:

#### Federal Agencies

U.S. Corps of Engineers  
Bureau of Land Management  
National Park Service  
U.S. Coast Guard  
Environmental Protection Agency  
Department of the Interior  
Department of State  
Department of Transportation  
U.S. Fish and Wildlife Service

State Agencies

State of Alaska, Office of the Governor  
Alaska Department of Fish and Game  
Alaska Commercial Fisheries Entry Commission

Individuals and Organizations

Alaska Native Corporations  
Conservation Organizations  
Fishermen's Groups  
Seafood Industry  
Industry Associations  
Libraries  
Press  
Universities

Public meetings on the EIS/FMP were held in Seattle, Washington (October 7, 1978); Kodiak, Alaska (October 10, 1978); Unalaska, Alaska (October 12, 1978); Anchorage, Alaska (October 31, 1978); and again in Anchorage during the regular monthly meeting of the Council on November 31, 1978.

20.3.8.3 Comments Received Concerning the Fishery Management Plan and Environmental Impact Statement

Materials included in this section were received as comments during the course of the public comment and review period.

Public testimony on the Bering Sea/Aleutian Groundfish FMP was conducted concurrently with testimony on the proposed halibut management plan. A portion of that comment material has been put in summary form and included here to ensure that all who participated in the joint hearings are credited. Written materials submitted as comments on the BS/A management plan are included in their entirety.

PUBLIC HEARING RECORD

for the

GROUND FISH FISHERY

in the

BERING SEA/ALEUTIAN ISLAND AREA

Listed below are the places in which public hearings were conducted and the names of those who appeared before the North Pacific Fishery Management Council to offer comment on the groundfish fishery for the BS/A.

KODIAK

Attendance at this hearing for the purpose of offering comment on the groundfish fishery was predictably low. With the exception of a limited trawl effort directed to bait, and exploratory trawling for stock abundance, no bottomfishery exists. The occasion was used for agency staff to comment on various aspects of other fisheries.

|                |                                |
|----------------|--------------------------------|
| Jim Balsiger   | (IPHC)                         |
| Phillip Rigby  | (ADF&G)                        |
| Jim H. Branson | (NPFMC)                        |
| Marty Eaton    | (ADF&G)                        |
| Dave Woodruff  | (Spoke on trolling)            |
| Al Burch       | (Kodiak Shrimp Trawlers Assn.) |

UNALASKA

|                 |  |
|-----------------|--|
| David Clemons   | (USF&WS engineer on RV ARCTIC TERN)<br>Reported general observations on survey work west of Adak.  |
| John Harris Jr. | Opposes limited entry for trawling. Claims trawling efforts will begin in State water areas.   |
| Royal Davenney  | Indicated bottomfishing effort is at least a year away. Indicated 1000 mt was maximum needed for bait in crab fishery.                                   |
| Ben Paz         | (Josephine Caroline trawler) Favors opening west of Cape Suckling to trawls. Proposed fish tickets aboard trawlers for reporting trawl catches for bait. |

A.C Phillips

Poor timing on hearings.

Carl Wieberg

Plant Manager for Pan Alaska. He said that processing at sea makes the quality product. On-shore production is less desirable.

SEATTLE

Comment concerning Bering Sea/Aleutian groundfish was given incidentally as a portion of comments on halibut. The major concern of halibut fishermen is the effect trawl efforts have on the halibut resource. With the exception of Mr. Haugen, advocate for opening the halibut fishery for trawls, the consensus was that trawling for halibut should not be permitted.

A statement was submitted by the Fishing Vessel Owner's Assn., Robert Alverson, manager and is on file at the Council office. In summary, the FVOA cautioned against setting the OY equal to EY for two stocks, sablefish and Pacific ocean perch, thereby not allowing any rebuilding of those stocks, supported the proposal to prohibit trawling in the Bristol Bay pot sanctuary and supported general trawling restrictions now in effect for foreign fishing efforts.

The Seattle hearing was held concurrently with the hearing for halibut; the comment roster is identical with that for halibut.

Robert Alverson  
Jake Bassi  
Byron Baske  
Arnie Einmo  
Henry Haugen  
Arne Lee  
Sig Mathieson  
Jack Newsome  
Neil Sandvik  
Glen Satero

ANCHORAGE

H.A. Larkins

PDT leader for the BS/A plan. Explained the basic development of the plan.

Robert Ely

The trawl plan should maximize opportunities for groundfish, not be designed primarily to protect halibut. The groundfish resource is worth more than the halibut fishery and the Council will eventually have to choose between the two.

Mr. Endo

Japanese representative (trawlers) objected to closed areas.

Mr. Nakamura

Japanese representative (long liners) objected to restrictions on longliners. Testimony pointed mainly to halibut.

# *Pan-Alaska Fisheries, Inc.*

A SUBSIDIARY OF CASTLE & COOKE INC.

P.O. BOX 647 / MONROE, WASHINGTON 98272 / 206 743-1176

TELEX 32 9425 PAN AKFISH MNOR

Comment #1

(Information only)

## DUTCH HARBOR/UNALASKA FACT SHEET

### I. PROCESSING UNITS & COMPANIES IN THE DUTCH HARBOR/UNALASKA, AKUTAN, & PORT MOLLER AREAS.

Total number of processing units in the Dutch Harbor/Unalaska is 14; which are owned by the following companies:

- 1) Pan-Alaska Fisheries, Inc.
- 2) Pacific Pearl
- 3) Universal Seafoods, Inc.
- 4) Whitney Fidalgo
- 5) East Point Seafoods
- 6) Aleutian Products Corporation
- 7) Dutch Harbor Seafoods
- 8) Sea Alaska

Total number of processing units in the Akutan area are 7; which are owned by the following companies;

- 1) Deep Sea
- 2) Western Sea
- 3) Alaska Shell
- 4) Trident Seafoods
- 5) Clipperton Inc.
- 6) Pacific Pearl

Total number of processing units in the Port Moller area are 2; which are owned by the following companies:

- 1) Pan-Alaska Fisheries, Inc.
- 2) All Alaskan

The total number of processing units for the combined areas is 23; of which are owned by the above listed 14 companies.

### II. DAILY PROCESSING CAPACITY (AGGREGATED) (For king crab - 30% less for Tanner)

- 1) Daily processing capacity for the Dutch Harbor/Unalaska, Akutan & Port Moller areas are 10 to 12 million pounds per week or approximately 1.5 million pounds per day. (Live weight)
  - a) 7 to 8 million pounds per week for the Dutch Harbor/Unalaska area
  - b) 2.2 to 2.5 million pounds per week for the Akutan area
  - c) 1.4 million pounds per week for the Port Moller area
- 2) Of the 10 to 12 million pounds processed per week 90% of this product is processed into sections and the remaining 10% into meat. If for any reason the processors had no shell market or could not reprocess sections into meat in another area, the capacity of all production in the combined areas would probably decrease in an excess of 50% or 4 to 5 million pounds per week.

Dutch Harbor/Unalaska Fact Sheet  
Page 2

III. ESTIMATED HERRING BAIT USED

- 1) Approximately 4 to 5 million pounds of herring bait will be used by the 149 fishing vessels in the the Bering Sea this King Crab 1978 season.
- 2) Approximately 3 to 4 millicn pounds of herring bait will be used by the fishing vessels in the Tanner Crab 1979 season. The small reduction in the amount of herring bait used in the Tanner Crab season is due to the heavier use of hanging bait in the Tanner fishery.

IV. POPULATION OF AREA & NUMBER OF FISHING VESSELS FOR THE BERING SEA AREA

At the present time utch Harbor/Unalask is populated with 560 resident. During the King Crab and Tanner Crab seasons the processing companies and fishing vessels equal an influx of approximately 3,500 people.

As of 10-11-78 there are 149 vessels fishing the Bering Sea Area.

V. SHRIMP PROCESSING CAPACITY

Little emphazise has been put in the shrimp processing for the Dutch Harbor Unalaska area; only 2 companies are processing shrimp at this time. It is my opinion that only 250,000 pounds per day is the capacity for processing shrimp at this time.

VI. BOTTOM FISH CAPACITY & HALIBUT LANDINGS

- 1) At the present time I would guess that with no automated equipment and hand labor the daily capacity will not excede 400.000 pounds.
- 2) Halibut deliveries to this area are made only by local fishermen at this time. Halibut landed for the last 2 years has been between 50 to 100 thousand pounds per year.

It is my opinion that with an additional 30 to 40 vessels coming into the Bering Sea Fishery in 1979, the seasons will be shorter and all processors will be forced into 100% production of sections. This creates a major problem in the Market Place because of the larger buyers only wanting fresh crab packed rather than thawed out sections repacked.

Bottom fish will come to this area in the next 2 to 5 years but in my opinion little will be done by shoreplant operations. It will be done mostly by 155 to 185 foot class dragging and processing vessels at sea. The companies will use thier shoreplant operations mostly to d scharge cargo and hold supplies for these vessels.



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
P. O. BOX 1658 - JUNEAU, ALASKA 99802

Comment # 2

October 23, 1978

Mr. Jim Branson,  
Executive Director  
North Pacific Fishery Management Council  
P. O. Box 3136DT  
Anchorage, Alaska 99501



Dear Jim:

We have been asked by the Central Office to forward to you the following comments by Mr. Sano, Director, Oceanic Fisheries Department, JFA. The comments pertain to the Groundfish and Tanner Crab Regulations and Allocations off Alaska for 1979.

1. Groundfish fishery

(1) Bering Sea and Aleutian Islands Area

(i) Allocations

- a) To rescind the regulation "---500 mt or 5% of the OY (whichever is the greater) of each species will be held in reserve for allocation---", to allocate the total reserve of 73,000 mt to the TALFF initially and to increase the TALFF.
- b) In case the above reserved quantity is maintained in the regulations, to reallocate it to foreign nations as soon as possible.
- c) To decrease the DAH in each species to a more realistic level (24,600 mt of the total DAH seems to be over-estimated) and to reallocate promptly the uncaught domestic allocation.
- d) To reassess the stocks of POP and other species (to increase ABC for these stocks).
- e) Especially, to increase the Japanese allocations for pollock, sablefish, Pacific cod, flounders and Pacific herring.

(ii) Regulations

- a) To remove the prohibition of longline fishery in the "Winter Halibut-savings Areas", landward of the 500m isobath in winter from December 1 to May 31.
- b) To release a portion of the closure area (east of 156° W) for Pacific herring (above all, for the gillnet fishery).
- c) To relax the closed area within 12 miles and the closed season in all Aleutian Islands area (especially for the land-based trawl fishery and the halibut trawl fishery).



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Washington, D.C. 20235

F36:CB

Comment # 3

TO: FAK - Regional Director  
/S/ ROLAND F. SMITH  
FROM: F3 - Roland F. Smith  
SUBJECT: Comments on the Draft Fishery Management Plan for the  
Groundfish Fishery in the Bering Sea/Aleutian Island Area.

Attached are our comments on the subject plan. We have divided our comments into two categories - critical issues and substantive issues. Critical issues could lead to plan disapproval; substantive issues would strengthen the plan if the comments were accepted. Although we identified a number of critical issues, I do not think the Council will have much difficulty accommodating the comments. Legal comments will be forthcoming. We are impressed with the quality of this plan.

Please contact Mr. Bribitzer, if you have any questions on these comments.

Attachment

cc: NWAFC-F11, F4, F6, F, F3, F36(3)  
F36:NMFS:CBribitzer:634-7432:1/2/79:plj (ca FAK/CB)  
Revised, Bribitzer:1/3/79:pb  
Revised:Erbitzer:1/10/79:bv  
Revised:Bribitzer:1/12/79:bv  
Revised:Erbitzer:1/15/79:oi



## CRITICAL ISSUES

1. DAH and Reserve Levels.

The draft plan establishes a DAH and a reserve to "prevent OY's from being exceeded without preventing unexpected domestic fishery development." The DAH levels are surprisingly high relative to historic landings. Although the survey methodology is unclear, apparently the level of production anticipated by the processors was accepted without analysis of the physical capacity to process, the fishermen's interest to harvest, or the availability of markets. It is reasonable to establish DAH on the high side to guard against uncertainties; however, a large reserve is available to handle unexpected U.S. harvest. The DAH should either be supported by a stronger justification (including detail on the methodology) or DAH should be reduced to levels consistent with recent domestic catches. We note that no reserve was established for the pollock OY in the Aleutians, which may be an oversight.

2. Relationship to the Marine Mammal Protection Act (MMPA)a. Marine Mammal Permits:

The MMPA requirements for general permits to allow the incidental take of marine mammals by both foreign and domestic fishermen should be discussed, perhaps in an Annex or in Section 15.0.

b. Marine Mammal/Fishery Interactions:

Although the plan contains an excellent analysis of fish mortality caused by marine mammals, there is almost no discussion of marine mammal mortality caused by the fishery. The subject should be addressed, both in the plan and in the FEIS, indicating in detail how the plan provides for maintaining the status of the marine mammal stocks as a functional element of the marine ecosystem.

c. Optimum Sustainable Populations: There is a potential for conflict between the FCMA and the OSP requirements in the MMPA. Although this problem will not be resolved with this plan, the Council should be aware of the NMFS efforts to further define OSP (see attached memorandum on this subject), so that the plan can be modified accordingly if necessary. A more detailed discussion of the interface between the FCMA, MMPA and Endangered Species Act of 1973 (ESA) will be forthcoming.

### 3. Endangered Species Considerations.

Some species found in the Bering Sea, i.e. bowhead and gray whales, are on the endangered species list and the plan discusses these. In addition, some other species of animals, i.e., birds, may be on an endangered list maintained by FWS. The Council should, if it hasn't already, officially request from NMFS and FWS complete lists of endangered species in that area. An assessment of the impact of the plan on these endangered species should be made and if there is no expected impact then this fact should be stated. If there is an impact then formal consultations with NMFS or FWS are required.

### 4. Other Species OY.

The OY for other species in the plan is 55,500 metric tons (mt). In the 1979 PMP the total OY for other species is 93,500 mt. This sharp reduction in OY is made without strong biological justification and is being viewed by the Department of State as a lowering of TALFF in mid-season without a resource related justification. The OY of other species is determined by the 4% average catch of the last five years. Therefore it is necessary to document that (a) the species composition has not changed either naturally or (b) the reporting requirements of the FCMA in the other species category being larger in the last two years. We note that the ABC for other species presumably needs to be adjusted for the increased pollock OY.

The reserve level for other species, if the 5% reserve applies, is either mistyped or miscalculated.

## SUBSTANTIVE ISSUES

### 1. Transition from PMP to FMP.

We foresee potential problems in the transition from PMP to FMP. If catches are low in the first half of 1979, the implementation of a new fishing year July 1 may result in under-achieving OY and foreign nations will be adversely impacted. Alternatively, if catches in the first half of the year exceed 50% of OY, then the stock may be overfished. We have discussed these potential problems with DOS and decided that the plan could be appropriately adjusted by the Council after it is implemented. The necessity of prompt reassessment of OY's should be called to the Council's attention.

### 2. Limited Entry

The statement on limited entry precludes the Council from using a property right system to encourage fishery development. We also note that there could be situations where one fishery, i.e. sablefish, might

be fully capitalized while there is still a TALFF for pollock. Limited entry in the sablefish fishery might be desirable in this situation even though there is foreign fishing for other species in the Bering Sea.

3. The Scope of OY.

It is not clear whether the OY estimates in the plan include the territorial sea. This point should be clarified so that appropriate mechanisms for enforcement of domestic quotas can be developed. This situation arose in the halibut plan and was resolved.

4. Reserves

The reserve provision could be strengthened by providing a rationale for the choice of 5%, or by stating that this is a judgemental decision. The Council should consider the dates of release of reserves, as well as procedures and criteria for release. This consideration does not have to be part of the plan but may be incorporated into the regulations if the Council wishes.

5. Section 14.3.1.3.B.2.

There is no rationale for choosing the level of 2,000 mt as the maximum amount of domestic trawl catch in the "Winter Halibut-Savings Areas." Does this 2,000 mt include territorial sea catches? The same comments are applicable to section 14.3.1.3.C.

6. Section 14.3.2.3.A (ii)

There is a proposed amendment to the Gulf of Alaska trawl plan to provide a longline exemption to the rule for closing an area when the OY for any species is reached. The Council's intention and rationale regarding a longline exemption in the Bering Sea should be elucidated.

7. Section 14.3.2.3.C

The rationale for the alternatives chosen should be given in the final plan.

8. Section 14.3.2.5.

The reference should be to 1979 not 1978 regulations.

9. Stock Units.

The Gulf of Alaska plan divided the Gulf into 5 fishing areas to prevent localized overfishing. This division was done even though the evidence regarding the "localization" of some stocks was scanty. The Bering Sea plan notes that there may be separate northern and southern yellowfin sole stocks, yet does not suggest separate quotas. Although

we are not suggesting sub-areas for yellowfin sole, there may be an inconsistency in the approach to management between the Gulf of Alaska and the Bering Sea plan.

10. Appendix III - Aleutian Areas.

No rationale is presented for open or closed areas. A justification should be provided for whichever option is chosen. Both options refer to areas between 169° and 170° W. longitude off the Pacific Coast of the Aleutian islands. This area is part of the Gulf of Alaska groundfish plan.

11. Section 14.3.1.4

There are, according to the plan (p. 79), gear restrictions on the use of other trawls in Alaskan waters. What is the rationale for not requiring these same restrictions in the FCZ?

12. Markets and Economic Analyses

Several Central Office commenters provided remarks in these areas. Among the salient comments received were:

- a. The U.S. Government role in fisheries development should be noted.
- b. Our knowledge of international markets should be characterized (p. 105) as "not fully" rather than "poorly" understood.
- c. The concept of controlling supply as briefly discussed (p. 105-107), if implemented, could raise monopoly and consumer issues.
- d. The alternatives to the proposed action ("no action, regulation of foreign fishing only, and conservation of the present management regime") are rejected in the summary sheet and never referred to again.
- e. The implication that increased supply of species available would not result in lower consumer prices (p. 222-223) was questioned by several commenters.
- f. The stock rebuilding objective does not have a target level of stock growth and a delineation of benefits that would result.



# United States Department of the Interior

OFFICE OF THE SECRETARY

P. O. Box 120  
Anchorage, Alaska 99510

ER-78/917

November 3, 1978

Comment # 4

Mr. Jim H. Branson  
Executive Director  
North Pacific Fishery Management Council  
P. O. Box 3136 DT  
Anchorage, Alaska 99510

Dear Mr. Branson:

This is a follow up to our November 1, 1978, letter in which we indicated we had reviewed the draft environmental impact statement for the proposed fishery management plan for Groundfish Fishery in the Bering Sea/Aleutian Island Area, Alaska. It was also indicated in our earlier response that we had no suggestions for improvement of the draft statement; however, after further review we offer the following comments for your consideration.

1 - On pages 95 and 149, changes in environmental conditions are mentioned as restraints on fish population and growth. Nowhere in the documents are these changing conditions explained or defined. We believe this needs to be done for an accurate assessment of impacts.

2 - On page 105, it states that the fishing is not now economically viable but no effort is made to analyze how its economic viability will change with time. The rising costs of all things associated with fishing, from fuel to deck hands, should be considered in determining the economic viability of this fishing.

3 - Under Section 10, "Other Considerations Which May Affect the Fishing," on page 154, we believe a discussion of the effects of the Endangered Species Act should be included. In fact, endangered species are not considered at all in this document.

4 - We are including an updated map to be used to depict proposed lease areas for oil and gas development instead of the map on page 157.

5 - We suggest the description of changes to the physical environment (page 221) from the vessels and gear involved in carrying out this management plan be expanded. It would appear that over 200 large vessels fishing a relatively confined area

would abuse the air and water quality of that area. This is particularly true when these vessels are of foreign origin and are not bound by United States restrictions regarding pollution. To indicate that this is minor because of the open ocean environment is not in keeping with the regulations enforced upon other industries or those that will be required of American fishermen and processors. We also believe that discussion of the impact from the resuspension of bottom sediments caused by trawling should be included.

6 - We suggest that the first sentence of Section 22.3.2 on page 221 have these words, "while providing the greatest amount of food ... " added to its end to reflect the full objective of the plan.

Thank you for the opportunity to comment.

Sincerely,



Paul D. Gates

Regional Environmental Officer-Alaska

Enclosure

THE REQUESTS OF THE HOKUTEN ASSOCIATION  
WITH RELATION TO THE 1979 FISHERY MANAGEMENT  
PLAN FOR THE BERING AND ALEUTIAN AREAS.

My name is Endo, chairman of the Hokuten (Medium Trawlers) Association. Mr. Chairman, and everyone, I would like to thank you for this opportunity which was given to me to speak. We have been working with the Japan Trawler Association and being of the same viewpoint, we hope you will understand our position.

As of 1979, the 200 mile limit has been in effect for two years. Within this time, the establishment of new usage areas and fishing regulations we believe will allow balanced and economical fishing operations for the future. We have a great interest in the discussion of the 1979 FMP which is going on at this meeting.

We were very surprised and have a great deal of concern regarding the proposal to close the Aleutian area (179°E long. to 172°W long yearround to trawler fishery. Our association feels the aforementioned area is very important and has a much higher yield of 14% of total volume than is apparent in the FMP calculation of 1% of our total volume.

We are concerned even now regarding the closure of the area between 172°W long. to 176°W long. within the 12 mile limit which is in effect for 1978, 1979. We would hope that reconsideration of this regulation will be made and the area be opened at least for the period March 1st through October 31st.

We feel that preservation of the bottomfish resource in the Bering and Aleutian areas is very important. If research by both Japanese and American fishery biologists show us the definite need for increased preservation measures, the bottom fishery associations of Japan would participate in cooperation with these measures.

Before the establishment of the 200 mile limit our Hokuten association had a total of 154 ships. With the implementation of the preservation measures enacted along with the 200 mile our 350 ton class trawlers have decreased to presently a total of 70 ships. These ships are operating yearround limited to the area west of 170°W long. due to Japanese government regulation which disallows operation within the Gulf of Alaska.

We would like you to understand that if the Aleutian area is closed as in the FMP proposal, the Hokuten ship owners have determined that continued fishing operations would not be economically feasible. Most of the Hokuten ship operators have but one ship with a crew of 26 men each. Families included, this is about 10,000 people who derive their living from the bottom fisheries of the Bering and the Aleutian areas.

With regard to the volume yield percentage of the Aleutian area in question, descriptions with data will be presented at the regular meeting of RC on November 2nd. After this presentation and discussion we hope that the FMP proposal will be reconsidered.

# JAPAN FISHERIES ASSOCIATION

Comment # 6

SANKAIDO BLDG,  
9-13, AKASAKA 1, MINATO-KU,  
TOKYO, JAPAN

CABLE: DAISUKAI TOKYO

TEL: TOKYO 582-7451

Comments by the Japan Fisheries Association to  
"Fishery Management Plan and Draft Environmental  
Impact Statement for the Groundfish Fishery in  
the Bering Sea/Aleutian Island Area" dated July  
27, 1978.

The Japan Fisheries Association herewith submits its  
comments on "Draft Fishery Management Plan and Draft Environ-  
mental Impact Statement for the Groundfish Fishery in the Bering  
Sea/Aleutian Island Area" for consideration by the North Pacific  
Fisheries Management Council.

It also wishes to remind the Council that the Japan Deep-  
sea Trawlers Association and other organizations affiliated to  
this association have also submitted their own comments on same.  
This association, therefore, requests that full consideration  
be given to these comments as well in finalizing the draft.

## I. DAH

The draft FMP proposes the following DAH in 1979:

|                 | (DAH in 1979)  |
|-----------------|--|
| Pollock         | 10,000 mt  |
| Pacific cod     | 7,000 mt   |
| Rockfishes      | 1,100 mt (eastern Bering Sea)<br>1,100 mt (Aleutian) |
| Yellowfin sole  | 1,000 mt   |
| Turbots         | 1,000 mt   |
| Other flounders | 1,000 mt   |
| Sablefish       | 500 mt (eastern Bering Sea)<br>500 mt (Aleutian)     |
| Others          | 1,400 mt   |
| Total           | 24,600 mt  |

The above figures compare with U.S. commercial landings,

by species, 1976 and 1977 in Fisheries of the United States, 1977.

To cite the example of Alaska pollack, total commercial landing in U.S. ports was 338,000 pounds (about 150 mt) in 1976 and 712,000 pounds (about 32 mt) in 1977. Nothing is reported from Bering Sea. Therefore, we deem it very unlikely that U.S. fishery will harvest 10,000 mt of Alaska pollock in the Bering Sea during the 1979 season, where there has been so far no U.S. trawl fishing activities.

Similar comparison with respect to other species indicates that U.S. fishing capacity is grossly overestimated with other species as listed in the draft. Therefore, the Japan Fisheries Association requests that excessive DAH be adjusted to realistic levels, if not nil.

## II. Reserve

The paragraph "13.1 Reserve" in this draft FMP, states that "In order to prevent OY's from being exceeded without preventing unexpected domestic fishery development, 500 mt or 5 percent of the OY (whichever is the greater) of each species will be held in reserve for allocation late in the year on the basis of domestic need."

Such apprehension in the draft FMP cannot be substantiated unless DAH as proposed are rectified so as to match the real U.S. fishing capabilities. As they are, we propose that reserve provisions be removed. Should they be maintained, we see it essential that DAH be adjusted to realistic levels as proposed in Section I above, and that the mechanism for

prompt release early in the season be established in the FMP.

### III. Carrying-over of the unused portions of the quotas

We request that provisions be made in the draft FMP to allow unused portion of the quotas allocated in 1978 to be carried over into the 1979 season. Such provisions are indispensable for the optimum utilization of the resource particularly in view of the sequence of the events which led to the reallocation of the large amount of fish very late in the season.

We noted that such measure was taken in the Federal Register dated October 30, 1978, by which unused portions in 1977 quotas were added to the 1978 foreign allocation. We see no reason why same provisions should not be incorporated in the present draft FMP. Two major factors contributed to the need for reshuffling of foreign allocation in 1978, viz.,

- 1) inadequate allocations which necessitated in large amount of fish being allocated to countries without capability of making full use of their allocations,
- 2) belated reallocations towards the end of season, which made it impossible for countries like Japan to harvest all of the quotas as additionally allocated.

In the light of the foregoing, we request that unharvested portions of the foreign allocations for 1978 be added to the TALFF for 1979.

### IV. Alaska pollack

Japanese scientists estimate SY for Alaska pollack

no smaller than 1.2 million mt. Furthermore, the survey by the Japanese research vessel Tomi Maru 52 along the Aleutian Islands located a sizable independent resource with the biomass of more than 1 million mt in Aleutian Island Area of which U.S. scientists estimated OY at 100,000 mt level (INPFC, Doc. 2130).

We find, therefore, reasonable to propose that OY for this species be set at 1.3 million at least in Bering Sea/ Aleutian Island Area. We have no objection to a separate OY being established for the Aleutian Island Area at a minimum of 100,000 mt.

(B) Pacific ocean perch

Draft FMP proposes OY for all rockfishes to be set as follows:

|                              |           |
|------------------------------|-----------|
| All rockfishes including POP |           |
| Bering Sea : .....           | 6,500 mt  |
| Aleutian : .....             | 15,000 mt |
|                              | <hr/>     |
| Total:                       | 21,500 mt |

We note that OY for all rockfishes are proposed to be set at the same level as OY for POP in 1978, although POP is treated as all rockfish group in the draft FMP.

There is no evidence to indicate that the POP stocks in the region have changed in either direction as compared with previous seasons. We also note that scientific information on the conditions of other rockfishes stocks are still inadequate to establish their OY at this time.

Therefore, it is more logical that OY for POP be maintained at 1978 level and that other rockfishes be treated as the part of other groundfish category.

Should the Council find it essential to establish OY for all rockfishes combined, then, it is reasonable to increase OY to 37,500 mt, since average catch by Japanese fleet of other rockfishes amounted to about 16,000 mt in recent years.

(C) Sablefish

Draft FMP sets OY of sablefish at 3,500 mt in Bering Sea and 1,500 mt in Aleutian Island Area. Japanese scientists estimate that the productivity of this stock in these areas is substantially greater than estimated in the draft FMP. OY for the North Pacific Ocean is estimated by Japanese scientists to be around 70,000 mt on the basis of the standardized CPUE. U.S. estimation, which is the basis for the OY in the draft FMP, does not make use of corrected CPUE, and hence needs substantial revision.

Hence, it is requested that the scientific panel of the Council review the points as raised by our scientists and that OY be set at around 7,300 mt, viz. 4,100 mt in Bering Sea and 3,200 mt in Aleutian. Apportionment of the OY by area is based on the relative magnitude of catches in 1976 by the Japanese fleet in the respective areas.

(D) Closed Area

(1) With respect to no trawling area along the Aleutian

Islands between 172°00'W and 179°00'E, we request that this traditionally very important fishing ground for the Japanese trawl fishery remain open throughout the year as in the previous years because there is no gear conflict between trawl and longline fisheries.

(2) Regarding "Winter Halibut - saving Areas" for longline fishery, we find following modifications essential:

i) The survival rate of halibut incidentally caught by the longline gear is very high, possibly around 90%. In view of this and the total amount of halibut to be incidentally caught by the Japanese longline fishery, we see no reason why this area should be closed to this fishing.

ii) The International Pacific Halibut Commission believes that the abundance of halibut has been increasing in recent years. This is another reason why we believe there is no need for additional restrictions to deprive small scale fishing such as longline fishery of important and essential part of their fishing ground.

V. Effective date of the draft FMP

Our fishing industry like others deploy their fishing vessels in accordance with carefully developed annual plans for each type of fishery and individual boats.

Hence, any drastic changes during the fishing season will never fail to lead to serious disruption of their fishing operations. Therefore, it is the sincere wish of the whole industry of Japan that FMP will not attempt to incorporate any drastic changes in the regulations of foreign fisheries.

Teruo Sasaki

For Tomoyoshi Kamenaga  
President,  
Japan Fisheries Association

I. Request to Abolish the Measure to Prohibit Trawling in the Area 172°W-179°E in the Aleutians

Previously, there were historical reasons for trawling operations within the Aleutian waters where under certain circumstances, permission has been given to carry out trawling operations in certain locations within 3 to 12 miles of the islands, directly outside the territorial waters.

The 1979 FMP draft (14.3.2.3.B(iii)) gives such reasons as ...to provide a sanctuary for longline fishing... to prohibit trawling operations through the year round, including these special areas. Also under the same clause, it is stated that the Japanese Stern Trawler effort in the 172°W-179°E is less than 1% of the Stern Trawler effort of the Bering Sea (US statistical area I, II, III)/Aleutian Waters (Area IV). This figure cannot be said to be currently representative of the reality of these waters. Mother-Ship Fishery trawlers and SURIMI factory trawlers could not operate in the area 172°W-179°E since 1977, due to restrictions and controls enforced internally in Japan.

The only trawling operations permitted in this water (172°W-179°E) are of two types 1) HOKUTEN and 2) Frozen-Fish factory trawler. If we calculate the average yearly effort for Stern Trawlers in this area for the recent three years (1975-1977), then the effort is about 4%. If we look at the average yearly effort for the last three years:

Units: hours per year

| Area of Operation<br>Type of Fishery        | BERING SEA       | ALEUTIAN                |                         |                  | TOTAL             |
|---|------------------|-------------------------|-------------------------|------------------|-------------------|
|   |                  | 172W-179E               | OTHER                   | SUBTOTAL         |                   |
| SURIMI MOTHERSHIP                           | 82656            | 0                       | 0                       | 0                | 82656             |
| FROZEN FISH MOTHERSHIP                      | 19867            | 1135                    | 6263                    | 7398             | 27265             |
| SURIMI FACTORY TRAWLER                      | 48718            | 0                       | 0                       | 0                | 48718             |
| FROZEN FISH FACTORY<br>TRAWLER & LAND BASED | 124,990<br>(84%) | 10,936<br>(44%)<br>(7%) | 13,822<br>(56%)<br>(9%) | 24,758<br>(100%) | 149,748<br>(100%) |
| TOTAL                                       | 276,231<br>(90%) | 12,071<br>(4%)          | 20,085<br>(7%)          | 32,156<br>(10%)  | 308,387<br>(100%) |

As seen in this graph, the effort in the 172°W-179°E is 4% in relation to the total effort of the total Bering and Aleutian waters, and in the case of the Frozen Trawler, 7%. Of the Japanese Frozen-Trawler operations in the Aleutian Area during 1975-1977, 44% was in the proposed sanctuary area.

Therefore, we request the abolishment of the prohibition of trawling operations in this area on the basis that these grounds have very high importance to the trawling vessels permitted to operate under the TAC determined for the Aleutian waters.

There have not been gear conflicts with the long-liners and we believe that in view of the resources and operation, long-liners and trawlers are able to coexist in this fishing ground.

## II. Requests Concerning the Increase of All Rockfish Allocation.

— *Bering Sea and Aleutian* —

The initial TALFF for POP in the Bering Sea and ~~the Aleutian Islands~~ <sup>Aleutian Islands</sup> in the years 1977 & 1978 was 21,500 M/T. In the FMP, POP and other rockfishes are considered as one category. The ABC for this com-

bined category 'ALL ROCKFISHES' is set at 21,500 M/T, and the TALFF is set at 18,225 M/T. We feel that the OY for this category should be set at 40,500 M/T due to the following reasons:

A. Between the years 1977 & 1978, no new points have surfaced concerning the stocks of POP and other rockfishes. We have heard of plans to have future joint US-JAPAN (resource assessment abundance) survey plans but until new information is found, we would like to have an assessment similar to the years 1977-1978.

That is, we would like to see the adoption and utilization of 21,500 M/T for the ABC of POP.

B. The catch for the category OTHER ROCKFISHES in the year 1977 was 11,746 M/T, according to the Japanese fishing vessels. This 11,746 M/T constitutes 23.4% of the total catch of the OTHER SPECIES category. If the foreign nations operating within the UNITED STATES 200 mile zone, had a catch similar to Japan for the catch of OTHER ROCKFISHES, then the total will be 18,789 M/T, and should be applied as the OY for OTHER Rockfishes.

C. In line with the above thoughts, the sum of (A) plus (B) should be approximately 40,500 M/T and is thought to be appropriate for the OY for ALL ROCKFISHES.

III. Request for Re-Evaluation of 1,000,000 M/T for ABC of Pollock.

*— Bering Sea and Aleutians —*

We, at the July ~~1977~~  
NPFMC meeting, requested that you will consider the figure of 1,200,000 M/T for the ABC of Pollock, as deduced by Japanese Government Scientists, in arriving at the final ABC figure.

A report prepared by the Japanese Scientists which also included the data which formed the foundation in reaching this figure, was submitted to the SSC at the August meeting. We believe that Mr. Chairman and the Council members have reviewed and understood the materials submitted.

We have become aware that a cooperative JAPAN-US research cruise has found a large body of adult pollock beyond the Continental Shelf of the Bering Sea. We believe it would be appropriate for the OY for this species to be re-evaluated in the light of this finding.

We again request that you will fully incorporate our presented request in determining the OY for Pollock in the 1979 FMP.

#### IV. Release of Reserve.

We understand Reserve has been established for various fish categories in the Gulf of Alaska as well as the Bering Sea, to act as a safety valve in trying to manage the fish species so that the catch does not exceed the OY of each. It also allows for the possibility of the development of unforeseen new fisheries.

If there is not efficient management of these Reserve species, then a large amount of waste, that is, unharvested fish, will result. This will be against the ethics of the provision in the 200-Mile law concerning the optimum utilization of resources. Under such cases of inefficient management, it will be impossible to save the foreign nations requesting and requiring an increase in the TALFF.

We, therefore, would like to see the following ideas carried out:

1) Re-evaluate every two months all the fish species held in reserve in the Bering Sea and the Gulf of Alaska and establish a means in which 25% of the first established reserve amount will be allocated within the following month of each of these re-evaluation periods if it becomes clear that the reserved amount will not be fully utilized, in the period following the commencement of the fishing year.

2) The reserve for POLLOCK for 1979 (Gulf of Alaska) has been determined at 130,000 M/T. The TALFF for 1979 is 24,600 M/T, which is less than 1/5 that of 1978. This as a result means the throwing out of the Japanese trawlers and therefore, has had a devastating effect on the trawlers.

It has been determined in the July and August Regional Conference that the joint ventures for 1978 has not yet started and yet there is no news of a release of the reserve. This we fail to understand. We would like to see more strict screening of the 1979 joint venture plans and ask that a correction be made of 130,000 M/T, to be added to the TALFF.

3) Concerning the Domestic Annual Harvest. When it becomes obvious that the DAH amount set aside will not be fully utilized, then a measure, as for the Reserve, be established so that an allocation will be released to the foreign countries immediately.

Scott E. Stafne  
Eileen M. Cooney  
Kenneth A. Sheppard  
David L. Flory

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and Admiralty Law

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Comment # 8

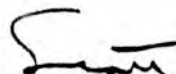
January 10, 1979

Jim Branson, Executive Director  
North Pacific Regional Fishery Management Council  
P.O. Box 3136 DT  
Anchorage, Alaska 99510

Dear Jim:

Our office represents the Alaska Longline Fishermen's Association (ALFA) and the International Longline Association (ILA). The enclosed Position Paper constitutes their comments in support of the sanctuary area proposed by section 14.3.2.3 B(iii) of the Fishery Management Plan for the Bering Sea/Aleutian Island Area (FMP). In addition it should be noted that similar supportive comments were presented to the North Pacific Council by Mr. Robert Alverson on behalf of the Seattle Vessel Owners Association in a letter dated October 7, 1978.

Very truly yours,



Scott E. Stafne

SES/sa

cc: North Pacific Council Members  
Dr. Loh Lee Low

# FISHING VESSEL OWNERS' ASSOCIATION

INCORPORATED

ROOM 232, C-3 BUILDING  
FISHERMEN'S TERMINAL  
SEATTLE, WASHINGTON 98119

Comment # 9

(206) 284-4720

October 7, 1978

North Pacific Fishery Management Council  
P.O. Box 3136 D.T.  
Anchorage, Alaska 99510

## STATEMENT ON

### FISHERY MANAGEMENT PLAN FOR THE

#### GROUNDFISH FISHERY IN THE

#### BERING/SEA ALUTSIAN ISLAND AREA

I am Robert D. Alverson, manager of the Fishing Vessel Owners Association of Seattle, Washington. Our vessels operate in the waters from Southern California to those adjacent to the Soviet Union in the Bering Sea. We fish for halibut, blackcod, and albacore tuna. We would like to express some concerns that we have with the management plan for the groundfish fishery in the Bering/Sea Alutian area.

1. The Bering Sea management plan for 1979 does not provide for rebuilding of the various commercial species. On page I-2 table I-1 the equilibrium yield, allowable biological catch and optimum yield levels for all species have been all set equal, hence for those species which are substantially below EY levels the plan does not provide for rebuilding of the stocks. This seems to be somewhat confusing as the supporting data indicates a need for a rebuilding of several stocks. There are two species categories which should receive some relief, Sablefish and Pacific Ocean Perch. On page 70 the plan states,

"Maximum harvest of sablefish occurred in 1961 and 1962 when 26,000 and 28,500 mt were taken. Catches were relatively stable at a lower level of 9,500 - 16,000 MT from 1966 to 1972 but declined thereafter to 2,700 MT in 1976."

The proposed EY, ABC and OY levels for blackcod are all set at 3.5 MT, almost 1,000 MT more than the foreign fleet was able to take in 1976. With the stock of sablefish in such poor condition we request the council to take action to meaningfully rebuild this fishery. There are a couple of alternatives which the council can take. The council may set the OY below the EY level or reduce the OY level of other species to reduce the incidental catch of blackcod.

On page 97 of the plan it makes the statement,

"For species such as Pacific Ocean Perch and Sablefish there has been as yet no evidence that catch restrictions have improved the poor condition of these stocks."

The plan further states on page 97,

"In the case of long-lived and slow growing species like POP and Sablefish several years will be required before evidence is available to judge the effectiveness of current management policies."

The F.V.O.A. can tell you today what the effectiveness of the current management policies will be if the OY is set equal to MY. There can be no rebuilding of either of these stocks.

On page 163 the plan attempts to justify the proposed OY levels. The plan states,

"With the expectation over the near term of only a modest domestic involvement in this fishery and having identified no social or economic reasons for reducing the yield of stocks in this fishery below ABC, OY for all species will be considered equal to ABC, as shown in Annex I."

This is interpreted by the F.V.O.A. to say if domestic participation is not sufficient then there is no reason to rebuild the stocks that are depressed, however when U.S. participants start to operate in the spring Sea groundfish fishery efforts to rebuild the POP and Sablefish or other depressed species will then be considered. The F.V.O.A. request that the Council consider the proposal to set all OY levels equal to the ABC. We do not believe that this is justified considering the negative statements made in the plan concerning the status of some of these stocks.

2. Under the management measures for domestic fishermen the F.V.O.A. supports the proposal which provides no trawling in the Bristol Bay pot sanctuary and halibut nursery grounds area and also supports the restriction on domestic trawling efforts to 2000 M.T. between December 1st to May 31st in the proposed halibut savings areas. The suggested restrictions for domestic longline effort in the halibut savings areas we do not agree with. Except when directed by a fishery on halibut as provided in the Halibut Management Plan or through like domestic longline efforts should be the same as those imposed on foreign fishermen for conservation purposes. Hence, there should be a closure to domestic longline fishermen from Dec. 1 to May 31st in the proposed area except when fishing is provided in the Halibut Management Plan, or when fishing is conducted in depths greater than 500 meters depth.

These domestic proposals will help prevent high incidental catches of and mortality of juvenile halibut which are known to occur in concentrations in the Winter Halibut savings areas, while allowing for some expansion in the domestic trawl fishery.

3. With respect to the foreign restrictions the F.V.O.A. supports continued no trawling in the Bristol Bay Pot Sanctuary and also supports the trawl closure from December 1st to May 31st in the winter halibut savings areas. In consideration of foreign longline efforts we support the restriction from fishing from December 1st to May 31st landward of 500 meters isobath. We support the 500 meter isobath depth as it represents a depth that halibut catches can be kept to a minimum and still provides a sufficient proportion of the sablefish stock to be fished by the foreign fishermen. As can be seen on the attached document from NMFS, about 63% of the sablefish population occurs in depths greater than 500 meters. (From Sablefish of the NE Pacific Ocean & B.S.) We also support this depth restriction based on the two observer reports that were made earlier this year in the proposed halibut savings areas. Those reports showed that when the Japanese longline effort was inside 500 meters for the purpose of taking pacific cod the incidental catch of halibut was 18.2% to 23.5% of the target species. This is also the reason why we have asked that this same restriction apply to U.S. longline vessels.

4. The area from 172 W to 179 E has been proposed as an area where no foreign trawling should take place. Very little trawl effort is conducted in this area by any of the participating countries in the Bering Sea. The Japanese Longline fishermen have requested this closure as they have incurred destruction of their gear and preemption of the grounds by the few foreign trawlers that operate in this area. The F.V.O.A. supports this requested foreign trawl closure.

The restrictions supported by the F.V.O.A. on domestic trawl and longline efforts and foreign trawl and longline efforts in the halibut savings area are supported by historical concentrations of halibut in this area. Halibut stocks are showing strong signs of improvement in both the Bering Sea and Gulf of Alaska and if we are to avoid the destruction that occurred in previous years these restrictions will be necessary.

Very truly yours,

FISHING VESSEL OWNERS ASSN

Robert D. Alverson, Manager

ADDRESS BY JOE DEMANTLE JR. AND JESSIE FOSTER TO NORTH  
PACIFIC FISHERIES MANAGEMENT COUNCIL

There are two things we would like to talk about. The first is the Bering Sea bottomfish plan, and the second is the FMP for the High Seas Salmon Fishery Off the Coast of Alaska East of 175° East Longitude. Although we have in the past presented information to the Council concerning deficiencies in these plans, we notice that these deficiencies have not been corrected.

In regard to the Bering Sea Groundfish plan, International North Pacific Fisheries Commission Documents 2067, 2120, and 2121 reveal that approximately 45,000 chinook salmon are taken in the Bering Sea by the foreign trawl fleet, principally Russia and Japan. Our reading of the documents reveal that high seas mortality, and interruption of migratory cycles have not been investigated in this "incidental" catch of our kings. We have learned from our scientist that high seas mortality and interruption of migratory cycles are important factors in judging the impact of a high seas interception fishery. The figure being taken in the Bering Sea is certainly not "incidental", and immediate efforts should be taken through the observer program and time area closures to reduce this take of our kings. It is very important for the Council to take these steps now for we in Western Alaska do not want to have to watch American flag trawlers harvested our salmon in future years. The effort to protect our in-shore fishery will only get messier as Americans move into this fishery. We feel that a specific section in the FMP for the Bering Sea Groundfish Plan is required to treat this chinook interception.

Joe DeMantle Jr. \_\_\_\_\_

Jessie Foster \_\_\_\_\_

Statement by

Comment # 11

Mr. H. Nakamura, Vice Chairman  
of  
North Pacific Longline Gillnet Ass.  
(Japan)

Oct. 31, 1978

at

Public Hearing, on the Proposed  
Bering Sea/Aleutian Groundfish FMP

Mr. Chairman, Ladies and Gentlemen, I am grateful for this opportunity to speak briefly concerning the proposed option inserted in the FMP with respect to 500M depth restriction for longliners during winter months in "the Winter Halibut Saving Area" in Bering Sea.

We are very much concerned that when this restriction is implemented "as is" our Pacific cod longlining will be virtually precluded from catching the quota of Pacific cod you so kindly agreed to make available to us. Therefore, it is our earnest wish that this newly proposed restriction during winter months landward of 500M isobath be dropped or relaxed to the extent by which we would be able to catch the quota.

While we pledge we would do our utmost to minimize incidental catch of halibut, including exploring ways and means to modify our present method of releasing halibut and having good talks with both U.S. halibut fishermen and International Pacific Halibut Commission,

we refrain from going into detail at this time, however, wish to be given further opportunity to submit comments on this question before January 10, 1979, which we understand is the deadline for the comment on the Bering/Aleutian FMP.

I do hope then our comments will receive fair and kind consideration of the Council and AP and SSC.

Thank you,



H. Nakamura  
Vice Chairman  
NPLG Ass.  
(Japan)

MUNDT, MACGREGOR, HAPPEL, FALCONER & ZULALIF

ATTORNEYS AT LAW

Comment # 12

JIM H. ZULALIF  
JAMES C. FALCONER  
HENRY HOWARD HAPPEL, III  
WILLIAM M. MACGREGOR  
J. CARL MUNDT

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January 8, 1979

Mr. Jim H. Branson  
Executive Director  
North Pacific Fishery  
Management Council  
Post Office Box 3136DT  
Anchorage, Alaska 99510

JAN 10 1979

Re: Fishery Management Plan for the  
Groundfish Fishery in the Bering  
Sea/Aleutian Islands Area

Dear Mr. Branson:

This letter is submitted on behalf of our client, the North Pacific Longline-Gillnet Association (the "Association"), in response to the request for comments on the proposed Fishery Management Plan and Draft Environmental Impact Statement for the Groundfish Fishery in the Bering Sea/Aleutian Islands Area ("BS/A FMP") contained in your letter of July 27, 1978. We wish to raise six points and discuss each in turn.

1. DAH and Reserve Levels for Pacific Cod and Sablefish

The Association believes that the DAH for sablefish and Pacific cod in the BS/A FMP has been set unreasonably high and that the reserves are correspondingly too low. DAH levels in the BS/A FMP were determined by surveying all processors located in or adjacent to the region to determine their specific plans for handling groundfish during 1979. This same method of arriving at DAH was employed for sablefish and Pacific cod in the Gulf of Alaska FMP for 1978. The result in the Gulf of Alaska FMP has been a very substantial overestimation of actual domestic catch, as indicated by the following table concerning the Gulf of Alaska:

Mr. Jim H. Branson  
January 8, 1979  
Page Two

|  | <u>Sablefish</u> | <u>Pacific Cod</u> |
|--|------------------|--------------------|
| FMP's Estimated 1978 DAH <sup>1/</sup>       | 4,000 mt.        | 15,500 mt.         |
| Domestic Catch 1/1/78-11/30/78 <sup>2/</sup> | 1,411.4 mt.      | 145 mt.            |

It is incumbent on the Council to estimate DAH as accurately as possible. The Fishery Conservation and Management Act of 1976 ("FCMA") requires the preparation of fishery management plans which will achieve and maintain, on a continuing basis, the optimum yield ("OY") from each fishery, 16 U.S.C. §1801(b)(4). It is impossible, practically speaking, to obtain or even approach OY when DAH is greatly overstated. Altering DAH during the season to make more fish available to foreign fisheries requires formal amendment of the FMP, a time-consuming and cumbersome task. The delays and difficulties inherent in this amendment process mean that amounts in DAH which are not taken by U.S. fishermen will not be taken at all.

The Association proposes that DAH be set at more reasonable levels and the excess be allocated to reserves. Amounts in reserves are automatically allocable to the domestic fishery as need be. Therefore, lowering DAH and raising reserves would not adversely affect the ability of domestic fishermen to take as much of the resources as they can. Such a readjustment of DAH would, however, practically permit the release of reserves to foreign fishermen so that an amount approaching OY could be harvested, as is required by law.

DAH, Reserves, TALFF, and Optimum Yield for Pacific cod and sablefish as proposed in the BS/A FMP are as follows:

|             | <u>DAH</u> | <u>Reserves</u> | <u>TALFF</u> | <u>OY</u>  |
|-------------|------------|-----------------|--------------|------------|
| Pacific cod | 7,000 mt.  | 2,935 mt.       | 48,765 mt.   | 58,700 mt. |
| Sablefish - |            |                 |              |            |
| Bering Sea  | 500 mt.    | 350 mt.         | 2,650 mt.    | 3,500 mt.  |
| Sablefish - |            |                 |              |            |
| Aleutians   | 500 mt.    | 150 mt.         | 850 mt.      | 1,500 mt.  |

1/ Fishery Management Plan for the Gulf of Alaska Groundfish Fishery During 1978, Federal Register, April 21, 1978, p. 17243.

2/ From statistics supplied by Alaska State Department of Fish and Game.

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The Preliminary Fishery Management Plan for sablefish of the Bering Sea and Northeastern Pacific Ocean described the U.S. fishery for sablefish in the region as nonexistent and stated that all of the allowable catch for 1977 could be allocated to foreign fishing.<sup>3/</sup> The actual domestic catch of both sablefish and Pacific cod in the Bering Sea/Aleutian region has been very low in past years:

Catch By U.S. Fishermen in Metric Tons<sup>4/</sup>

|             | <u>1976</u> | <u>1977</u> | <u>1978 (thru 11/31)</u> |
|-------------|-------------|-------------|--------------------------|
| Sablefish   | 0           | 2.0         | 0.4                      |
| Pacific Cod | 167.7       | 225.5       | 541.1                    |

The Association recommends that DAH and reserves for sablefish and Pacific cod be set as follows:

|                        | <u>DAH</u> | <u>Reserve</u> |
|------------------------|------------|----------------|
| Pacific Cod            | 2,000 mt.  | 7,900 mt.      |
| Sablefish (Bering Sea) | 50 mt.     | 800 mt.        |
| Sablefish (Aleutians)  | 50 mt.     | 600 mt.        |

This proposal is based on past catches by U.S. fishermen adjusted upward to reflect the probable magnitude of increase in domestic fishing effort during 1979. Setting DAH and reserves at these recommended levels would enable the Council, through the reallocation of reserves to DAH and TALFF during the course of the year, to manage these resources for OY as required by the FCMA.

2. Specification of Quotas for Foreign Longliners.

The BS/A FMP allocates the total OY for sablefish, Pacific cod, and other species between DAH, reserves, and TALFF. The Association believes that TALFF should, in turn, be divided by the Council into two components--foreign set-line fisheries and foreign trawl fisheries. The Council has been expressly authorized to make such an allocation. 16 U.S.C. §1853(b)(4) states that:

<sup>3/</sup> §2.4.1.1.1 and §2.4.1.2.1 of the PMP.

<sup>4/</sup> From statistics supplied by the Alaska State Department of Fish and Game for their statistical region "Western Alaska".

Mr. Jim H. Branson  
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Page Four

"Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, may--

\* \* \*

prohibit, limit, condition, or require the use of specified types and quantities of fishing gear, fishing vessels, or equipment for such vessels, including devices which may be required to facilitate enforcement of the provisions of this Act."

The Secretary of Commerce has used this allocation authority before. In §2.4.1.1.3 of the Sablefish PMP for the Bering Sea and Northeastern Pacific Ocean, for example, the Secretary provided an allocation between foreign trawl and set-line gear.

The Association favors division of TALFF between trawl and set-line fisheries as a matter of resource conservation. The set-line fisheries fish in a highly selective manner for a very few target species. By comparison, their incidental catch of non-targeted species is low. In addition, the set-line fisheries take a smaller percentage of juveniles of the target species than other fisheries. Furthermore, general damage to the marine environment is substantially less for the set-line fisheries than some other fisheries. With respect to the target species--Pacific cod, sablefish, flounders and herring--a generous allocation to the set-line fisheries makes good sense. In addition, the allocations for incidentally caught species should be set at reasonable levels.

### 3. Exemption From All-Species Closure.

Subsection 14.3.2.3.A.(ii) of the FMP would close the entire area to all fishing by a nation when that nation's allocation of any single species is exceeded. The stated purpose of this provision is to discourage foreign fleets from covertly targeting on depleted stocks and to prevent damaging by-catches in multi-species fisheries. A similar closure provision is contained in the Gulf of Alaska FMP. The Association sought and has obtained approval from the North Pacific Council of an amendment which would exempt foreign longliners from that provision.

The Association asks that the BS/A FMP be amended to specifically exclude them from the area closure provision in §14.3.2.3.A.(ii). The Association believes that the

Mr. Jim H. Branson  
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closure provision should not apply to them for two reasons. First, the activities the provision seeks to prevent are not ones in which the Association has ever engaged. The Association does not have a history of covertly targeting on non-target species, depleted or otherwise. The incidental catch of non-targeted species by the Japanese longliners has always been exceptionally low. There is no evidence whatsoever that a closure provision of the sort contemplated is necessary to obtain the Association's full compliance with the regulations affecting its members' activities. Second, the operation of the closure provision could work a substantial hardship on the Association in circumstances where its own activities are in strict compliance with U.S. law.

4. Access to Winter Halibut-Savings Areas.

The Association supports Option 2 of §14.3.2.3.C. of the BS/A FMP which concerns longline access to the Winter Halibut-savings Areas. The Association believes that no portion of the Winter Halibut-savings Areas should be closed to them during any part of the year.

The proposal to prohibit foreign longlining within those portions of the Winter Halibut-savings Areas inside the 500 meter isobath would appear to be based not on the best scientific information available but rather on past history. As Dr. Lee Alverson pointed out in a letter to the Council on October 6, 1978 concerning the Bering Sea/Aleutian FMP:

"There is, in addition, a depth closure and at least one area closure which seem to be 'carry-over' regulations which were negotiated during the bilateral era of the early 70's... The depth closure is perhaps the most classic example of a regulation for which there is little technical data to support the conclusion that the U.S. fishery is enhanced by maintaining foreign longlining seaward of the 500 meter isopleth. Hence, in this situation we have, for all practical purposes, incorporated tradition rather than decision based on the best scientific data available."

Longline fishing within the Winter Halibut-savings Area was not prohibited by the Preliminary Management Plan for the Sablefish Fishery of the Bering Sea. The scientific data that is available indicate that fishing by the Association within the region which comprises the Savings Area has

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resulted in the past in the incidental mortality of a very small number of halibut. Reports have been gathered from U.S. observers aboard Association vessels fishing in the Bering Sea. Reports are available for four cruises where the average depth fished was less than 500 meters in the INPFC Bering Sea Area I, an area which includes the proposed Savings Area, between January 1 and May 31, 1978. The statistical summaries of these cruises are attached as Exhibit A. These four reports indicate that on the average, .047 metric tons of halibut were taken per metric ton of total catch.<sup>5/</sup>

Since the Japanese longliners are required to release all halibut taken, in order to determine the impact of this incidental catch on the halibut stocks it is necessary to determine what percentage of the halibut that are caught die as a result. There is scientific evidence that strongly suggests that the survival of halibut taken by Japanese longline gear and released is very high. On Pages 8-10 of our letter of October 31, 1978 to Mr. Tillion and Mr. Pennoyer of the Council, a copy of which is attached as Exhibit B, we summarized this evidence. Based on this, the Association believes that .20 would be a reasonable estimate of the overall mortality rate for incidentally taken halibut in the Winter Halibut-savings Areas. Applying this mortality rate to the estimated winter season incidental catch of halibut in the Savings Areas yields a loss of .0094 metric tons of halibut for each metric ton of total catch by Japanese longlining vessels. This loss rate is quite low.

In order to determine the total mortality of halibut as a result of Japanese longline winter fishing within the proposed Savings Area, it would be necessary to estimate the total longliner catch of all species. Based on past history and given the TALFFs and Reserves in this FMP, a reasonable estimate of total catch by Association vessels in the Savings Area during the winter season would be 1,500-2,000 metric tons. Using this estimate, the total mortality of halibut would be 14.1-18.8 metric tons. This small incidental take of halibut which can be anticipated as a result of foreign longline fishing from December through May in the Winter Halibut-Savings Area does not justify closing the area to this fishery.

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<sup>5/</sup> This average was calculated by taking for each cruise the mean kilograms of halibut incidentally taken per each ton of total catch weighted by the total tonnage of catch for each cruise.

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5. Creation of Longline Sanctuary.

The Association wishes to comment favorably upon the longline sanctuary established by Section 14.3.2.3.B.(iii) of the proposed FMP.

Gear conflicts between set-line fisheries and trawl fisheries have been an increasing problem in the Bering Sea and Aleutians. This problem is international inasmuch as it involves the conflicting fisheries of several nations. It has therefore been unresolvable by any foreign nation acting alone. It is, however, a problem which can be resolved within the Fishery Conservation Zone by the Council's judicious exercise of its management authority. The Association believes that creation of a longline sanctuary as contemplated in the FMP is a step towards a reasonable overall resolution of the gear conflict problem.

Statistics from the INPFC indicate that from November, 1975 through October, 1976, 41% of the foreign longline effort in the Bering Sea/Aleutian area was expended in the proposed longline sanctuary while 4/10 of 1% of the primary foreign stern trawl effort was expended there. (See Exhibit C containing figures reproduced from the Proceedings of the 24th Annual Meeting of the International North Pacific Fisheries Commission, 1977.)

6. Relaxation of Twelve Mile Area Closure.

The proposed FMP contains a general prohibition on foreign fishing within twelve miles of the baseline used to measure the Territorial Sea. The stated purpose of this prohibition is "to prevent conflicts with U.S. fixed gear and small, inshore fishery vessels; to prevent catch of localized inshore species important to U.S. fishermen and natives."

The FMP proposes two alternative relaxations of this general prohibition with regard to certain foreign fisheries in designated regions of the western Aleutians as provided in Appendix III to the FMP. The Association supports the exemptions for longline fishing contained in Subparagraphs A.(1), A.(2), A.(4), B.(1) and B.(4) of Option 1, and Subparagraphs A.(1), A.(2), A.(4), B.(1) and B.(3) of Option 2. The Association urges that between 172° West Longitude and 179° East Longitude, the demarcation lines for the Longline Sanctuary, foreign longlining be permitted up to the Territorial Sea year-round. This would be consistent with establishment of the proposed Longline Sanctuary. No significant U.S. fisheries are likely to occur in this area during 1979.

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In addition, the Association believes that other exemptions from the general 12 mile prohibition should be granted to foreign longliners. There are other areas within the proposed 12 mile prohibition where no significant U.S. fixed gear or small inshore fisheries have occurred or are likely to occur during 1979, and where no significant harm to inshore species important to U.S. fishermen and natives is likely as a result of foreign longlining. The Association therefore proposes that the exemptions for foreign longlining contained in Appendix III be expanded to include those areas in the waters off the Bering Sea coast of the Aleutian Islands between 169° and 165° West Longitude.

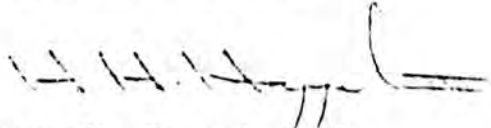
Finally, the Association notes that there is an inconsistency between establishment of a Longline Sanctuary and some or all of the exemptions for foreign trawl fishing contained in subsections A.(4), B.(3), and B.(4) of Option 1 and A.(4) of Option 2. The Association assumes that with the establishment of the Sanctuary, inconsistent exemptions will be eliminated.

We ask that you give these comments and suggestions your careful consideration. Our clients have asked us to thank you for the opportunity to comment on the FMP. We have also been requested to continue the spirit of cooperation which has characterized the Association's approach to the development and implementation of the various FMPs, and to offer any assistance or information which you may need in connection with the points discussed in this letter.

If you have any questions or comments concerning any of the issues discussed herein, please give us a call.

Sincerely yours,

MUNDT, MacGREGOR, HAPPEL,  
FALCONER & ZULAUF

  
Henry H. Happel, III

HHH:dlr  
Enclosures

COMMENT RESPONSE SECTION

Comment #1

Information only

Comment #2-Response

Agency or individual -

Mr. Sano, Director, Oceanic  
Fisheries Department, Japan  
Fisheries Agency

FMP Reference

- (1) (1) (a) page 151, Sec. 13.0 500 mt or 5% of the OY (whichever is greater, is held in the reserve. Reallocation of this reserve amount depends upon the reassessment of the domestic effort on a continuing basis and appropriate assignment to TALFF.
- (b) page 151, Sec. 13.0 (see above)
- (c) page 143, Sec. 12.1.1 The stated DAH is based on the best information available from processors and was computed by the formula as presented on page 143.
- (d) Annex I I-6-1 page A-35 ABC for POP (and other species) has been assigned based on the best information available.
- (e) Annex III - page A-60 The derivation of TALFF for all species is based on the formula derived from the best information available. TALFF may be increased as a result of assignments from reserve amounts.
- (ii) (a) page 161-162, Sec. 14.3.2.3 (c) (1) Closure retained to prevent high incidental catch of juvenile halibut during winter months.
- (b) Comment is not applicable in the format of this FMP. The question will be addressed in the Herring FMP and opportunity to re-submit the comment is available at that time.
- (c) page 161-162, Sec. 14.2.3 Determination of specific closed areas in the Aleutians has been reserved at the request of the Japanese.

Comment #3 Response

Agency or individual -

Roland F. Smith, acting director,  
Office of Resource Conservation and  
Management, NOAA

- (1) page 141, Sec. 12.1 Estimation of DAH was the result of surveys of processors, fishermen and potential market sources. Historic catches are but one measure of an anticipated harvest and do not take

into account the variables present in this developing fishery. The reserve mechanism is the buffer on DAH estimates if they are shown to be unrealistically high.

- |     |     |                      |   |
|-----|-----|----------------------|---|
| (2) | (a) | Annex V, 10.2 p A-71 | Annex material provided.  |
|     | (b) | " "                  | " "   |
|     | (c) | " "                  | " "   |
| (3) |     | p 134, Sec. 10.2.1   | Section added.  |
| (4) |     | Annex I - Annex III  | Sec. I.10.3 presents the derivation of OY for "Other Species". As stated, virtually nothing is known of the population structure, biological attributes or potential yield of the individual components of this category. The pragmatic assumption is that the category can sustain removals equal to 4% of the total catch of specified species so long as that catch does not exceed the 1972 total of 2,234,500mt. |

Substantive Issues section of  
Comment #3

- |      |  |                          |  |
|------|--|--------------------------|--|
| (1)  |  |                          | No action. The generic aspect of the plan allows for adjustments if necessary in the OY levels of all species. The appropriate adjustments can be made by the Council at any time if OY is threatened.   |
| (2)  |  | p 157-158, Sec. 14.3.1.6 | The limited entry section has been changed to reflect the possibility of limiting the entry into any fishery ahead of a total lack of foreign effort due to the ability of U.S. fishermen to take the OY.  |
| (3)  |  | Annex III, p A-60        | Statement added to reflect inclusion of stocks in the territorial sea.   |
| (4)  |  | p 151, Sec. 13.1         | Explanation of the release mechanism has been incorporated into the plan.  |
| (5)  |  | p 154-156, Sec. 14.3.1.3 | The domestic trawl catch level in the halibut savings areas is predicated on bait requirements for the crab fleet. It is felt this level of effort is biologically safe within the conservative measures for halibut and the fishery will provide information not available otherwise. |
| (6)  |  | p 159-160, Sec. 14.3.2.3 | Explanation is provided.   |
| (7)  |  | p 159-160                | Final plan reflects explanation for choice of options.   |
| (8)  |  | Sec. 14.3.2.5            | Reference deleted in final plan.   |
| (9)  |  |                          | No action. No inconsistency noted.   |
| (10) |  |                          | Reserved - rationale will be presented.  |
| (11) |  | p 79                     | No rationale presented.  |

Comment #4 Response

Agency or individual -

Paul D. Gates, Regional Environmental Officer, Alaska

(1)

Neither long nor short-term changes in the basic ocean environment is understood well enough to postulate an explanation for those effects on components of the ecosystem which may or may not suffer/benefit. Certain conditions i.e., change in temperature, abnormal long-term ice cover, cataclysmic bottom displacements, could affect fish populations, and act as constraints on numbers and growth.

(2)

Predicting the economy of a developing fishery is difficult. Estimates of those involved in the industry range from "a significant number of fishermen and boats participating immediately" to "any development is at least five years away."

(3)

Section provided for Endangered Species

(4)

Map used.

(5)

Not possible to predict. The EIS states that the effect of combustion, exhaust and waste is judged to be minor in the open ocean environment. We do not judge the Bering Sea/Aleutian Island area of the North Pacific to be a confined area.

(6)

Change made as suggested.

Comment #5 Response

Agency or individual -

Mr. Endo, Chairman, Hokuten (medium trawlers) Association

All comments

The subject addressed is directly related to decisions which are yet to be made and have been classified as reserved.

Comment #6 Response

Agency or individual

T. Kamanaga, President, Japan Fisheries Association

- |       |                             |  |
|-------|-----------------------------|--|
| (I)   | p 141, Sec. 12.1.1<br>p 143 | The stated DAH is based on the best information available from processors and was computed by the formula as presented on page 143.  |
| (II)  | p 151, Sec. 13.2            | 500 mt or 5% of the OY (whichever is greater), is held in the reserve. Reallocation of this reserve amount depends upon the reassessment of the domestic effort on a continuing basis and appropriate assignment to TALFF. |
| (III) |                             | Quota allocation ("carryover") mechanism offered is not accepted.  |
| (IV)  |                             | Not adopted. Pollock OY is set at 1,000,000 with a separate OY of 100,00 for the Aleutian area.  |
|       | (b)                         | Not adopted  |
|       | (c)                         | Not adopted  |
|       | (d) (1)                     | Reserved   |
|       | (2)                         | Not adopted  |
| (V)   |                             | N/A  |

Comment #7 Response

Agency or individual -

H. Kawamoto, Chief of Delegation,  
Japan Deep Sea Trawlers Association

- |       |                  |   |
|-------|------------------|---|
| (I)   |                  | Reserved  |
| (II)  |                  | Proposal to increase TALFF of all rockfish not adopted.   |
| (III) |                  | Proposal for reevaluation of pollock OY not accepted.     |
| (IV)  | p 151, Sec. 13.1 | The reserve release mechanism has been added to the plan. |

Comment #8 Response

Agency or individual -

Scott Stafne, counsel, Alaska Longline  
Fishermen's Association

Support noted. Proposal adopted.

Comment #9 Response

Agency or individual -

Robert Alverson, Manager, Fishing  
Vessel Owners Association, Seattle

- |     |  |   |
|-----|--|---|
| (1) |  | OY equals ABC for all stocks based on the best information available. |
|-----|--|---|

- (2)
- (3)
- (4)

Adopted  
Adopted  
Reserved

Comment #10 Response

Agency or individual -

Jessie Foster  
Joe DeMantle, Jr.

p 101, Sec. 8.6.3

The comment addresses the problem of high seas interceptions of salmon. This section will be expanded on the basis of information being collected and added to the plan in amendment form.

Comment #11 Response

Agency or individual -

H. Nakamura, Vice Chairman, North Pacific Longline-Gillnet Association.

Not adopted. Winter-month restrictions on longliners in the halibut savings area are based on conservation measures designed to protect concentrations of juvenile halibut.

Comment #12 Response

Agency or individual -

Mundt, et al for the North Pacific Longline-Gillnet Association

(1)

Proposal for DAH levels for Pacific cod and sablefish not adopted.

(2)

Allocations of species between gear types, i.e., setline-trawl, most properly is a function of the nation involved. Although the Council has addressed this matter in the Gulf of Alaska bottomfishery, not enough information has been developed at present to justify directed fisheries in the BS/A area.

(3) Sec. 14.3.2.3

Proposal adopted exception granted.

(4)

Not adopted. Winter-month restrictions on fishing effort in the halibut saving area have been retained.

(5)

Support for proposal noted (longline sanctuary). Reserved.

(6)

Reserved.

In addition to the foregoing comments, comment has been received from the Marine Mammal Commission concerning the interaction of the conduct of the fishery and those effects on marine mammal populations present within the management area.

That comment is addressed separately and is included with Annex V (Information on Marine Mammal Populations), pp A-71-80.

In Addition, Sec. 10.2 (Marine Mammal Protection Act of 1972), pp 129-134 was revised upon receipt of the comment from the Marine Mammal Commission. The revision has been made within the parameters of information presently available concerning the number, distribution and interaction within the ecosystem between groundfish species and marine mammals.

The response to the Marine Mammal Commission comments includes Annex V, all of Sec. 10.2 and the Marine Mammal Commission Comment Response found appended to Annex V.

ANNEX I  
DERIVATION OF ACCEPTABLE BIOLOGICAL CATCH

Stock assessment studies leading to determinations of acceptable biological catch (ABC) are reported in this Annex for the following Bering Sea/Aleutian groundfish species categories:

- I.1 Alaska pollock
- I.2 Yellowfin sole
- I.3 Turbots (Arrowtooth flounder and Greenland turbot)
- I.4 Other flatfishes
- I.5 Pacific cod
- I.6 Pacific ocean perch and other rockfishes
- I.7 Sablefish (Blackcod)
- I.8 Atka mackerel
- I.9 Squid
- I.10 Pacific halibut
- I.11 Other included species

A summary of those determination is given in Table I.1 on the following page.

I.1 Pollock

1.1.1 Maximum Sustainable Yield

The fishery for pollock began in earnest after 1964, and took eight years to reach a peak catch of almost 1.9 million metric tons in 1972 (Table I.2). The decline in catch thereafter was due partially to fishery restrictions on the amount of catch and on declining stock abundance. Although there may be more than one stock of pollock in the Bering Sea, the estimation of maximum sustainable yield is made for the entire resource customarily fished by Japan, the U.S.S.R., and other nations in the eastern Bering Sea.

Table I.1--MSY, EY, and ABC Values for Groundfish in the Bering Sea/Aleutian Region during 1979 (1000's mt)

| Species                | Sub-area <sup>1/</sup> | MSY         | EY       | ABC=OY    | (1978 OY) | (1978-79 change) |
|------------------------|------------------------|-------------|----------|-----------|-----------|------------------|
| Pollock                | BS                     | 1,100-1,600 | 1,000    | 1,000     | (950)     | (+50)            |
|                        | AL                     | ?           | ?        | 100       |           |                  |
| Yellowfin sole         | --                     | 169-260     | 117      | 117       | (106)     | (+11)            |
| Turbots                | --                     | 100         | 90-95    | 90        | } (139)   | (12)             |
| Other flatfishes       | --                     | 44.3-76.8   | =MSY     | 61        |           |                  |
| Cod                    | --                     | 58.7        | =MSY     | 58.7      | (58)      | (+0.7)           |
| Pacific Ocean perch    | BS                     | 32          | 6.5      | 3.25      | (6.5)     |                  |
|                        | AL                     | 75          | 15       | 7.5       | (15)      |                  |
| Other rockfish         | --                     | ?           | ?        | 7.7       |           | <u>4/</u>        |
| Sablefish              | BS                     | 11.35       | 3.5      | 3.5       | (5)       | (-1.5)           |
|                        | AL                     | 1.85        | 1.5      | 1.5       | (1.5)     | (0)              |
| Atka mackerel          | --                     | 33          | Unknown  | 24.8      | (24.8)    | (0)              |
| Squid                  | --                     | ≥ 10        | ≥ 10     | 10        | (10)      | (0)              |
| Pacific halibut        | --                     | 5           | 0.3      | <u>2/</u> | --        | --               |
| Other included species | --                     | 67          | 67       | 55.5      | (93.6)    | (-38.1)          |
| Total <sup>3/</sup>    | --                     | 1,702.2-    | 1,446.5- | 1,540.45  | (1,409.4) | (131.05)         |
|                        |                        | 2,325.7     | 1,484.0  |           |           |                  |

<sup>1/</sup> BS = Eastern Bering Sea Area (Statistical Areas I, II, III combined).  
AL = Aleutian Area (Statistical Area IV).

<sup>2/</sup> Under management by the International Halibut Commission.

<sup>3/</sup> Excluding Pacific halibut.

<sup>4/</sup> Included under "others" in 1978.

Based on fisheries statistics that indicated declining stock abundance, it is believed that catch levels, which ranged from 1.58 to 1.87 million mt between 1971 and 1974, cannot be sustained. Maximum sustainable yield has been estimated by two methods: the general production model of Pella and Tomlinson (1967) and the method of Alverson and Pereyra (1967) for obtaining first approximations of yield per exploitable biomass. Estimates thus derived, from data available prior to 1974, ranged from 1.11 to 1.58 million mt (Low 1974). Incorporation of 1974-76 data and using the procedure of Rivard and Bledsoe (1977) results in an MSY estimate of 1.5 million mt, within the 1.1-1.6 million mt range determined by Low (1974).

#### I.1.2 Equilibrium Yield

##### Overall Abundance

The relative abundance of the exploitable portion of the stock is generally measured by catch-per-unit-of-effort (CPUE) indices. Since the Bering Sea groundfish fishery is multi-nation, multi-vessel class, multi-gear and multi-species, there is considerable uncertainty as to the best use of CPUE data to measure pollock abundance. For some time, it has been felt that the CPUE of Japanese pair trawlers is more indicative of stock abundance than that of other vessel types because those vessels seek out pollock as the primary target species and consistently account for a large proportion of the pollock harvest. There is also considerable uncertainty as to which way the data should be organized and statistically analyzed. Factors such as time, area, and fishing power can influence CPUE and must be account for when computing CPUE. After years of considerable debate and refinement of CPUE procedures among scientists at International North Pacific Fisheries Commission (INPFC) meetings, the following DPUE indices have come to be relied upon.

##### Procedures by U.S. Scientists

- (A) Catch per horsepower-hour of trawling by Japanese pair trawlers as described by Low et al. (1977). Effort, in this case has been adjusted for horse-power changes and CPUE's are weighted by caught of all vessels and area.

Table I.2.--Annual catch (metric tons) of pollock in the eastern Bering Sea, 1964-77 (INPFC proceedings, 1977).

| Year | Nation              |                    |                   | Total     |
|------|---------------------|--------------------|-------------------|-----------|
|      | Japan <sup>a/</sup> | USSR <sup>b/</sup> | ROK <sup>c/</sup> |           |
| 1964 | 174,792             |                    |                   | 174,792   |
| 1965 | 230,551             |                    |                   | 230,551   |
| 1966 | 261,678             |                    |                   | 261,678   |
| 1967 | 550,362             |                    |                   | 550,362   |
| 1968 | 700,981             |                    | 1,200             | 702,181   |
| 1969 | 830,494             | 27,295             | 5,000             | 862,789   |
| 1970 | 1,231,145           | 20,420             | 5,000             | 1,256,555 |
| 1971 | 1,513,923           | 219,840            | 10,000            | 1,743,763 |
| 1972 | 1,651,438           | 213,896            | 9,200             | 1,874,534 |
| 1973 | 1,475,814           | 280,005            | 3,100             | 1,758,919 |
| 1974 | 1,252,777           | 309,613            | 26,000            | 1,588,390 |
| 1975 | 1,136,731           | 216,567            | 3,438             | 1,356,736 |
| 1976 | 989,670             | 179,212            | 85,331            | 1,254,213 |
| 1977 | 868,732             | 63,467             | 45,227            | 997,426   |

a/ From Japan Fisheries Agency (Conservation areas A, B, C, D<sub>e</sub>, D<sub>w</sub>, & E).

b/ USSR trawl fishery east of 180° longitude in the Bering Sea.

c/ Estimates based on U.S. surveillance of ROK fishing activities.

(B) Catch per hour of trawling by research vessels used by the U.S. National Marine Fisheries Service in annual surveys of the Bering Sea as described by Alton and Bakkala (1976). Standard survey pattern, area, and gear type are used in the surveys and changes in fishing power of different vessels used are adjusted for.

Procedure by Japanese Scientists

(C) Catch per hour of trawling of different tonnage classes of fishing vessels and gear types which are eventually standardized to catch per standard pair trawling hour (Ikeda et al. 1977).

Procedure Developed by INPFC Working Group

(D) Catch per standardized pair trawl effort as described in a special INPFC working group document<sup>1/</sup>. In this procedure, CPUE's of selected tonnage categories of fishing vessels and gear types within four standard area-time periods are standardized to pair trawl CPUE.

Using the above mentioned procedures the following CPUE values are derived:

| Year | Procedure A <sup>1/</sup> | Procedure B <sup>2/</sup> | Procedure C <sup>3/</sup> | Procedure D <sup>4/</sup> |
|------|---------------------------|---------------------------|---------------------------|---------------------------|
| 1964 | 9.5                       | --                        | --                        | --                        |
| 1965 | 18.3                      | --                        | --                        | --                        |
| 1966 | 23.6                      | --                        | --                        | --                        |
| 1967 | 21.3                      | --                        | --                        | --                        |
| 1968 | 23.8                      | --                        | --                        | 194                       |
| 1969 | 31.5                      | --                        | --                        | 154                       |
| 1970 | 18.7                      | --                        | --                        | 175                       |
| 1971 | 14.2                      | --                        | --                        | 172                       |
| 1972 | 14.2                      | --                        | --                        | 189                       |
| 1973 | 8.6                       | 46.5                      | 12.4                      | 166                       |
| 1974 | 10.4                      | 34.2                      | 10.9                      | 118                       |
| 1975 | 9.3                       | 21.5                      | 9.5                       | 100                       |
| 1976 | 9.4                       | 56.4                      | 9.3                       | 103                       |
| 1977 | --                        | --                        | 9.3                       | --                        |

<sup>1/</sup> mt per hour (pair trawl)

<sup>2/</sup> kg per km trawled in comparative area standardized to catch rates by R/V Oregon.

<sup>3/</sup> mt per hour (pair trawl)

<sup>4/</sup> expressed as percentage of 1975 pair trawl CPUE

<sup>1/</sup> Report of the working group on average density index computation for pollock in the eastern Bering Sea to the INPFC Biology and Research Committee. June 30, 1977. 31 p.

By assuming CPUE to be proportional in abundance, one may infer that the exploitable biomass of pollock declined from the late 1960's to an historic low in 1975, then increased slightly in 1976 and 1977. Additional information on year class strength (see later section) however, indicates that the exploitable biomass will probably increase slightly in 1978.

#### Age Structure and Year Class Strength

Although this species may live longer than 12 years, the fishery is generally dependent on three age groups. Without the buffering effect of an accumulation of year-classes distributed over a wide range of age groups, productivity of the stock can be expected to respond very rapidly to variations in recruitment.

Trawl survey information by NIFS shows that in 1971, age 2 to 8 fish were rather abundant in the stock (Figure I.1). Since then, the fishery has taken most of the older, larger fish and by 1976 the dominant age groups were 2, 3, and 4 year olds. The information also indicates that the fishery in 1975, 1976, and possibly 1977, depended heavily on the strong 1972 year class (age 3 fish in 1975, age 4 fish in 1976, and age 5 fish in 1977); analyses of commercial fishery data, by size groups, tend to confirm that indication (Table I.3). Age 3 fish correspond to sizes below 28 cm, age 3 fish are from 28-34 cm, and age 4 fish from 34-40 cm. Japanese scientists (Anon. 1978) have presented preliminary size composition data from the 1976 and 1977 fisheries which show that two groups of pollock, 22-34 cm and 42-50 cm, were of higher relative abundance in the catch during 1977 than in 1976 (Figure I.2). This has been interpreted as a reflection of stronger than normal 1972 and 1975 year classes. If the 1975 year class is strong, it will persist as age 3 in 1978 and age 4 in 1979.

Although nothing is yet known about the 1976 year class, if it is of average strength the exploitable biomass of pollock should continue to increase from the low level in 1975 as the 1975 year class becomes fully recruited to the fishery. Japanese scientists, relying on projected CPUE calculations by age group, believe that pollock abundance will

EASTERN BERING SEA POLLOCK  
(SURVEY DATA)

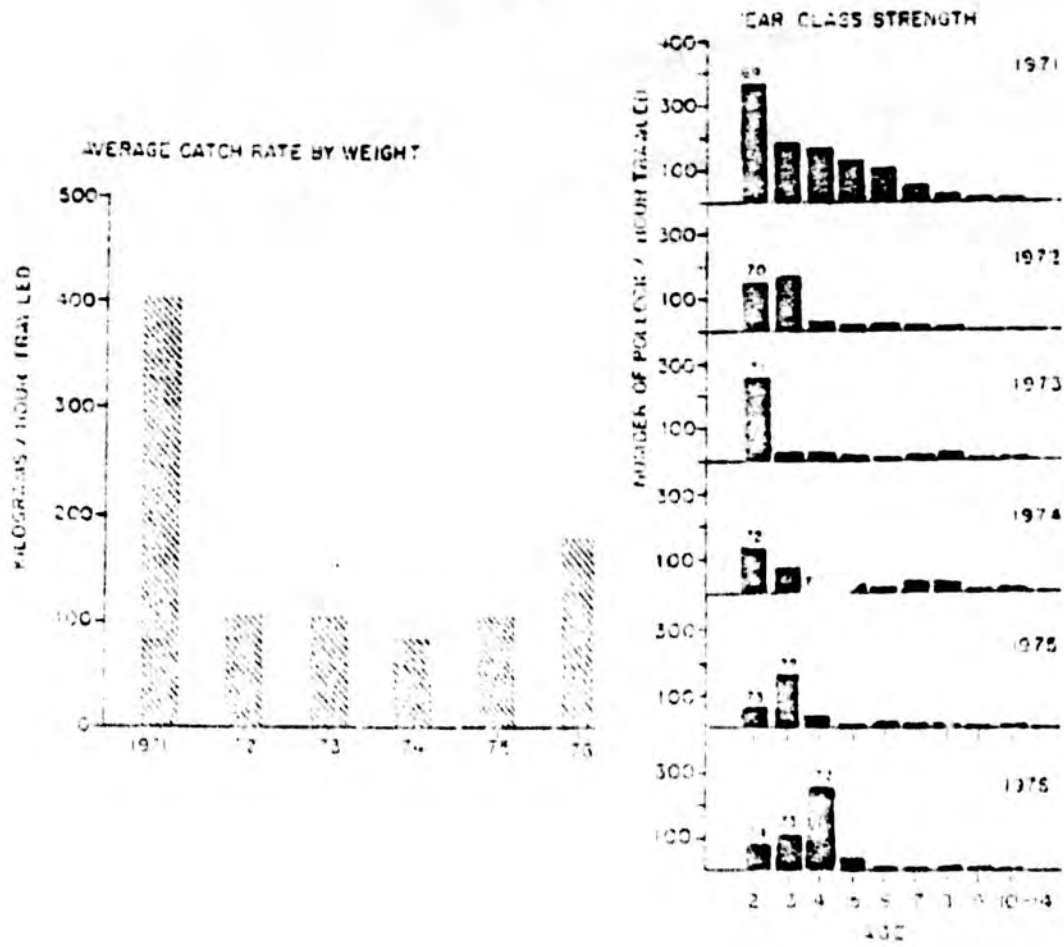


Figure I.1.--Catch rates and age composition depicting year class strength of pollock determined by NMFS research surveys, 1971-1976.

Table I.3—Contribution of various size groups of pollock to the total catch of pollock in numbers and weight taken in the Japanese eastern Bering Sea pollock fisheries, 1964-76.

| Year | Numbers (%)<br>(cm) |        |        |      | Weight (%)<br>(cm) |        |        |      |
|------|---------------------|--------|--------|------|--------------------|--------|--------|------|
|      | <28                 | 28-<34 | 34-<40 | ≥40  | <28                | 28-<34 | 34-<40 | ≥40  |
| 1964 | 0.3                 | 5.8    | 21.7   | 72.2 | 0.2                | 1.9    | 13.0   | 84.9 |
| 1965 | 0.3                 | 1.8    | 13.6   | 84.3 | 0.0                | 0.6    | 7.6    | 91.8 |
| 1966 | 0.8                 | 10.1   | 23.4   | 65.7 | 0.2                | 3.7    | 13.1   | 83.0 |
| 1967 | 0.1                 | 2.7    | 21.8   | 75.4 | 0.0                | 0.9    | 13.2   | 85.9 |
| 1968 | 0.3                 | 5.6    | 24.0   | 70.1 | 0.1                | 2.1    | 13.6   | 84.2 |
| 1969 | 0.4                 | 3.0    | 21.3   | 75.4 | 0.1                | 1.0    | 13.0   | 85.9 |
| 1970 | 1.2                 | 6.9    | 30.3   | 61.6 | 0.2                | 2.9    | 20.6   | 76.3 |
| 1971 | 1.9                 | 11.9   | 26.9   | 59.3 | 0.4                | 5.0    | 17.8   | 76.7 |
| 1972 | 2.4                 | 18.0   | 27.0   | 52.5 | 0.5                | 7.6    | 18.4   | 73.5 |
| 1973 | 5.8                 | 15.6   | 39.3   | 39.4 | 1.5                | 7.7    | 32.2   | 58.5 |
| 1974 | 9.6                 | 23.4   | 15.0   | 47.0 | 4.0                | 25.4   | 23.7   | 46.9 |
| 1975 | 8.1                 | 47.5   | 29.7   | 14.7 | 2.6                | 25.3   | 35.7   | 36.4 |
| 1976 | 8.2                 | 32.9   | 39.3   | 19.6 | 2.0                | 20.2   | 41.9   | 35.9 |

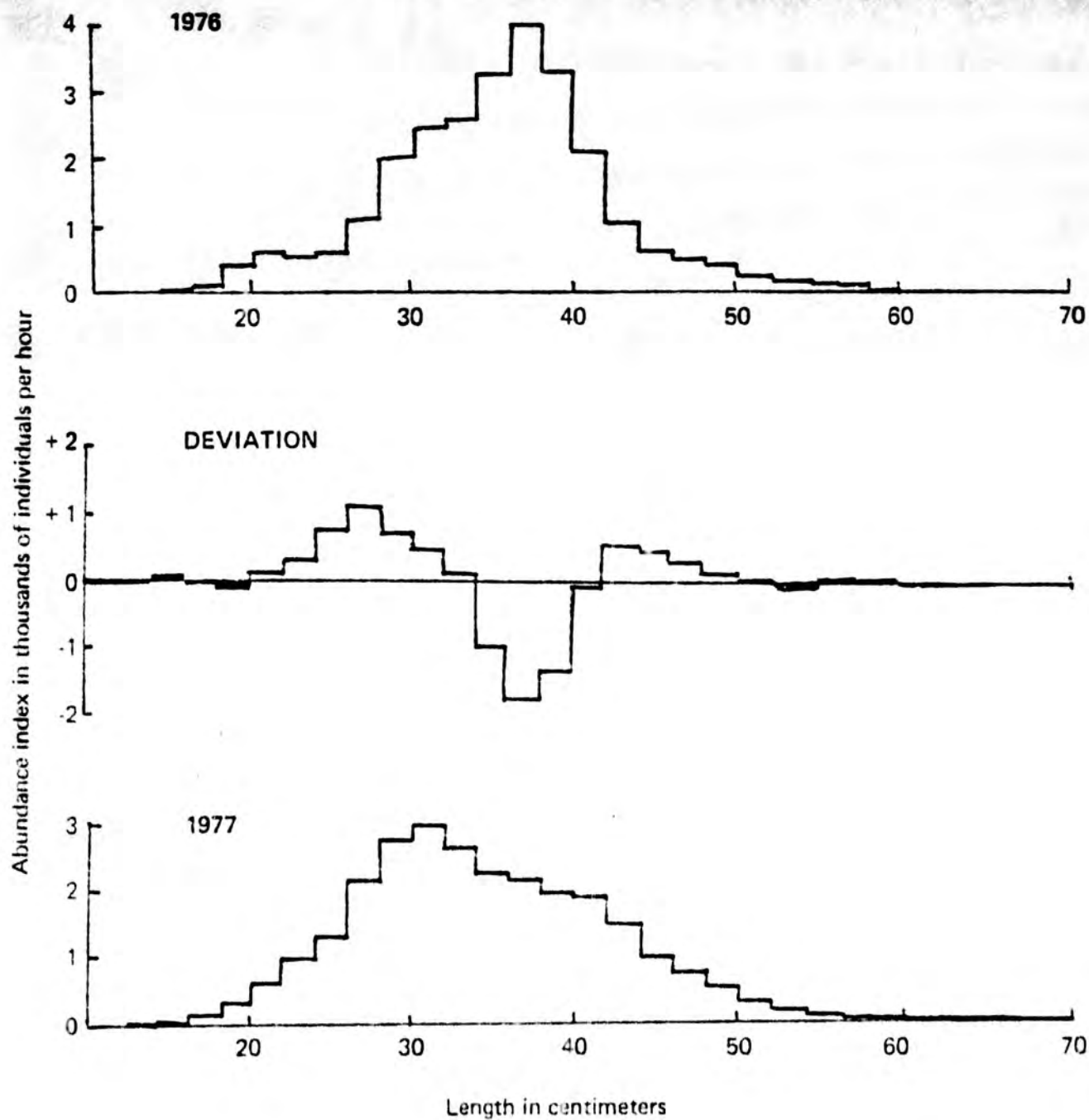


Figure I.2.--Size frequency distribution of pollock in the eastern Bering Sea determined by Fishery Agency of Japan, 1975-1976.

continue to increase through 1980 (Anon. 1978). In relation to 1976, their calculations show that exploitable abundance in 1977 dropped to 84 percent but will increase to 118 percent in 1978, 137 percent by 1979 and 133 percent by 1980.

Given annual removals averaging 1.3 million mt during 1975-76, the fact that 1975-77 CPUE trends were stable or slightly upward and average size of pollock in the commercial catch increased (Table I.4; in 1976, average size was near that where yield per recruit is maximized--see Section 10.4), it appears that the catch was very close to EY. The strong 1972 year class was an important contributor to the catch during that period.

In 1977-78, the 1972 year class would have been of declining but still significant importance to the exploitable stock. That decline, however, should have been more than balanced by a reduced average annual catch of no more than 965,000 mt (978,300 mt catch in 1977; OY of 950,000 mt in 1978). Therefore, during this period, catch would probably have been somewhat less than EY.

In 1979, the 1972 year class will not longer be a significant factor in the pollock fishery. Except for a weak 1974 year class, other succeeding year classes (1973, 1975, 1976) appear to be of at least average strength but none show signs of being as abundant as that of 1972. The 1977-78 catches are likely to be slightly below the EY for that period resulting in some carry-over to 1979 that, in turn, should balance the final phase-out of the 1972 year class. EY in 1979 is expected to be close to that of 1977-78, or about 1,000,000 mt.

#### I.1.3 Acceptable Biological Catch

The exploitable pollock biomass has been demonstrably subject to wide fluctuations in abundance caused by naturally induced variations in recruitment. As long as catch is maintained near EY--i.e. not permitted to aggravate a natural decline in abundance leading to an adverse spawner-recruit effect--significant changes in standing stock will be determined by environmental and ecosystem factors rather than fishing. Even though EY is currently below MSY, "rebuilding" to the level of abundance that can

Table I.4--Average size of pollock taken in the Japanese eastern Bering Sea pollock fisheries (1964-1976).

| Year | Average size (cm)                          |  |  |
|------|--|--|--|
|      | Fisheries Agency<br>of Japan <sup>a/</sup> | U.S. observers<br>aboard Japanese<br>vessels <sup>b/</sup> | U.S. observers<br>aboard Soviet<br>vessels <sup>b/</sup> |
| 1964 | 42.7                                       |  |  |
| 1965 | 44.3                                       |  |  |
| 1966 | 42.8                                       |  |  |
| 1967 | 43.2                                       |  |  |
| 1968 | 42.7                                       |  |  |
| 1969 | 42.3                                       |  |  |
| 1970 | 40.3                                       |  |  |
| 1971 | 40.3                                       |  |  |
| 1972 | 39.8                                       |  |  |
| 1973 | 37.7                                       | 36.8   |  |
| 1974 | 35.3                                       | 32.0   |  |
| 1975 |  | 31.7   | 30.0   |
| 1976 |  | 33.4   | 37.0   |

a/ Mean size based on size and catch data provided by the Fisheries Agency of Japan through INPFC.

b/ Mean size based on size composition data collected by U.S. observers aboard foreign vessels.

produce MSY will have to await natural increases in recruitment. Setting OY 50,000 or 100,000 mt below EY will have little rebuilding effect because: (1) the high rate of natural mortality exhibited by this species will result in only part of that surplus accruing to the standing stock; and (2) at reasonably healthy levels of adult abundance, more spawners will probably not result in any significant enhancement of recruitment three or four years later.

Inasmuch as the decline in abundance noted during the late 1960's and 1970's has been arrested and current recruitment appears to be at least of average strength, ABC is considered equivalent to EY--1,000,000 mt.

#### The Occurrence of Pollock in Deep Water

During June-July 1978, the Japanese R/V Tomi Maru 52 conducted a hydroacoustic-midwater trawl-handline survey of that portion of the Bering Sea which is beyond the Continental Shelf to investigate the occurrence of a deep-water component of the pollock population. The survey track is shown in Figure 1. Mr. E. Nunnallee of the NWAFC participated in part of the cruise.

A total trackline distance of approximately 6000 nm was surveyed hydroacoustically. Sampling was conducted at 78 midwater trawl and 16 handline stations; 76 of the hauls were 1 hour in duration and 2 were approximately 1/2 hour.

#### Pollock Distribution/Behavior and Abundance

The most notable feature of the survey was that it revealed pollock were present in essentially all parts of the survey area; pollock echo sign was detected almost continuously. Although what could be considered commercially important concentrations were found at only a few locations, it was clearly evident that the aggregate biomass was significant. Pollock occurred in 72 of the 78 hauls; most catches were less than 200 fish (100 kg).

In general, the highest abundance, as indicated by both echogram records and trawl sampling, was within 50-150 miles of the Aleutian

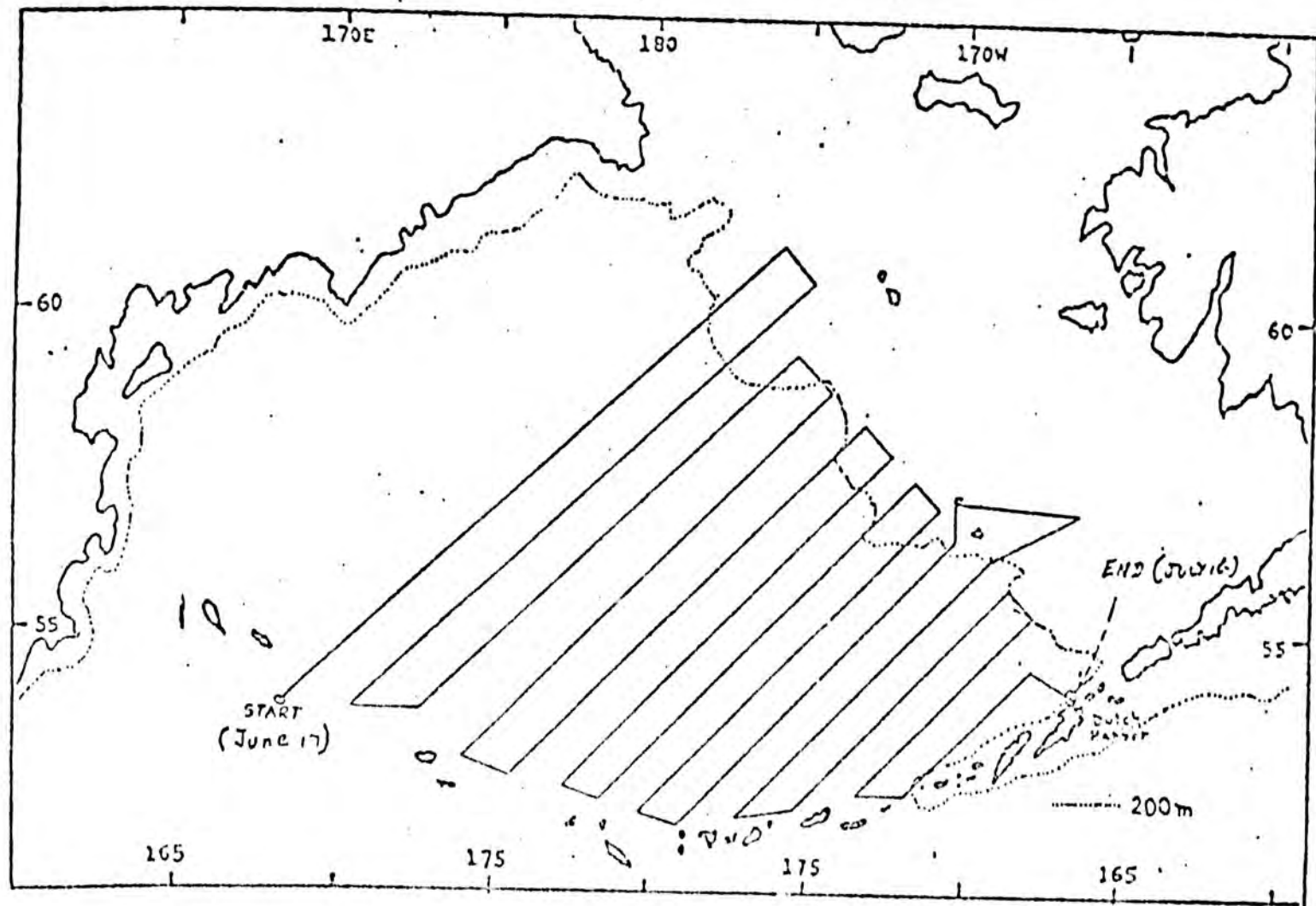


Figure 1. Trackline covered by the R/V Tomi Maru 52 during June-July, 1978 pollock survey.

Chain in waters deeper than 1000 meters. Abundance was relatively low adjacent to the shelf areas; the lowest densities appear to be in the northwestern part of the survey region from the shelf edge to about 75-100 miles south. In the eastern part of the region, moderate densities were observed to within about 50 miles of the shelf.

There was little evidence of significant quantities of fish at depths greater than 200 meters and the occurrence of echo sign normally dropped off rapidly at depths greater than about 125-150 m. During the day fish were generally concentrated between 50 and 150 m. At night this "band" of fish became more dispersed and rose in the water column. There was a difference between day and night trawl catch rates, with the average day catch rate being significantly higher. This can be attributed mainly to the less dense night time aggregations.

A very rough, and probably conservative, estimate of the biomass of the off-shelf component of the pollock population was made using the mean catch per 1 hour haul to calculate an average density, assuming the trawl caught all fish in its path. Other assumptions were:

|                                 |                                |
|---------------------------------|--------------------------------|
| Trawl mouth opening             | 900 m <sup>2</sup> (30 x 30 m) |
| Ave. thickness of pollock layer | 100 m                          |
| Mean weight per fish            | 0.5 kg                         |

The mean fish density estimate was  $1.06 \times 10^{-5}$  kg/m<sup>3</sup> and the resulting biomass estimate was 840,000 metric tons.

#### Pollock size Composition

A total of approximately 16,000 trawl caught pollock were measured from off-shelf trawl stations. The mean length was 46.9 cm. There was an unusually symmetric and narrow distribution of lengths, and a pronounced lack of young fish. Over 99% of the fish were from 39 to 55 cm; 82% were between 44 and 50 cm. As shown in Figure 2, the size distribution of this deep-water component of the pollock population differs significantly from that typically found in commercial catches taken over the shelf.

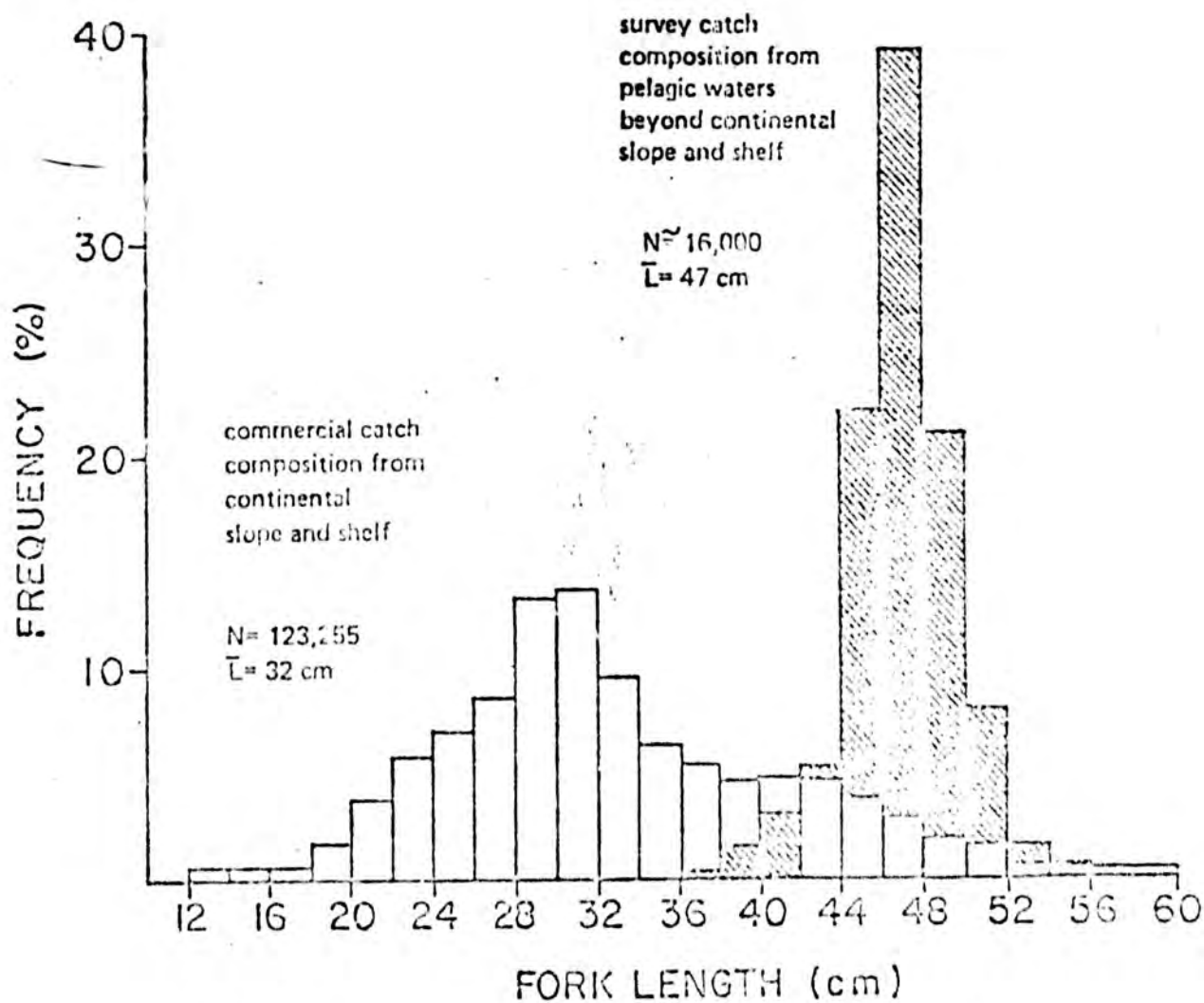


Figure 2.

Composition of length frequency distribution of pollock caught by midwater trawl by the *Tomi Maru 52* during the 1978 deep water survey of the Bering Sea and those caught by commercial fishing operations during 1977. Commercial catch data were collected by U.S. observers aboard Japanese, Soviet and South Korean vessels and weighted by nation.

### Catches of Non-Target Species

Species other than pollock were usually a small fraction of the catch from each trawl haul. "Lumpfish" (smooth lumpsucker, Apocycylus ventricosus) were by far the most frequently occurring non-target species. It occurred in 45 (58%) of the hauls and the average catch/haul for these hauls was 11 fish.

Squid were the second most frequently occurring incidental "species" but they were taken in only 10 hauls. The squid catches included several large specimens which were probably Moroteuthis robusta.

Relatively dense scattering layers were sometimes observed and occasionally sampled with the trawl when it appeared pollock were present in them. However, hauls made in the layers were not productive and they accounted for most of the catches with no pollock.

The degree to which the composition of the nontarget species (and possibly the size composition of the pollock) was influenced by the codend mesh size of the trawl is unknown. The codend consisted of inner and outer bags, each of which had approximately 2 inch mesh (stretched measure), and chafing gear (further information on the mesh size of the codend is being requested).

### Hook and Line Catches

At most hook and line stations, fishing took place for approximately 1/2 hour and about 100-200 pollock were usually captured for tagging. Since the tagging is being done only to obtain information on movements and migrations, the fish would be released even if their physical condition was marginal.

Research by the Japan Fishery Agency during the summer of 1978 identified a widely dispersed but substantial body of pollock in midwater beyond the continental shelf of the central Bering Sea (Nunnallee, 1978). Midwater trawl samples from that deep-water area produced a conservative biomass estimate of 840,000 mt (swept-area technique,  $q = 1.0$ ) and a size composition which is much different from that of the commercial fishery which operates over the continental shelf and slope (figure I.2.a).

This difference in size composition leads to the speculation that pollock distribution changes with size, with the larger individuals tending to a pelagic existence beyond the continental slope and beyond the commercial fisheries as they currently operate.

The discovery of this deep-water component of the Bering Sea pollock population raises questions about the size of the exploitable biomass and estimates of MSY, EY and ABC/OY of the population as a whole.

Assuming that the deep-water and shallow-water i.e., those available to the commercial fishery) pollock are both components of the same spawning population and that recruitment to the deep-water component is via the exploited, shallow-water component, three interrelated considerations are germane:

(1) Once recruited to the deep-water component, pollock will no longer be subjected to exploitation by the slope/shelf fishery. Therefore, in any one year abundance of the deep-water component has no direct bearing on the ABC/OY of the exploitable portion of the population. If, however, the commercial fishery develops techniques for harvesting the deep-water component, a separate ABC/OY for that component might be appropriate (subject to consideration 3, below).

(2) If, prior to their recruitment to the deep-water component, individual pollock passed through the exploitable portion of the population, a higher fishing rate on the exploitable component might be considered in order to reduce the number of fish which would otherwise survive, move offshore, and be lost to further exploitation (subject to consideration 3, below).

(3) Although no longer available to the fishery, the deep-water component presumably represents a substantial spawning potential for the population as a whole (especially in light of the exponential increase in fecundity which accompanies increases in length). Maintenance of a deep-water component (by not permitting all of the exploitable component to be taken and by limiting the development of fishing directly on the deep-water component) would seem desirable to assure adequate spawning potential regardless of fluctuations in the abundance of the exploitable component of the population. Such a reproductive "buffer" should allow

utilization of the exploitable component without undue concern about the possibility of an adverse spawner-recruit relationship being caused or aggravated by the shelf/slope fishery.

Until: (1) it has been determined that the deep-water pollock are, in fact, a component of the same population which is exploited (at younger ages) over the continental shelf and slope; (2) it is clear that the deep-water component is made up only of older fish that are no longer available to the slope/shelf fishery; and (3) an empirically-derived model has been developed 1/ in which the relation between slope/shelf exploitation and abundance of the deep-water component can be demonstrated, the only change that will be considered in the Bering Sea pollock ABC/OY because of the discovery of the deep-water component is that of a separate ABC/OY for fishing in deep water.

During 1979, in addition to the 1,000,000 mt ABC/OY for pollock in the traditional fishing areas (i.e., statistical areas I, II, and III), a separate ABC/OY of 100,000 mt is designated for statistical Area IV (see Figure I.2a). This special ABC/OY should be more than sufficient to support exploratory or experimental fishing operations in this new fishing area, will provide a substantial but controlled opportunity to expand the pollock fishery to an apparently unused segment of the population, and, if utilized, will produce further information about the deep-water component that can be used for future population evaluations and management decisions. 2/

1/ The construction of such a model was begun by the NMFS Northwest and Alaska Fisheries Center, Seattle.

2/ Records of the Japanese research survey which identified the deep-water component of the pollock population showed highest concentrations within 50-150 miles of the Aleutian chain in water depths greater than 1,000 m. Most of that described region lies within statistical Area IV.

## I.2 Yellowfin sole

### I.2.1 Maximum Sustainable Yield

The history of exploitation of yellowfin sole in the eastern Bering Sea (Table I.5) can be summarized as follows:

| <u>Period</u> | <u>Number<br/>of Years</u> | <u>Total Catch</u> | <u>Average Annual Catch</u> |
|---------------|----------------------------|--------------------|-----------------------------|
| 1954-58       | 5                          | 120,247            | 24,049                      |
| 1959-62       | 4                          | 1,615,869          | 403,967                     |
| 1963-68       | 6                          | 599,567            | 99,928                      |
| 1969-71       | 3                          | 460,612            | 153,537                     |
| 1972-75       | 5                          | 300,453            | 60,091                      |

Prior to 1963 virgin (or near virgin) biomass was estimated to be about 1.3 to 3 million mt (Wakabayashi 1976). The results of cohort analyses (Table I.6) indicate that exploitable biomass reached a historic low in 1969 but then rose to 910,000 mt by 1975.

Applying the Alverson-Pereyra yield equation ( $MSY = 0.5 MB_0$ , where  $B_0$  = virgin biomass and  $M$  = natural mortality) to the pre-1963 biomass estimate results in the following approximation:  $MSY = 0.5 \times 0.26 \times 1,300,000$  to  $2,000,000 = 169,000 - 260,000$  mt.

### I.2.2 Equilibrium Yield

The above determination of MSY was based on the assumption that a single stock of yellowfin sole occupies the eastern Bering Sea. There may, however, be separate northern and southern stocks. If so, the larger of the two is the southern stock that winters south and east of the Pribilof Islands. U.S. research vessel surveys in May 1976, a season when intermixing of fish from the area areas is minimal, indicate that about 93% of the fish were located in the southern stock area.

Catch, effort and CPUE values since the beginning of the Japanese winter flounder fishery are given in Table I.7. If two stocks exist, these data are indicative of only the southern (larger) one. There are two CPUE trends shown: that of pair trawlers and of stern trawlers.

Table I.5.—Annual catch (metric tons) of yellowfin sole in the eastern Bering Sea (east of 180° and north of 54°N). (INPFC proceedings, 1977).

| Year | Japan               | U.S.S.R.           | Total               |
|------|---------------------|--------------------|---------------------|
| 1954 | 12,562              | 0                  | 12,562              |
| 1955 | 14,690              | 0                  | 14,690              |
| 1956 | 24,697              | 0                  | 24,697              |
| 1957 | 24,145              | 0                  | 24,145              |
| 1958 | 39,153              | 5,000              | 44,153              |
| 1959 | 123,121             | 62,200             | 185,321             |
| 1960 | 350,103             | 36,000             | 386,103             |
| 1961 | 399,542             | 154,200            | 553,742             |
| 1962 | 281,103             | 139,600            | 420,703             |
| 1963 | 20,504              | 65,306             | 85,810              |
| 1964 | 48,380              | 62,297             | 110,677             |
| 1965 | 26,039              | 27,771             | 53,810              |
| 1966 | 45,423              | 56,930             | 102,353             |
| 1967 | 60,429              | 101,799            | 162,228             |
| 1968 | 40,834              | 41,355             | 82,189              |
| 1969 | 61,449              | 85,665             | 147,114             |
| 1970 | 59,351              | 73,226             | 132,577             |
| 1971 | 62,179              | 73,320             | 135,499             |
| 1972 | 34,646              | 12,010             | 46,656              |
| 1973 | 75,724              | 2,516              | 78,240              |
| 1974 | 37,947              | 4,210              | 42,157              |
| 1975 | 59,715 <sup>b</sup> | 6,060 <sup>a</sup> | 65,775 <sup>a</sup> |
| 1976 | 61,082 <sup>b</sup> | 5,133 <sup>c</sup> | 66,215 <sup>a</sup> |

<sup>a</sup> Preliminary data.

<sup>b</sup> Fishing year data from mothership, North Pacific longline-gillnet, and North Pacific trawl fisheries. Calendar year data for landbased dragnet fishery.

<sup>c</sup> Includes catches of all small flounders.

Table I.6. --Biomass of age 6 and older yellowfin sole and numbers of age 6 fish (as an index of recruitment) in the eastern Bering Sea as estimated by cohort analysis. (INPFC proceeding, 1977).

| Year | Biomass ( $\times 10^3$ mt) |                           |  | Estimate for<br>data combined<br>over stock areas | Number<br>age 6 fish<br>( $\times 10^6$ ) | Year class<br>of age 6<br>fish |
|------|-----------------------------|---------------------------|--|---|---|--------------------------------|
|      | Southern<br>stock<br>area   | Northern<br>stock<br>area | Total of<br>estimates by<br>stock area |   |   |                                |
| 1963 |                             |                           |  |   | 2,941                                     | 1957                           |
| 1964 | 840.3                       | 132.0                     | 972.3                                  | 912.5   | 2,276                                     | 1958                           |
| 1965 | 868.0                       | 144.2                     | 1,012.2                                | 960.7   | 1,765                                     | 1959                           |
| 1966 | 867.8                       | 145.0                     | 1,012.8                                | 969.0   | 1,507                                     | 1960                           |
| 1967 | 774.9                       | 140.2                     | 915.1                                  | 879.0   | 921                                       | 1961                           |
| 1968 | 567.5                       | 102.9                     | 670.4                                  | 635.4   | 1,266                                     | 1962                           |
| 1969 | 508.3                       | 103.9                     | 612.1                                  | 604.0   | 1,026                                     | 1963                           |
| 1970 | 593.2                       | 135.0                     | 728.2                                  | 720.8   | 928                                       | 1964                           |
| 1971 | 551.6                       | 102.8                     | 654.4                                  | 648.2   | 980                                       | 1965                           |
| 1972 | 522.9                       | 83.9                      | 606.8                                  | 660.2   | 1,420                                     | 1966                           |
| 1973 | 730.0                       | 112.7                     | 842.7                                  | 849.2   | 2,407                                     | 1967                           |
| 1974 | 854.6                       | 108.4                     | 963.0                                  | 782.4   | 2,345                                     | 1968                           |
| 1975 | 779.0                       | 131.8                     | 910.8                                  | 919.2   | 2,169                                     | 1969                           |

Table I.7.—Catch, effort, and CPUE for yellowfin sole by the Japanese trawl fisheries in the southern stock area for 1/2° by 1° statistical blocks and months in which yellowfin sole made up 50% or more of total catch of groundfish.

| Gear type   | Fishing year | Catch (mt) | Hours | Average HP | Thousands of HP hours | CPUE (mt per thousand HP-hours) |
|-------------|--------------|------------|-------|------------|-----------------------|---------------------------------|
| Pair trawl  | 1969-70      | 14,250     | 1,925 | 1,200      | 2,310                 | 6.17                            |
|             | 1970-71      | 26,766     | 1,762 | 1,200      | 2,114                 | 12.66                           |
|             | 1971-72      | 25,873     | 2,937 | 1,400      | 4,112                 | 6.29                            |
|             | 1972-73      | 32,354     | 2,788 | 1,400      | 3,903                 | 8.29                            |
|             | 1973-74      | 27,234     | 1,853 | 1,400      | 2,594                 | 10.50                           |
|             | 1974-75      | 32,456     | 833   | 1,400      | 1,166                 | 27.84                           |
|             | 1975-76      | 41,206     | 1,002 | 1,400      | 1,403                 | 29.37                           |
| Stern trawl | 1969-70      | 6,559      | 1,997 | 1,650      | 3,295                 | 1.99                            |
|             | 1970-71      | 2,266      | 558   | 1,400      | 781                   | 2.90                            |
|             | 1971-72      | 8,479      | 2,176 | 1,325      | 2,883                 | 2.94                            |
|             | 1972-73      | 11,319     | 5,030 | 1,400      | 7,042                 | 1.61                            |
|             | 1973-74      | 3,765      | 2,814 | 1,400      | 3,940                 | 0.96                            |
|             | 1974-75      | 3,078      | 3,515 | 1,250      | 4,394                 | 0.70                            |
|             | 1975-76      | 12,331     | 2,109 | 1,250      | 2,636                 | 4.68                            |

Table I.8.—Catch rates from comparative area sampled by the United States National Marine Fisheries Service since 1973 in the eastern Bering Sea. Catch rates (metric tons per km trawled) have been standardized to that of the research vessel Oregon.

| Species             | 1973  | 1974  | 1975  | 1976  |
|---------------------|-------|-------|-------|-------|
| Pollock             | 46.54 | 34.22 | 21.54 | 56.36 |
| Yellowfin sole      | 54.05 | 86.65 | 80.49 | 80.35 |
| Pacific cod         | 4.60  | 4.20  | 8.68  | 4.47  |
| Rock sole           | 9.99  | 12.94 | 14.74 | 22.72 |
| Flathead sole       | 4.94  | 9.94  | 7.02  | 9.75  |
| Alaska plaice       | 3.88  | 3.38  | 9.67  | 12.81 |
| Greenland turbot    | 1.17  | 2.17  | 1.47  | 1.94  |
| Arrowtooth flounder | 1.09  | 1.12  | 1.42  | 2.96  |
| Pacific halibut     | 0.27  | 0.51  | 1.11  | 0.88  |

There are differences in trends in the two gear types, but since stern trawlers are usually employed as scout vessels to locate concentrations of yellowfin sole, their CPUE may not reflect relative abundance as well as do CPUE trends of pair trawlers. Pair trawl CPUE cannot be directly compared for the period before and after the 1974-75 season because of changes in fishing strategy (from 24 hours operation prior to the 1974-75 winter season to daylight hour fishing after that) and gear improvements (anchored reflectors have recently been used by the vessels to stay on fish concentrations). Therefore the large increase between 1973-74 and 1974-75 is partially an artifact of increased fishing power. Standardized CPUE data from NMFS trawl surveys in a comparative area fished each year since 1973 also indicate a substantial increase in yellowfin sole abundance between 1973 and 1974 (Table I.8). Two of the NMFS surveys (one in late summer 1975 and the other in spring 1976) covered an expanded survey area which is believed to encompass the major part of the distribution of yellowfin sole. Using the area-swept technique of Alverson and Pereyra (1969), standing stock estimates for age groups available to the commercial fishery (age 6 and older) were as follows:

| <u>Year</u> | <u>Month(s)</u> | <u>Biomass estimate (mt)</u> | <u>95% Confidence Interval</u> |
|-------------|-----------------|------------------------------|--------------------------------|
| 1975        | August-October  | 991,917                      | 831,226 - 1,152,608            |
| 1976        | June            | 1,099,731                    | 610,131 - 1,589,331            |

Based on the 1975 research survey, equilibrium yield was calculated by Bakkala and Hirschhorn (1976) to be 126,000 mt with a confidence interval of 106,000 to 147,000 mt. Wakabayashi (1976) estimated that equilibrium yield in the same period was 117,000 mt. On the basis of data through 1975 Wakabayashi, Bakkala, and Low (1977) inferred that a conservative approximation of equilibrium yield would be the low end of the above range--106,000 mt.

A cohort analysis was conducted to determine population age structure and abundance. The procedure used was developed by Pope (1972) and specific details of the calculations are given by Wakabayashi et al. (1977).

Results of the cohort analysis (Table I.6) indicate that the biomass of age 6 and older fish increased from 1971 to 1975. Although details of the analysis demonstrated variations in year class strength (Figure I.3 and I.4), it is evident that the many year classes included in the population buffered much of the variation in recruitment. Projected estimates of biomass from cohort analysis also suggest that the improvement of yellowfin sole resource, which started in 1973 or earlier, continued at least through 1976 and into 1977. Preliminary information from both the 1977 NMFS trawl survey and from observers sampling the 1977-78 Japanese fishery indicates that abundance is remaining high. Moreover, because of operational factors (not reduced availability), the total allowable catch was not taken in 1977 and may not be achieved in 1978.

Considering the conservative nature of the estimate of EY based on data through 1975 and the positive trends indicates since then, EY is believed to have increased by perhaps 10 percent, to 117,000 mt.

#### 1.2.3 Acceptable Biological Catch

This resource has rebounded surprisingly well from a state of depletion in mid-1960's. Current abundance is high (55-85% of the estimated virgin biomass) and all fishery and biological indicators are positive. Furthermore, the average catch in 1977-78 was well below the conservative estimate of EY which, considering the low natural mortality of the species, should provide additional enhancement to the population in 1979. Accordingly, ABC is considered equivalent to current EY--117,000 mt.

#### 1.3 Turbots (arrowtooth flounder and Greenland turbot)

Under the Preliminary Fishery Management Plans for 1977 and 1978, the management of all flatfishes, other than Pacific halibut and yellowfin sole, was grouped under an "other flounders" category consisting of arrowtooth flounder, Greenland turbot, flathead sole, rock sole, Alaska plaice, and a few other minor species. However, the species within this category may be separated into two main complexes by virtue of their biology and bathymetric distribution.

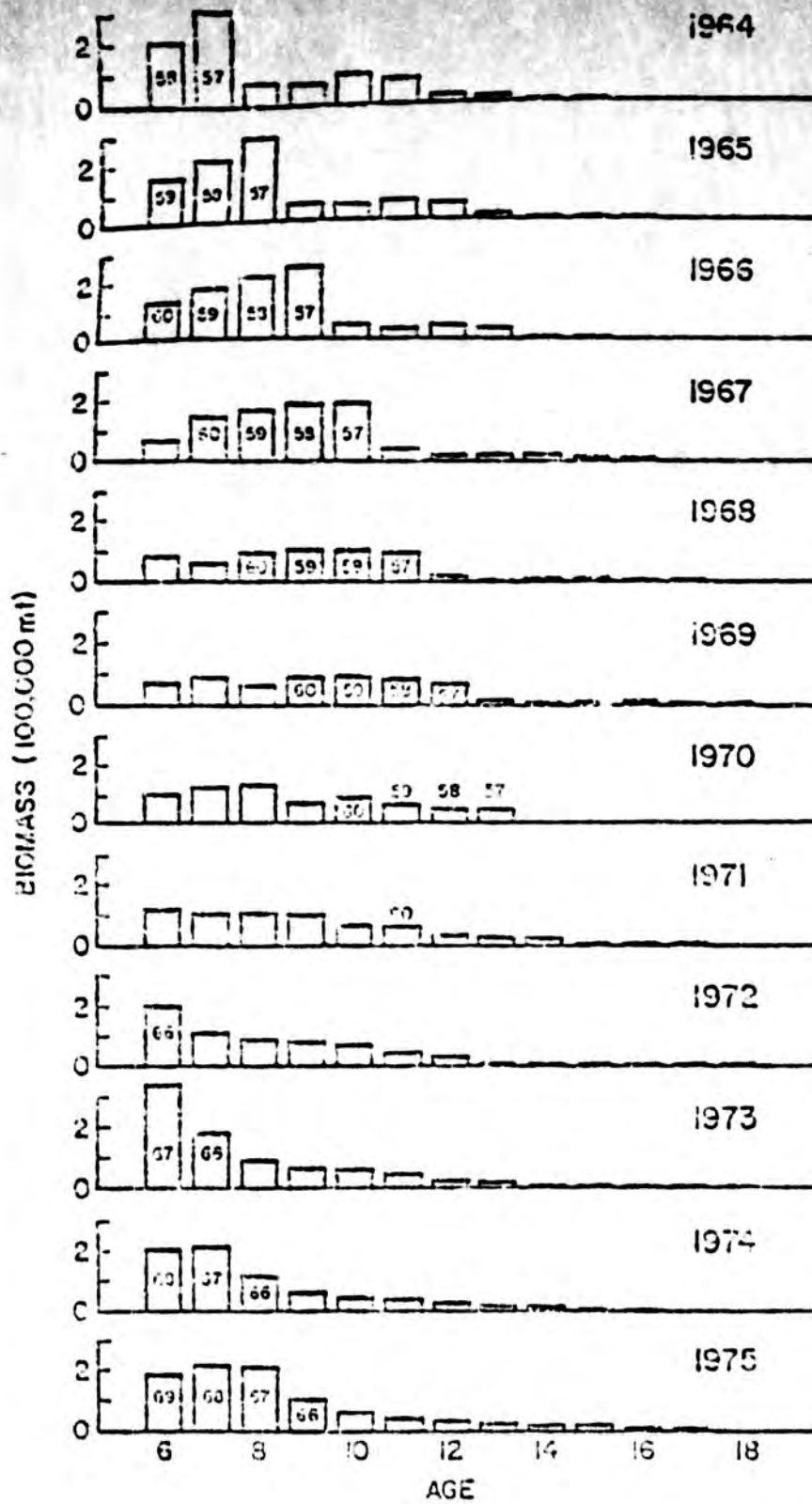


Figure I.3.--Estimated biomass of yellowfin sole from cohort analysis for age groups available to the fishery.

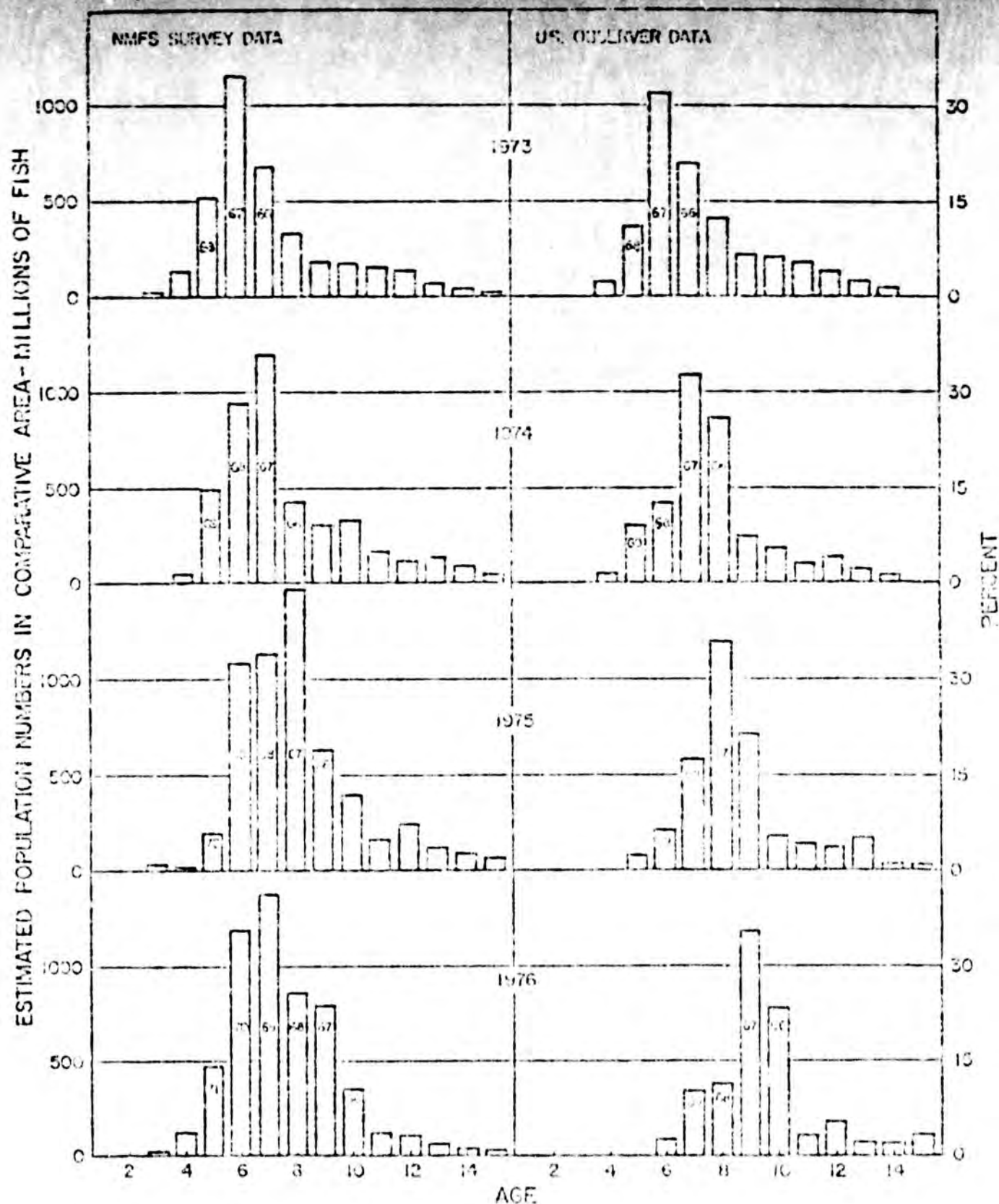


Figure I.4.--Age composition of yellowfin sole as shown by data from U.S. research vessel surveys in June-August and by U.S. observer samples from the Japanese flounder fishery in October-November. Year classes for certain age groups are shown in appropriate bars.

The turbot (arrowtooth flounder and Greenland turbot) are large flatfishes which are distributed along the continental slope in deep water; the "other flatfishes" are small in size and are generally found well up on the continental shelf in shallow water. Furthermore, the fisheries for these two flounder complexes are quite distinct.

#### I.3.1 Maximum Sustainable Yield

After a long period of relatively small catches, turbot production increased substantially in the early 1970's and continues at a high level (Table I.9). Of the two species in this complex Greenland turbot has accounted for 80 percent of the catch.

Since turbot are secondary or only occasional target species taken in the fisheries for pollock, sablefish, and yellowfin sole, it is difficult to estimate the MSY of this complex with standard production models which rely on commercial catch-effort statistics.

Although catches averaging 105,000 mt have been sustained during the period 1972-76, catch rates of Greenland turbot in one foreign fleet have decreased substantially during the same period (see section I.3.2, following). Accordingly, MSY for the turbot complex is believed to be in the order of 100,000 mt.

#### I.3.2 Equilibrium Yield

Commercial catch-effort statistics are of little use for stock assessment of turbot because they are not primary target species. In the case of such secondary species, it is extremely difficult to determine data points that are indicative of stock abundance. Catch rates for these species tend to vary more in response to fishing strategy for primary target species than to turbot abundance. The problem is compounded because data from individual vessels that do target on turbot are often merged and summarized with data of all other vessels.

Given the difficulty in using commercial CPUE data for non-target species and the lack of research survey coverage of the depth strata where adult turbot reside, the only quantitative information bearing on current stock condition is that for juveniles which occur in shallow water and were sampled by research vessels. In one area sampled since

Table I.9.--Annual catch of Greenland turbot and arrowtooth flounders in the eastern Bering Sea in metric tons (INPFC proceedings, 1977).

| Year  | Japan                  |                     |                     | U.S.S.R. | RWY | Total<br>all nations |
|---|------------------------|---------------------|---------------------|----------|-----|----------------------|
|   | MS-10-NPT <sup>a</sup> | LBD <sup>b</sup>    | Total               |          |     |                      |
| <u>Turbots (Greenland turbot and arrowtooth flounder)</u> |                        |                     |                     |          |     |                      |
| 1960  | 36,343                 | 0                   | 36,343              | -        | 0   | 36,343               |
| 1961  | 57,342                 | 2                   | 57,350              | -        | 0   | 57,350               |
| 1962  | 58,226                 | 84                  | 58,310              | -        | 0   | 58,310               |
| 1963  | 31,565                 | 39                  | 31,604              | -        | 0   | 31,604               |
| 1964  | 34,493                 | 40                  | 34,532              | -        | 0   | 34,532               |
| 1965  | 7,970                  | 307                 | 8,277               | 1,800    | 0   | 10,077               |
| 1966  | 10,933                 | 37                  | 11,035              | 2,200    | 0   | 13,235               |
| 1967  | 20,741                 | 1,733               | 22,474              | 2,639    | 0   | 25,113               |
| 1968  | 17,308                 | 4,739               | 22,047              | 13,252   | -   | 35,299               |
| 1969  | 13,532                 | 3,874               | 17,406              | 16,708   | -   | 34,114               |
| 1970  | 14,339                 | 13,003              | 27,342              | 3,220    | -   | 30,562               |
| 1971  | 30,890                 | 20,331              | 51,221              | 17,460   | -   | 68,681               |
| 1972  | 27,073                 | 59,823              | 86,896              | 24,285   | -   | 111,181              |
| 1973  | 33,485                 | 39,568              | 73,053              | 16,376   | -   | 89,429               |
| 1974  | 42,096                 | 43,170              | 85,266              | 29,509   | -   | 114,775              |
| 1975  | 38,385                 | 37,304              | 75,689              | 31,928   | -   | 107,617              |
| 1976  | 43,162 <sup>d</sup>    | 35,600 <sup>e</sup> | 78,762 <sup>e</sup> | 25,111   | -   | 103,873 <sup>e</sup> |
| <u>Greenland turbot</u>                                   |                        |                     |                     |          |     |                      |
| 1970  | 3,188                  | 15,506              | 18,694              | 4,976    | -   | 23,670               |
| 1971  | 24,409                 | 12,561              | 36,970              | 10,271   | -   | 47,241               |
| 1972  | 25,583                 | 54,803              | 80,386              | 14,853   | -   | 95,239               |
| 1973  | 30,778                 | 31,324              | 62,102              | 12,265   | -   | 74,367               |
| 1974  | 32,334                 | 37,579              | 69,913              | 10,380   | -   | 80,293               |
| 1975  | 37,941                 | 34,890              | 72,831              | 12,194   | -   | 85,025               |
| 1976  | 42,335 <sup>d</sup>    | 27,904 <sup>e</sup> | 70,239 <sup>e</sup> | 8,979    | -   | 79,218 <sup>e</sup>  |
| <u>Arrowtooth flounder</u>                                |                        |                     |                     |          |     |                      |
| 1970  | 9,331                  | 307                 | 9,638               | 3,244    | -   | 12,882               |
| 1971  | 6,331                  | 8,210               | 14,541              | 7,139    | -   | 21,680               |
| 1972  | 1,437                  | 4,925               | 6,362               | 9,467    | -   | 15,829               |
| 1973  | 2,707                  | 7,643               | 10,350              | 4,311    | -   | 14,661               |
| 1974  | 3,762                  | 5,321               | 9,083               | 15,650   | -   | 24,733               |
| 1975  | 415                    | 2,474               | 2,889               | 19,734   | -   | 22,657               |
| 1976  | 377 <sup>d</sup>       | 3,858 <sup>e</sup>  | 4,235 <sup>e</sup>  | 16,133   | -   | 20,368 <sup>e</sup>  |

<sup>a</sup>Catches are from data in file with the Japanese and U.S. National Fisheries.

<sup>b</sup>Ownership, North Pacific Longline-Filinet, and North Pacific Trawl Fisheries.

<sup>c</sup>Plant-based gasket fishery.

<sup>d</sup>Catch for fishing in the Bering Sea from 1970 to 1976.

<sup>e</sup>Plant-based fishery.

<sup>f</sup>Plant-based fishery.

1973, catch rates for young arrowtooth flounder increased from 1.1 kg per km trawled to 3 kg per km trawling in 1976 (Table I.8); the preliminary value for 1977 was almost identical to that for 1976. Therefore, the current catch level of about 21,000 metric tons (Table I.9) does not appear to be detrimental to recruitment.

Catch rates of juvenile Greenland turbot have been relatively stable since 1974 also indicating that fishery removals have not impacted Greenland turbot recruitment in recent years.

As mentioned above, it is difficult to evaluate the condition of individual species using catch rates of mixed species fisheries. Nonetheless, it may be significant that during the period 1972-76 when the total annual Greenland turbot catch decreased about 16 percent (from 95,300 to 79,800 mt), the catch rate of that species in the Japanese landbased dragnet fishery decreased from 32 percent (from 40 to 27 mt/100 hours). This fleet accounted for 44 percent of the total Greenland turbot catch.

In summary, recognizing the lack of adequate stock assessment information, but considering the downward trend in catch and CPUE for Greenland turbot, the equilibrium yield for this complex is believed to be about 5-10 percent below MSY, or 90,000-95,000 mt.

#### I.3.3 Acceptable Biological Catch

The inadequate data base available for evaluating stock condition and the downward trend in CPUE for one of the species in one fleet are cause for slight concern. Accordingly, ABC for the turbot complex is considered equivalent to the low end of the EY range--90,000 mt.

#### I.4 Other Flatfishes

This species complex is made up of the following smaller shallow water species; flathead sole, rock sole, Alaska plaice, and trace amounts of rex sole, Dover sole, starry flounder, longhead dab, butter sole, and lefteye flounders.

I.4.1 The catch history for this species complex shows a general increase of catches up to a peak of 95,000 mt in 1971 followed by a drastic decline through 1975 (Table I.10). It is difficult to discern whether that decline was due to declining abundance or to changing

Table I.10.--All nation catches of other flatfishes in the Bering Sea in metric tons.

| Year | East of 180° (INPFC area 1 + 2) |               |               |        | West of 180° (INPFC area 3 + 4) |               |               |       | Aleutians (INPFC area 5) |               |               |       | Total - all areas |               |               |        |
|------|---------------------------------|---------------|---------------|--------|---------------------------------|---------------|---------------|-------|--------------------------|---------------|---------------|-------|-------------------|---------------|---------------|--------|
|      | Rock sole                       | Flathead sole | Alaska Plaice | Total  | Rock sole                       | Flathead sole | Alaska Plaice | Total | Rock sole                | Flathead sole | Alaska Plaice | Total | Rock sole         | Flathead sole | Alaska Plaice | Total  |
| 1963 | 5,002                           | 29,625        | 975           | 35,602 | 1,640                           | 74            | 4             | 1,718 | 27                       | 14            | -             | 41    | 6,669             | 29,713        | 979           | 37,361 |
| 1964 | 3,238                           | 25,288        | 1,838         | 30,364 | 1,306                           | 1,287         | 10            | 2,603 | 152                      | 43            | 45            | 240   | 4,696             | 26,616        | 1,893         | 33,207 |
| 1965 | 3,673                           | 6,713         | 979           | 11,370 | 36                              | 26            | -             | 62    | 147                      | 128           | 41            | 316   | 3,861             | 6,867         | 1,020         | 11,748 |
| 1966 | 9,104                           | 11,020        | 4,633         | 24,757 | -                               | 63            | -             | 63    | 82                       | 25            | -             | 107   | 9,186             | 11,108        | 4,633         | 24,927 |
| 1967 | 4,762                           | 23,437        | 3,853         | 32,052 | 154                             | 594           | -             | 748   | 25                       | 32            | -             | 57    | 4,941             | 24,063        | 3,853         | 32,857 |
| 1968 | 5,250                           | 21,375        | 2,619         | 29,444 | 261                             | 586           | -             | 847   | 17                       | 186           | -             | 203   | 5,528             | 22,357        | 2,619         | 30,494 |
| 1969 | 9,240                           | 18,563        | 6,942         | 34,745 | 774                             | 435           | -             | 1,209 | 2                        | 2             | -             | 4     | 10,016            | 19,000        | 6,942         | 35,958 |
| 1970 | 20,111                          | 41,152        | 3,402         | 64,677 | 900                             | 932           | 79            | 1,911 | 2                        | 11            | -             | 13    | 21,025            | 42,095        | 3,481         | 66,601 |
| 1971 | 40,419                          | 51,024        | 992           | 92,435 | 1,962                           | 540           | 31            | 2,533 | 1                        | 16            | -             | 17    | 42,382            | 51,580        | 1,023         | 94,985 |
| 1972 | 66,824                          | 15,690        | 290           | 76,804 | 1,714                           | 511           | 40            | 2,265 | 5                        | 4             | -             | 9     | 62,543            | 16,205        | 330           | 79,078 |
| 1973 | 23,835                          | 18,141        | 1,917         | 43,893 | 1,862                           | 472           | 59            | 2,393 | 2                        | 24            | -             | 26    | 25,699            | 18,637        | 1,976         | 46,312 |
| 1974 | 19,975                          | 14,917        | 2,316         | 37,208 | 655                             | 214           | -             | 889   | 36                       | 41            | -             | 77    | 20,666            | 15,192        | 2,388         | 38,246 |
| 1975 | 11,145                          | 5,345         | 2,614         | 19,104 | 507                             | 112           | 1             | 620   | 3                        | 1             | -             | 4     | 11,655            | 5,658         | 2,615         | 19,928 |

Source: Wakabayashi, K. and R. Hakala. 1977. Estimated Catches of Flounders by species in the Bering Sea. U.S. Natl. Mar. Fish. Serv., Northwest Fish. Center. Document submitted to Intl. North Pac. Fish. Comm. 27 p. (Document 1964).

patterns of fishing activities. Commercial catch rates are not necessarily indicative of stock abundance and together with a lack of biological information on these species, MSY is difficult to determine. Because declines in catches in 1973 and 1975 are believed to be due, at least in part, to operational changes in the Soviet fishery and to winter area closures in the southeastern Bering Sea, the recent average catch level may have little bearing on MSY.

By assuming that the complex had been fully utilized prior to 1975, the average catch (1963-74) of 44,300 mt should approximate MSY. Furthermore, if the complex had been fully utilized prior to 1975, the Schaefer model indicates that by 1975 biomass would be about half of its virgin level. A NMFS trawl survey in 1975 (swept area technique) indicated a standing stock of 232,000-334,100 mt of flathead and rock sole (Table I.11) implying a virgin biomass of 462,000-668,200 mt. Inasmuch as plaice and dab are virtually unutilized by the fisheries, they are excluded from the following computations. If  $m = 0.23$  for this complex (Section 9.1; flathead sole 0.2, roc, sole 0.26), the Alverson-Pereyra yield equation produces an estimate of MSY of 53,200-76,800 mt ( $0.5 \times 0.23 \times 462,400 - 668,200$ ).

Therefore, estimates of MSY range from a low of 44,300 mt (as described on page I-27) to 76,800 mt (the high end of the above range).

#### I.4.2 Equilibrium Yield

There is no evidence to suggest that the MSY for this species complex is unattainable.

#### I.4.3 Acceptable Biological Catch

This species complex appears healthy and a significant portion of it (plaice and longhead dab) are yet to come under exploitation. Therefore, ABC is considered equivalent to the mid-point of the MSY range--61,000 mt.

### I.5 Pacific Cod

#### I.5.1 Maximum Sustainable Yield

Pacific cod are distributed widely over the Bering Sea continental shelf and slope and have a distributional pattern similar to that of

Table I.11.--Estimated biomass of the "other flatfish" complex in the eastern Bering Sea by the U.S. National Marine Fisheries Service in 1975.

| Species       | Mean CPUE <sup>1/</sup> | Estimated biomass <sup>2/</sup> | Percent frequency of occurrence |
|---------------|-------------------------|---------------------------------|---------------------------------|
| Rock sole     | 5.73                    | 138,300 - 202,000               | 66                              |
| Alaska plaice | 4.11                    | 101,800 - 152,800               | 41                              |
| Flathead sole | 3.89                    | 93,900 - 132,100                | 69                              |
| Longhead dab  | 0.37                    | 8,000 - 14,200                  | 19                              |

<sup>1/</sup>Mean catch per unit effort, kg/kg trawled

<sup>2/</sup>95% confidence limits in metric tons

Source: Pereyra et. al. (1976). Table IX-26.

pollock. During the early 1960's, when a fairly large Japanese longline fishery operated on the continental slope, cod were harvested by longliners for the frozen fish market. Beginning in 1964, the Japanese North Pacific trawl fishery for pollock expanded and cod became an important incidental catch in the pollock fishery. At present, cod are believed to be an occasional target species when high concentrations are detected during pollock fishing operations.

The annual catch of Pacific cod by Japan increased from 19,100 mt in 1974 to about 74,600 mt in 1970; since then, catches have varied between 40,000 and 50,400 mt (Table I.12). Catches by the USSR have only been reported since 1971 and have increased from 4,000 mt in 1971 to 18,500 mt in 1975. Since 1973, the total cod catch has varied between 55,000-67,000 mt.

Few biological data concerning cod are available, and their incidental occurrence in the trawl catch makes questionable the use of CPUE trends for evaluating stock condition. Considering that the cod catch grew very quickly in the mid-1960's and then became rather stable thereafter, the average catch since 1968 should reflect at least a minimal estimate of MSY. That average is 58,700 mt.

#### I.5.2 Equilibrium Yield

The MSY of 58,700 mt is believed to be achievable.

#### I.5.3 Acceptable Biological Catch

The above estimate of MSY is considered to be minimal. Therefore, ABC is considered equivalent to MSY--58,700 mt.

### I.6 Pacific Ocean Perch and Other Rockfishes

#### I.6.1 Maximum Sustainable Yield

Pacific ocean perch is the most abundant rockfish species in the North Pacific. Chikuni (1975) identified two main stocks in the Bering Sea: an Eastern Slope stock along the southern part of the eastern Bering Sea continental slope and an Aleutian stock along both sides of the Aleutian Islands.

Of these two, commercial catch records (Table I.13) indicate that the Aleutian stock is much larger than that of the Eastern Slope.

Table I.12.--Pacific cod catches by nation in the Bering Sea<sup>a/</sup> 1964-76 (Source: INPFC proceedings 1977).

| Year | Japan                  |                  | Total  | U.S.S.R.       | ROK            | Total<br>all nations |
|------|------------------------|------------------|--------|----------------|----------------|----------------------|
|      | MS-LG-NPT <sup>b</sup> | LBD <sup>c</sup> |        |                |                |                      |
| 1964 | 19,078                 | - <sup>f</sup>   | 19,078 | - <sup>f</sup> | 0              | 19,078               |
| 1965 | 15,710                 | 1,638            | 17,348 | -              | 0              | 17,348               |
| 1966 | 17,347                 | 1,693            | 19,040 | -              | 0              | 19,040               |
| 1967 | 30,728                 | 2,780            | 33,508 | -              | 0              | 33,508               |
| 1968 | 52,309                 | 11,426           | 63,735 | -              | - <sup>f</sup> | 63,735               |
| 1969 | 45,078                 | 8,221            | 53,299 | -              | -              | 53,299               |
| 1970 | 61,335                 | 13,278           | 74,613 | -              | -              | 74,613               |
| 1971 | 33,076                 | 13,281           | 46,357 | 4,139          | -              | 50,496               |
| 1972 | 34,776                 | 5,158            | 39,934 | 7,028          | -              | 46,962               |
| 1973 | 39,489                 | 6,099            | 45,588 | 12,980         | -              | 58,568               |
| 1974 | 44,364                 | 6,058            | 50,422 | 16,592         | -              | 67,014               |
| 1975 | 33,089 <sup>d</sup>    | 3,448            | 36,537 | 18,486         | 49             | 55,072 <sup>e</sup>  |
| 1976 | 34,976 <sup>d</sup>    | 4,754            | 39,730 | 18,912         | 306            | 58,948 <sup>e</sup>  |

<sup>a</sup> Catches are from data on file with the Japanese and U.S. National Sections.

<sup>b</sup> Mothership, North Pacific longline-gillnet, & North Pacific trawl fisheries.

<sup>c</sup> Landbased dragnet fishery.

<sup>d</sup> Catch for fishing year, November of previous year to October.

<sup>e</sup> Preliminary.

<sup>f</sup> Dash denotes fishing but no reported catch.

Table 13.--Annual catch of Pacific ocean perch in the Bering Sea in metric tons.

| Year | Japan <sup>a/</sup> |         |       | U.S.S.R. <sup>b/</sup> |         |       | Total         |         |       |
|------|---------------------|---------|-------|------------------------|---------|-------|---------------|---------|-------|
|      | Eastern Slope       | Alutian | Total | Eastern Slope          | Alutian | Total | Eastern Slope | Alutian | Total |
| 1960 | 1.1                 | ----    | 1.1   | 5.0                    | ----    | 5.0   | 6.1           | ----    | 6.1   |
| 1961 | 15.0                | ----    | 13.0  | 34.0                   | ----    | 34.0  | 47.0          | ----    | 47.0  |
| 1962 | 12.9                | 0.2     | 13.1  | 7.0                    | ----    | 7.0   | 19.9          | 0.2     | 20.1  |
| 1963 | 17.5                | 0.8     | 18.3  | 7.0                    | 20.0    | 27.0  | 24.5          | 20.8    | 45.3  |
| 1964 | 14.4                | 29.3    | 43.7  | 11.5                   | 61.0    | 72.5  | 25.9          | 90.3    | 116.2 |
| 1965 | 7.8                 | 38.1    | 45.9  | 9.0                    | 71.0    | 80.0  | 16.8          | 109.1   | 125.9 |
| 1966 | 17.5                | 28.2    | 45.7  | 2.7                    | 57.7    | 60.4  | 20.2          | 85.9    | 106.1 |
| 1967 | 9.6                 | 9.3     | 28.9  | ----                   | 46.6    | 46.6  | 19.6          | 55.9    | 75.5  |
| 1968 | 26.4                | 18.3    | 46.7  | 5.1                    | 25.6    | 29.7  | 31.5          | 44.9    | 76.4  |
| 1969 | 14.5                | 15.6    | 30.1  | 0.0                    | 23.2    | 23.2  | 14.5          | 38.8    | 53.3  |
| 1970 | 9.9                 | 13.6    | 23.5  | 0.0                    | 53.3    | 53.3  | 9.9           | 66.9    | 76.8  |
| 1971 | 7.8                 | 14.6    | 24.4  | 0.0                    | 7.2     | 7.2   | 9.8           | 21.8    | 31.6  |
| 1972 | 5.5                 | 8.6     | 14.1  | 0.2                    | 24.6    | 24.8  | 5.7           | 33.2    | 38.9  |
| 1973 | 2.7                 | 9.3     | 12.0  | 1.0                    | 2.5     | 3.5   | 3.7           | 11.8    | 15.5  |
| 1974 | 6.6                 | 21.7    | 28.3  | 7.4                    | 0.8     | 8.2   | 14.0          | 22.4    | 36.5  |
| 1975 | 3.2                 | 8.5     | 11.7  | 5.4                    | 8.1     | 13.5  | 8.6           | 16.6    | 25.2  |
| 1976 | 2.8                 | 10.3    | 13.1  |                        |         |       |               |         |       |

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a/ Figures are compiled from both statistics for the mothership-longline Bering Pacific trawl fishery and the landbased dragnet fishery.

b/ Includes some amounts of rockfishes, Sebastes, spp. other than Pacific ocean perch, except for 1975.

Catches peaked at about 47,000 mt in the Eastern Slope Region in 1961, whereas they peaked at 109,000 mt in the Aleutian Region in 1965. Since then, catches have declined drastically in both regions. This decline is attributed mainly to lower stock abundance caused by the removal of larger, older fish.

Under ideal resource conditions, MSY for the Eastern Slope stock was estimated to be as high as 32,000 mt while that for the Aleutian stock may be as high as 75,000 mt (Chikuni 1975). Whether or not the ecosystem could again support a population large enough to sustain catches of that magnitude is unknown.

No information is available bearing on the MSY of the other rockfish species.

#### I.6.2 Equilibrium Yield

Since 1960, the Eastern Slope region has produced perch catches in excess of 30,000 mt only twice (1961 and 1968). Following each such instance, catches fell substantially (Table I.13); after the large 1968 catch, catch and catch rate both dropped to very low levels. An inspection of catch (Table I.13) and catch rate (I.14) indicates that perch stocks of the Eastern Slope Region must not have been able to support a fishery of 10,000-15,000 mt annually without detrimental effects to the already low level of stock abundance.

In the Aleutian Region, there were more obvious signs of overexploitation in the early stages of the fishery when amounts in excess of 90,000 mt were taken consecutively from 1964 through 1966. Since then, except for a high catch in 1970, production has dropped and during the period 1971-75 averaged only 21,200 mt. It is evident that the sustained annual catch of 75,000 mt estimated by Chikuni cannot now be realized.

It was the consensus of Japanese, U.S., and Canadian scientists at the 1975 INPFC meeting, that Pacific ocean perch stocks are at a relatively low level of abundance and generally not in good condition. The opinion is derived from various state of stock indicators including (i) a continuous decline in CPUE after 1968; (ii) drastic reductions in the availability of all sizes of ocean perch through the period 1969-72; (iii) a heavy

Table I.14.—Pacific ocean perch catch and effort data of stern trawlers in the Japanese mothership-longline North Pacific trawl fishery by vessel class in the eastern Bering Sea Slope Region, 1968-1976.

| Year  | Vessel class <sup>a/</sup> |       |     |       |      |        |       |
|---|----------------------------|-------|-----|-------|------|--------|-------|
|   | 3                          | 4     | 5   | 6     | 7    | 8      | 9     |
| (A) Catch in metric tons.   |                            |       |     |       |      |        |       |
| 1968  | 895                        | 3,347 | 695 | 1,936 | 378  | 10,012 | 1,776 |
| 1969  | 361                        | 3,709 | 102 | 258   | 94   | 4,037  | 2,103 |
| 1970  | 77                         | 215   | 73  | 55    | 301  | 3,168  | 1,495 |
| 1971  | 96                         | 1,558 | 35  | 303   | 992  | 1,855  | 459   |
| 1972  | 0                          | 1,005 | 317 | 7     | 410  | 313    | 1,276 |
| 1973  | -                          | 351   | 0   | 199   | 487  | 146    | 242   |
| 1974  | -                          | 416   | 90  | 520   | 700  | 609    | 442   |
| 1975  | -                          | 552   | 204 | 343   | 784  | 171    | 246   |
| 1976  | -                          | 257   | 188 | 148   | 704  | 70     | 434   |
| (B) Fishing effort in hundred hours trawled.                                    |                            |       |     |       |      |        |       |
| 1968  | 104                        | 298   | 26  | 18    | 1    | 67     | 46    |
| 1969  | 95                         | 264   | 17  | 15    | 12   | 95     | 125   |
| 1970  | 103                        | 293   | 18  | 12    | 34   | 122    | 139   |
| 1971  | 125                        | 411   | 21  | 19    | 15   | 126    | 266   |
| 1972  | 120                        | 348   | 29  | 13    | 49   | 140    | 192   |
| 1973  | -                          | 163   | 13  | 16    | 35   | 118    | 297   |
| 1974  | -                          | 147   | 27  | 39    | 37   | 171    | 310   |
| 1975  | -                          | 303   | 55  | 41    | 38   | 158    | 263   |
| 1976  | -                          | 286   | 34  | 4     | 11   | 135    | 227   |
| (C) Percentage composition in total ocean perch catch by vessel class category. |                            |       |     |       |      |        |       |
| 1968  | 4                          | 19    | 3   | 10    | 2    | 49     | 3     |
| 1969  | 3                          | 31    | 1   | 2     | 1    | 34     | 13    |
| 1970  | 1                          | 4     | 1   | 1     | 6    | 58     | 27    |
| 1971  | 2                          | 30    | 1   | 1     | 19   | 35     | 9     |
| 1972  | 0                          | 29    | 9   | +     | 12   | 9      | 37    |
| 1973  | -                          | 21    | 0   | 12    | 23   | 9      | 14    |
| 1974  | -                          | 12    | 3   | 15    | 21   | 18     | 13    |
| 1975  | -                          | 22    | 8   | 14    | 32   | 7      | 10    |
| 1976  | -                          | 13    | 10  | 8     | 36   | 4      | 22    |
| (D) CPUE in mt per hour trawled.  |                            |       |     |       |      |        |       |
| 1968  | .08                        | .13   | .26 | 1.10  | 2.55 | 1.50   | .39   |
| 1969  | .03                        | .14   | .06 | .18   | .08  | .42    | .17   |
| 1970  | .01                        | .01   | .04 | .23   | .09  | .26    | .11   |
| 1971  | .01                        | .04   | .02 | .11   | .28  | .13    | .02   |
| 1972  | -                          | .03   | .10 | .01   | .07  | .02    | .05   |
| 1973  | -                          | .02   | -   | .12   | .14  | .01    | .01   |
| 1974  | -                          | .03   | .03 | .13   | .10  | .04    | .01   |
| 1975  | -                          | .02   | .04 | .08   | .21  | .01    | .01   |
| 1976  | -                          | .01   | .05 | .4    | .62  | .01    | .02   |

a/ No data for classes 1 and 2. 1973 and 1974 data converted to pre-1973 gross tonnage classification of

1 = 71-100.      4 = 301-300      7 = 1501-1500  
 2 = 101-200      5 = 401-400      8 = 2501-2500  
 3 = 201-300      6 = 501-1500      9 = 3501 and above

dependence in the fishery after 1968 on young-small fish; and (iv) the lack of any evidence of strong year, incoming classes.

In the Eastern Slope Region, catch, fishing effort, and CPUE data indicate that stock abundance has declined severely from the 1960's and has fluctuated at a low level in the 1970's (Table I.14). Although most effort in the Eastern Slope Region is not directed specifically at Pacific ocean perch, and CPUE may not be the best index of abundance, continuing low ocean perch harvests despite high effort levels do suggest relatively low abundance. Also, catch rates have declined to very low levels since the early 1970's at depths beyond 125 m where most of the Pacific ocean perch grounds are found (Figure I.5). The spawning stocks of Pacific ocean perch in the Eastern Slope Region is also considered to be substantially reduced from earlier levels. It is believed that the early extensive ocean perch harvests by Japan and the USSR had removed most of the larger and older fish from the stock, dramatically affecting its reproductive potential. Chikuni (1975) reported that the fecundity of ocean perch in this region (number of eggs) was as follows: 10,000 at age 7, 29,000 at age 10, 75,000 at age 15, 122,000 at age 20, and 162,000 at age 25. Extensive harvests of older, more fecund fish must have severely reduced larval production in later years, but reduced recruitment as yet has not been directly related to a decline in larval production.

In the Aleutian Region, the stock has also declined in abundance. CPUE data from both the Japanese independent stern trawl fishery (Table I.15) and the land-based dragnet fishery (Table I.16) show that abundance has been fluctuating at a very low level relative to earlier years since 1971. For example, class 4 and 7 stern trawlers (301-500 gross tons and 1500-2500 gross tons, respectively), which accounted for the majority of annual ocean perch catches by stern trawlers, suffered severe declines in CPUE from 1968 to 1974 (Table I.15). In both cases, catch rates in 1976 were less than 30% of levels attained in 1968, and, on the basis of catch trends, it is believed that stock abundance in 1968 was already reduced considerably from earlier years.

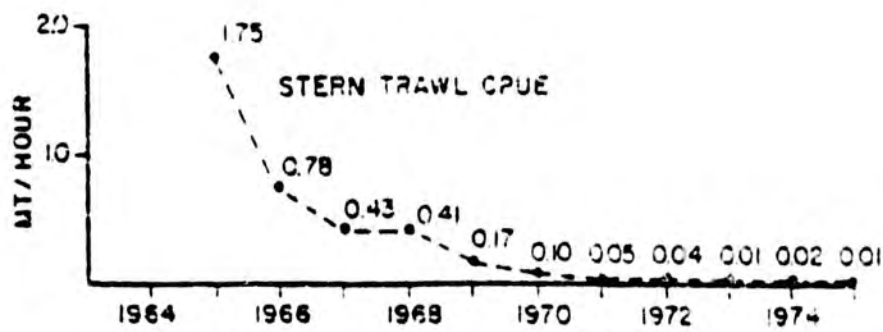
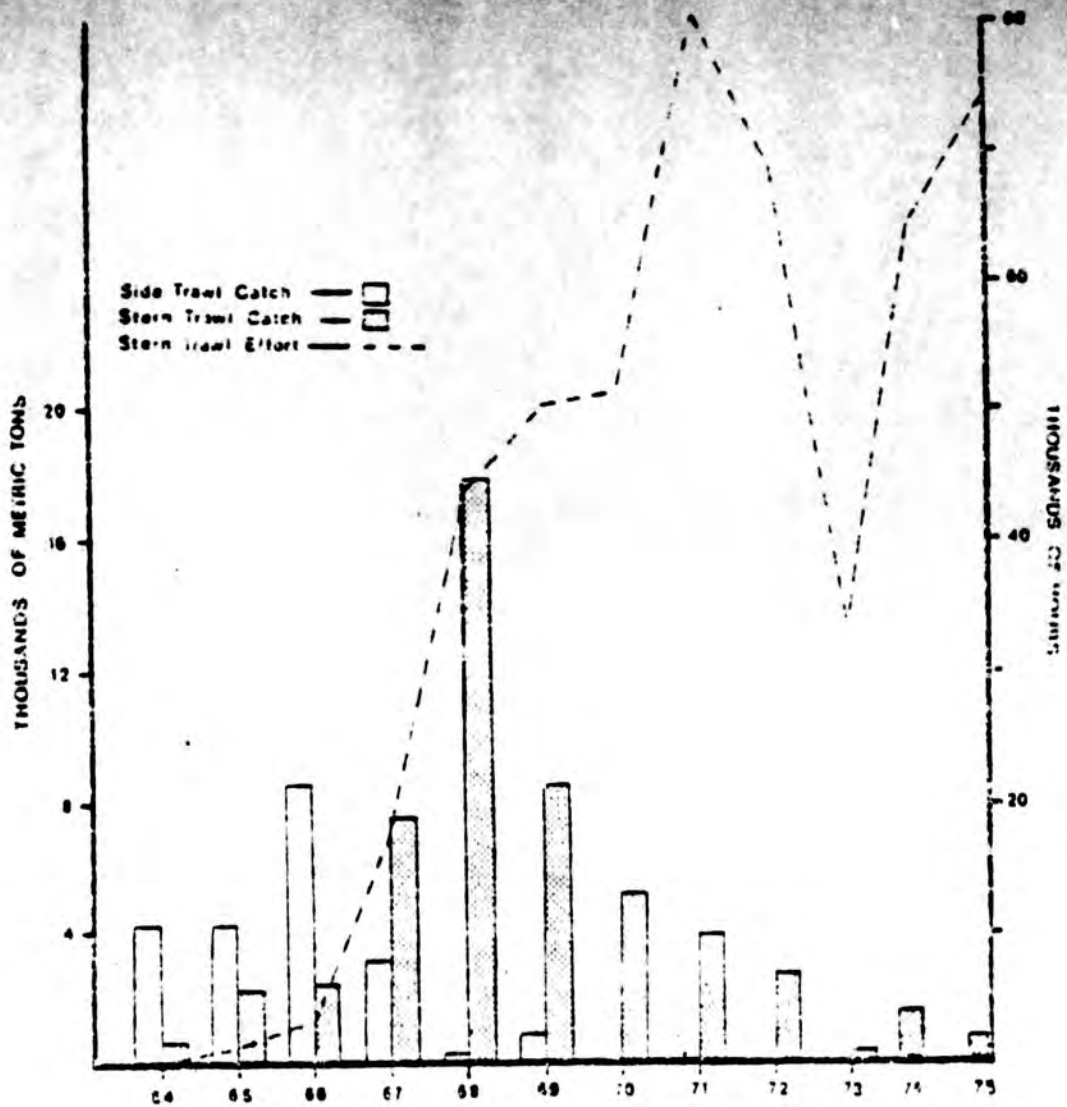


Figure I.5.—Annual catches of Pacific ocean perch by side and stern trawlers, and stern trawl effort by the Japanese mother-ship, longline, and North Pacific trawl fisheries, in areas of the Eastern Slope Region where depths exceed 125 meters.

**Table I.15.—Pacific ocean perch catch and effort data for stern trawlers of the Japanese mothership-longline North Pacific trawl fishery by vessel in the Aleutian Region, 1968-1976.**

| Year  | Vessel class <sup>a/</sup> |       |       |       |       |     |
|---|----------------------------|-------|-------|-------|-------|-----|
|   | 4                          | 5     | 6     | 7     | 8     | 9   |
| <b>(A) Catch in metric tons.</b>  |                            |       |       |       |       |     |
| 1968  | 12,157                     | 280   | 32    | 2,711 | 6,787 | 532 |
| 1969  | 7,290                      | 440   | 0     | 4,839 | 1,125 | 144 |
| 1970  | 2,384                      | 1,227 | 0     | 7,741 | 249   | 82  |
| 1971  | 3,322                      | 889   | 1,038 | 4,984 | 2,249 | 449 |
| 1972  | 3,527                      | 1,318 | 645   | 2,035 | 188   | 135 |
| 1973  | 4,591                      | 0     | 995   | 1,881 | 0     | 0   |
| 1974  | 10,196                     | 1,564 | 1,326 | 2,507 | 25    | 16  |
| 1975  | 3,720                      | 972   | 764   | 1,815 | 666   | 0   |
| 1976  | 3,976                      | 784   | 392   | 1,462 | 45    | 0   |
| <b>(B) Fishing effort in number of hours trawling.</b>                                    |                            |       |       |       |       |     |
| 1968  | 8,575                      | 115   | 8     | 116   | 759   | 772 |
| 1969  | 1,952                      | 333   | 0     | 910   | 178   | 38  |
| 1970  | 1,755                      | 600   | 0     | 976   | 161   | 25  |
| 1971  | 4,543                      | 634   | 383   | 720   | 785   | 174 |
| 1972  | 6,533                      | 546   | 492   | 388   | 114   | 56  |
| 1973  | 3,592                      | 0     | 650   | 530   | 36    | 0   |
| 1974  | 12,249                     | 1,816 | 964   | 529   | 70    | 22  |
| 1975  | 11,170                     | 1,233 | 543   | 521   | 509   | 0   |
| 1976  | 8,926                      | 866   | 629   | 499   | 244   | 0   |
| <b>(C) Percentage composition of total ocean perch catch by vessel class<sup>b/</sup></b> |                            |       |       |       |       |     |
| 1968  | 54                         | 1     | +     | 12    | 30    | 2   |
| 1969  | 51                         | 2     | 0     | 34    | 8     | 1   |
| 1970  | 20                         | 10    | 0     | 56    | 2     | 1   |
| 1971  | 26                         | 7     | 8     | 38    | 17    | 3   |
| 1972  | 45                         | 17    | 8     | 26    | 2     | 2   |
| 1973  | 61                         | 0     | 13    | 25    | 0     | 0   |
| 1974  | 63                         | 10    | 8     | 16    | 0     | +   |
| 1975  | 46                         | 12    | 9     | 22    | 8     | 0   |
| 1976  | 59                         | 12    | 6     | 22    | 1     | 0   |
| <b>(D) Catch (in metric tons) per hour trawled.</b>                                       |                            |       |       |       |       |     |
| 1968  | 1.4                        | 2.4   | 4.0   | 12.6  | 8.9   | 0.7 |
| 1969  | 3.7                        | 1.3   | -     | 5.3   | 6.3   | 3.2 |
| 1970  | 1.4                        | 2.0   | -     | 7.9   | 1.5   | 3.3 |
| 1971  | 0.7                        | 1.4   | 2.7   | 6.9   | 2.9   | 2.6 |
| 1972  | 0.5                        | 2.4   | 1.3   | 5.2   | 1.6   | 2.4 |
| 1973  | 1.3                        | -     | 1.5   | 3.5   | -     | -   |
| 1974  | 0.8                        | 0.9   | 1.4   | 3.7   | 0.4   | 0.7 |
| 1975  | 0.3                        | 0.8   | 1.4   | 3.5   | 1.3   | -   |
| 1976  | 0.4                        | 0.9   | 0.6   | 3.3   | 0.2   | -   |

a/ No data for classes 1, 2, and 3 which are mainly side and pair trawls. 1973 and 1974 data converted to pre-1973 gross tonnage classification of

- 1 = 71-100
- 2 = 101-200
- 3 = 201-300
- 4 = 301-500
- 5 = 501-1000
- 6 = 1001-1500
- 7 = 1501-2500
- 8 = 2501-3500
- 9 = 3501 and above

b/ Totals may fall short of 100% because of rounding method.

Table I.16.—Catch and effort data of stern trawlers of the Japanese land-based dragnet fishery in the Aleutian Region, 1969-76.

| Year | Catch of all species in mt | Catch of Pacific ocean perch in mt | Percentage of POP in total catch | Total effort in hours | CPUE of POP in mt per hour |
|------|----------------------------|------------------------------------|----------------------------------|-----------------------|----------------------------|
| 1969 | 5,478                      | 1,246                              | 23                               | 3,850                 | .32                        |
| 1970 | 4,550                      | 1,956                              | 43                               | 5,040                 | .39                        |
| 1971 | 5,977                      | 1,664                              | 28                               | 6,567                 | .25                        |
| 1972 | 17,801                     | 651                                | 4                                | 17,169                | .04                        |
| 1973 | 16,220                     | 1,973                              | 12                               | 12,792                | .15                        |
| 1974 | 24,851                     | 5,571                              | 22                               | 22,593                | .25                        |
| 1975 | 8,067                      | 1,263                              | 16                               | 5,593                 | .15                        |
| 1976 | 8,514                      | 2,663                              | 31                               | 9,597                 | .27                        |

Notation: POP is Pacific ocean perch; mt is metric tons.

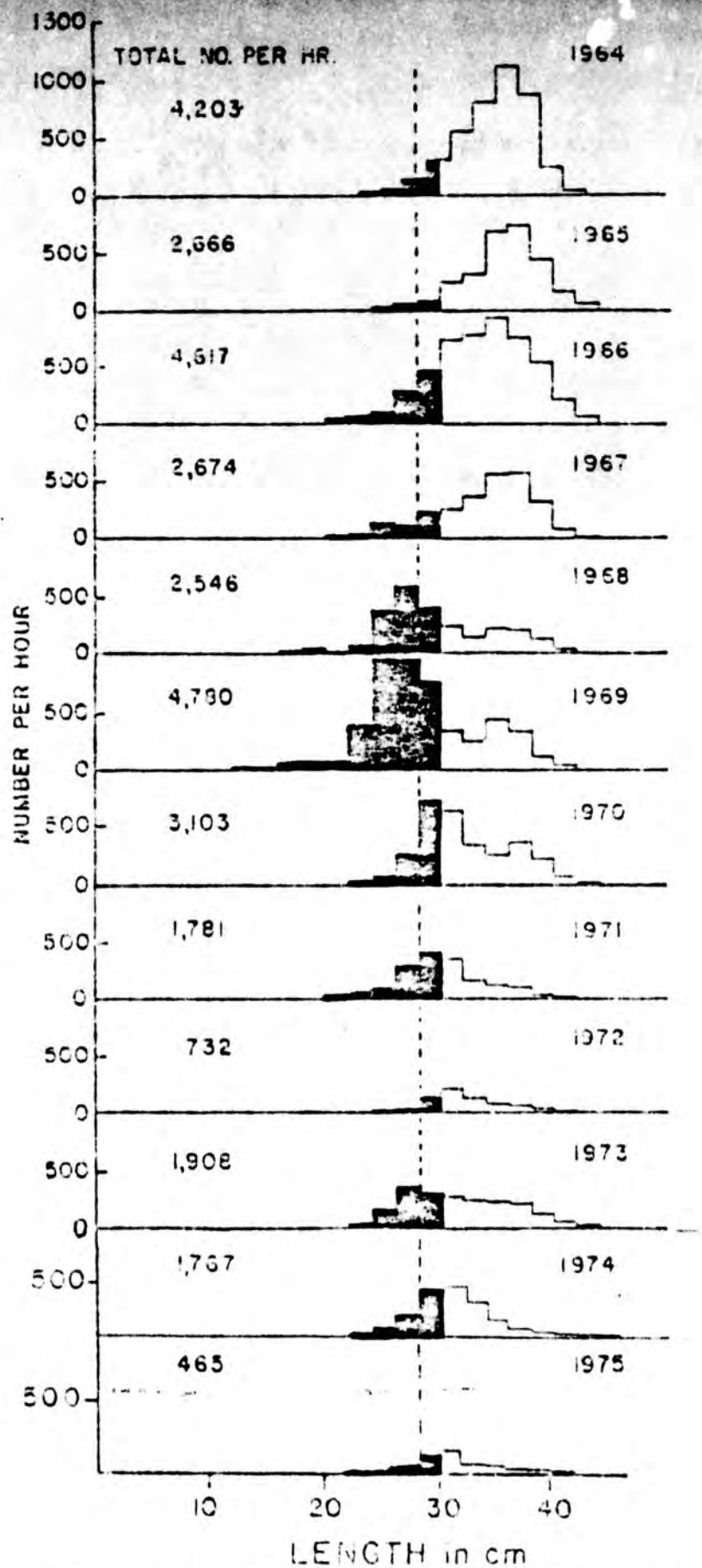


Figure I.6.--Catch per unit effort by size increment for Pacific ocean perch harvested by stern trawlers of the Japanese mothership-longline North Pacific trawl fishery in the Aleutian Region, 1964-75.

Current length-frequency information also indicates a poor condition of ocean perch stocks in the Aleutian Region. In the early years of the fishery (1964-67), the size composition in the Japanese catches was relatively stable and dominated by fish greater than 28 cm (Figure I.6). After that time, there was a large increase in the proportion of fish smaller than 28 cm, due in part to recruitment into the fishery of the strong year-classes of 1961 and 1962 and in part because of a considerable reduction in abundance of the larger perch after 1967. The abundance of these older fish remained low through 1975. Inasmuch as most annual yields since 1967 have consisted of large numbers of fish less than 28 cm and dwindling numbers of older, more fecund fish, the reproductive potential of Aleutian Region ocean perch stocks must also have been reduced. Additionally, recruitment of ocean perch to the fishery occurs at about 6-8 years of age. Thus, year-classes spawning during the peak years of fishing (1964-1966) would have appeared in catches beginning in 1970. As shown by CPUE values for small fish (less than 28 cm) in 1970-75, recruitment was relatively low. Indeed, the 1975 catch rates, measured in terms of number of fish caught per hour trawled, was the lowest on record (Figure I.6).

In summary, it appears clearly evident that Pacific ocean perch stocks from the eastern Bering Sea and the Aleutian regions are at an extremely low level of abundance with no evidence of strong recruitment in recent years. On the basis of fishery information through 1974, it was estimated in the 1977 PMP for the Trawl Fishery of the Bering Sea that equilibrium yield for Pacific ocean perch was 6,500 mt in the eastern Bering Sea and 15,000 mt in the Aleutians. Based on fishery information available since then, no increase in exploitable biomass has occurred.

No information is available which bears on the EY of the other rockfish species.

#### I. 6.3 Acceptable Biological Catch

The Pacific ocean perch stocks of the Bering Sea/Aleutian Region are badly depleted-current equilibrium yield is believed to be no more

than 20 percent of MSY. Therefore, as was the case in the Gulf of Alaska, the ABC of Pacific ocean perch will be set at half of the current EY in order to balance the need for rebuilding against severe economic dislocation in the foreign trawl fisheries--3,250 mt in the eastern Bering Sea sub-area (Statistical Areas I, II, and III combined) and 7,500 mt in the Aleutian sub-area (Statistical Area IV).

The lack of biological data concerning Other Rockfish requires a more pragmatic consideration of ABC. For this species category, there is virtually no information available bearing on stock abundance or condition. Furthermore, the catch record for this category is incomplete and believed to suffer from past misidentifications or misreportings among the POP and Other Rockfish categories.

The Japanese trawl industry reports that in 1977 the Japanese catch of Other Rockfish in the Bering Sea/Aleutian Region was 11,747 mt and that if the other foreign fisheries in the Region had a similar species composition the total catch of Other Rockfish would have been about 19,000 mt. Species composition data collected by U.S. observers, however, lead to the following estimates of Other Rockfish catches during 1977 (mt):

|  | <u>Japan</u> | <u>USSR</u> | <u>ROK</u> | <u>Total</u> |
|--|--------------|-------------|------------|--------------|
| Eastern Bering Sea<br>(Stat. areas I, II, III) | 47           | 0           | 0          | 47           |
| Aleutian<br>(stat. area IV)                    | 6,084        | 1,596       | 0          | 7,680        |
| Total  | 6,131        | 1,596       | 0          | 7,727        |

Until additional, accurate fishery information becomes available, the ABC of Other Rockfishes in the Bering Sea/Aleutian Region will be held at the estimated level of the 1977 catch -- 7,727 mt.

## I.7 Sablefish (Blackcod)

### I.7.1 Maximum Sustainable Yield

The sablefish resource is found in waters off California, northward to the Gulf of Alaska, westward to the Aleutian Region, and into the Bering Sea. The sablefish found in these wide geographical regions are apparently genetically related in the sense that some migrations have been noted to occur between the regions. However, the degree of interchange between regions is noted to be small in relation to the stock size within each region which led Low et al. (1976) and Weststad et al. (1977) to suggest that management of the resource be conducted by discrete geographical regions. These geographical regions are the eastern Bering Sea, the Aleutian Region, the Gulf of Alaska, waters off Canada, and waters off Washington to California.

Although the sablefish resource should be managed by regions, the long-term productivity in each region is probably related to the overall condition of the resource. Therefore, it is difficult to get an accurate estimation of the MSY within each region by using fishery information of that region alone. To reduce this problem, both Japanese and U.S. scientists have estimated MSY of the resource as a whole. The latest Japanese estimate of MSY for the entire resource from California to the Bering Sea was 69,000 mt (Anon. 1978). The U.S. estimate of MSY was 42,600 to 46,500 mt (Low et al. 1976), using essentially the same general production model, but with a different weighting of data among regions. The MSY estimate of 69,600 mt appears high in view of the fact that the highest catch in history was 65,500 mt (1972) and that average catches from 1968 to 1975 of 48,200 mt have resulted in continuing and rapid declines in CPUE (Table I.17); accordingly, the high end of the U.S. estimate of overall MSY is considered to be most appropriate -- 46,500 mt.

In order to apportion the overall MSY to individual management regions, the all-nation catch (Table I.17) was averaged over the obvious periods of full fishery development in each: 1961-75 for the Bering Sea/Aleutian Region; 1970-75 for the Northeastern Pacific Ocean (which

Table I.17.--Sablefish landings in metric tons by nation in the Bering Sea and Aleutians and the northeastern Pacific Ocean, 1958-76.

| Year | Northeastern Pacific Ocean |        |        |      |                     | Bering Sea & Aleutians |        |       | Grand total |          |
|------|----------------------------|--------|--------|------|---------------------|------------------------|--------|-------|-------------|----------|
|      | United States              | Canada | Japan  | USSR | Republic of Korea   | Subtotal               | Japan  | USSR  |             | Subtotal |
| 1958 | 2,586                      | 383    |        |      |                     | 2,969                  | 32     |       | 32          | 3,001    |
| 1959 | 3,989                      | 362    |        |      |                     | 4,351                  | 393    |       | 393         | 4,744    |
| 1960 | 5,136                      | 705    |        |      |                     | 5,841                  | 1,861  |       | 1,861       | 7,702    |
| 1961 | 3,040                      | 306    |        |      |                     | 3,346                  | 26,182 |       | 26,182      | 29,528   |
| 1962 | 4,017                      | 428    |        |      |                     | 4,445                  | 28,521 |       | 28,521      | 32,966   |
| 1963 | 2,932                      | 396    | 1,681  |      |                     | 5,009                  | 18,404 |       | 18,404      | 23,413   |
| 1964 | 3,659                      | 637    | 1,041  |      |                     | 5,337                  | 9,237  |       | 9,237       | 14,574   |
| 1965 | 3,304                      | 649    | 2,107  |      |                     | 6,060                  | 8,600  |       | 8,600       | 14,660   |
| 1966 | 3,142                      | 970    | 3,514  |      |                     | 7,626                  | 13,088 |       | 13,088      | 20,714   |
| 1967 | 3,208                      | 591    | 5,660  |      |                     | 9,459                  | 14,840 | 274   | 15,114      | 24,523   |
| 1968 | 2,027                      | 577    | 17,592 |      |                     | 20,196                 | 16,258 | 4,256 | 20,514      | 40,710   |
| 1969 | 2,762                      | 391    | 22,808 |      |                     | 25,961                 | 18,813 | 1,579 | 20,392      | 46,353   |
| 1970 | 2,935                      | 327    | 28,632 | 980  |                     | 32,874                 | 10,904 | 2,874 | 13,778      | 46,652   |
| 1971 | 2,887                      | 328    | 29,293 | 762  |                     | 33,270                 | 14,981 | 3,000 | 17,981      | 51,251   |
| 1972 | 5,636                      | 1,104  | 38,714 | 834  | 308                 | 46,596                 | 16,538 | 2,406 | 18,944      | 65,540   |
| 1973 | 5,710                      | 966    | 32,519 | 230  | 58                  | 39,483                 | 9,270  | 1,354 | 10,624      | 50,107   |
| 1974 | 6,998                      | 504    | 26,595 | 202  | 2,431               | 33,715                 | 7,587  | 91    | 7,678       | 41,393   |
| 1975 | 8,629                      | 927    | 26,370 | 113  | 6,000 <sup>1/</sup> | 38,621                 | 4,922  | 117   | 5,039       | 43,660   |
| 1976 |                            |        | 26,802 |      |                     |                        | 4,840  |       |             |          |

<sup>1/</sup> Includes some catch from the Bering Sea and Aleutian Regions.

Source: INPEC Docs. 1776, 1831, 1883, and pers. comm. T. Sasaki, Far Seas Fishery Research Lab., Shimizu, Japan.

KOK and USSR data for 1974 and 1975 from data submitted to the U.S. through bilateral agreements. U.S. and Canadian data from PFMC Data Series, Groundfish Section, and from Fishery Statistics of the U.S., Technical Digests 49-67.

actually encompasses the Gulf of Alaska, British Columbia, and Washington-California management regions). The resulting percentages of the total MSY and tonnages (percent x 46,500 mt) are: Northeastern Pacific Ocean - 71% and 33,000 mt; Bering Sea/Aleutian Region - 29% and 13,500 mt.

To further separate this regional MSY to the Bering Sea and Aleutian subareas, a similar calculation was made (using the period 1964-76, Table I.18). Resulting percentages and tonnages are: Bering Sea - 86% and 11,600 mt; Aleutian - 14% and 1,900 mt.

#### I.7.2 Equilibrium Yield

Catch and CPUE trends clearly indicate that sablefish stocks in the eastern Bering Sea/Aleutian Region are considerably reduced in abundance when compared to earlier years of the fishery. CPUE data analyzed by different procedures by U.S. and Japanese scientists both show declining trends in catch rates (Table I.19) but the trends in the U.S. analysis are much more severe.

The main difference in CPUE computation was the selection of appropriate fishing effort. Without detailed fishing operation data available to them, U.S. scientists attributed all longline fishing effort towards catching sablefish since that is the target species of the fishery. Japanese scientists selected only that portion of the time spent fishing by excluding time spent for travelling, loading, weathering storms, repairs, and other activities not considered to be associated with production fishing. Differences in resultant CPUE's can not yet be rectified but it is important to note that even though the sablefish catch in the Region during 1973-75 was only 43 percent of the average for the preceding five years (7,300 vs 18,300 mt), averages for eight of the nine CPUE indicators shown in Table I.19 were lower (some substantially so) during the latter period than during the former. Furthermore, all CPUE indicators continued downward during 1976-77. In other words, even though average annual catch has been reduced more than 50 percent since 1972, abundance (as reflected by CPUE) has continued to decline.

Table I.18.—Historical catches of sablefish in metric tons by area and nation, 1958-76.

| Year | Bering Sea          |                     |       | Aleutian Region     |                     |      |
|------|---------------------|---------------------|-------|---------------------|---------------------|------|
|      | Total               | Japan <sup>1/</sup> | USSR  | Total               | Japan <sup>1/</sup> | USSR |
| 1958 | 32                  | 32                  | --    | <u>2/</u>           | <u>2/</u>           | --   |
| 1959 | 393                 | 393                 | --    | <u>2/</u>           | <u>2/</u>           | --   |
| 1960 | 1,861               | 1,861               | --    | <u>2/</u>           | <u>2/</u>           | --   |
| 1961 | 26,182              | 26,182              | --    | <u>2/</u>           | <u>2/</u>           | --   |
| 1962 | 28,521              | 28,521              | --    | <u>2/</u>           | <u>2/</u>           | --   |
| 1963 | 18,404              | 18,404              | --    | <u>2/</u>           | <u>2/</u>           | --   |
| 1964 | 8,262               | 8,262               | --    | 975                 | 975                 | --   |
| 1965 | 8,240               | 8,240               | --    | 360                 | 360                 | --   |
| 1966 | 11,981              | 11,981              | --    | 1,107               | 1,107               | --   |
| 1967 | 13,731              | 13,457              | 274   | 1,383               | 1,383               | --   |
| 1968 | 18,853              | 14,597              | 4,256 | 1,661               | 1,661               | --   |
| 1969 | 18,588              | 17,009              | 1,579 | 1,804               | 1,804               | --   |
| 1970 | 12,501              | 9,627               | 2,874 | 1,277               | 1,277               | --   |
| 1971 | 15,240              | 12,410              | 2,830 | 2,741               | 2,571               | 170  |
| 1972 | 15,368              | 13,231              | 2,137 | 3,576               | 3,207               | 269  |
| 1973 | 7,615               | 6,395               | 1,220 | 3,009               | 2,875               | 134  |
| 1974 | 5,158               | 5,081               | 77    | 2,520               | 2,506               | 14   |
| 1975 | 3,422               | 3,384               | 38    | 1,617               | 1,538               | 79   |
| 1976 | 3,411 <sup>3/</sup> | 3,267               | 29    | 1,705 <sup>3/</sup> | 1,573               | 61   |

<sup>1/</sup> Japanese catch is reported by fishing year (November-October); all other catches are reported by calendar year.

<sup>2/</sup> Included in the Bering Sea catch totals.

<sup>3/</sup> Includes catches by ROK, 115 mt in Bering Sea and 71 mt in Aleutian.

Source: IMFPC Document 1883 and pers. comm., T. Sasaki, Far Seas Fishery Research Lab., Shimizu, Japan. USSR 1975 data from U.S.-USSR fishery statistic exchange.

Table I.19.—Sablefish catch per unit effort trends in the eastern Bering Sea and Aleutian Region.

|      | EASTERN BERING SEA |        |        |        | ALEUTIAN REGION |        |        |        |        |
|------|--------------------|--------|--------|--------|-----------------|--------|--------|--------|--------|
|      | CPUE 1             | CPUE 2 | CPUE 3 | CPUE 5 | CPUE 1          | CPUE 2 | CPUE 3 | CPUE 4 | CPUE 5 |
| 1964 | 61                 | 93     | 2.4    |        | 139             | 141    | 3.1    |        |        |
| 1965 | 54                 | 105    | 3.0    |        | 110             | 183    | 4.1    |        |        |
| 1966 | 139                | 166    | 4.5    |        | 229             | 233    | 6.3    |        |        |
| 1967 | 210                | 216    | 6.2    | 151    | 277             | 275    | 7.1    |        | 154    |
| 1968 | 143                | 140    | 5.1    | 134    | 165             | 161    | 5.9    |        | 259    |
| 1969 | 189                | 187    | 6.9    | 142    | 184             | 183    | 7.1    |        | 318    |
| 1970 | 231                | 241    | 8.7    | 50     | 189             | 241    | 9.4    |        | 112    |
| 1971 | 120                | 185    | 5.6    | 76     | 165             | 202    | 9.4    | 4.5    | 222    |
| 1972 | 50                 | 117    | 3.3    | 62     | 203             | 208    | 11.6   | 11.8   | 123    |
| 1973 | 47                 | 148    | 6.0    | 41     | 192             | 204    | 7.7    | 4.6    | 115    |
| 1974 | 141                | 164    | 7.4    | 24     | 187             | 208    | 7.8    | 4.4    | 44     |
| 1975 | 68                 | 131    | 4.9    | 13     | 98              | 168    | 6.0    | 1.8    | 30     |
| 1976 | 71                 | 147    | 5.6    | 6      | 78              | 114    | 4.5    |        | 7      |
| 1977 |                    |        | 5.4    |        |                 | 108    | 4.0    | 1.1    |        |

CPUE 1: U.S. estimate, kg per 10 hachi longline units

CPUE 2: Japanese estimate, kg per 10 hachi longline units

CPUE 3: Japanese estimate, mt per vessel-day fishing by longliners

CPUE 4: U.S. estimate, mt per vessel-day fishing by longliners

CPUE 5: U.S. estimate, kg per hour trawling by land-based stern trawlers

Data Sources: CPUE 1, CPUE 4, and CPUE 5 from Low (1977) -- U.S. document on sablefish submitted to INPFC

CPUE 2 and CPUE 3 from Anonymous (1978) -- Report of U.S.-Japan meeting on status of stocks

Clearly, an average catch of 7,800 mt cannot currently be sustained by the standing stock of sablefish in the Bering Sea/Aleutian Region.

Considering that the declines in CPUE trends appear to have been less severe in 1976 and 1977, catch levels during that period may be close to the current equilibrium yield. The average catch was about 5,000 mt, 3,500 mt in the Bering Sea Area and 1,500 mt in the Aleutian Area.

### I.7.3 Acceptable Biological Catch

Sable fishstocks in this Region have been overfished and are not now capable of producing MSY. Although the source of recruitment to these stocks is not known, neither eggs nor larvae of sablefish have been detected in the Region. It is possible, therefore, that recruitment comes from spawning in the Gulf of Alaska. If so, rebuilding of abundance will be a function of healthy spawning stocks in the Gulf rather than in the Bering Sea/Aleutian Region. Therefore, ABC is considered equivalent to EY-3,500 mt in the Bering Sea Area, 1,500 mt in the Aleutian Area.

## I.8 Atka Mackerel

### I.8.1 Maximum Sustainable Yield

The fishery for Atka mackerel is relatively new and is conducted primarily by the USSR. The main fishing area is the western Aleutian Islands, with small amounts taken in the eastern Bering Sea. The entire catch history of Soviet catches is as follows:

| Year   | 1970 | 1971 | 1972  | 1973  | 1974  | 1975   | 1976   | 1977   |
|--------|------|------|-------|-------|-------|--------|--------|--------|
| Catch: | 949  | --   | 5,907 | 1,712 | 1,377 | 13,326 | 13,126 | 20,975 |

From the fishery data, it is difficult to approximate MSY. The only source of information that would suggest an MSY level greater than the maximum catch to date of 21,000 mt in 1977 is that provided verbally by Soviet scientists: several large concentrations of Atka mackerel were noted in the Aleutian Region, and from hydroacoustic and trawl samples were estimated to total at least 100,000 mt. From this biomass figure, it was inferred that MSY would equal one-third of the standing stock, or

33,000 mt. Because neither the Soviet data nor the analytical procedures used to estimate biomass and sustainable yield have been made available to scientists of other countries, those estimates must be considered provisional.

#### I.8.2 Equilibrium Yield

Annual catches of this species have increased from less than 1,000 mt to over 21,000 mt since 1970. Catch rate information is available only for 1977 and 1978 (from U.S. observers aboard Soviet trawlers); catch per hour, for vessels on which Atka mackerel was the target species, averaged 3.9 and 4.1 mt, respectively. By itself, this information could be interpreted to indicate no substantial change in abundance from 1977 to 1978 when annual catches were in excess of 20,000 mt. Two factors, however, must be evaluated before this indication can be considered conclusive.

First, size and age data taken by U.S. observers aboard Soviet vessels in both 1977 and 1978 show the bulk of the catch to have been 2-3 year-olds, whereas Soviet research off Kamchatka indicates that this species lives to at least 11 years of age. The lack of older fish in this developing fishery is of concern.

Second, observations of Soviet commercial fisheries and U.S. trawl surveys indicate that Atka mackerel occur in rather large concentrations. The sparse catch per hour information available provides some insight into the density of such concentrations but does not necessarily reflect the size or number of concentrations and, therefore, might not necessarily be indicative of overall abundance.

In light of the above, it is neither possible to estimate EY nor to determine whether current EY is equal to or less than MSY.

#### I.8.3 Acceptable Biological Catch

In the PMP for 1977 and 1978, the allowable catch of this species was set at 24,800 mt, 75 percent of the unverified Soviet estimate of MSY of 33,000 mt. The information currently available provides no biological basis for changing the allowable catch in 1979; accordingly ABC is considered equivalent to the 1977-78 total allowable catch of 24,800 mt.

## I.9 Squid

### I.9.1 Maximum Sustainable Yield

Virtually nothing is known about the status of the squid resource except that the current catch of about 10,000 mt does not seem large for a resource that occupies a low trophic level in the food chain and is known to be very abundant throughout the world's oceans. Therefore, it is assumed that this resource is in very good condition and that MSY is at least 10,000 mt.

### I.9.2 Equilibrium Yield

Catches of 10,000 mt are believed to be sustainable.

### I.9.3 Acceptable Biological Catch

ABC is equivalent to the minimal estimate of MSY -- 10,000 mt.

## I.10 Pacific Halibut

### I.10.1 Maximum Sustainable Yield

Dunlop et al. (1964) estimated that MSY was about 3,000 mt (round weight) in the southeastern Bering Sea (IPHC Areas -A and 4B).

Historically, this area has been the most productive for the North American setline fishery, and the MSY for the entire eastern Bering Sea (east of 175°W) probably is no more than 5,000 mt. Estimates of MSY are not available for the western Bering Sea as the North American setline catch in this area has been minor (less than 300 mt). Relatively large catches of halibut (over 3,000 mt) in the western Bering Sea were reported by the Japanese setline fishery in the early 1960's. MSY has not been estimated for the Aleutian area; stocks are small relative to those in the Bering Sea and are considered to be a component of stocks in the Gulf of Alaska.

### I.10.2 Equilibrium Yield

Halibut stocks have declined sharply in the eastern Bering Sea since the early 1960's. This is indicated by a decline in CPUE in the North American setline fishery (IPHC 1977) and by IPHC surveys of juvenile halibut (Best 1977). Since 1970, stocks of adult halibut appear to have stabilized at a low level and the North American setline catch has averaged about 300 mt. The incidental catch of juvenile halibut in the

eastern Bering Sea peaked in 1971 at about 7,000 mt but has declined since then. Recent surveys indicate an increase in the abundance of juveniles, but abundance is still below that in the early 1960's and the increase will not benefit the setline fishery for several years. Therefore, the equilibrium yield available to the North American setline fishery probably is about the same as the present level of catch, and is well below MSY.

The EY in the western Bering Sea and Aleutians is unknown but probably substantially below MSY.

#### I.10.3 Acceptable Biological Catch

ABC and OY for Pacific halibut are not applicable to this Plan.

#### I.11 Other Included Species ("Others")

This category includes all species of finfishes taken by trawls and setlines except: pollock, rockfishes, soles and flounders, sablefish, cod, Atka mackerel, herring, and salmon.

Virtually nothing is known of the population structure, biological attributes, or potential yield of the individual components of this category; therefore, only a pragmatic appraisal of "MSY" is possible.

During the last 5 years of record, the catch of this category has averaged about 4 percent of the combined catch of the other, specified groundfish species. During that period, no indication of declining abundance has been noted; accordingly, it is assumed that the aggregation of stocks in the "Others" category can sustain removals equal to 4 percent of the total catch of the specified species as long as that catch remains less than the 1972 peak of 2,234,500 mt (see Annex IV-4).

Accordingly, "MSY" of this category is considered to be  $0.04 \times 2,234,500 = 89,400$  mt.

#### I.11.2 Equilibrium Yield

"MSY" is believed attainable.

#### I.11.3 Acceptable Biological Catch

ABC is considered equal to 4 percent of the combined ABC of specified species which, in 1979, will be:  $0.04 \times 1,388,000 = 55,500$  mt.

#### ANNEX I: LITERATURE CITED

- Alton, M. and R. Bakkala. 1976. Status of Alaska pollock in the eastern Bering Sea. (Doc. 1864 of the INPFC.)
- Alverson, D. L. and M. J. Carney. 1975. A graphic review of the growth and decay of population cohorts. J. Cons. Int. Explor. Mers., 36(2): 133-143.
- Alverson, D. L. and W. T. Pereyra. 1969. Demersal fish explorations in the northeastern Pacific Ocean--an evaluation of exploratory fishing methods and analytical approaches to stock size and yield forecasts. J. Fish. Res. Bd. Canada 26: 1985-2001.
- Anonymous. 1978. Report of the meeting between U.S. and Japanese scientists for the exchange of information on the condition of fishery stocks in the Bering Sea and northeastern Pacific. U.S. Dept. of Commerce, NOAA, NMFS, NWAFC, Seattle, WA (unpubl.)
- Best, E. A. 1977. Distribution and abundance of juvenile halibut in the northeastern Bering Sea. Int. Pacific Halibut Comm. Scient. Rept. No. 62. 23p.
- Chikuni, S. 1975. Biological study on the population of the Pacific ocean perch in the North Pacific. Bull. Far Seas Fish. Res. Lab. 12: 1-119.
- INPFC. 1977. Proceedings of the 24th (1977) annual meeting. Int. North Pac. Fish. Comm.
- IPHC. 1977. The Pacific Halibut Fishery: catch, effort, and CPUE, 1929-75. Int. Pacific Halibut Comm. Tech. Rept. No. 14. 95p.
- Ikega, I., H. Yamaguchi, T. Sasaki, and K. Wakabayashi. 1977. Condition of groundfish stocks in the Bering Sea and northeast Pacific Ocean. Fishery Agency of Japan. (Doc. submitted to INPFC).
- Laevastu, T. and F. Favorite. 1976. Dynamics of pollock and herring biomasses in the eastern Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle WA. (Processed Rept.) 50 p.
- Low, L. L. 1974. A study of four major groundfish fisheries of the Bering Sea. Ph.D. Dissertation. Univ. Wash., Seattle, WA.
- Low, L. L. 1976. Status of major demersal fishery resources of the northeastern Pacific: Bering Sea and Aleutian Islands. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle, WA. Processed Rept. 115 p.
- Low, L. L., S. A. Mizroch, and M. Alton. 1977. Status of Alaska pollock stocks in the eastern Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle WA., (Doc submitted to INPFC).

- Low, L. L., G. K. Tanonaka, and H. H. Shippen. 1976. Sablefish of the northeastern Pacific Ocean and Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle, WA. (Processed Rept.) 115 p.
- Pereyra W. T., J. E. Reeves, and R. G. Bakkala. 1976. Demersal fish and shellfish resources of the eastern Bering Sea in the baseline year 1975. U. S. Dept Commerce, NOAA, NMFS, NWAFC, Seattle, WA. (Processed Rept.) 618 p.
- Pella, J. J. and P. K. Tomlinson. 1969. A generalized stock production model. Inter. Amer. Inp. Tuna Comm. Bull. 13(3): 5-22.
- Pope, J. G. 1972. An investigation of the accuracy of virtual population analysis using cohort analysis. Int. Comm. Northwest Atl. Fish. Res. Bull. 9: 65-74.
- Rivard, D. and L. J. Bledsoe. 1977. Parameter estimation for the generalized stock production model under nonequilibrium conditions. Univ. Washington, Center for Quant. Science. (Accepted for publi. by Fishery Bulletin).
- Wakabayashi, K. 1976. Studies on resources of yellowfin sole in the eastern Bering Sea. Fishery Agency of Japan. (Submitted to INPFC).
- Wakabayashi, K. and R. G. Bakkala. 1977. Estimated catches of flounders by species in the Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle WA. (Doc. submitted to INPFC). 27 p.
- Wakabayashi, K., R. Bakkala, and L. Low. 1977. Status of the yellowfin sole resource in the eastern Bering Sea through 1976. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle, Wa. (Doc. submitted to INPFC) 45 p.
- Wespestad, V. and L. Ronholt. 1978. Atka mackerel resource in the northeastern Pacific Ocean and Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle, Wa. (Doc. to be submitted to INPFC).
- Wespestad, V., K. Thorson, and S. Mizroch. Movement of sablefish in the northeastern Pacific Ocean and the Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle, Wa. (Unpubl.).
- Wolotira, R. J. 1975. Status of Pacific ocean perch, Pacific cod, and several flatfish stocks in the Bering Sea. U. S. Dept. Commere, NOAA, NMFS, NWAFC, Seattle, WA. (Doc submitted to INPFC).

ANNEX II

Derivation of Expected Domestic Annual Processing Capacity and Intent (DAP)  
and Harvest

ANNEX II -- Derivation of Expected Domestic Annual Processing  
Capacity and Intent (DAP) and Harvest

The western Alaska Peninsula and the Aleutian Islands are two of the more expensive locations for business to be conducted in Alaska. It was not surprising to learn during the survey that most of the plant owners in the area either had no firm plans to commence groundfish operations, or were developing in-house experience and expertise at other locations on the coast where costs are considerably less.

Perhaps even more surprising was the magnitude of the amount of product anticipated by the three processors who indicated that they planned to process groundfish. Their combined 1/ estimate of expected domestic annual harvest of Bering Sea/Aleutian groundfish is as follows:

|                 |                               |
|-----------------|-------------------------------|
| Pollock         | 10,000 mt                     |
| Pacific cod     | 7,000 mt                      |
| Rockfishes      | 1,100 mt (eastern Bering Sea) |
|                 | 1,100 mt (Aleutian)           |
| Yellowfin sole  | 1,000 mt                      |
| Turbots         | 1,000 mt                      |
| Other flounders | 1,000 mt                      |
| Sablefish       | 500 mt (eastern Bering Sea)   |
|                 | 500 mt (Aleutian)             |
| Others          | 1,400 mt                      |
| Total           | 24,600 mt                     |

There are no plans, at present for "Joint Venture" agreements.

1/ Individual company projections are not given here because of the proprietary nature of that data.

ANNEX III -- Derivation of Total Allowable Level of Foreign Fishing

(TALFF) (metric tons)

| Reference:<br>Species group | sub-area <u>1/</u> | Annex I<br>ABC<br>=OY | Section<br>13.1<br>Reserve | Annex II<br>Initial<br>DAH <u>3/</u> | Initial<br>TALFF |
|-----------------------------|--------------------|-----------------------|----------------------------|--------------------------------------|------------------|
| Pollock                     | BSea               | 1,000,000             | 50,000                     | 10,000                               | 940,000          |
| Pollock                     | Aleutian           | 100,000               | -                          | -                                    | 100,000          |
| Yellowfin sole              |                    | 117,000               | 5,850                      | 1,000                                | 110,150          |
| Turbots                     |                    | 90,000                | 4,500                      | 1,000                                | 84,500           |
| Other flatfishes <u>2/</u>  |                    | 61,000                | 3,050                      | 1,000                                | 56,950           |
| Pacific cod                 |                    | 58,700                | 2,935                      | 7,000                                | 48,765           |
| Pacific ocean perch         | BSea               | 3,250                 | 162                        | 550                                  | 2,538            |
| Pacific ocean perch         | Aleutian           | 7,500                 | 375                        | 550                                  | 6,575            |
| Other rockfish              |                    | 7,727                 | 500                        | 1,100                                | 6,127            |
| Sablefish                   | BSea               | 3,500                 | 350                        | 500                                  | 2,650            |
| Sablefish                   | Aleutian           | 1,500                 | 150                        | 500                                  | 850              |
| Atka mackerel               |                    | 24,800                | 1,240                      | 0                                    | 23,560           |
| Squid                       |                    | 10,000                | 500                        | 0                                    | 9,500            |
| Others                      |                    | <u>55,500</u>         | <u>2,775</u>               | <u>1,400</u>                         | <u>51,325</u>    |
| <u>Total</u>                |                    | 1,540,477             | 72,327                     | 24,600                               | 1,443,490        |

\* 1/ BS = Bering Sea (Statistical Areas I, II, III combined)

AI = Aleutian Island Area (Statistical Area IV)

2/ Excluding Pacific halibut

3/ Equals DAP, see Annex II

\* Includes territorial waters

ANNEX IV

- A. All-nation catch in the Bering Sea/Aleutian Regon, by major species groups, for the last 10 years of record.
- B. Detailed statistics of the foregn fisheries in the Aleutian area, 1962-77.
- C. Detailed statistics of the foreign fisheries in the eastern Bering Sea, 1954-77.

Annex IV-A. All-nation catches in the Bering Sea/Aleutian Region, by major species groups, for the last 10 years of record (1000's mt)<sup>1/</sup>.

| Species/            | 1968    | 1969    | 1970    | 1971    | 1972    | 1973    | 1974    | 1975    | 1976    | 1977    | 1978 <sup>2/</sup> |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------------|
| Pollock             | 702     | 863     | 1,257   | 1,744   | 1,875   | 1,759   | 1,588   | 1,357   | 1,238   | 888.2   | 921.3              |
| Pacific cod         | 63.7    | 53.3    | 74.6    | 50.5    | 47.0    | 58.6    | 67.0    | 55.1    | 57.8    | 36.5    | 37.3               |
| Pacific ocean perch | 76.4    | 53.3    | 76.8    | 31.6    | 38.9    | 15.5    | 36.5    | 25.2    | 32.6    | 10.8    | 7.4                |
| Sablefish           | 20.5    | 20.4    | 13.8    | 18.0    | 19.0    | 10.6    | 7.7     | 5.0     | 8.2     | 4.6     | 1.6                |
| Halibut             | 7.1     | 6.3     | 7.7     | 8.6     | 5.9     | 4.3     | 2.2     | 1.6     | 1.2     | 0.6     | 4/                 |
| Flounders           | 149.9   | 236.2   | 234.9   | 323.4   | 237.7   | 207.1   | 196.3   | 200.4   | 187.2   | 121.9   | 208.3              |
| Atka mackerel       | 3/      | 3/      | 1.0     | 3/      | 4.7     | 1.7     | 1.4     | 13.3    | 20.7    | 21.0    | 22.4               |
| Others              | 31.5    | 14.4    | 25.9    | 41.5    | 134.7   | 62.3    | 79.9    | 61.9    | 45.6    | 57.3    | 73.9               |
| All species         | 1,051.1 | 1,247.1 | 1,691.7 | 2,216.6 | 2,362.9 | 2,119.1 | 1,979.0 | 1,719.5 | 1,591.3 | 1,140.9 | 1,272.2            |

<sup>1/</sup> Values in this table may differ slightly from those used elsewhere in this document because of differences in apportioning between species not clearly listed in foreign statistical reports or differences in treating estimates based on U.S. surveillance when catches were not reported.

<sup>2/</sup> Preliminary.

<sup>3/</sup> Catch, if any, included under "Others".

<sup>4/</sup> Unknown at this time

Annex IV-B  
 -Japanese catches of groundfish in the Alaskan inland region (1904 to 1976) by calendar year, 1942-76, 1/2 (mt)

| Region                                 | Section | 1942 | 1943   | 1944   | 1945    | 1946   | 1947   | 1948   | 1949   | 1950   | 1951   | 1952   | 1953   | 1954   | 1955   | 1956 1/2 | 1957 |
|--|---------|------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|------|
| Pollock                                | Japan   | 4    | 1,339  | 343    | 643     | 1,102  | 1,339  | 2,440  | 912    | 178    | 426    | 371    | 848    | 1,310  | 1,510  | 591      |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | 720    | 9,490  | 2,735  | 846    | 9,528  | 21,364 | 3,673  | 3,673    |      |
|  | TOTAL   | 4    | 1,339  | 343    | 643     | 1,102  | 1,339  | 2,440  | 1,632  | 10,402 | 3,161  | 1,217  | 10,374 | 22,674 | 5,183  | 7,264    |      |
| Pacific cod                            | Japan   | 26   | 401    | 241    | 431     | 134    | 274    | 289    | 280    | 283    | 423    | 433    | 366    | 1,334  | 2,381  | 3,675    |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | 1,453  | —      | 611    | 43     | 237    | 312      |      |
|  | TOTAL   | 26   | 401    | 241    | 431     | 134    | 274    | 289    | 280    | 283    | 1,876  | 433    | 366    | 1,334  | 2,618  | 3,987    |      |
| Pacific ocean perch and other rockfish | Japan   | 214  | 7,436  | 29,377 | 38,204  | 28,733 | 10,785 | 23,889 | 13,441 | 14,173 | 14,809 | 8,790  | 9,793  | 22,317 | 9,338  | 9,808    |      |
|  | USSR    | —    | 20,000 | 61,000 | 71,000  | 57,700 | 43,720 | 26,384 | 23,172 | 33,274 | 7,190  | 24,393 | 3,017  | 824    | 8,167  | 4,931    |      |
|  | TOTAL   | 214  | 27,436 | 90,377 | 109,204 | 86,433 | 54,505 | 50,273 | 36,613 | 47,443 | 22,000 | 33,183 | 12,807 | 23,141 | 17,505 | 14,739   |      |
| Blackcod                               | Japan   | —    | 639    | 1,496  | 1,224   | 1,321  | 1,408  | 1,676  | 1,667  | 1,244  | 2,700  | 3,308  | 2,490  | 2,431  | 1,834  | 1,424    |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | 170    | 269    | 182    | 14     | 79     | 61       |      |
|  | TOTAL   | —    | 639    | 1,496  | 1,224   | 1,321  | 1,408  | 1,676  | 1,667  | 1,244  | 2,870  | 3,577  | 2,672  | 2,445  | 1,913  | 1,485    |      |
| Achoo walleye                          | Japan   | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
| Yellowfin sole                         | Japan   | —    | 2      | 91     | 92      | 98     | 18     | 6      | 20     | 9      | 1      | —      | —      | —      | —      | —        |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | —    | 2      | 91     | 92      | 98     | 18     | 6      | 20     | 9      | 1      | —      | —      | —      | —      | —        |      |
| Beak sole                              | Japan   | —    | 27     | 132    | 147     | 82     | 25     | 17     | 2      | 2      | 1      | 5      | 2      | 2      | 3      | 21       |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | —    | 27     | 132    | 147     | 82     | 25     | 17     | 2      | 2      | 1      | 5      | 2      | 2      | 3      | 21       |      |
| Flathead sole                          | Japan   | —    | 14     | 43     | 128     | 33     | 32     | 186    | 2      | 11     | 16     | 4      | 24     | 41     | 1      | 8        |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | —    | 14     | 43     | 128     | 33     | 32     | 186    | 2      | 11     | 16     | 4      | 24     | 41     | 1      | 8        |      |
| Alaska plaice                          | Japan   | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
| Hollibut                               | Japan   | 1    | 67     | 641    | 1,268   | 163    | 213    | 333    | 331    | 350    | 287    | 337    | 243    | 383    | 145    | 15       |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | 1    | 67     | 641    | 1,268   | 163    | 213    | 333    | 331    | 350    | 287    | 337    | 243    | 383    | 145    | 15       |      |
| Arrowtooth flounder                    | Japan   | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
| Greenland turbot                       | Japan   | —    | 7      | 504    | 300     | 63     | 36     | 213    | 228    | 285    | 1,730  | 12,874 | 8,664  | 8,788  | 2,970  | 1,113    |      |
|  | USSR    | —    | —      | —      | —       | —      | —      | —      | —      | —      | —      | —      | —      | —      | —      | —        |      |
|  | TOTAL   | —    | 7      | 504    | 300     | 63     | 36     | 213    | 228    | 285    | 1,730  | 12,874 | 8,664  | 8,788  | 2,970  | 1,113    |      |
| Other groundfish                       | Japan   | —    | 513    | 66     | 768     | 131    | 343    | 318    | 2,381  | 1,181  | 2,333  | 3,028  | 2,630  | 7,998  | 9,110  | 3,430    |      |
|  | USSR    | —    | —      | —      | —       | —      | 7,979  | 8,630  | 727    | 9,490  | 220    | 19,419 | 1,614  | 1,726  | 178    | 326      |      |
|  | TOTAL   | —    | 513    | 66     | 768     | 131    | 4,322  | 8,948  | 3,108  | 10,671 | 2,373  | 22,447 | 4,244  | 9,724  | 9,288  | 6,197    |      |
| All groundfish total                   | Japan   | 247  | 10,863 | 33,206 | 43,284  | 31,872 | 14,773 | 29,607 | 20,384 | 17,992 | 24,047 | 30,494 | 29,149 | 47,841 | 27,245 | 22,119   |      |
|  | USSR    | —    | 20,000 | 61,000 | 71,000  | 57,700 | 53,699 | 35,214 | 25,625 | 72,254 | 11,764 | 49,663 | 14,440 | 23,336 | 33,004 | 32,914   |      |
|  | TOTAL   | 247  | 30,863 | 94,206 | 114,284 | 89,572 | 68,472 | 64,821 | 55,609 | 92,609 | 35,811 | 79,158 | 43,589 | 71,177 | 60,249 | 55,033   |      |

24: NO. 845 94,206 114,284 89,572 68,472 55,609 92,609 35,811 79,158 43,589 71,177 60,249 55,033

U Catch statistics up to 1941 from report of A. I. 1974 and for 1944-76 from data on file, Northwest and Alaska Fisheries Centers, with the following exceptions: Pacific ocean perch and other rockfish - USSR catches for 1943-56 (from Ohtani 1973); all flounders except hollibut - all national catches, 1963-73 from Maehara and Sabelko 1977.

Z O indicates no fishing - indicates fishing, but no catch reported.

Y Japanese catches for November and December 1976 not included; 1976 catches of flounders (except hollibut) by USSR and NRK prepared to order based on specific commission in Japanese catch.

## ANNEX IV B (Cont'd)

Foreign catches of groundfish in the Aleutian Island region (170°W to 170°E) by calendar year, 1976-77. <sup>1/</sup> 2/

| <u>Species</u>                         | <u>Nation</u> | <u>1976</u>   | <u>1977<sup>3/</sup></u> |
|--|---------------|---------------|--------------------------|
| Pollock                                | Japan         | 1,015         | 5,870                    |
|  | USSR          | 3,673         | 1,619                    |
|  | ROK           | 344           | 325                      |
|  | ROC           | 0             | 15                       |
|  | Total         | <u>5,032</u>  | <u>7,829</u>             |
| Pacific cod                            | Japan         | 3,862         | 3,162                    |
|  | USSR          | 312           | 100                      |
|  | ROK           | 16            | -                        |
|  | ROC           | 0             | -                        |
|  | Total         | <u>4,190</u>  | <u>3,262</u>             |
| Pacific ocean perch and other rockfish | Japan         | 11,204        | 12,708                   |
|  | USSR          | 6,951         | 786                      |
|  | ROK           | 33            | 87                       |
|  | ROC           | 0             | 2                        |
|  | Total         | <u>18,188</u> | <u>13,583</u>            |
| Blackcod                               | Japan         | 1,569         | 1,768                    |
|  | USSR          | 61            | -                        |
|  | ROK           | 71            | 86                       |
|  | ROC           | 0             | -                        |
|  | Total         | <u>1,701</u>  | <u>1,854</u>             |
| Atka mackerel                          | Japan         | 5             | 585                      |
|  | USSR          | 20,092        | 20,971                   |
|  | ROK           | -             | -                        |
|  | ROC           | 0             | -                        |
|  | Total         | <u>20,097</u> | <u>21,556</u>            |
| Yellowfin sole                         | Japan         | 14            | 100                      |
|  | USSR          | 110           | -                        |
|  | ROK           | -             | -                        |
|  | ROC           | 0             | -                        |
|  | Total         | <u>124</u>    | <u>100</u>               |
| Rock sole                              | Japan         | 23            | 75                       |
|  | USSR          | 71            | 3                        |
|  | ROK           | -             | -                        |
|  | ROC           | 0             | -                        |
|  | Total         | <u>94</u>     | <u>78</u>                |

## ANNEX IV B (Cont'd)

|                         |        |              |               |
|-------------------------|--------|--------------|---------------|
| Flathead sole           | Japan  | 7            | 37            |
|                         | USSR   | 55           | 1             |
|                         | ROK    | -            | -             |
|                         | ROC    | 0            | -             |
|                         | Total  | <u>62</u>    | <u>38</u>     |
| Alaska plaice           | Japan  | -            | -             |
|                         | USSR   | -            | -             |
|                         | ROK    | -            | -             |
|                         | ROC    | 0            | -             |
|                         | Total  | <u>-</u>     | <u>-</u>      |
| Pacific halibut         | Japan  | 15           | 1             |
|                         | USSR   | 2            | -             |
|                         | ROK    | -            | -             |
|                         | ROC    | 0            | -             |
|                         | Total  | <u>17</u>    | <u>1</u>      |
| Arrowtooth<br>flounder  | Japan  | 1,375        | 2,297         |
|                         | USSR   | -            | 9             |
|                         | ROK    | 5            | -             |
|                         | ROC    | 0            | 1             |
|                         | Total  | <u>1,380</u> | <u>2,307</u>  |
| Greenland turbot        | Japan  | 1,953        | 2,981         |
|                         | USSR   | 112          | 57            |
|                         | ROK    | 6            | -             |
|                         | ROC    | 0            | 3             |
|                         | Total  | <u>2,071</u> | <u>3,041</u>  |
| Other groundfish        | Japan  | 5,410        | 10,723        |
|                         | USSR   | 326          | 4,661         |
|                         | ROK    | 241          | -             |
|                         | ROC    | 0            | -             |
|                         | Total  | <u>5,977</u> | <u>15,384</u> |
| All groundfish<br>total | Japan  | 26,452       | 40,307        |
|                         | USSR   | 31,765       | 28,207        |
|                         | ROK    | 716          | 498           |
|                         | ROC    | <u>0</u>     | <u>21</u>     |
| All nation total        | 58,933 | 69,033       |               |

Annex IV-C — Foreign catches of groundfish in the eastern Bering Sea (east of 180°)  
by calendar year, 1954-76 1/2 (mt)

| Species   | Nation | 1954   | 1955   | 1956   | 1957   | 1958   | 1959    | 1960    | 1961    | 1962    | 1963    | 1964    | 1965    |
|---|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| Pollock   | Japan  | ---    | ---    | ---    | ---    | 6,924  | 32,793  | 26,097  | 24,216  | 58,765  | 103,353 | 171,957 | 229,275 |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | 6,924  | 32,793  | 26,097  | 24,216  | 58,765  | 103,353 | 171,957 | 229,275 |
| Pacific cod   | Japan  | ---    | ---    | ---    | ---    | 171    | 2,864   | 5,679   | 2,448   | 6,054   | 3,879   | 13,408  | 14,722  |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | 171    | 2,864   | 5,679   | 2,448   | 6,054   | 3,879   | 13,408  | 14,722  |
| Pac. ocean perch and other rockfish   | Japan  | ---    | ---    | ---    | ---    | ---    | ---     | 1,100   | 13,000  | 12,900  | 17,500  | 13,588  | 8,723   |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | 5,000   | 34,000  | 7,000   | 7,000   | 7,000   | 9,000   |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | ---    | ---     | 6,100   | 47,000  | 19,900  | 24,500  | 20,588  | 17,723  |
| Blackcod  | Japan  | ---    | ---    | ---    | ---    | 32     | 393     | 1,861   | 26,183  | 28,521  | 18,404  | 6,165   | 5,001   |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | 32     | 393     | 1,861   | 26,183  | 28,521  | 18,404  | 6,165   | 5,001   |
| Yellowfin sole  | Japan  | 12,562 | 14,690 | 24,697 | 24,145 | 39,153 | 123,121 | 360,103 | 399,542 | 281,103 | 20,504  | 48,880  | 26,039  |
|   | USSR   | 0      | 0      | 0      | 0      | 5,000  | 62,200  | 96,000  | 154,200 | 139,600 | 65,306  | 62,297  | 27,771  |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | 12,562 | 14,690 | 24,697 | 24,145 | 44,153 | 185,321 | 456,103 | 553,742 | 420,703 | 85,810  | 111,177 | 53,810  |
| Rock sole   | Japan  | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | 1,196   | 1,432   | 1,780   |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | 3,806   | 1,806   | 1,890   |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | 5,002   | 3,238   | 3,678   |
| Flathead sole   | Japan  | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | 7,079   | 11,121  | 3,287   |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | 22,546  | 14,167  | 3,426   |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | 29,625  | 25,288  | 6,713   |
| Alaska plaice   | Japan  | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | 233     | 808     | 474     |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | 742     | 1,030   | 505     |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | 975     | 1,838   | 979     |
| Pacific halibut   | Japan  | ---    | ---    | ---    | ---    | 196    | 674     | 6,931   | 3,480   | 7,865   | 7,452   | 1,271   | 1,369   |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | 196    | 674     | 6,931   | 3,480   | 7,865   | 7,452   | 1,271   | 1,369   |
| Arrowtooth flounder   | Japan  | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
|   | USSR   | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
|   | ROK    | ---    | ---    | ---    | ---    | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
| ---Catches of arrowtooth flounder and Greenland turbot combined until 1970--- |        |        |        |        |        |        |         |         |         |         |         |         |         |
| Greenland turbot  | Japan  | ---    | ---    | ---    | ---    | ---    | ---     | 36,843  | 57,348  | 58,226  | 31,565  | 33,729  | 7,947   |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | ---     | ---     | 1,800   |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | ---    | ---     | 36,843  | 57,348  | 58,226  | 31,565  | 33,729  | 9,747   |
| Other groundfish  | Japan  | ---    | ---    | ---    | ---    | 147    | 380     | 10,260  | 554     | 5,931   | 1,102   | 736     | 2,218   |
|   | USSR   | 0      | 0      | 0      | 0      | ---    | ---     | ---     | ---     | ---     | ---     | ---     | ---     |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
|   | TOTAL  | ---    | ---    | ---    | ---    | 147    | 380     | 10,260  | 554     | 5,931   | 1,102   | 736     | 2,218   |
| All groundfish total  | Japan  | 12,562 | 14,690 | 24,697 | 24,145 | 46,623 | 160,225 | 448,874 | 526,771 | 459,365 | 212,267 | 303,095 | 300,835 |
|   | USSR   | 0      | 0      | 0      | 0      | 5,000  | 62,200  | 101,000 | 188,200 | 146,600 | 99,400  | 86,300  | 44,400  |
|   | ROK    | 0      | 0      | 0      | 0      | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| All nation total  |        | 12,562 | 14,690 | 24,697 | 24,145 | 51,623 | 222,425 | 549,874 | 714,971 | 605,965 | 311,667 | 389,395 | 345,235 |

## Annex IV-C (cont'd)

| Species                             | Nation | 1966    | 1967    | 1968    | 1969      | 1970      | 1971      | 1972      | 1973      | 1974      | 1975      | 1976 <sup>1/</sup> | 1977 <sup>2/</sup> |
|-------------------------------------|--------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------|--------------------|
| Falloch                             | Japan  | 261,694 | 330,132 | 701,124 | 830,323   | 1,231,347 | 1,314,030 | 1,616,532 | 1,471,109 | 1,250,654 | 1,063,070 | 912,728            |                    |
|                                     | USSR   | —       | —       | —       | 33,571    | 35,590    | 233,511   | 213,895   | 200,005   | 309,613   | 216,567   | 175,539            |                    |
|                                     | ROK    | 0       | 0       | 1,200   | 5,000     | 5,000     | 10,000    | 9,000     | 1,100     | 74,000    | 1,438     | 44,982             |                    |
|                                     | TOTAL  | 261,694 | 330,132 | 702,324 | 868,894   | 1,271,937 | 1,737,541 | 1,839,627 | 1,734,294 | 1,566,267 | 1,285,083 | 1,173,254          |                    |
| Pacific cod                         | Japan  | 18,200  | 31,982  | 57,915  | 50,487    | 70,076    | 40,555    | 25,877    | 40,817    | 45,915    | 33,322    | 29,086             |                    |
|                                     | USSR   | —       | —       | —       | —         | —         | 2,486     | 7,028     | 12,569    | 16,547    | 18,229    | 17,756             |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 716                |                    |
|                                     | TOTAL  | 18,200  | 31,982  | 57,915  | 50,487    | 70,076    | 43,041    | 43,095    | 53,386    | 62,462    | 51,551    | 47,558             |                    |
| Pac. ocean perch and other rockfish | Japan  | 16,786  | 20,598  | 26,214  | 16,150    | 10,392    | 10,369    | 5,837     | 3,147     | 6,811     | 3,716     | 3,163              |                    |
|                                     | USSR   | 9,000   | —       | 3,087   | —         | —         | —         | 150       | 475       | 31,877    | 16,465    | 12,124             |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 173                |                    |
|                                     | TOTAL  | 25,786  | 20,598  | 29,301  | 16,150    | 10,392    | 10,369    | 5,987     | 3,622     | 38,688    | 20,181    | 15,465             |                    |
| Blackcod                            | Japan  | 9,502   | 10,330  | 10,163  | 14,454    | 8,897     | 12,304    | 10,643    | 4,769     | 4,189     | 2,776     | 2,569              |                    |
|                                     | USSR   | —       | 1,237   | 4,256   | 1,379     | 2,874     | 2,830     | 2,137     | 1,192     | 77        | 38        | 29                 |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 114                |                    |
|                                     | TOTAL  | 9,502   | 11,567  | 14,399  | 15,833    | 11,771    | 15,134    | 12,780    | 5,961     | 4,266     | 2,814     | 2,713              |                    |
| Yellowfin sole                      | Japan  | 45,423  | 60,429  | 40,834  | 81,449    | 59,851    | 82,179    | 34,846    | 75,724    | 37,947    | 59,715    | 33,328             |                    |
|                                     | USSR   | 56,930  | 101,799 | 43,355  | 85,685    | 73,228    | 78,220    | 13,010    | 2,516     | 4,288     | 6,060     | 3,343              |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 535                |                    |
|                                     | TOTAL  | 102,353 | 162,228 | 84,189  | 167,134   | 133,079   | 160,399   | 47,856    | 78,240    | 42,235    | 65,775    | 37,306             |                    |
| Rock sole                           | Japan  | 4,037   | 1,590   | 2,633   | 4,283     | 9,616     | 7,159     | 43,055    | 22,840    | 17,311    | 9,682     | 7,828              |                    |
|                                     | USSR   | 5,067   | 2,872   | 2,617   | 4,955     | 10,507    | 20,260    | 17,769    | 995       | 2,644     | 1,463     | 785                |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 150                |                    |
|                                     | TOTAL  | 9,104   | 4,462   | 5,250   | 9,240     | 20,123    | 40,419    | 60,824    | 23,835    | 19,975    | 11,145    | 8,763              |                    |
| Flathead sole                       | Japan  | 4,994   | 10,621  | 11,851  | 9,168     | 20,088    | 25,538    | 9,850     | 17,190    | 12,989    | 4,873     | 6,911              |                    |
|                                     | USSR   | 6,024   | 12,816  | 9,724   | 9,395     | 21,064    | 25,486    | 5,840     | 951       | 2,028     | 672       | 692                |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 132                |                    |
|                                     | TOTAL  | 11,020  | 23,437  | 21,575  | 18,563    | 41,152    | 51,024    | 15,690    | 18,141    | 14,917    | 5,545     | 7,735              |                    |
| Alaska plaice                       | Japan  | 2,054   | 1,340   | 1,223   | 3,127     | 1,326     | 517       | 171       | 1,082     | 2,168     | 2,407     | 2,084              |                    |
|                                     | USSR   | 2,579   | 2,513   | 1,396   | 3,813     | 2,076     | 475       | 119       | 35        | 220       | 207       | 207                |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 40                 |                    |
|                                     | TOTAL  | 4,633   | 3,853   | 2,619   | 6,942     | 3,402     | 992       | 290       | 1,117     | 2,388     | 2,614     | 2,311              |                    |
| Pacific halibut                     | Japan  | 2,199   | 3,756   | 2,775   | 2,764     | 1,735     | 4,861     | 955       | 644       | 81        | 137       | 87                 |                    |
|                                     | USSR   | —       | —       | —       | —         | —         | —         | 490       | 296       | 123       | 137       | 58                 |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | —                  |                    |
|                                     | TOTAL  | 2,199   | 3,756   | 2,775   | 2,764     | 1,735     | 4,861     | 1,445     | 940       | 204       | 274       | 145                |                    |
| Arrowtooth flounder                 | Japan  | —       | —       | —       | —         | 9,354     | 11,603    | 3,823     | 4,929     | 2,823     | 1,241     | 1,652              |                    |
|                                     | USSR   | —       | —       | —       | —         | 3,244     | 7,189     | 9,301     | 4,288     | 18,650    | 19,591    | 16,132             |                    |
|                                     | ROK    | —       | —       | —       | —         | —         | —         | —         | —         | —         | —         | 32                 |                    |
|                                     | TOTAL  | —       | —       | —       | —         | 12,598    | 18,792    | 13,124    | 9,217     | 21,473    | 20,832    | 17,816             |                    |
| Greenland turbot                    | Japan  | 10,842  | 21,230  | 19,980  | 19,231    | 14,715    | 30,193    | 49,813    | 43,354    | 58,834    | 52,625    | 17,583             |                    |
|                                     | USSR   | 2,200   | 2,639   | 15,252  | 16,798    | 4,976     | 10,271    | 14,697    | 11,926    | 10,320    | 12,194    | 8,847              |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 133                |                    |
|                                     | TOTAL  | 13,042  | 23,869  | 35,232  | 36,029    | 19,691    | 40,464    | 64,510    | 55,280    | 69,654    | 64,819    | 26,785             |                    |
| Other groundfish                    | Japan  | 2,239   | 4,378   | 2,984   | 4,182     | 9,227     | 29,617    | 32,370    | 39,911    | 47,491    | 42,531    | 44,504             |                    |
|                                     | USSR   | —       | —       | 19,074  | 6,277     | 6,066     | 3,879     | 78,523    | 15,915    | 12,770    | 12,314    | 12,294             |                    |
|                                     | ROK    | 0       | 0       | —       | —         | —         | —         | —         | —         | —         | —         | 152                |                    |
|                                     | TOTAL  | 2,239   | 4,378   | 22,058  | 10,459    | 15,293    | 33,496    | 110,893   | 55,826    | 60,261    | 54,845    | 57,120             |                    |
| All groundfish total                | Japan  | 377,972 | 718,706 | 877,676 | 1,035,822 | 1,444,626 | 1,781,925 | 1,843,772 | 1,725,596 | 1,487,113 | 1,278,103 | 1,061,503          |                    |
|                                     | USSR   | 81,800  | 123,876 | 98,761  | 162,075   | 159,627   | 384,607   | 362,919   | 331,163   | 409,677   | 303,937   | 247,826            |                    |
|                                     | ROK    | 0       | 0       | 1,200   | 5,000     | 5,000     | 10,000    | 9,200     | 3,100     | 28,000    | 3,438     | 88,042             |                    |
|                                     | TOTAL  | 459,772 | 842,582 | 977,637 | 1,202,897 | 1,611,253 | 2,176,532 | 2,215,731 | 2,059,859 | 1,922,790 | 1,585,478 | 1,397,371          |                    |

<sup>1/</sup> Catch statistics up to 1963 from Forrester et al., 1974, and for 1964-76 from data on file, Northwest and Alaska Fisheries Center, Seattle, with the following exceptions: Pacific ocean perch and other rockfish—Japanese catches 1960-63 and USSR catches 1960-66 from Chikuni 1975; blackcod—Japanese catches 1958-63 from Sasaki 1976; and all flounders except halibut—all nation catches, 1954-75 from Watabayashi and Sakabe 1977.

<sup>2/</sup> 0 means no fishing, — means fishing, but no reported catch.

<sup>3/</sup> Japanese catches for November and December 1976 not included; USSR and ROK catches of flounders (except halibut) presumed to arrive based on species composition of Japanese catches.

## ANNEX IV C (cont'd)

Foreign catches of groundfish in the eastern Bering Sea (east of 180°)  
by calendar year, 1976-77.<sup>1/ 2/</sup>

| <u>Species</u>                               | <u>Nation</u> | <u>1976</u> | <u>1977<sup>3/</sup></u> |
|--|---------------|-------------|--------------------------|
| Pollock                                      | Japan         | 986,696     | 774,450                  |
|  | USSR          | 175,539     | 63,383                   |
|  | ROK           | 84,987      | 39,895                   |
|  | ROC           | 0           | 1,334                    |
|  | Total         | 1,247,222   | 879,062                  |
| Pacific cod                                  | Japan         | 32,009      | 33,141                   |
|  | USSR          | 17,756      | 178                      |
|  | ROK           | 716         | -                        |
|  | ROC           | 0           | 2                        |
|  | Total         | 50,481      | 33,321                   |
| Pacific ocean<br>perch and other<br>rockfish | Japan         | 3,300       | 7,761                    |
|  | USSR          | 12,124      | 90                       |
|  | ROK           | 578         | 478                      |
|  | ROC           | 0           | -                        |
|  | Total         | 16,002      | 8,329                    |
| Blackcod                                     | Japan         | 2,815       | 2,801                    |
|  | USSR          | 29          | -                        |
|  | ROK           | 115         | 9                        |
|  | ROC           | 0           | 53                       |
|  | Total         | 2,959       | 2,863                    |
| Yellowfin sole                               | Japan         | 52,673      | 58,139                   |
|  | USSR          | 2,908       | 284                      |
|  | ROK           | 655         | -                        |
|  | ROC           | 0           | 55                       |
|  | Total         | 56,236      | 58,478                   |
| Rock sole                                    | Japan         | 8,598       | 4,906                    |
|  | USSR          | 1,328       | 805                      |
|  | ROK           | 107         | -                        |
|  | ROC           | 0           | 5                        |
|  | Total         | 10,033      | 5,716                    |
| Flathead sole                                | Japan         | 7,379       | 7,025                    |
|  | USSR          | 795         | 1,069                    |
|  | ROK           | 90          | -                        |
|  | ROC           | 0           | 6                        |
|  | Total         | 8,264       | 8,100                    |
| Alaska plaice                                | Japan         | 3,519       | 3,118                    |
|  | USSR          | 102         | 516                      |
|  | ROK           | 44          | -                        |
|  | ROC           | 0           | 3                        |
|  | Total         | 3,665       | 3,637                    |

ANNEX IV C (Cont'd)

|                         |       |           |              |
|-------------------------|-------|-----------|--------------|
| Pacific halibut         | Japan | 88        | -            |
|                         | USSR  | 58        | -            |
|                         | ROK   | -         | -            |
|                         | ROC   | <u>0</u>  | <u>2</u>     |
|                         | Total | 146       | 2            |
| Arrowtooth flounder     | Japan | 1,717     | 6,758        |
|                         | USSR  | 16,132    | 669          |
|                         | ROK   | 2         | -            |
|                         | ROC   | <u>0</u>  | <u>4</u>     |
|                         | Total | 17,851    | 7,431        |
| Greenland turbot        | Japan | 51,677    | 31,942       |
|                         | USSR  | 8,867     | 3,082        |
|                         | ROK   | 425       | -            |
|                         | ROC   | <u>0</u>  | <u>18</u>    |
|                         | Total | 60,969    | 35,042       |
| Other groundfish        | Japan | 13,527    | 26,950       |
|                         | USSR  | 12,294    | 614          |
|                         | ROK   | 322       | 1,445        |
|                         | ROC   | <u>0</u>  | <u>-</u>     |
|                         | Total | 26,143    | 29,009       |
| All groundfish<br>total | Japan | 1,163,998 | 956,991      |
|                         | USSR  | 247,932   | 70,690       |
|                         | ROK   | 88,041    | 41,827       |
|                         | ROC   | <u>0</u>  | <u>1,482</u> |
| All nation total        |       | 1,499,971 | 1,070,990    |

Updated footnotes for Annex 4B and 4C , Bering Sea Groundfish MP

- 1/ Catch statistics up to 1963 from Forrester et al. 1974 and for 1964-76 from data on file, Northwest and Alaska Fisheries Center, with the following exceptions: Pacific ocean perch and other rockfish - USSR catches for 1963-66 from Chikuni 1975; all flounders except halibut - all national catches, 1963-76 from Wakabayashi and Bakkala, 1978.
- 2/ 0 indicates no fishing, -- indicates fishing, but no catch reported.
- 3/ Catches of flounders by USSR and ROK are preliminary.

## ANNEX V

### INFORMATION ON MARINE MAMMAL POPULATIONS

Information on distribution and migration, abundance and trends, feeding habits, and any problems induced by fisheries on seven marine mammal populations in the Bering Sea/Aleutian Region was provided by the Marine Mammal Division of the Northwest and Alaska Fisheries Center and included in this annex. The information is summarized mainly from the annual report of the Department of Commerce on the Administration of the Marine Mammal Protection Act of 1972 for the period of April 1, 1977 through March 31, 1978 (DOC, 1978) and the Final Environmental Impact Statement on Consideration of a Waiver of the Moratorium and Return of Management of Certain Marine Mammals to the State of Alaska, Volumes I and II (DOC and DOI, 1977).

#### NORTHERN SEA LION (Eumetopias jubatus)

Distribution and Migration: The northern (stellar) sea lion is found in continental shelf water from the Sea of Japan and northern Honshu, Japan, northward around the North Pacific Ocean rim to Okhotsk and Bering Sea and southward to the California Channel Islands. Some seasonal movements occur in parts of its range.

Abundance and Trends: Mate (1976) estimated a world population of 250,000 to 325,000 animals. Alaska has 202 known rookeries and hauling grounds. The Alaska population has increased since exploitation diminished in the early 1900's and now exceeds 200,000 according to a 1973 ADFG estimate. However, recent studies in the eastern Aleutian Islands indicate a 50% decline in population sizes since the late 1950's (Braham et al, 1977).

Factors which may have caused this decline include (1) a westward shift in distribution, (2) commercial fisheries interaction, (3) leptospirosis and/or (4) unidentified population control factors.

Feeding Habits: Northern sea lions eat a variety of fish and cephalopods. Based on frequency of occurrence, one study revealed that fish composed 74.2% of the diet, cephalopod - 17.2%, and decapod crustaceans - 8.6%. Analysis based on percentage of total individuals provided a somewhat different picture. Fishes completely dominated the diet at 97.6% of total individuals. Cephalopods followed at 2.0% and decapod crustaceans at 0.6%. Groundfishes constituted 57.7% of the sea lion diet based on frequency of occurrence and 90.8% based on percentage of total individuals (Calkins and Pitcher, 1977). Pollock was the dominate groundfish. Details of the diet are summarized as follows:

Area: Cape Spencer to Scotch Cap on Unimak Island  
Northern Sea Lions - 68 Samples

| <u>Prey Item</u>     | <u>No. of Occurrences</u> | <u>% Occurrences</u> | <u>No. of Individuals</u> | <u>% of Total Individuals</u> |
|----------------------|---------------------------|----------------------|---------------------------|-------------------------------|
| Gadidae              | 57                        | 49.1                 | 1135                      | 89.2                          |
| Pollock              | 47                        | 40.5                 | 1072                      | 84.3                          |
| Pacific cod          | 6                         | 5.2                  | 33                        | 2.6                           |
| Other Gadidae        | 4                         | 3.4                  | 30                        | 2.3                           |
| Scorpaenidae         |                           |                      |                           |                               |
| Rockfishes           | 2                         | 1.7                  | 6                         | 0.5                           |
| Pleuronectidae       | 8                         | 6.9                  | 14                        | 1.1                           |
| Starry flounder      | 1                         | 0.9                  | 1                         | 0.2                           |
| Rock sole            | 1                         | 0.9                  | 1                         | 0.1                           |
| Yellowfin sole       | 1                         | 0.9                  | 2                         | 0.2                           |
| Flathead sole        | 2                         | 1.7                  | 2                         | 0.2                           |
| Other Pleuronectidae | 3                         | 2.5                  | 8                         | 0.4                           |
| Total Groundfish     | 67                        | 57.7                 | 1155                      | 90.8                          |

Problems: Northern sea lions have damaged gear and destroyed fish in halibut longline, salmon purse seine, gillnet, and troll fisheries. Because groundfish make up such a large part of the sea lion's diet, this species will probably be one of the marine mammals most impacted by the groundfish fisheries and will be the species which should bear close watching as groundfish policies are considered. This is important in light of recent declines in populations in the eastern Aleutian Islands.

NORTHERN FUR SEAL (*Callorhinus ursinus*)

Distribution and Migration: Northern fur seals are found at sea along the continental shelf from the Bering Sea south along both sides of the North Pacific Ocean to latitude 32°N. Most animals are on their breeding grounds from May through November to bear young and to breed.

Abundance and Trends: A program of reducing the population of Pribilof Island fur seals was begun in 1956 with the expectation that the rate of survival would improve and result in an increased yield of pelts. By 1968, the population had been reduced below levels which would yield the maximum sustainable yield. Thus female fur seals were excluded from harvest in expectation that there would be an increase in pup production. However, expected increases have not been observed. The population level of the northern fur seal is estimated to be 1,765,000. There are in excess of 700,000 adults in the eastern Bering Sea in summer.

Feeding Habits: The northern fur seal is an opportunistic feeder, taking squid and a variety of fishes including herring, anchovy, salmon, capelin, saury, walleyed pollock, and mackerel. Fishes are estimated to constitute about 80% of the fur seal diet. Average size of pollock (the dominant food

item) observed in fur seal stomachs is 20 cm. Some figures, from McAlister and Perez (1977) indicated the following consumption of groundfish by northern fur seals.

|                 | <u>In the Aleutians</u> | <u>In the Bering Sea</u> |
|-----------------|-------------------------|--------------------------|
| Walleye pollock | 9.4%                    | 39.4%                    |
| Sablefish       | 4.6%                    | 1.0%                     |
| Other Gadidae   |                         | 5.7%                     |
| Pleuronectidae  |                         | 1.4%                     |
| % Groundfish    | 14.2%                   | 47.5%                    |
| % Other fish    | <u>75.0%</u>            | <u>31.8%</u>             |
| Total Fish      | 89.2%                   | 79.3%                    |
| Total Squid     | 10.8%                   | 20.7%                    |

Problems: Fur seals and commercial fisheries may compete for the same species of fish.

BEARDED SEAL (Erignathus barbatus)

Distribution and Migration: The bearded seal is found in the North Pacific region in the Bering, Okhotsk, and northern Japan Seas. Bearded seals migrate seasonally in association with the advance and retreat of the ice packs. These seals do not normally come ashore.

Abundance and Trends: No satisfactory method of accurately censusing bearded seals has been attempted to date. A 1971 Soviet estimate places the level of the bearded seal populations of the East-Siberian, Chukchi, Bering, Okhotsk, and Japan Seas at 450,000. The Alaska Department of Fish and Game (1973) estimated a population of 300,000 animals in the Bering, Chukchi, East-Siberian, and Beaufort Seas. The population appears to be high and stable (DOC, 1978).

Feeding Habits: The bearded seal consumes several species of invertebrates, primarily crabs, shrimps, clams, and amphipods, and some demersal fishes. One study indicates that fishes constitute about 10% of the bearded seal's diet and another study, performed in the Beaufort Sea, stated that about 25% of this animal's diet is fishes, in this case primarily polar cod.\*

Problems: None at the present. Bearded seals consume commercially important pandalid and crangoid shrimps and lithods crabs; however, they do not compete directly for commercial fish nor do they damage fishing gear.

\*Lowry, Frost, and Burns. Trophic Relationships Among Ice Inhabiting Seals.

Environmental Assessment of the Alaska Continental Shelf, PI Annual Report, March 77, Vol. 1, p. 226.

Area: North and east of Pt. Barrow

Bearded seals: 3 samples

Of the three samples, one consisted of only one shrimp. One of the seals was taken in November and 64% of the contents were invertebrates and 36% of the contents were fish, mostly saffron cod, but also polar cod, sea snail and eelpout. The third seal was taken in August and it contained 83% invertebrates, mostly isopods. Of the fish in the stomach, 53% were polar cod, 38% were sculpins, and 5% were sea snails. The authors concluded that bearded seals eat a diverse diet but the bulk of it is bivalve mollusk, crabs, shrimps, and sculpins.

RINGED SEAL (Phoca hispida)

Distribution and Migration: The ringed seal is circumarctic in distribution throughout the ice pack. In the North Pacific Ocean it is found in the Bering, Chukchi, and Okhotsk Seas and in the permanent ice pack of the Polar Basin. In winter, most ringed seals occupy areas of land-fast ice, but non-breeding adults and juveniles may be found wherever ice occurs. Apparently, animals wintering in the Bering and Chukchi Seas move northward in spring as the ice recedes and southward in autumn as it advances again. In western Alaska, the ringed seal is the dominant nearshore seal during ice-free months.

Abundance and Trends: No satisfactory method of accurately censusing ringed seals, throughout their range, has been attempted to date. The Alaska Department of Fish and Game (1973) estimated the ringed seal population in the Bering-Chukchi Seas to be about 250,000. Annual harvest by both Soviets and Americans in this area are between 12,000 and 16,000 animals per year. Overall, the population in the Bering-Chukchi Seas appears to be high and is probably stable.

Feeding Habits: In western Alaska, this seal feeds mainly on mysids, amphipods, euphasiids, shrimps, saffron cod, polar cod, and sculpin. A recent stomach analysis of ringed seals in the Beaufort Sea reported that about 83% of the ringed seal's diet was invertebrates and about 17% was fish, almost exclusively polar cod.\*

Problems: None at present. Little competition is known to exist between ringed seals and man for fishery resources.

\*Lowry, Frost, and Burns. Trophic Relationships Among Ice Inhabiting Seals. Environmental Assessment of the Alaska Continental Shelf, PI Annual

Report. March 1977. Vol. 1, p. 226.

Ringed seals - 21 samples.

Fish constituted from 00.0-13% of the food material in various subsamples. There were 73 polar cod (Boreogadus saida), one saffron cod (Eleginus gracillus), and two capelin (Mallotus villosus) found in all the samples. Invertebrates were the bulk of the contents. The authors concluded that ringed seals eat primarily nektonic creatures, small benthic crustaceans, and small to medium-size schoolingfish. Benthic fish are the minor food item.

#### HARBOR SEAL (Phoca vitulina)

Distribution and Migration: The harbor seal is found in the North Pacific Ocean from the Bering Sea south to Baja California and southern Japan and Korea. The harbor seal is the predominant nearshore seal in ice-free waters north of latitude 35°N.

Abundance and Trends: Overall, the world population of harbor seals appears to be high and stable. A 1976 estimate indicated a population of 312,500 to 317,500 in the Pacific (Adv. Comm. Mar. Resour. Res., 1976).

Feeding Habits: The diet of the harbor seal, which varies according to season and location of specific populations, includes primarily pelagic, demersal, and anadromous fishes, cephalopods, and crustaceans. About half of this seal's diet is fish.

Problems: These seals damage commercial fishing gear and compete with man for such fish as herring, salmon, smelt, and whitefish. These animals are extremely sensitive to disturbance and may leave an area after continual harassment by people, equipment, or aircraft.

### LARGA SEAL (*Phoca largha*)

Distribution and Migration: The larga seal is found in the Bering, Chukchi, Western Beaufort, Okhotsk, northern Sea of Japan, and the Po Hai Seas. These seals are seasonally dependent upon sea ice for the birth and nurture of their pups. During winter and early spring the entire population is concentrated along the southern edge of the seasonal pack ice, usually in central Bering Sea. These seals move northward and toward the coasts as the seasonal retreat and disintegration of sea ice progresses. During ice-free summer and early fall they occur along the entire coast of northern Alaska.

Abundance and Trends: No satisfactory method of accurately censusing larga seals has been attempted to date. Indirect methods and relative indices of abundances indicate that the population level of this species is high and probably stable. In 1976, the Bering Sea larga seal population was estimated to contain from 135,000 to 200,000 animals. The Okhotsk Sea population estimate is 135,000 to 200,000 animals (DOC, 1978).

Feeding Habit: The diet of these seals, which varies with the season and location, includes primarily pelagic, demersal and anadromous fishes, cephalopods and crustaceans.

Ecological Problems: Competition presently exists between these seals and man with respect to commercially important fishes (i.e., herring, smelt, whitefish, and salmon) and with respect to fishing gear. These seals are extremely responsive to disturbance and will leave a hauling area after only minor harassment.

**RIBBON SEAL (Phoca fasciata)**

Distribution and Migration: Geographically, the ribbon seal is separable into Okhotsk and Bering-Chukchi Sea populations and interchanges between the two groups are not known to occur. During winter and spring, the entire population is concentrated along the southern edge of the seasonal ice pack. Only a few ribbon seals remain with the ice edge of the seasonal ice pack. Only a few ribbon seals remain with the ice edge as it retreats northward through the Bering Strait. In summer and autumn, ribbon seals are believed to be pelagic, mainly in the ice-free Bering Sea.

Abundance and Trends: The population of ribbon seals is relatively low, having been markedly reduced by commercial sealers of the Soviet Union during the 1960s. In recent years the species has been afforded increased protection by Soviet sealing regulations and its numbers may be increasing again. U.S. citizens harvest very few ribbon seals. The Alaska Department of Fish and Game (1973) estimated that the population probably numbers between 90,000 and 100,000 animals. Soviet estimates indicate a population of 133,000 in the Okhotsk in 1969 (Popov, 1976). Soviet sealers took less than 3,000 ribbon seals in 1973 from Bering and Okhotsk Seas. In Alaska, the native harvest is usually less than 250 per year.

Food Habits: The diet of the ribbon seal during late winter and early spring (in the ice edge zone) includes mainly pelagic and demersal fishes, cephalopods, and small crustaceans. About 40% of this animal's summer diet is fishes and about 90% of its winter diet is fishes.

Problems: Little competition is known to exist between ribbon seals and Man for fishery resources.

ANNEX V: LITERATURE CITED

- Advisory Committee on Marine Resource Research. 1976. Mammals in the seas: ad hoc group III on seals and marine otters. Food Agric. Organ. U.N., Adv. Comm. Mar. Resour. Res. RAO ACMRR/MM/SC/4, p. 182.
- Alaska Department of Fish and Game, 1973. Marine Mammal status reports. Unpubl. Rept., Juneau, Alaska.
- Braham, Everitt and Rugh. 1977. Preliminary evidence of a northern sea lion decline in the eastern Aleutian Islands. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Processed Rept. Nov. 1977.
- Calkins and Pitcher. 1977. Population assessment, ecology and trophic relationships of stellar sea lions in the Gulf of Alaska. Environmental Assess. of the Alaska Continental Shelf, PI Annual Rept. (March 1977), Vol. 1, p. 433.
- Department of Commerce (1978). The Marine Mammal Protection Act of 1972-- Annual Report (April 1, 1977 to March 31, 1978). U.S. Dept. Commerce. 203 p.
- Department of Commerce and Department of Interior (1977). Final Environmental Impact Statement on Consideration of a Waiver of the Moratorium and Return of Management of Certain Marine Mammals to the State of Alaska. Vols. I and II. Oct. 1977.
- Mate, B. R. 1976. History and present status of the northern (stellar) sea lion, Eumetopias jubatus. Food Agric. Organ. U.N., Adv. Comm. Mar. Resour. Res. FAO ACMRR/MM/SC/66, 6p.
- McAlister and Perez. 1977. Marine mammal ecosystem model for the Bering Sea. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Unpubl. Rept. Dec. 1977.
- Wakabayashi, K. and R. Pikkala. 1978. Estimated catches of flounders by species in the Bering Sea - Updated through 1976. U.S. Dept. Commerce, NOAA, NMFS, NWAFC, Seattle, Wa. (Doc. submitted to INPFC). 14 p.

MARINE MAMMAL COMMISSION  
1625 EYE STREET, N. W.  
WASHINGTON, DC 20006

18 January 1979

Mr. J. H. Branson  
Executive Director  
North Pacific Fishery  
Management Council  
P.O. Box 3136 - DT  
Anchorage, Alaska 99510

Dear Mr. Branson:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the Fishery Management Plan and Draft Environmental Impact Statement for the Groundfish Fishery in the Bering Sea/Aleutian Islands Area and offers the following comments.

General Comments

① As you know, the Fishery Conservation and Management Act (FCMA) and Marine Mammal Protection Act (MMPA) call for an integrated, ecosystem approach to management in order to conserve fishery resources at optimum yield levels and marine mammals at optimum sustainable population levels. While we appreciate the difficulty of the task, we believe that the development of a Plan for the substantial groundfish resources of the Bering Sea/Aleutian Islands Area offers a challenging opportunity to develop and implement such an ecosystem-oriented approach and, as noted below, that the Plan and DEIS could and should be modified to better reflect the currently available data and theory, including uncertainties, that provide a basis for such efforts.

The desirable approach and difficult challenge are identified in the document on page 144 which notes that: "(i)n the ecosystem sense, there is no 'surplus' production in the sea for man to take. The question is mainly one of balance between ecosystem components, i.e. changes in

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target species biomasses and the resultant changes in the biomasses of prey, predator, and competitor species." Although it is noted that the determination of such fishery-induced changes is one of the major objectives of the D.L.SUMES model, neither the Plan nor the discussion reflect any attempt to account for such changes, provide for uncertainties relating to the nature and extent of those changes, or otherwise attempt to strike or even articulate the criteria that will be employed in maintaining the necessary balance among the various components of the ecosystem. As the quoted language indicates, these changes may affect populations of marine mammals and other components of the ecosystem, as well as the target species of fish, themselves. It is therefore in the best interests of all concerned to develop a Plan that calls for sufficiently conservative actions and research to detect significant changes, and, whenever possible, provide for corrective measures before significant changes occur.

#### Specific Comments

Although relevant theory and data are discussed in several sections of the document, the discussion is not developed or organized so as to yield a clear explanation of the rationale for the Plan. Relevant ecosystem-oriented considerations do not appear to have been incorporated into the actual management regime that is proposed. The comments set forth below address several portions of the discussion in the order in which they appear and are meant to illustrate the need to modify the discussion to better reflect a conservative, ecosystem-oriented approach.

#### Page 02:

① The statement at the bottom of the page indicates that the Plan forms the major component of an environmental impact statement "which assesses the effect that implementation of this Plan is expected to have on the environment of the region ...". However, the discussion on page 153 indicates that the authors of the document were "unable to predict the long-term effect on the ecosystem of the current, single species management strategies ..." which form the basis of the Plan.

Pages 03-04:

② In light of this inability to predict the long-term effect of the management strategies, it would appear that there is no basis for confidence that the Plan meets the goal of avoiding irreversible or long-term adverse effects upon fishery resources and the marine environment which is included in paragraph 1 on page 04. Similarly, with respect to the secondary objectives that are identified, we have been unable to find any evidence in the Plan or discussion that the allowable catch limits established by the Plan are based upon "due consideration of other impacted resources" as suggested in paragraph (b) on page 03 or that fishing strategy has been designed "to have minimal impact" on the environment as suggested in paragraph (f) on page 04.

③ Finally, the document contains numerous statements indicating the inadequacy of available data on the effects of single species management strategies upon the ecosystem and its various components. Notwithstanding these statements, the management Plan does not appear to include a margin of safety in the determination of allowable biological catches or a mechanism for accessing information and research to remedy the inadequacies, in accordance with the objectives identified in paragraph (e) on page 04.

Page 05:

④ Although the discussion of the determinants of catch levels indicates that ecological objectives, such as preventing adverse impacts upon marine mammals and other associated species, are to be included in the determination of the acceptable biological catch (ABC), the discussion of ABC considers only the dynamics of the target species. The discussion in the remainder of the document appears to make no adjustment in ABC to account for impacts on other species.

⑤ The discussion of optimum yield (OY) indicates that it, in turn, may deviate from ABC for purposes of ecological objectives but, again, there is no evidence that there have been any adjustments for such reasons. As you know, the goal of maintaining marine mammals at optimum sustainable population levels is established by the MMPA and, as such, should be considered an ecological objective "established by law" under the criteria discussed in paragraph (d).

Page 104:

The discussion of the socio-economic characteristics of the domestic commercial fishery indicates that the total

6 domestic commercial catch "is believed to have been no more than 1,500 mt tons in any recent year." Although we recognize that it is not the only relevant consideration, the fact that the total domestic catch amounts to only 10% of the total catch permitted by the Plan indicates that reduction in the total permissible catch to account for uncertainties and other factors in the determination of OY, as suggested below, would not be apt to result in a significant impact upon the domestic fishery.

Page 139:

7 Here, again, the discussion indicates that fishery-induced changes in the abundance and distribution of one species affect the abundance and distribution of other species and that "single species population dynamics' approaches are no longer fully adequate for modern fisheries management." We are, however, unable to determine what, if anything, has been done to account for such changes by adjusting the OY levels.

Page 143:

8 Some of the information concerning marine mammals which is contained in Table 22 is erroneous or misleading. Walrus do not feed on salmon; harbor seals do not, to our knowledge, feed extensively on the benthos; bearded seals do not, to our knowledge, feed extensively on fishes; and ringed and ribbon seals are not ecological equivalents as is suggested by grouping them together. The discussion should be supplemented with an explanation of how these estimates of consumption levels were derived to provide a basis for evaluating their utility and reliability.

Page 151:

9 The discussion on previous pages of the document have indicated the inadequacies in the biological data base concerning the potential effects of fishery-induced changes on both target and associated species. The discussion in the last paragraph of this page recognizes the need for a conservative approach and suggests that catch levels can be set at levels that are equal to or less than the low end of the MSY/EY ranges and that catch levels so established can be "considered relatively free from the risk of overexploitation." Our review of Table I.1 on page I-2 indicates that the OY has been set at less than EY only for "other included species" and that it is set at or above the low end of the range of MSY values in all but one case. Moreover, the document

contains no explanation of the rationale supporting the determination that exploitation of stocks of fish at MSY levels will be free from the risk of "overexploitation", especially if that term is intended to include, as it should, exploitation at levels that result in adverse impacts upon associated species.

Page 153:

⑩ As noted earlier, the discussion in the last paragraph on the page indicates that the authors of the document are unable to predict the long-term effect on the environment of the current, single species management strategies which form the basis of the OY determinations in the Plan. This discussion provides additional reason to question the determination set forth on page 151 that exploitation at MSY levels is "relatively free from risk". The discussion should, at least, be modified to more adequately explain what is meant by "relatively free from risk" and to identify the known risks associated with the management strategies that are proposed.

Page 155:

⑪ This discussion of the MMPA illustrates the need to modify the discussion and Plan to reflect and account for the fact that there is a complex relationship between target species of fish, marine mammals, and other associated species in the ecosystem and that the maintenance of the integrity of that relationship is the primary objective of the MMPA and a goal of the FCMA.

The brief discussion on this page suggests, without supporting documentation, that restrictions on killing or harassing seals and sea lions results in an "unknown but probably significant economic loss to setline fishermen", that "large numbers" of seals and sea lions often congregate around trawlers and have been observed attacking halibut, salmon, and crabs, and that the maintenance of large populations of marine mammals -- seals, sea lions, porpoises, and whales -- has a profound impact on the abundance of commercial fish species. The discussion should be supplemented not only to provide more supporting information for these statements, but also to recognize and discuss the obvious fact that maintenance of substantial fisheries may well have had and most probably will have a profound impact upon the abundance of marine mammals that are dependent upon those fish. This, among other issues, is precisely the kind of balancing question that the discussion on page 144 identifies. There is no indication, however, that the authors recognized

the need to strike a balance or attempted to determine the relevant factors that must be weighed in achieving it. The discussion should be modified to articulate what, if anything, is proposed with respect to marine mammals and how implementation of the Plan is expected to directly or indirectly affect marine mammals in the area.

Page 163:

(12) This discussion indicates that "having identified no social or economic reasons for reducing the yield of stocks in this fishery below ABC, Optimum Yield for all species will be considered equal to ABC ...". As noted above, the applicable law and the preceding discussion itself clearly indicate that ecological considerations may dictate setting OY at less than ABC. The discussion ignores those considerations as relevant criteria in determining OY and also ignores the discussion in other portions of the document that identify reasons for reducing the yield below ABC levels. The point is that even if there are no social or economic reasons for reducing the yield, there are clear ecological reasons which have already been identified.

Page 195A:

(13) For the reasons set forth above, we believe that the statement in the second paragraph that the management regime is considered to be in conformance with the seven national standards set forth in Section 301 of the FCMA is unsupported and contrary to the discussion in other portions of the document.

Pages 196-198:

(14) The discussion of research needs is confined to a total of less than three pages, all but the last paragraph of which address research on target species of fish, notwithstanding the need for consideration of the associated species and the ecosystem which is acknowledged at various places throughout the document. This discussion should be supplemented to include a list and discussion of specific information needs and a detailed description of the studies (including priorities, methodology, and time schedules) needed to effectively assess and monitor the impacts of the Plan and other factors on the status of non-target species and the ecosystem itself.

Pages 200-204:

(15) As further evidence of the need for a more intensive, integrated approach to the development of an ecosystem-oriented management plan and assessment of its potential impacts, we note that it appears that only one of the listed references deals with marine mammals and that it deals only with the Alaskan fur seal industry through 1950.

Pages 223-224:

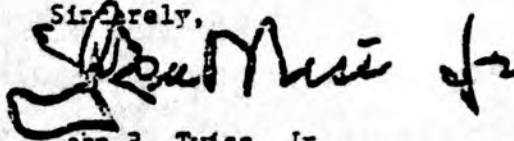
(16) The discussion of the unavoidable adverse impacts of the proposed action and alternatives to it, the discussion of the relationship between local short-term use and maintenance and enhancement of long-term productivity, and the discussion of irreversible and irretrievable commitments of resources should all be modified in accordance with the comments set forth above. These modifications should include, but not be limited to, a consideration of alternatives to the proposed action other than continuation of a preliminary fishery management plan. Management by a PFMP does not appear to be the only alternative consistent with the FCMA. It seems to us that OY can and should be reduced so as to account for the effects of fishery-induced changes on target and associated species and the uncertainties relating thereto. The discussion should evaluate the relative value of various adjustments in OY for the several target stocks and clearly explain the reasons for any determination that such adjustments are not consistent with the FCMA.

Conclusion

(17) In summary, the Commission feels that the Plan has not been developed from an ecosystem perspective, that the calculations of allowable catch levels have not included adequate consideration of the complex interactions among ecosystem components, and that required research may be inadequate either to identify optimum yield levels or to detect adverse impacts on target species, dependent species, associated species, or the ecosystem(s) of which they are a part. Consequently, we are concerned that implementation of the Plan, as presently formulated, may result in the depletion of one or more target, dependent, or associated species. While we recognize that available data and theory are inadequate to construct a fully reliable ecosystem model, we do feel that available data and theory have not been fully and adequately considered. Therefore, we recommend that relevant data and theory be re-evaluated to better identify uncertainties associated with the lack of knowledge or understanding and that the allowable catch levels be adjusted, as necessary, to reflect the degree of uncertainty concerning the possible first order and second order impacts of multi-species harvesting on target species, dependent species, associated species, and the ecosystem(s) of which they are a part.

I hope that these comments are helpful. Should members of your staff have any questions concerning either the comments or recommendations, I would suggest that they get in touch with Dr. Robert J. Hofman, the Commission's Scientific Program Director, (202/653-6237).

Sincerely,

A handwritten signature in dark ink, appearing to read "John R. Twiss, Jr.", with a stylized flourish at the end.

John R. Twiss, Jr.  
Executive Director

MARINE MAMMAL COMMISSION COMMENT RESPONSE

General Comments

Response

1

The integrated, ecosystem approach to management of the fishery to be conducted in the Bering Sea/Aleutian area is a requirement of both the FMA and the MMPA. Such an approach is thought to allow the conservation of fishery resources at optimum yield levels and marine mammals at optimum sustainable population levels. While one may debate the wisdom of creating biological conflicts which would appear to inhibit fisheries development for the purpose of enhancing marine mammal populations, the integrated approach is not yet sufficiently developed to the point where the appropriate model can be relied upon for resource management. It is stated (Sec. 10.2, p 130) that such development is from 3-5 years in the future. The FMP is developed, on the basis of available information and research methods, for the conduct of a fishery that will retain balance among the various fish components, be generally conservative and not be detrimental to current marine mammal populations.

Specific comments

1

The assessment of the effect of the implementation of the plan on the environment is made on page 128 (9.7). Given the present effort level which is known, the anticipated level based on surveys taken and the condition of fish stocks present, the short-term outlook is described as "good".

The long-term effects on the ecosystem are not possible to predict with the single-species management strategies in use. The generally conservative nature of the FMP with respect to the ABC's of individual species is thought to allow the development of a domestic fishery on a scale which will allow the development of the integrated ecosystem approach to more accurately predict the interactions of the fishing effort.

2

See below

3

Refer to Sec. 10.2, p 130. ("The manner in which MSY, EY and ABC were derived for each fish stock... has indirectly taken into consideration the volume of fish needed by marine mammals for their sustenance. For example, natural mortality of fish stocks is taken into consideration... (and) ... includes the predation component by marine mammals.")

Specific Comments

Response

4

Where the comment is applicable to the effects of the stated ABC of species on the various marine mammals, the optimum sustainable population has not been clearly determined. Without an estimate of the eventual, optimum sustainable population of the seven marine mammals present in the fishery, the determination of ABC for fish species must be predicated on the best information available. In this case, one of the considerations in the setting of ABC is the marine mammal population trend. Marine mammal experts at the Northwest & Alaska Fisheries Center say trends show the level of six species (fur seals excepted) to be above the lower level of OSP. Fur seals may be at or above that level. Having the range for OSP for the marine mammals would be of good value in the determination of ABC for specific fish species.

5

The authors are aware of the ecological objective established by law (MMPA) of maintaining marine mammals at optimum sustainable population levels. The problem posed is the biological conflict which appears to inhibit fisheries development for the purpose of enhancing marine mammal populations (see Response #1 under General Comments): the resolution of OSP for mammals would be a constant with which to work as this conflict is dealt with.

6

The argument that the domestic catch has only been 10% of the allowable catch stated in the FMP, and that a reduction in the total catch permitted can be made, presumably to benefit marine mammals, without interfering with the development of the fishery, fails to take into account the initial assessment of ABC which includes mortality by mammal predation. Past-year averages are a poor indicator of present processor intent.

7

OY levels take into account fishery induced changes in the abundance and distribution of species. MSY is a function of past catches and takes into account trends of distribution and abundance.

8

The Plan Development Team solicited expert advice from the Marine Mammal Division of the Northwest and Alaska Fisheries Center, Seattle, on distribution and migration, abundance and trends, feeding habits and problems induced by fisheries. An ecosystem simulation model is being developed to determine the effects of fisheries interaction on marine mammals; better information from marine mammal experts would result in refining the model for management purposes. (Ref. Sec. 10.2., p 130, FMP).

Specific Comments

Response

- 9                   The stated OY's indicate the considered, conservative approach necessary, utilizing the best available information, to conduct the fishery with adequate safeguards against depletion risks for target and associated species.
- 10                   The term "relatively free from risk" is taken to mean that the fishery will be conducted in a manner that will retain balance among the various fish components, be generally conservative according to information known concerning the fishery, and not be detrimental to current marine mammal populations. The word "relatively" within the term indicates an awareness of the lack of baseline biological data from which to deduce biological certainties. It is hoped that the single species management strategies which form the OY basis can, at some future date, give way to the integrated ecosystem strategy which will allow the general use of the term "free from risk," thereby indicating a level of confidence in the FMP conclusions which is not at this time available.
- 11                   See revised Sec. 10.2, pp 129-134. Supporting documentation could conceivably be derived from fishermen interviews to account for the statement that seals and sea lions congregate around trawlers. As for the maintenance of large populations of marine mammals and their effect on the abundance of commercial fish species, marine mammal experts have said that an adult harbor seal can weigh 300 lbs., a bull Steller sea lion nearly a ton (2,000 lbs), and each eats 5 to 7% of its body weight daily. Other statistics are available. As for the economic loss to fishermen, it is estimated by the State of Alaska, Department of Fish and Game, that the statewide dollar loss to fishermen's gear is nearly \$1 million. Estimated damage can include lost time from fishing in addition to gear destruction.
- As stated in the FMP, the effect on marine mammals of the implementation of the plan should be beneficial since the total catch is set below previous years, thereby leaving more fish for the mammals.
- 12                   See #13 response

General Comments

Response

13

The comment refers to ecological considerations which may dictate setting OY at less than ABC. If the presence of marine mammals in the fishery management area is one of those considerations, every attempt has been made to gather and assess information concerning that presence and to include that assessment in the determination of MSY, ABC, EY and OY.

If the ecological reasons include those of a possible but non-predictable nature, ranging from abnormal to cataclysmic, no method has yet been devised to deal with possible eventualities. The FMP conforms, so far as can be determined, to the national standards set forth in Sec. 301 of the FMA.

14

If it were possible to identify specific information needs and to detail a description of the studies, including priorities, methodology and time schedules, needed to effectively assess and monitor the impacts of the plan and other factors on the status of non-target or associated species and the ecosystem, the modeling for the integrated ecosystem approach would be complete and there would be no questions, only answers. As stated in the FMP, Sec. 10.2, p. 130, that development is 3-5 years in the future.

15

Refer to revised Sec. 10.2 and Annex V.

16-17

The Plan Development Team is aware of the concern in the Marine Mammal Commission members comments that the fishery management plan not incorporate into the proposed conduct of the fishery, any measures which would result in the diminution of marine mammal stocks. The plan has been drawn using the single species management strategy pending the development and refinement of more precise research and management methods. The present state of the art does not allow the development of a plan based on an integrated ecosystem model which replaces the present tentative, conservative approach with a more positively dynamic statement.

-End-

Clement V. Tillon, Chairman  
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September 4, 1979

Mr. William G. Gordon, Director  
Office of Resource Conservation & Management  
National Marine Fisheries Service  
3300 Whitehaven Street, Page #2  
Washington, D.C. 20235

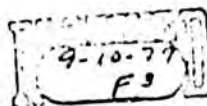
Dear Bill:

I am enclosing the revisions to the Fishery Management Plan for the Groundfish fishery of the Bering Sea/Aleutian Island Area (FMP) approved by the Council on August 24th. They are being submitted in the form of errata changes requiring replacement of full pages in the plan you are currently reviewing. I believe that these revisions respond fully to your comments and objections to the plan as originally submitted for Secretarial review.

The section on domestic annual harvest has been completely revised. Since we had no new figures to work with for the 1980 plan year we continued to use the original figure of 24,600 mt for DAP. In addition we have established two more categories within DAH; the nonprocessed market (DNP) and expected joint venture processing needs (JVP). Annex II, pages A-58 through A-59c fully explain the derivation of those figures and establish DAH at 56,100 mt.

The procedure for deriving DAH and a new section providing for periodic reevaluation and release of DAH to TALFF during the plan year is found in Section 12.2. 'Expected Domestic Annual Harvest (DAH)' pages 150 and 150-A. Establishment of that evaluation and release procedure required a change in Section 13.2 'Total Allowable Level of Foreign Fishing (TALFF)' on page 151.

The preceding changes, combined with additional reporting requirements for U. S. processors, joint venture fishermen, and nonprocessed fish fishermen, found on page 157 of the revisions, should respond fully to P. L. 95-354. The reporting requirements in the plan are very general and are intended to be supported by regulations similar to those proposed in the Secretary's amendment to the Gulf of Alaska Groundfish FMP. The Council does not expect the regulations to be very specific on the types of information that must be reported by American processors. They feel that the present system of canvassing American and joint venture



processors, combined with fishermen interviews and village surveys, will be adequate for estimating future DAH needs, particularly when they can be combined with the current catch reporting system established by the plan so that past performance can be accurately measured. To date, of course, there is little or no past performance to be reviewed so surveys will continue to be important in the near future.

The revision of Section 14.3.2.3 A(i) 'Area Closures,' permits joint venture processing operations to within three miles of the baseline from which the territorial sea is measured.

The ABC/OY for "other species" has been raised from 55,500 mt to 74,248 mt. No change was considered necessary in MSY which remains at 89,400 mt. The language affecting these changes is in Annex I.11 'Other Included Species ("Others").' Since it appears that calculating the OY for "others" at 4% of the combined ABC for specified species might conflict with the attainment of the OY's for some of the target species, and recognizing that the category "other" can sustain a catch at least as high as 4% of total MSY, the scientists consider it safe to base ABC for "others" on 5% of the combined ABC for specified species, rather than the 4% originally provided in the plan.

In addition to raising the ABC for "others" the revisions establish a fourth category of species, hereafter referred to as "nonspecified species." That concept is explained in Section 11 'Optimum Yield (OY),' pages 140 through 140b and in Annex VI (new), page A-81. It should be noted that the listing of nonspecified species in Annex VI is not exclusive. Those groups listed are intended to serve as examples of those found in this category. Removal of these groups from the category "other" increases the amount of "other" species that can be caught in the process of attaining OY for a targeted species.

In summary, we have redefined DAH and the reporting requirements to respond to P. L. 95-354; added a review and release mechanism for DAH during the plan year, similar to that now used for reserve; allowed joint venture processing within 12 miles but outside of 3 miles; established a higher ABC for "other species" so that the incidental catch of those species will not hamper the attainment of allocations for other species; and established a fourth category under OY to be called "nonspecified species."

These revisions to the FMP were reviewed by the Scientific and Statistical Committee and the Advisory Panel and were the subject of considerable comment during a public hearing period at the Council meeting. They were advertised in the Federal Register, in the news media and in a Council Newsletter sent out prior to the Council meeting.

We will work closely with NOAA General Counsel in developing the regulations to implement these revisions. Some of the plan revisions are left deliberately vague so that there is some latitude allowed in the regulatory process. The reassessment and release of DAH is described as periodic

in the FMP. The Council felt that tying the Regional Director to a bi-monthly or other review schedule was not particularly necessary but would have no objection if the regulations specified exact times and release procedures within those guidelines set out in the plan.

Please continue your review of this FMP. The proposed schedule in your letter of August 21, 1979 will be great if we can attain it.

Sincerely,



*for:* Jim H. Branson  
Executive Director

Enclosures

cc: Terry Leitzell, AA  
Roland Finch, F  
Harry Rietze, FAK  
H.A.Larkins, F111  
Richard Marasco, F111

ERRATA FOR THE GROUND FISH FISHERY  
IN THE  
BERING SEA/ALEUTIAN ISLAND AREA

- Page 140 - 11.0 Optimum Yield (OY)
1. Remove both paragraphs  
Insert new material as pages 140, 140a, 140b.
- Page 150 - 12.2 Expected Domestic Annual Harvest (DAH)
1. Remove page 150  
Replace with change 1, page 150 and 150a
- Page 151 - 13.2 Total Allowable Level of Foreign Fishing (TALFF)
1. Remove page 151  
Replace with change 1, page 151
- Page 157-58 - (14.3.1.5 Statistical Reporting Requirements)
1. Remove page 157-158  
Replace with change 1, page 157 and insert original  
page 158
- Page A-2 - Table I-1
1. Remove Page A-2  
Replace with change 1, page A-2, Table I-1
- Page A-55 - I.11 Other Included Species ("Others")
1. Remove Page A-55  
Replace with change 1, page A-55

Page A-58 - Annex II (Title Page)

1. Remove Page A-58  
Replace with change 1, page A-58

Page A-59 - Annex II

1. Remove page A-59  
Replace with change 1, page A-59, A-59a, and A-59b

Page A-60 - Annex III

1. Remove page A-60 (Table)  
Replace with change 1, page A-60 (Table)

Page A-81 - (new page)

1. Add new page A-81 - Annex VI - establishing  
4th category of species "Unspecified"

Page vi - (Table of Contents)

Add to page VI -

ANNEX VI -- SPECIES CATEGORIES WHICH APPLY TO THE BERING  
SEA/ALEUTIAN GROUND FISH FISHERY.

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| Annex IV -- Catch Statistics of the Bering Sea/<br>Aleutian Groundfish Fishery . . . . .                                  | A-61 |
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## 11.0 OPTIMUM YIELD (OY)

There are four categories of species and species groups (Annex VI) that are likely to be taken by the groundfish fishery of this region, to each of which the optimum yield concept is applied somewhat differently:

1. Prohibited Species--those species and species groups which must be immediately returned to the sea by vessels operating in the groundfish fishery; ~~with regard to this fishery, OY is zero.~~ Records of catch of each species must be maintained.
2. Target Species--species and species groups which are commercially important, targeted upon by the groundfish fishery, and for which a sufficient data base exists that allows each to be managed on the basis of its own biological, social, economic, and ecological merits. A specific OY applies to each species or species group. Records of catch of each species must be maintained.
3. Other Species -- species and species groups which currently are of only slight economic value and not generally targeted upon. This category, however, contains species with economic potential or are important ecosystem components, but sufficient data is lacking to manage each separately. Accordingly, a single OY, equal to 5 percent of the combined OY's for the "Target Species", applies to

this category as a whole. Records of catch of this category as a whole must be maintained.

4. Non-specified Species--species and species groups of no current or foreseeable economic value and which are taken by the groundfish fishery only as an accidental bycatch to target fisheries. Virtually no data exists which would allow population assessments, but occasional records from U.S. observers aboard foreign vessels and from U.S. research vessels show no noticeable decline in abundance. The OY for this category is that amount which is taken incidentally while fishing for target species, whether retained or discarded. No record of catch is necessary. (Note: If observer or enforcement records show that any species in this category is being actively targeted upon or that the abundance of any species is becoming substantially reduced, that species will be transferred to either the Target Species or Other Species category and subject to an <sup>a</sup> absolute OY.)

With the expectation over the near term of only a modest domestic involvement in this fishery (see Section 12.0 below), and having identified no social or economic reasons for reducing the yield of stocks in this fishery below ABC, Optimum Yield for all but the "Non-specified" species will be considered equal to ABC, as shown in Annex I.

It should be noted, especially by foreign participants in the fishery, that such economic factors as higher catch rates or greater average size

4/A

than can be expected when production is at the level of seasonal availability to this fishery by domestic fishing be introduced as OY considerations if they are considered U.S. fishery development, and can be shown to not have an impact on the U.S. consumer.

## 12.2 Expected Domestic Annual Harvest (DAH)

Expected domestic annual harvest (DAH) is the estimated portion of the U.S. groundfish harvest which will be utilized by domestic processors (DAP), the estimated portion which will enter non-processed markets (DNP) and the estimated portion, if any, delivered to foreign processors (JVP) which are permitted to receive U.S. harvested groundfish in the Fishery Conservation Zone.

U.S. groundfish processing capacity is currently estimated to be 54,350 metric tons annually (Section 12.1.1). U.S. commercial fishing fleet capacity is currently estimated to be 156,518 metric tons (Section 12.1.2). Neither of these estimates, however, allow a projection of the domestic intent to catch and process except to define physical maximums. In order to estimate DAP all processors located in or adjacent to this region were surveyed to determine their specific plans for handling groundfish during the plan year. The results of this survey are given in Annex II.

Non-processed fish (DNP) is derived from estimates of the quantities and species of groundfish that enter non-processed fish markets. The principle utilization is for pot bait in the crab fisheries with lesser quantities used as bait in the longline fisheries. Minor quantities are used in this region for direct household consumption (subsistence fisheries). Determination of DNP is based on reported sales, interviews with fishermen who utilize groundfish catches for bait and surveys of communities in the region whose inhabitants utilize groundfish for direct consumption. Projected utilization in the plan year takes account of changing demands related to changes in magnitude of the crab fisheries, the primary users in this category.

JVP is the U.S. harvested portion of the OY in excess of the capacity and intent of U.S. processors to utilize or for which actual domestic markets are not available that will be delivered to foreign processors

who are authorized to receive such U.S. harvested fish in the Bering Sea Conservation Zone. Estimates of utilization in this category are derived from surveys of the companies who intend to have joint venture operations in the Bering Sea during the plan year. The results of that survey are given in Annex II.

Since estimates of future production by processors are made without benefit of any previous processing or harvesting experience in this fishery it is difficult, if not impossible, for them to be completely accurate. It is generally recognized by those processors making the estimates that their figures are optimal and based on assumptions that frequently may not materialize. Machinery or installation delays, changes in markets, better than normal alternative fisheries for the fishing fleets (or processors) may all effect their actual production. Therefore, a DAH reassessment system and release mechanism is established through this plan and by regulation to allow adjustments in DAH during the plan year.

Production by U.S. fishermen and processors shall be reassessed periodically based on:

1. production to date during the year;
2. current fishing and production activity; and
3. projections for additional production during the remainder of the year based on demonstrated capacity, both in processing and harvesting sectors.

Releases from DAH to TALFF shall be made by the NMFS Regional Director after consultation with the Council. No release or transfer shall be made if such release is likely to have an adverse biological, economic, or social consequence.

## 13.0 ALLOCATIONS BETWEEN FOREIGN AND DOMESTIC FISHERMEN

### 13.1 Reserve

As mentioned in Section 12.2 and Annex II, U.S. participation in the fishery in the near future is expected to consist of a relatively modest catch for crab bait and limited pilot efforts for foodfish production.

In order to prevent OY's from being exceeded without preventing unexpected domestic fishery development; i.e. an unanticipated increase in U.S. catching capability and intent, 500 mt or 5 percent of the OY (whichever is the greater) of each species will be held in reserve for allocation late in the year on the basis of domestic need. Specific reserve amounts are shown in Annex III.

Unless specifically withheld by the NMFS Regional Director acting with the advice of the Council, up to 25 percent of the reserve of each species will be released to TALFF every two months, beginning with the end of the second month of the fishing year, with the intention that by the end of the eighth month of the fishing year, all of the reserve will either be made available to foreign fishermen or reserved for domestic use.

### 13.2 Total Allowable Level of Foreign Fishing (TALFF)

The initial TALFF for each species will be determined by the equation  $TALFF = OY - DAH - RESERVE$ . TALFF may increase during the year as reserves are apportioned between domestic and foreign fishermen or, if after reassessment during the year it is found that not all of it will be used by U.S. processors and harvesters, DAH may be released to TALFF. Initial TALFF's are shown in Annex III. The estimation of DAH is shown in Annex II.

eastern Bering Sea peaked in 1971 at about 7,000 mt but has declined since then. Recent surveys indicate an increase in the abundance of juveniles, but abundance is still below that in the early 1960's and the increase will not benefit the setline fishery for several years. Therefore, the equilibrium yield available to the North American setline fishery probably is about the same as the pt level of catch, and is will below MSY.

The EY in the western Bering Sea and Aleutians is unknown but probably substantially below MSY.

#### I.10.3 Acceptable Biological Catch

ABC and OY for Pacific halibut are not applicable to this Plan.

#### I.11 Other Included Species ("Others")

This category includes all species of finfishes taken by trawls and setlines except: pollock, rockfishes, soles and flounders, sablefish, cod, Atka mackerel, herring, salmon and those species classed as "non-specified species" (11.0 (4)). A partial listing of which is shown in Annex VI.

Virtually nothing is <sup>known</sup> of the population structure, biological attributes, or potential yield of the individual components of this category; therefore, only a pragmatic appraisal of "MSY" is possible.

During the last 5 years of record, the catch of this category has averaged about 4 percent with highs of 5-to-8 percent of the combined catch of the other, specified groundfish species. During that period, no indication of declining abundance has been noted; accordingly, it is assumed that the aggregation of stocks in the "others" category can sustain removals equal to at least 4 percent of the total catch of the specified species as long as that catch remains less than the 1972 peak of 2,234,500 mt (see Annex IV-4).

Accordingly, "MSY" of this category is considered to be -  $0.04 \times 2,234,500 = 89,400$  mt.

#### I.11.2 Equilibrium Yield

"MSY" is believed attainable.

#### I.11.3 Acceptable Biological Catch

ABC is considered equal to 5 percent of the combined ABC of specified species which will be:  $0.05 \times 1,484,977 = 74,248$  metric tons.

Annual data compilations, in the above format, should be available to the Secretary by May 31 of the following year. In addition, preliminary catch data -- by species and by major statistical area (i.e. Areas I, II, III, IV) -- should be compiled by month and made available to the Secretary by the end of the following month.

Arrangements, including financing and schedule of implementation, for the collection, compilation, and summarization of these fishery data will be developed through consultations between officials of NMFS, State of Alaska, and other states in which landings of catch from this fishery are likely.

(B) Processor Reports

All processors of groundfish shall report information necessary for periodic reassessment of DAP. The regulations implementing this plan specify the information to be reported and the time schedule for reporting.

(C) Joint Venture Reports

Persons delivering U.S. caught groundfish to foreign processing vessels shall report information required for periodic reassessment of that portion of the DAH to be delivered to foreign processors (JVP). The regulations implementing this plan specify the information to be reported and the time schedule for reporting.

(D) Non Processed Fish

Persons catching or delivering non-processed fish for use as bait or for direct consumption shall report information necessary for periodic reassessment of DNP. The regulations implementing this plan specify the information to be reported and the time schedule for reporting.

14.3.1.6 Limited Entry |

Implementation of a limited entry program will not be necessary for this fishery during the first few years that it operates under this plan. However, a limited entry program should be designed by the Council during the early stages of domestic fishery development so that it can be implemented well before the time that the fishery becomes fully or over-capitalized.

## 14.3.2 Foreign

### 14.3.2.1 Permit requirements

All foreign vessels operating in this Management Unit must have on board a permit issued by the Secretary of Commerce. Required by FCMA.

### 14.3.2.2 Prohibited species

No retention of salmon, steelhead trout, halibut, or Continental Shelf Fishery Resources to prevent covert targetting on species of special importance to U.S. fishermen.

### 14.3.2.3 Area closures

#### A. General

- (i) No harvesting year-round within 12 miles of the baseline used to measure the territorial sea except in the western Aleutian Islands as described in Appendix III. To prevent conflicts with U.S. fixed gear and small inshore fishery vessels and to prevent catch of localized inshore species important to U.S. commercial and subsistence fishermen. If joint venture operations are permitted foreign ships receiving fish from American fishermen may operate to within three miles of the baseline used to measure the territorial sea. However, when operating within that area between 3 and 12 miles of the baseline used to measure the territorial sea such foreign processors may not receive fish from foreign fishing vessels.

ANNEX II

Derivation of Expected Domestic Annual Harvesting Capacity

A-58

Change 1  
8/24/79

## ANNEX II.1 Expected Domestic Annual Processing Capacity (DAP)

The western Alaska Peninsula and the Aleutian Islands are two of the more expensive locations for business to be conducted in Alaska. It was not surprising to learn during the survey that most of the plant owners in the area either had no firm plans to commence groundfish operations, or were developing in-house experience and expertise at other locations on the coast where costs are considerably less.

Perhaps even more surprising was the magnitude of the amount of product anticipated by the three processors who indicated that they planned to process groundfish. Their combined <sup>1/</sup> estimate of expected domestic annual harvest of Bering Sea/Aleutian groundfish is as follows:

|                  |                               |
|------------------|-------------------------------|
| Pollock          | 10,000 mt                     |
| Pacific cod      | 7,000 mt                      |
| Rockfishes       | 1,100 mt (eastern Bering Sea) |
|                  | 1,100 mt (Aleutians)          |
| Yellowfin sole   | 1,000 mt                      |
| Turbots          | 1,000 mt                      |
| Other flatfishes | 1,000 mt                      |
| Sablefish        | 500 mt (eastern Bering Sea)   |
|                  | 500 mt (Aleutians)            |
| Others           | 1,400 mt                      |
| Total            | 24,600 mt                     |

## II.2 Estimate of U.S. Harvest of Fish for Non-Processed Markets (DNP)

Surveys of the needs for bait and subsistence fish were made through interviews with fishermen, processors and villagers. The expected catch is approximately 1,500 metric tons in the following categories:

|                |        |
|----------------|--------|
| Pollock        | 500 mt |
| Pacific cod    | 200 mt |
| Yellowfin sole | 200 mt |

<sup>1/</sup> Individual company projections are not given because of the proprietary nature of that data.

|                  |                 |
|------------------|-----------------|
| Other flatfishes | 200 mt          |
| Others           | 400 mt          |
| <b>Total</b>     | <b>1,500 mt</b> |

### II.3 Derivation of Expected U. S. Harvest Delivered to Foreign Processors (JVP)

Testimony at the June, 1979 Council meeting indicated an interest by both domestic fishermen and foreign atsea processors for developing a "joint venture" fishery for groundfish in the Bering Sea/Aleutian region during the plan year. A subsequent telephone canvass of those operators expressing an interest in buying fish from American fishermen for foreign processors at-sea developed the following estimates:

|                     |               |
|---------------------|---------------|
| Pollock             | 70,000 mt     |
| Cod                 | 20,000 mt     |
| Yellowfin sole      | 5,000 mt      |
| Turbots             | 500 mt        |
| Other flatfishes    | 1,500 mt      |
| Pacific ocean perch | 2,200 mt      |
| Rockfish            | 950 mt        |
| Sablefish           | 900 mt        |
| Atka mackerel       | 1,350 mt      |
| Squid               | 500 mt        |
| Others              | 1,700 mt      |
| <b>Total</b>        | <b>30K mt</b> |

Rather than establish JVP at the full estimate of the joint venture operators of 104,600 mt, recognizing that because of the problems inherent in beginning this type in an area untried by American fishermen their goals may be unreachable in the immediate future, the estimate will be reduced by approximately the amounts held in reserve as shown in Annex III (p. A60) to a total of 30,000 mt. If the amounts required during the year by domestic processors (DAP) joint venture processors (JVP) or person's involved in the nonprocessed markets (DNP) exceed the amounts established in this Annex the amount of resource held in reserve is expected to be enough to satisfy those needs.

The amount established for JVP is therefore:

|                     |                  |
|---------------------|------------------|
| Pollock             | 9,050 mt         |
| Cod                 | 17,065 mt        |
| Yellowfine sole     | 850 mt           |
| Turbot              | 75 mt            |
| Other flatfish      | 100 mt           |
| Pacific ocean perch | 1,660 mt         |
| Other rockfish      | 450 mt           |
| Sablefish           | 400 mt           |
| Atka Mackerel       | 100 mt           |
| Squid               | 50 mt            |
| Others              | 200 mt           |
| <b>Total</b>        | <b>30,000 mt</b> |

Section 12.0 Catch and Capacity Descriptors, estimates U.S. commercial fishing fleet capacity at 156,518 metric tons (Section 12.1.2). Since that survey was done there has been a considerable amount of new construction capable of entering the groundfish fishery, some of it developed specifically for that fishery, that could increase that capacity figure. The DAH (DAP+DNP+JVP), as estimated in this Annex, is 56,100 mt, well below estimated fleet capacity. The performance of joint venture operations during 1979 in the Gulf of Alaska, while below expectations, clearly revealed the potential for rapid expansion. In recognition of this potential and the probable expansion of joint ventures to the Bering Sea in 1980, and consistent with the provisions of P.L. 95-354, the plan provides an initial JVP amount of 30,000 metric tons of all species combined for the 1980 plan year, January 1 - December 31, 1980. Should the performance of joint ventures fail to meet expectations or the demands of DAP exceed expectations, the JVP will be reduced accordingly. The JVP and DAP surpluses not required in the DAH will be made available to the TALFF during the plan year as indicated in Section 12.2.

A-59b

Change 1  
8/24/79

## ANNEX III -- Derivation of Total Allowable Level of Foreign Fishing

(TALFF) (Metric Tons)

| Reference:<br>Species group | Sub-area <u>1/</u> | Annex I<br>ABC<br>= OY | Section<br>13.1<br>Reserve | Annex II<br>Initial<br>DAH <u>3/</u> | Initial<br>TALFF |
|-----------------------------|--------------------|------------------------|----------------------------|--------------------------------------|------------------|
| Pollock                     | Bering Sea         | 1,000,000              | 50,000                     | 19,550                               | 930,450          |
| Pollock                     | Aleutian           | 100,000                | <u>34/</u>                 | --                                   | 100,000          |
| Yellowfin sole              |                    | 117,000                | 5,850                      | 2,050                                | 109,100          |
| Turbots                     |                    | 90,000                 | 4,500                      | 1,075                                | 84,425           |
| Other flatfishes <u>2/</u>  |                    | 61,000                 | 3,050                      | 1,300                                | 56,650           |
| Pacific cod                 |                    | 58,700                 | 2,935                      | 24,265                               | 31,500           |
| Pacific ocean perch         | Bering Sea         | 3,250                  | 162                        | 1,380                                | 1,708            |
| Pacific ocean perch         | Aleutian           | 7,500                  | 375                        | 1,380                                | 5,745            |
| Other rockfish              |                    | 7,727                  | 500                        | 1,550                                | 5,677            |
| Sablefish                   | Bering Sea         | 3,500                  | 350                        | 700                                  | 2,450            |
| Sablefish                   | Aleutian           | 1,500                  | 150                        | 700                                  | 650              |
| Atka mackerel               |                    | 24,800                 | 1,240                      | 100                                  | 23,460           |
| Squid                       |                    | 10,000                 | 500                        | 50                                   | 9,450            |
| Others                      |                    | 74,249                 | 3,712                      | 2,000                                | 68,537           |
| Total                       |                    | 1,559,226              | 73,324                     | 56,100                               | 1,429,802        |

\*1/ BS Bering Sea (Statistical Areas I, II, III combined).

AL Aleutian Island Area (Statistical Area IV).

2/ Excluding Pacific halibut.

~~3/ Equals DAP, see Annex II.~~

34/ This OY calculated for the offshore pollock population in deep water is discussed in Annex I (p. A-13). No reserve is considered necessary at this time since there is little U.S. capability for a pelagic trawl fishery and resource abundance on the continental shelf is expected to keep any U.S. effort on that component identical to that in the "B. Sea."

\* Includes territorial waters.

Table I.1--MSY, EY, and ABC Values for Groundfish in the Bering Sea/Aleutian Region during 1979 (1000's mt)

| Species                | Sub-area <u>1/</u> | MSY                 | EY                  | ABC=OY    | (1978 OY) | (1978-79 change) |
|------------------------|--------------------|---------------------|---------------------|-----------|-----------|------------------|
| Pollock                | BS                 | 1,100-1,600         | 1,000               | 1,000     | (950)     | (+50)            |
|                        | AL                 | ?                   | ?                   | 100       |           |                  |
| Yellowfin sole         | --                 | 169-260             | 117                 | 117       | (106)     | (+11)            |
| Turbots                | --                 | 100                 | 90-95               | 90        | (139)     | (12)             |
| Other Flatfishes       | --                 | 44.3-76.8           | =MSY                | 61        |           |                  |
| Cod                    | --                 | 58.7                | =MSY                | 58.7      | (58)      | (+0.7)           |
| Pacific ocean perch    | BS                 | 32                  | 6.5                 | 3.25      | (6.5)     |                  |
|                        | AL                 | 75                  | 15                  | 7.5       | (15)      |                  |
| Other rockfish         | --                 | ?                   | ?                   | 7.7       |           | <u>4/</u>        |
| Sablefish              | BS                 | 11.35               | 3.5                 | 3.5       | (5)       | (-1.5)           |
|                        | AL                 | 1.85                | 1.5                 | 1.5       | (1.5)     | (0)              |
| Atka mackerel          | --                 | 33                  | Unknown             | 24.8      | (24.8)    | (0)              |
| Squid                  | --                 | ≥ 10                | ≥ 10                | 10        | (10)      | (0)              |
| Pacific halibut        | --                 | 5                   | 0.3                 | <u>2/</u> | --        | --               |
| Other included species | --                 | 89.4                | 89.4                | 74.2      | (93.6)    | (-19.4)          |
| Total <u>3/</u>        | --                 | 1,702.2-<br>2,325.7 | 1,446.5-<br>1,484.0 | 1,559.23  | (1,409.4) | (+149.83)        |

1/ BS = Eastern Bering Sea Area (Statistical Areas I, II, III combined).

AL = Aleutian Area (Statistical Area IV).

2/ Subject to separate FMP.

3/ Excluding Pacific halibut.

4/ Included under "others" in 1978.

BS/A

ANNEX VI -- SPECIES CATEGORIES WHICH APPLY  
TO THE BERING SEA/ALEUTIAN GROUND FISH FISHERY

Prohibited  
Species 1/

Target  
Species 2/

"Other"  
Species 3/

Non-Specified  
Species 4/

FINFISHES

Salmonids  
Pacific Halibut

Pollock  
Cod  
Flounders  
Herring  
Atka mackerel  
Sablefish  
Rockfishes

Sculpins  
Sharks  
Skates  
Eulachon  
Smelts  
Capelin

Eelpouts (family Zoarcidae)  
Poachers (family Agonidae)  
and alligator fish  
Snailfish, Lumpfishes, Lumpsuckers  
(family Cyclopteridae)  
Sandfishes (Trichodon sp.)  
Rattails (family Macrouridae)  
Ronquils, Searchers (family  
Bathymasteridae)  
Lancetfish (family Alepisanvidae)  
Pricklebacks, Cockscombs, Warbonnet  
Shanny (family Stichaeidae)  
Prowfish (Zaprora sil.)  
Hagfish (Eptatretus sp.)  
Lampreys (Lampetra sp.)  
Blennys, Gunnels, (Various small b  
dwelling fishes of the family  
Stichaeidae and Pholidae)

INVERTEBRATES

King crab  
Tanner crab  
Coral  
Shrimp  
Clams  
Horsehair crab  
Lyre crab

Squids

Octopus

Anemones  
Starfishes  
Egg cases  
Sea mouse  
Sea slug  
Sea potato  
Sand dollar  
Hermit crab  
Nussels  
Sea urchins  
Sponge-unident.

Jellyfishes  
Tunicates  
Sea cucumber  
Sea pen  
Isopods  
Barnacles  
Polychaetes  
Crinoids  
Crab - unidentified  
Misc. - unidentifie

- 1/ Must be returned to the sea, no fee.
- 2/ OY for each items; fee as 1' fee schedule.
- 3/ Aggregate OY for group equal to 5% of total  
OY of line items; ~~fee based on \$47/mt ex vessel value.~~
- 4/ List not exclusive; includes any species not listed  
under Prohibited, Target, or "Other" categories; no fee charged.

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

HOUSE RESEARCH AGENCY  
Pouch Y - State Capitol  
Juneau, Alaska 99811  
465-3991

MEMORANDUM

March 12, 1980

TO: Representative Fred Zharoff

FROM: Peter B. Froehlich *PBF*

RE: HB 767 (Disclosure of Alien Affiliates in Alaska Businesses)  
Research Request No. 96

This memorandum is in response to your recent request that this agency perform a sectional analysis of HB 767 concerning disclosure of alien affiliates in Alaska businesses. You also requested a comparison of HB 767 and SB 112 concerning corporate dissolution, reinstatement and fees. That comparative analysis will be provided next week as previously arranged.

In summary, it appears that this bill would improve the completeness and accuracy of the State's information concerning alien affiliates in Alaska business. It would also make other changes in the Alaska Business Corporation Act, which have no apparent specific connection to alien affiliates in Alaska business. In fact only 7 of the 16 substantive sections of the bill appear to have a specific application on alien affiliates, while the remaining 9 sections apply to all corporations equally. Therefore, it may be desirable to broaden the scope of the title of the bill to more clearly comply with the requirement of Article II, § 13 of the Alaska Constitution that the subject of each bill be expressed in its title.

HB 767 would amend 13 sections or subsections of AS 10.05. the Alaska Business Corporation Act, and would add five new sections or subsections. The existing provisions of the Act dealing with alien affiliates were enacted in 1975.

Section 1 of the bill would amend AS 10.05.250 in three respects. First, it would change the last word in the current title of the section, Reorganization; Disclosure of Alien Interests, to "Affiliates". Second, it would substitute the words "alien affiliates" for the current descriptive language "affiliate which is a nonresident alien or corporation whose place of business is outside the U.S." The word "alien" would be defined by § 16 of the bill which would add a new AS 10.05.825(22). Finally, § 1 of the bill would add a third category of information to the two categories now required to be filed before a corporate reorganization (i.e., identities of alien affiliates of the surviving corporation and percent of shares controlled by each). The new third category of information required would be a description of the nature of the affiliation between the surviving corporation and an alien affiliate.

Sections 2 and 3 of the bill would amend AS 10.05.225(a) which lists the requirements to be included in articles of incorporation by all corporations. Section 2 would add to AS 10.05.255(a)(3) the requirement that articles include an activity code number from the code established under new AS 10.05.703 which would be enacted by § 10 of the bill. This new numerical code would be adopted by the commissioners of Revenue and of Commerce and Economic Development and would be a numerical list of business activities. Section 3 of the bill would change the language of the requirement of AS 10.05.255(a)(13) that articles include the identity of any alien affiliate and add a requirement of a description of the nature of the affiliation. The new language corresponds to that of AS 10.05.250 as it would be amended by § 1 of the bill.

Sections 4 and 5 of the bill would amend AS 10.05.519(a) which lists the circumstances under which the Commissioner of Commerce and Economic Development may dissolve a corporation involuntarily. Section 4 would shorten the allowable delinquency period for annual reports, license fees, and penalties from 6 months to 3 months. (It was shortened from 12 to 6 months in 1976.) Section 5 of the bill would add material misrepresentation as cause for involuntary dissolution.

Sections 6 and 7 of the bill would amend AS 10.05.615 which lists the required contents of applications by foreign corporations for certificates of authority to transact business in the state. [Foreign corporations, under current AS 10.05.825(4), are corporations for profit organized under any laws other than those of Alaska.] Section 6 would add to AS 10.05.615(5) the requirement that applications include an activity code number from the code established under new AS 10.05.703 (§ 10 of the bill). The language of this change is identical to that of § 2 of the bill concerning articles of incorporation. Section 7 of the bill would change the language of AS 10.05.615(12) which requires applications for certificates to include the identity of alien affiliates to correspond with the changes §§ 1 and 3 of the bill would make to AS 10.05.250 and 255(a)(13), respectively. Section 7 would also add the requirement of a description of the nature of the alien's affiliation just as would §§ 1 and 3.

Sections 8 and 9 of the bill would amend AS 10.05.702 concerning annual reports. Section 8 would amend AS 10.05.702(3) to add the requirement that annual reports include an activity identification code under new AS 10.05.703 (§ 10 of the bill). This change corresponds to §§ 2 and 6 of the bill concerning articles of incorporation and applications for certificates of authority, respectively. Section 9 of the bill would change the language of AS 10.05.703(8) which requires annual reports to include the identity of alien affiliates to correspond with the changes of §§ 1, 3 and 7 make to other reporting requirements including the addition of a requirement of a description of the nature of the affiliation.

Representative Russ Meekins

March 12, 1980

Page 3

Section 10 of the bill would add two new sections to the Act. New AS 10.05.700 would require any domestic (Alaska) or foreign (non-Alaska) corporation which publishes a stockholder report to submit it with its annual report to the commissioner. New AS 10.05.703 would require the commissioners of Revenue and of Commerce and Economic Development to adopt a code list of business activities to be followed by corporations in complying with the reporting requirements added by § 2 of the bill re articles of incorporation [AS 10.05.255(a)(3)], by § 6 re applications for certificates of authority [AS 10.05.615(5)], and by § 8 re annual reports [AS 10.05.702(3)].

Section 11 of the bill would amend AS 10.05.771 to provide that the penalty for not timely filing an annual report is 10% of the franchise tax for each month of violation rather than the single flat 10% penalty provided in current statute.

Sections 12 and 13 of the bill would amend AS 10.05.783 and 786 to delete the \$500 maximum fine for failure to answer interrogatories promptly and for signing required documents knowing them to be materially false. Under AS 11.81.250(c) of the new criminal code, the deletion of the penalty would result in the categorization of this offense as a Class A misdemeanor under the new criminal code. Under AS 12.55.035(c) the new maximum fine would therefore be \$100,000.

Sections 14-16 of the bill amend and add to the definitions of AS 10.05.825. Section 14 would broadly rewrite the definition of "affiliate" in AS 10.05.825(18). Section 15 would expand the definition of "person" in AS 10.05.825(20), by adding joint venture, company, firms, society and estate to the list of meanings. Section 16 would add two new definitions to AS 10.05.825, "alien" and "state."

Finally, Section 17 of the bill would give it a January 1, 1981 effective date.

Please contact us if we may provide further assistance or information concerning HB 767.

PBF/dp

# FRANK ORTH & ASSOCIATES

Economic and Business Consultants • 225 108th Ave. N.E., Suite 311, Bellevue WA 98004 • (206) 455-3507

January 17, 1980

Mr. Myrton R. Charney  
Executive Director  
Alaska State Legislature  
Legislative Affairs Agency  
Pouch Y  
Juneau, Alaska 99811

Dear Mr. Charney:

It has been requested by Representative Fred Zharoff that a page (enclosed) be inserted into the report Foreign Investment in the Alaska Seafood Industry. It is to be inserted after the title page and before page iii of the Table of Contents; it should appear on the right-hand (odd-numbered) side of the report.

In addition, Representative Zharoff has requested that we send 375 front covers and 375 back covers to you (instead of the 90 fronts and backs I mentioned in my correspondence on January 14). These will be sent under a separate cover and should reach you shortly.

Thank you in advance for your cooperation in this matter.

Sincerely,

Peter W. Rogers  
Economic Analyst

PWR:kh  
Enclosure  
✓ cc: Fred Zharoff

HOUSE INTERIM COMMITTEE ON FOREIGN INVESTMENT

Fred F. Zharoff  
Chairman

Richard I. Eliason

Bill Miles

# FRANK ORTH & ASSOCIATES

Economic and Business Consultants • 225 108th Ave. N.E., Suite 311, Bellevue WA 98004 • (206) 455-3507

January 17, 1980

Mr. Fred F. Zharoff  
Representative District 14  
Pouch V  
State Capitol  
Juneau, Alaska 99811

Dear Fred:

Enclosed please find the page to be inserted into the report, the letter to Mr. Charney and a list of parties to whom the report should be sent. I hope that the insert is what you had in mind.

Please contact me if you have any further questions or comments on the above items or any other matter.

Sincerely,



Peter W. Rogers  
Economic Analyst

PWR:kh  
Enclosures

STATE OF ALASKA  
THE LEGISLATURE  
LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL  
JUNEAU, ALASKA 99811  
907-465-3800

MEMORANDUM

November 8, 1979

TO: A.A.'s ALL INTERIM COMMITTEES

FROM: Richard G. Berg, Director  
Administrative Services *RB*

SUBJECT: Budget Authorizations

Many of our interim committees are fast approaching the "peril point" of their budget authorizations. As many of you intend to operate through December, this is to remind you of the need for tight liaison with our accounting staff.

We are unable to authorize payments--salary or otherwise--if your budget authorization is met or exceeded. Accounting control is on a cash basis for the most part; and, therefore, expenditures do not reflect on reports until paid.

Further, as you plan closure of your offices, anticipate returning travel request booklets and reconciled petty cash accounts to us as early as possible.

RGB:mm

*Fred:*  
The balance for  
Foreign Investment Committee  
was \$ 1,806.51 as of 10/31/79.  
*Merle*

*Foreign Investments*

# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF FISH AND GAME OFFICE OF THE COMMISSIONER

SUBPORT BUILDING  
JUNEAU, ALASKA 99801

November 30, 1979

Fred F. Zharoff, Chairman  
Foreign Investment Committee  
Alaska State Legislature  
House of Representatives  
Pouch V  
Juneau, Alaska 99811

Dear Mr. Zharoff:

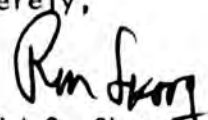
In response to your request of September 27, 1979, attached is the computer report showing 1977 aggregate statewide fisheries production. The report has broken Alaskan processors into the five groups specified in your letter, and gives net weight and value figures for each species and production type. Canned production has been converted from the number of cases into the number of pounds.

It should be noted that the report contains custom processing data; that is, any fish that were processed for a given company by another company. If, for example, Whitney-Fidalgo Seafoods has fish custom processed for them by Peter Pan Seafoods or Alaska Packers, the production would appear in the report group which included Whitney-Fidalgo. Under these circumstances the actual processing could be performed by a U.S./Canadian invested company, but would be included in the Japanese invested report category. The reverse could also occur. This situation was discussed with Mr. Pat Dougherty at the beginning of the project; he indicated at that time that he understood the situation, but wished the Department to footnote its existence in writing.

Mr. Dougherty also informed the Department that Franklin Orth and Associates of Bellevue, Washington, would be analyzing the report. A copy has been forwarded to Bellevue.

I hope you will find the report suitable to your needs. The report was prepared by the Department's Computer Services Section under the direction of Mr. Don Wanie and Ms. Lori Svensson. They can be reached at 465-4150 if any questions should arise.

Sincerely,



Ronald O. Skoog, Commissioner  
Department of Fish and Game

cc: Don Wanie, ADF&G  
Franklin Orth & Associates

Page 2 is the  
first valid page  
of the report.

HJS

RUN DATE : 11/01/79

DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

\*\*\*\*\*

S U M M A R Y

\*\*\*\*\*

| PROCESSOR GROUPS                 | NET WEIGHT (LBS.) | % OF TOTAL | VALUE         | % OF TOTAL |
|----------------------------------|-------------------|------------|---------------|------------|
| AT LEAST 25% JAPANESE OWNERSHIP  | 88,558,414        | 26.16      | \$163,119,989 | 25.38      |
| LESS THAN 25% JAPANESE OWNERSHIP | 34,883,656        | 10.31      | \$53,914,122  | 8.39       |
| UNIDENTIFIED OWNERSHIP           | 25,433,301        | 7.51       | \$48,465,832  | 7.54       |
| CANADIAN-U.S. OWNERSHIP          | 149,958,749       | 44.30      | \$311,110,883 | 48.41      |
| INDIVIDUAL OWNERSHIP             | 39,662,092        | 11.72      | \$66,090,873  | 10.28      |
| ** TOTAL FOR ALL **              | 338,496,212       | 100.00     | \$642,701,699 | 100.00     |

DATE: 11/01/79

DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES

AT LEAST 25% JAPANESE OIL

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES         | PROCESS      | PRODUCT      | WEIGHT (LBS.) | VALUE       |
|-----------------|--------------|--------------|---------------|-------------|
| BOTTOM FISH GEN | FROZEN       | WHOLE/DRESSD | 92,878        | 124,901     |
| PACIFIC COD     | FROZEN       | WHOLE/DRESSD | 28,145        | 420,755     |
| TURBOT          | FROZEN       | WHOLE/DRESSD | 3,575         | 51,430      |
| LING COD        | FROZEN       | WHOLE/DRESSD | 33,589        | 122,457     |
| ROCKFISH        | FROZEN       | WHOLE/DRESSD | 140,756       | 164,820     |
| HALIBUT         | FROZEN       | WHOLE/DRESSD | 6,318,871     | 19,505,972  |
| HERRING         | SALT/PICKLED | ROE          | 76,912        | 140,375     |
| HERRING EGGS KP | SALT/PICKLED | ROE          | 49,000        | 358,800     |
| BAIT HERRING    | FROZEN       | WHOLE/DRESSD | 232,770       | 828,297     |
| BAIT HERRING    | FROZEN       | BAIT         | 1,260,944     | 317,429     |
| HERRING EGGS    | FROZEN       | ROE          | 12,428        | 116,351     |
| HERRING EGGS    | SALT/PICKLED | ROE          | 75,876        | 1342,421    |
| GENERAL SALMON  | FROZEN       | WHOLE/DRESSD | 139,537       | 1629,425    |
| GENERAL SALMON  | FROZEN       | ROE          | 614,953       | 12,438,347  |
| GENERAL SALMON  | SALT/PICKLED | ROE          | 1,817,102     | 15,347,589  |
| KING SALMON     | FROZEN       | WHOLE/DRESSD | 2,088,878     | 14,098,618  |
| KING SALMON     | CAN-CONV     | WHOLE/DRESSD | 49,794        | 161,865     |
| RED SALMON      | FROZEN       | WHOLE/DRESSD | 5,703,168     | 110,610,076 |
| RED SALMON      | SALT/PICKLED | WHOLE/DRESSD | 750,024       | 11,800,476  |
| RED SALMON      | CAN-CONV     | WHOLE/DRESSD | 6,880,966     | 113,535,190 |
| COHO SALMON     | FROZEN       | WHOLE/DRESSD | 2,010,885     | 13,498,295  |
| COHO SALMON     | CAN-CONV     | WHOLE/DRESSD | 347,898       | 338,392     |
| PINK SALMON     | FRESH        | WHOLE/DRESSD | 758,571       | 1326,186    |
| PINK SALMON     | FROZEN       | WHOLE/DRESSD | 1,141,218     | 1882,261    |
| PINK SALMON     | CAN-CONV     | WHOLE/DRESSD | 19,538,261    | 126,183,731 |
| CHUM SALMON     | FRESH        | WHOLE/DRESSD | 12,855        | 16,428      |
| CHUM SALMON     | FROZEN       | WHOLE/DRESSD | 4,689,010     | 14,903,714  |
| CHUM SALMON     | CAN-CONV     | WHOLE/DRESSD | 4,757,758     | 15,890,377  |
| SMELT           | FROZEN       | WHOLE/DRESSD | 607           | 1212        |
| SHEEFISH        | FROZEN       | WHOLE/DRESSD | 14,298        | 18,719      |
| SABLEFISH       | FROZEN       | WHOLE/DRESSD | 947,869       | 1880,034    |
| ABALONE         | FROZEN       | WHOLE/DRESSD | 5,242         | 113,105     |
| DUNGENESS CRAB  | FROZEN       | WHOLE/DRESSD | 257,290       | 1213,044    |
| DUNGENESS CRAB  | FROZEN       | SECTION/TAIL | 35,952        | 146,118     |
| DUNGENESS CRAB  | FROZEN       | MEAT         | 385           | 1424        |
| DUNGENESS CRAB  | CAN-CONV     | MEAT         | 5,395         | 114,050     |
| GEN KING CRAB   | FROZEN       | WHOLE/DRESSD | 29,299        | 115,049     |
| GEN KING CRAB   | FROZEN       | SECTION/TAIL | 10,274,861    | 130,487,170 |
| GEN KING CRAB   | FROZEN       | MEAT         | 2,717,555     | 114,945,681 |
| GEN KING CRAB   | CAN-CONV     | MEAT         | 10,421        | 159,529     |
| TANNER CRAB     | FROZEN       | SECTION/TAIL | 8,894,114     | 110,604,158 |
| TANNER CRAB     | FROZEN       | MEAT         | 1,266,383     | 13,911,642  |
| TANNER CRAB     | CAN-CONV     | MEAT         | 483,435       | 12,079,337  |
| GENERAL SHRIMP  | FROZEN       | WHOLE/DRESSD | 1,705,196     | 11,343,243  |
| GENERAL SHRIMP  | FROZEN       | SECTION/TAIL | 1,190,775     | 12,899,242  |

DATE 11/01/79

DEPARTMENT OF FISH AND WILDLIFE  
DIVISION OF COMMERCIAL FISHERIES

AT LEAST 25% JAPANESE OWN

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES        | PROCESS  | PRODUCT       | WEIGHT (LBS.) | VALUE       |
|----------------|----------|---------------|---------------|-------------|
| GENERAL SHRIMP | CAN-CONV | WHOLE/DRESSED | 276,523       | \$617,250   |
| GENERAL SHRIMP | CAN-CONV | SECTION/TAIL  | 1,015,190     | \$2,908,097 |

AT LEAST 25% JAPANESE OWNERSHIP

88,558,414      \$163,119,989

RUN DATE : 11/01/79

DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES

LESS THAN 25% JAPANESE OW

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES         | PROCESS  | PRODUCT      | WEIGHT (LBS.) | VALUE        |
|-----------------|----------|--------------|---------------|--------------|
| PACIFIC COD     | FROZEN   | WHOLE/DRESSD | 22,150        | \$16,613     |
| ROCKFISH        | FROZEN   | WHOLE/DRESSD | 22,712        | \$12,130     |
| HALIBUT         | FROZEN   | WHOLE/DRESSD | 388,598       | \$595,142    |
| BAIT HERRING    | FROZEN   | BAIT         | 1,281,000     | \$179,340    |
| GENERAL SALMON  | FRESH    | ROE          | 12,711        | \$413,552    |
| GENERAL SALMON  | FROZEN   | ROE          | 2,020,115     | \$6,470,794  |
| KING SALMON     | FROZEN   | WHOLE/DRESSD | 780,367       | \$1,844,641  |
| KING SALMON     | CAN-CONV | WHOLE/DRESSD | 53,815        | \$84,531     |
| RED SALMON      | FROZEN   | WHOLE/DRESSD | 1,146,291     | \$2,118,548  |
| RED SALMON      | CAN-CONV | WHOLE/DRESSD | 6,132,206     | \$12,120,517 |
| COHO SALMON     | FROZEN   | WHOLE/DRESSD | 738,551       | \$1,609,203  |
| COHO SALMON     | CAN-CONV | WHOLE/DRESSD | 316,515       | \$506,020    |
| PINK SALMON     | FRESH    | WHOLE/DRESSD | 108,553       | \$58,553     |
| PINK SALMON     | FROZEN   | WHOLE/DRESSD | 696,565       | \$617,367    |
| PINK SALMON     | CAN-CONV | WHOLE/DRESSD | 14,499,246    | \$19,073,328 |
| CHUM SALMON     | FROZEN   | WHOLE/DRESSD | 1,552,350     | \$2,064,642  |
| CHUM SALMON     | CAN-CONV | WHOLE/DRESSD | 5,025,519     | \$6,113,598  |
| STEELHEAD TROUT | FROZEN   | WHOLE/DRESSD | 2,392         | \$4,764      |
| SABLEFISH       | FROZEN   | WHOLE/DRESSD | 13,803        | \$12,419     |

LESS THAN 25% JAPANESE OWNERHIP

34,883,656

\$53,914,122

RUN DATE : 11/01/79

STATE OF ALASKA  
DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES

UNIDENTIFIED OWNERSHIP

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES         | PROCESS      | PRODUCT      | WEIGHT (LBS.) | VALUE        |
|-----------------|--------------|--------------|---------------|--------------|
| HALIBUT         | FRESH        | WHOLE/DRESSD | 127           | \$180        |
| HALIBUT         | FROZEN       | WHOLE/DRESSD | 1,272,351     | \$1,931,512  |
| HERRING EGGS KP | FRESH        | ROE          | 57,689        | \$46,685     |
| HERRING EGGS KP | SALT/PICKLED | ROE          | 75,520        | \$141,648    |
| BAIT HERRING    | FROZEN       | WHOLE/DRESSD | 140,000       | \$28,000     |
| BAIT HERRING    | FROZEN       | BAIT         | 2,013,435     | \$308,306    |
| HERRING EGGS    | FRESH        | ROE          | 163,500       | \$23,700     |
| HERRING EGGS    | FROZEN       | ROE          | 2,670,879     | \$1,018,205  |
| GENERAL SALMON  | FRESH        | ROE          | 16,672        | \$44,820     |
| GENERAL SALMON  | FROZEN       | WHOLE/DRESSD | 10,850        | \$27,665     |
| GENERAL SALMON  | FROZEN       | ROE          | 114,227       | \$410,669    |
| GENERAL SALMON  | SALT/PICKLED | ROE          | 23,254        | \$125,389    |
| KING SALMON     | FRESH        | WHOLE/DRESSD | 92,742        | \$147,032    |
| KING SALMON     | FROZEN       | WHOLE/DRESSD | 2,773,264     | \$8,863,971  |
| KING SALMON     | CAN-CONV     | WHOLE/DRESSD | 754           | \$3,296      |
| KING SALMON     | CAN-SMOKED   | WHOLE/DRESSD | 4,321         | \$25,024     |
| RED SALMON      | FRESH        | WHOLE/DRESSD | 25,333        | \$29,458     |
| RED SALMON      | FROZEN       | WHOLE/DRESSD | 2,497,467     | \$4,342,233  |
| RED SALMON      | SALT/PICKLED | WHOLE/DRESSD | 581,321       | \$1,011,290  |
| RED SALMON      | SMOKE/KIPPER | WHOLE/DRESSD | 500           | \$1,500      |
| RED SALMON      | CAN-CONV     | WHOLE/DRESSD | 14,474        | \$29,173     |
| RED SALMON      | CAN-SMOKED   | WHOLE/DRESSD | 4,914         | \$29,660     |
| COHO SALMON     | FRESH        | WHOLE/DRESSD | 38,210        | \$39,457     |
| COHO SALMON     | FROZEN       | WHOLE/DRESSD | 1,925,555     | \$4,356,164  |
| COHO SALMON     | SMOKE/KIPPER | WHOLE/DRESSD | 240           | \$300        |
| COHO SALMON     | CAN-CONV     | WHOLE/DRESSD | 24            | \$48         |
| PINK SALMON     | FRESH        | WHOLE/DRESSD | 2,220         | \$1,680      |
| PINK SALMON     | FROZEN       | WHOLE/DRESSD | 738,947       | \$625,265    |
| PINK SALMON     | SALT/PICKLED | WHOLE/DRESSD | 2,396         | \$10,215     |
| CHUM SALMON     | FRESH        | WHOLE/DRESSD | 72,633        | \$42,891     |
| CHUM SALMON     | FROZEN       | WHOLE/DRESSD | 1,044,852     | \$1,302,551  |
| CHUM SALMON     | CAN-SMOKED   | WHOLE/DRESSD | 24            | \$58         |
| SHEEFISH        | FROZEN       | WHOLE/DRESSD | 803           | \$281        |
| SABLEFISH       | FROZEN       | WHOLE/DRESSD | 23,000        | \$23,000     |
| RAZOR CLAMS     | FRESH        | WHOLE/DRESSD | 400           | \$750        |
| WTHRRN SCALL    | FROZEN       | WHOLE/DRESSD | 22,103        | \$50,837     |
| DUNGENESS CRAB  | FROZEN       | WHOLE/DRESSD | 546           | \$663        |
| DUNGENESS CRAB  | FROZEN       | SECTION/TAIL | 254           | \$276        |
| DUNGENESS CRAB  | FROZEN       | MEAT         | 20,409        | \$71,000     |
| GEN KING CRAB   | FROZEN       | WHOLE/DRESSD | 10,732        | \$26,451     |
| GEN KING CRAB   | FROZEN       | SECTION/TAIL | 6,424,319     | \$19,549,774 |
| GEN KING CRAB   | FROZEN       | MEAT         | 15,141        | \$81,726     |
| TANNER CRAB     | FROZEN       | SECTION/TAIL | 1,906,516     | \$1,984,243  |
| TANNER CRAB     | FROZEN       | MEAT         | 431,584       | \$1,278,779  |
| GENERAL SHRIMP  | FROZEN       | WHOLE/DRESSD | 207           | \$2,229      |

Alaska Business Reports, Inc.

DATE: 11/01/79

DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES

UNIDENTIFIED OWNERSHIP

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES        | PROCESS | PRODUCT      | WEIGHT (LBS.) | VALUE    |
|----------------|---------|--------------|---------------|----------|
| GENERAL SHRIMP | FROZEN  | SECTION/TAIL | 197,718       | 1386,730 |

UNIDENTIFIED OWNERSHIP

25,433,301

148,465,832

Moore Business Forms, Inc.

RUN DATE 11/01/79

DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES

CANADIAN-U.S. OWNERSHIP

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES         | PROCESS      | PRODUCT      | WEIGHT (LBS.) | VALUE        |
|-----------------|--------------|--------------|---------------|--------------|
| PACIFIC COD     | FRESH        | WHOLE/DRESSD | 1,771         | \$2,213      |
| PACIFIC COD     | FROZEN       | WHOLE/DRESSD | 111,454       | \$80,610     |
| PACIFIC COD     | BYPRODUCTS   | BAIT         | 962           | \$635        |
| LING COD        | FRESH        | WHOLE/DRESSD | 91            | \$123        |
| ROCKFISH        | FRESH        | WHOLE/DRESSD | 3,068         | \$3,681      |
| OCTOPUS         | FROZEN       | BAIT         | 598           | \$646        |
| HALIBUT         | FRESH        | WHOLE/DRESSD | 41,030        | \$81,615     |
| HALIBUT         | FROZEN       | WHOLE/DRESSD | 4,128,878     | \$5,629,592  |
| HALIBUT         | BYPRODUCTS   | MEAL         | 15,300        | \$2,723      |
| HALIBUT         | BYPRODUCTS   | OIL          | 9,075         | \$1,361      |
| HERRING         | FROZEN       | WHOLE/DRESSD | 2,791,202     | \$1,418,498  |
| HERRING         | BYPRODUCTS   | MEAL         | 259,800       | \$50,141     |
| HERRING         | BYPRODUCTS   | OIL          | 55,566        | \$8,325      |
| HERRING EGGS KP | SALT/PICKLED | ROE          | 169,673       | \$289,038    |
| BAIT HERRING    | FROZEN       | BAIT         | 913,762       | \$133,719    |
| HERRING EGGS    | FROZEN       | ROE          | 897,639       | \$887,560    |
| HERRING EGGS    | SALT/PICKLED | ROE          | 155,010       | \$157,828    |
| GENERAL SALMON  | FRESH        | ROE          | 262,878       | \$977,451    |
| GENERAL SALMON  | FROZEN       | ROE          | 1,205,088     | \$5,270,097  |
| GENERAL SALMON  | SALT/PICKLED | ROE          | 1,364,224     | \$5,313,755  |
| GENERAL SALMON  | SMOKE/KIPPER | ROE          | 32,274        | \$112,959    |
| KING SALMON     | FRESH        | WHOLE/DRESSD | 247,165       | \$451,929    |
| KING SALMON     | FROZEN       | WHOLE/DRESSD | 1,555,386     | \$4,278,108  |
| KING SALMON     | SALT/PICKLED | WHOLE/DRESSD | 59,210        | \$166,745    |
| KING SALMON     | SMOKE/KIPPER | WHOLE/DRESSD | 100           | \$560        |
| KING SALMON     | MILD CURED   | WHOLE/DRESSD | 217,636       | \$184,564    |
| KING SALMON     | CAN-CONV     | WHOLE/DRESSD | 300,363       | \$647,504    |
| KING SALMON     | CAN-SMOKED   | WHOLE/DRESSD | 240           | \$1,350      |
| RED SALMON      | FRESH        | WHOLE/DRESSD | 788,157       | \$1,419,630  |
| RED SALMON      | FROZEN       | WHOLE/DRESSD | 5,921,675     | \$10,172,617 |
| RED SALMON      | SMOKE/KIPPER | WHOLE/DRESSD | 3,000         | \$12,000     |
| RED SALMON      | CAN-CONV     | WHOLE/DRESSD | 19,427,700    | \$41,096,171 |
| RED SALMON      | CAN-SMOKED   | WHOLE/DRESSD | 1,200         | \$6,250      |
| RED SALMON      | BYPRODUCTS   | BAIT         | 82,873        | \$74,586     |
| RED SALMON      | BYPRODUCTS   | MEAL         | 390,900       | \$59,026     |
| COHO SALMON     | FRESH        | WHOLE/DRESSD | 24,902        | \$45,556     |
| COHO SALMON     | FROZEN       | WHOLE/DRESSD | 2,793,003     | \$5,407,316  |
| COHO SALMON     | SALT/PICKLED | WHOLE/DRESSD | 405           | \$245        |
| COHO SALMON     | CAN-CONV     | WHOLE/DRESSD | 390,491       | \$605,344    |
| COHO SALMON     | CAN-SMOKED   | WHOLE/DRESSD | 720           | \$3,750      |
| PINK SALMON     | FRESH        | WHOLE/DRESSD | 51,432        | \$39,006     |
| PINK SALMON     | FRESH        | ROE          | 4             | \$231        |
| PINK SALMON     | FROZEN       | WHOLE/DRESSD | 1,210,739     | \$598,277    |
| PINK SALMON     | SALT/PICKLED | WHOLE/DRESSD | 403           | \$22         |
| PINK SALMON     | SMOKE/KIPPER | WHOLE/DRESSD | 700           | \$1,400      |

Macroe Business Forms, Inc.

DATE : 11/01/79

DEPARTMENT OF FISHERIES  
DIVISION OF COMMERCIAL FISHERIES

## CANADIAN-U.S. OWNERSHIP

## 1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES        | PROCESS      | PRODUCT      | WEIGHT (LBS.) | VALUE        |
|----------------|--------------|--------------|---------------|--------------|
| PINK SALMON    | CAN-CONV     | WHOLE/DRESSD | 21,258,534    | \$28,504,258 |
| PINK SALMON    | CAN-SMOKED   | WHOLE/DRESSD | 420           | \$2,000      |
| CHUM SALMON    | FRESH        | WHOLE/DRESSD | 507,610       | \$625,379    |
| CHUM SALMON    | FRESH        | ROE          | 3             | \$173        |
| CHUM SALMON    | FROZEN       | WHOLE/DRESSD | 3,999,894     | \$5,341,108  |
| CHUM SALMON    | SALT/PICKLED | WHOLE/DRESSD | 15,341        | \$9,205      |
| CHUM SALMON    | SMOKE/KIPPER | WHOLE/DRESSD | 1,410         | \$5,960      |
| CHUM SALMON    | MILD CURED   | WHOLE/DRESSD | 68,794        | \$28,375     |
| CHUM SALMON    | CAN-CONV     | WHOLE/DRESSD | 3,589,657     | \$10,722,957 |
| CHUM SALMON    | CAN-SMOKED   | WHOLE/DRESSD | 729           | \$3,450      |
| CHUM SALMON    | BYPRODUCTS   | DIL          | 144,425       | \$20,653     |
| SHEEFISH       | FRESH        | WHOLE/DRESSD | 632           | \$465        |
| SABLEFISH      | FROZEN       | WHOLE/DRESSD | 150,661       | \$118,637    |
| RAZOR CLAMS    | FROZEN       | WHOLE/DRESSD | 3,000         | \$2,708      |
| ABALONE        | FRESH        | WHOLE/DRESSD | 150           | \$668        |
| DUNGENESS CRAB | FRESH        | WHOLE/DRESSD | 12,023        | \$12,575     |
| DUNGENESS CRAB | FRESH        | SECTION/TAIL | 3,624         | \$8,866      |
| DUNGENESS CRAB | FROZEN       | WHOLE/DRESSD | 22,583        | \$16,900     |
| DUNGENESS CRAB | FROZEN       | SECTION/TAIL | 142,003       | \$120,426    |
| GEN KING CRAB  | FRESH        | WHOLE/DRESSD | 410           | \$1,760      |
| GEN KING CRAB  | FRESH        | SECTION/TAIL | 1,520         | \$6,360      |
| GEN KING CRAB  | FROZEN       | WHOLE/DRESSD | 370,775       | \$1,170,119  |
| GEN KING CRAB  | FROZEN       | SECTION/TAIL | 25,628,562    | \$79,671,513 |
| GEN KING CRAB  | FROZEN       | MEAT         | 2,999,610     | \$20,644,700 |
| GEN KING CRAB  | CAN-CONV     | WHOLE/DRESSD | 39,357        | \$671,802    |
| GEN KING CRAB  | CAN-CONV     | MEAT         | 274,115       | \$2,178,107  |
| TANNER CRAB    | FRESH        | WHOLE/DRESSD | 406           | \$766        |
| TANNER CRAB    | FRESH        | SECTION/TAIL | 810           | \$1,530      |
| TANNER CRAB    | FROZEN       | WHOLE/DRESSD | 1,168,445     | \$1,001,283  |
| TANNER CRAB    | FROZEN       | SECTION/TAIL | 22,046,866    | \$28,668,764 |
| TANNER CRAB    | FROZEN       | MEAT         | 2,672,924     | \$9,544,490  |
| TANNER CRAB    | CAN-CONV     | WHOLE/DRESSD | 848,719       | \$4,579,557  |
| TANNER CRAB    | CAN-CONV     | MEAT         | 345,936       | \$1,331,571  |
| TANNER CRAB    | BYPRODUCTS   | MEAL         | 51,600        | \$2,374      |
| GENERAL SHRIMP | FRESH        | WHOLE/DRESSD | 33,360        | \$30,024     |
| GENERAL SHRIMP | FRESH        | SECTION/TAIL | 15,680        | \$39,200     |
| GENERAL SHRIMP | FROZEN       | WHOLE/DRESSD | 3,947,592     | \$10,658,217 |
| GENERAL SHRIMP | FROZEN       | SECTION/TAIL | 2,825,320     | \$5,990,502  |
| GENERAL SHRIMP | CAN-CONV     | SECTION/TAIL | 4,742,329     | \$9,018,117  |
| GENERAL SHRIMP | CAN-CONV     | MEAT         | 1,085,119     | \$3,634,157  |

CANADIAN-U.S. OWNERSHIP

149,958,749

\$311,110,883

DATE: 11/01/79

DIVISION OF COMMERCIAL FISHERIES

INDIVIDUAL OWNERSHIP

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES         | PROCESS      | PRODUCT      | WEIGHT (LBS.) | VALUE        |
|-----------------|--------------|--------------|---------------|--------------|
| BOTTOM FISH GEN | FRESH        | WHOLE/DRESSD | 5,990         | \$1,038      |
| BOTTOM FISH GEN | FRESH        | BAIT         | 54,335        | \$10,614     |
| PACIFIC COD     | FROZEN       | WHOLE/DRESSD | 32,271        | \$57,560     |
| LING COD        | FROZEN       | WHOLE/DRESSD | 3,223         | \$2,256      |
| ROCKFISH        | FROZEN       | WHOLE/DRESSD | 14,935        | \$11,948     |
| HALIBUT         | FRESH        | WHOLE/DRESSD | 3,970         | \$6,678      |
| HALIBUT         | FROZEN       | WHOLE/DRESSD | 1,852,340     | \$2,843,093  |
| HERRING         | FROZEN       | WHOLE/DRESSD | 179,370       | \$69,954     |
| HERRING         | FROZEN       | MEAT         | 282,750       | \$118,755    |
| HERRING EGGS KP | FRESH        | ROE          | 24,680        | \$37,020     |
| BAIT HERRING    | FROZEN       | WHOLE/DRESSD | 83,360        | \$20,840     |
| BAIT HERRING    | FROZEN       | MEAT         | 3,099,041     | \$495,847    |
| HERRING EGGS    | FROZEN       | ROE          | 2,406,275     | \$8,381,688  |
| HERRING EGGS    | SALT/PICKLED | ROE          | 23,114        | \$96,385     |
| GENERAL SALMON  | FRESH        | ROE          | 50,181        | \$241,382    |
| GENERAL SALMON  | FROZEN       | ROE          | 603,681       | \$3,450,890  |
| GENERAL SALMON  | SALT/PICKLED | ROE          | 389,434       | \$1,593,733  |
| KING SALMON     | FRESH        | WHOLE/DRESSD | 345,872       | \$618,002    |
| KING SALMON     | FROZEN       | WHOLE/DRESSD | 720,366       | \$1,815,404  |
| KING SALMON     | SALT/PICKLED | WHOLE/DRESSD | 85            | \$357        |
| KING SALMON     | SMOKE/KIPPER | WHOLE/DRESSD | 1,050         | \$5,535      |
| KING SALMON     | CAN-CONV     | WHOLE/DRESSD | 2,746         | \$3,481      |
| RED SALMON      | FRESH        | WHOLE/DRESSD | 373,202       | \$450,394    |
| RED SALMON      | FROZEN       | WHOLE/DRESSD | 2,593,325     | \$4,598,896  |
| RED SALMON      | SALT/PICKLED | WHOLE/DRESSD | 85,407        | \$228,560    |
| RED SALMON      | CAN-CONV     | WHOLE/DRESSD | 4,833,407     | \$10,041,811 |
| RED SALMON      | CAN-SMOKED   | WHOLE/DRESSD | 48            | \$48         |
| COHO SALMON     | FRESH        | WHOLE/DRESSD | 625,360       | \$662,262    |
| COHO SALMON     | FROZEN       | WHOLE/DRESSD | 1,874,290     | \$3,722,038  |
| COHO SALMON     | SALT/PICKLED | WHOLE/DRESSD | 13,690        | \$32,872     |
| COHO SALMON     | CAN-CONV     | WHOLE/DRESSD | 31,248        | \$46,410     |
| COHO SALMON     | BYPRODUCTS   | MEAL         | 60            | \$36         |
| PINK SALMON     | FRESH        | WHOLE/DRESSD | 621           | \$288        |
| PINK SALMON     | FROZEN       | WHOLE/DRESSD | 1,024,851     | \$1,060,354  |
| PINK SALMON     | SALT/PICKLED | WHOLE/DRESSD | 153,303       | \$693,006    |
| PINK SALMON     | CAN-CONV     | WHOLE/DRESSD | 8,297,281     | \$10,710,335 |
| PINK SALMON     | CAN-CONV     | SECTION/TAIL | 477,576       | \$694,077    |
| PINK SALMON     | BYPRODUCTS   | MEAL         | 10            | \$5          |
| CHUM SALMON     | FRESH        | WHOLE/DRESSD | 1,896,361     | \$1,423,574  |
| CHUM SALMON     | FROZEN       | WHOLE/DRESSD | 1,761,768     | \$2,398,936  |
| CHUM SALMON     | SALT/PICKLED | WHOLE/DRESSD | 117,729       | \$606,669    |
| CHUM SALMON     | SMOKE/KIPPER | WHOLE/DRESSD | 241           | \$1,310      |
| CHUM SALMON     | CAN-CONV     | WHOLE/DRESSD | 2,982,777     | \$3,558,785  |
| SMELT           | FROZEN       | WHOLE/DRESSD | 15,225        | \$7,613      |
| STEELHEAD TROUT | FROZEN       | WHOLE/DRESSD | 1,588         | \$545        |

DATE 11/01/79

DEPARTMENT OF FISH AND MARINE RESOURCES  
DIVISION OF COMMERCIAL FISHERIES

INDIVIDUAL OWNERSHIP

1977 COMMERCIAL PROCESSORS ANNUAL PRODUCTION AS OF 11/01/79

| SPECIES        | PROCESS  | PRODUCT      | WEIGHT (LBS.) | VALUE       |
|----------------|----------|--------------|---------------|-------------|
| SHEEFISH       | FRESH    | WHOLE/DRESSD | 14            | \$7         |
| WHITEFISH      | FRESH    | WHOLE/DRESSD | 20            | \$5         |
| SABLEFISH      | FROZEN   | WHOLE/DRESSD | 112,349       | \$81,385    |
| ABALONE        | FRESH    | WHOLE/DRESSD | 3,950         | \$8,430     |
| ABALONE        | FRESH    | CHEEK/FLETC  | 2,359         | \$9,925     |
| ABALONE        | FROZEN   | WHOLE/DRESSD | 647           | \$2,326     |
| DUNGENESS CRAB | FRESH    | WHOLE/DRESSD | 11,282        | \$12,586    |
| DUNGENESS CRAB | FROZEN   | SECTION/TAIL | 86,067        | \$65,411    |
| GEN KING CRAB  | FRESH    | WHOLE/DRESSD | 1,937         | \$5,385     |
| GEN KING CRAB  | FROZEN   | WHOLE/DRESSD | 51,000        | \$52,128    |
| GEN KING CRAB  | FROZEN   | SECTION/TAIL | 621,281       | \$1,847,741 |
| GEN KING CRAB  | FROZEN   | MEAT         | 19,452        | \$115,194   |
| GEN KING CRAB  | CAN-CONV | MEAT         | 2,517         | \$9,095     |
| TANNER CRAB    | FRESH    | WHOLE/DRESSD | 1,860         | \$1,183     |
| TANNER CRAB    | FROZEN   | SECTION/TAIL | 445,616       | \$367,268   |
| TANNER CRAB    | FROZEN   | MEAT         | 272,695       | \$955,537   |
| TANNER CRAB    | CAN-CONV | MEAT         | 136,027       | \$621,221   |
| GENERAL SHRIMP | FRESH    | WHOLE/DRESSD | 11,243        | \$17,518    |
| GENERAL SHRIMP | FRESH    | SECTION/TAIL | 2,965         | \$9,095     |
| GENERAL SHRIMP | FROZEN   | WHOLE/DRESSD | 483,564       | \$959,127   |
| GENERAL SHRIMP | FROZEN   | SECTION/TAIL | 5,810         | \$22,808    |
| GENERAL SHRIMP | CAN-CONV | SECTION/TAIL | 1,005,512     | \$1,489,142 |

INDIVIDUAL OWNERSHIP

59,662,092

\$66,090,873

Micro Business Forms, Inc.

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FOR REP. FRED ZHAROFF

## RECOMMENDATIONS

We recommend changing language appearing in sections 10.05.250, 10.05.255, 10.05.615 and 10.05.702 from "affiliate which is a nonresident alien or a corporation whose place of incorporation is outside the United States and the percentage of outstanding shares controlled by each affiliate" to "alien affiliate and the percentage of shares controlled by each alien affiliate."

The purpose in amending this wording is to correct a situation where the statute wanders into definitional language when it is clearly unnecessary and probably confusing.

Making this change, of course, demands that a definition for "alien affiliate" replace the existing definition for "affiliate." The definitions section is AS10.05.825.

Legal Services is currently drafting amendments to implement these changes.

2

In sections 10.05.615 and 10.05.702, we recommend that the present wording requiring "the name and address of a person owning at least five percent.." be revised to ask for "the name and address of each person owning at least five percent..."

The intent of the legislation creating this requirement was to elicit the names all stockholders with 5 percent or more shareholdings. The present language is at least unclear.

The Division of Banking and Securities has interpreted the law to require all 5 percent or greater shareholders. The division plans to propose legislation next session to make the above-recommended change.

3

Section 10.05.702 requires that corporations include on their annual reports "a brief statement of the character of the business in which the corporation is engaged in the state." This wording follows closely that used in the Model Business Corporation Act.

We would like the law changed so that companies are required to state their business activities in terms of the Standard Industrial Classification (SIC) Code List. This would mean that the companies would choose among the numbered items on the list those which most closely describe their actual activities.

The SIC is currently used by the Department of Revenue for descriptions of business when issuing business licenses.

The prime benefit of making this change would be to allow the Corporations Section to generate computer lists of corporations engaged in the same businesses. At present, the computer can only generate list of companies that have coincidentally used identical wording to describe their activities. In the particular case of fish processing, a wide variety of descriptions are used, including:

- buying and selling of marine products;
- salmon canning;
- fish processing;
- seafood processing, includes freezing and sale of same;
- seafood buyer;
- canning and processing of fish products;

How to select the classification nearest to your business description:

1. Select the "Division" from the list below.

- |  |   |
|--|---|
| DIVISION A - AGRICULTURE, FORESTRY & FISHING                                   | DIVISION F - WHOLESALE TRADE                  |
| DIVISION B - MINING  | DIVISION G - RETAIL TRADE                     |
| DIVISION C - CONSTRUCTION  | DIVISION H - FINANCE, INSURANCE & REAL ESTATE |
| DIVISION D - MANUFACTURING   | DIVISION I - SERVICES                         |
| DIVISION E - TRANSPORTATION, COMMUNICATIONS,<br>ELECTRIC, GAS & SANITARY SVCS. | DIVISION J - PUBLIC ADMINISTRATION            |
|  | DIVISION K - NONCLASSIFIABLE ESTABLISHMENTS   |

2. Check the sub-heading as set out under each "division" on the list.  
 3. Select the title under the sub-heading which best describes your business activity.  
 4. Write the four-digit number that appears in front of your selection in the space provided on your application beside the preprinted S.I.C. number or question #9 on non-printed application.  
 5. Numbers ending with 9s will indicate "nec," which means "not elsewhere classified."

DIVISION A. AGRICULTURE, FORESTRY, & FISHING

- 0100 Agricultural Production-Crops  
 0134 Potatoes  
 0160 Vegetables & Melons  
 0170 Fruits & Tree Nuts  
 0180 Horticultural Specialties  
 0190 General Farms
- 0200 Agricultural Production-Livestock  
 0211 Beef Cattle  
 0213 Hogs  
 0214 Sheep & Goats  
 0219 General Livestock  
 0240 Dairy Farms  
 0250 Poultry & Eggs  
 0270 Animal Specialties  
 0271 Fur Animals & Rabbits  
 0272 Horses & Other Equines
- 0700 Agricultural Services  
 0710 Soil Preparation Services  
 0729 Crop Services  
 0722 Crop Harvesting  
 0729 General Crop Services  
 0750 Veterinary Services  
 0741 Veterinary Svcs., Farm Livestock  
 0752 Animal Specialty Services  
 0780 Landscape & Horticultural Svcs.  
 0781 Landscape Counseling & Planning  
 0782 Lawn & Garden Services
- 0800 Forestry  
 0820 Forest Nurseries  
 0850 Forest Services
- 0900 Fishing, Hunting, & Trapping  
 0910 Commercial Fishing  
 0912 Finfish  
 0913 Shellfish  
 0919 Misc. Marine Products  
 0920 Fish Hatcheries & Preserves  
 0970 Hunt, Trap, Game Propagation

DIVISION B. MINING

- 1000 Metal Mining  
 1010 Iron Ores  
 1020 Copper Ores  
 1030 Lead & Zinc Ores  
 1050 Gold & Silver Ores  
 1080 Metal Mining Services  
 1099 Metal Ores, nec.
- 1100 Anthracite Mining
- 1200 Bituminous Coal & Lignite Mining
- 1300 Oil & Gas Extraction  
 1310 Crude Petroleum & Natural Gas  
 1320 Natural Gas Liquids  
 1380 Oil & Gas Field Services  
 1381 Drilling Oil & Gas Wells  
 1382 Oil & Gas Exploration Services  
 1389 Oil & Gas Field Services, nec.
- 1400 Nonmetallic Minerals, Except Fuels  
 1410 Dimension Stone  
 1420 Crushed & Broken Stone  
 1440 Sand & Gravel  
 1450 Clay & Related Minerals  
 1470 Chemical & Fertilizer Minerals  
 1490 Misc. Nonmetallic Minerals  
 1499 Nonmetallic Minerals, nec.

DIVISION C. CONSTRUCTION

- 1500 General Building Contractors  
 152 Residential Bldg Construction  
 1527 Residential Construction, nec.  
 153 Operative Builders  
 1540 Nonresidential Bldg. Construction  
 1547 Semiresidential Construction, nec.
- 1600 Heavy Construction Contractors  
 1615 Highway & Street Construction  
 1620 Heavy Construction, Except Highway  
 163 Bridge, Tunnel, & Elevated Highway  
 1621 Water, Sewer, & Utility Lines  
 1629 Heavy Construction, nec.
- 1700 Special Trade Contractors  
 1710 Plumbing, Heating, Air Conditioning  
 1720 Painting, Paper Hanging, Decorating

- 1730 Electrical Work  
 1740 Masonry, Stonework, & Plastering  
 1750 Carpentering & Flooring  
 1751 Carpentering  
 1752 Floor Laying & Floor Work, nec.  
 1760 Roofing & Sheet Metal Work  
 1770 Concrete Work  
 1780 Water Well Drilling  
 1790 Misc. Special Trade Contractors  
 1799 Special Trade Contractors, nec.

DIVISION D. MANUFACTURING

- 2000 Food & Kindred Products  
 2010 Meat Products  
 2020 Dairy Products  
 2030 Preserved Fruits & Vegetables  
 2040 Grain Mill Products  
 2050 Bakery Products  
 2060 Sugar & Confectionary Products  
 2070 Fats & Oils  
 2080 Beverages  
 2082 Malt Beverages  
 2084 Wines, Brandy & Spirits  
 2085 Distilled Liquor, Except Brandy  
 2086 Bottled and Canned Soft Drinks  
 2087 Flavoring Extracts & Syrups, nec.  
 2090 Misc. Foods & Kindred Products  
 2091 Canned & Cured Seafoods  
 2092 Fresh or Frozen Packaged Fish  
 2093 Manufactured Ice  
 2099 Food Preparations, nec.
- 2100 Tobacco Manufactures
- 2200 Textile Mill Products  
 2270 Floor Covering Mills  
 2280 Yarn & Thread Mills  
 2299 Misc. Textile Goods  
 2299 Textile Goods, nec.
- 2300 Apparel & Other Textile Products  
 2310 Misc. Apparel & Accessories  
 2390 Misc. Fabricated Textile Products

- 2400 Lumber & Wood Products  
 2410 Logging Camps & Contractors  
 2420 Sawmills & Planing Mills  
 2430 Millwork, Plywood, Structural  
 2440 Wood Containers  
 2450 Wood Buildings & Mobile Homes  
 2451 Mobile Homes  
 2452 Prefabricated Wood Buildings  
 2490 Misc. Wood Products  
 2499 Wood Products, nec.
- 2500 Furniture & Fixtures  
 2510 Household Furniture  
 2520 Office Furniture  
 2540 Partitions & Fixtures  
 2590 Misc. Furniture & Fixtures  
 2599 Furniture & Fixtures, nec.

- 2600 Paper & Allied Products  
 2610 Pulp Mills  
 2620 Paper Mills, Except Bldg Paper  
 2630 Paperboard Mills  
 2640 Misc. Converted Paper Products  
 2650 Paperboard Containers & Boxes  
 2660 Building Paper & Board Mills
- 2700 Printing & Publishing  
 2710 Newspapers  
 2720 Periodicals  
 2731 Book Publishing  
 2732 Book Printing  
 2740 Miscellaneous Publishing  
 2750 Commercial Printing  
 2760 Manifold Business Forms  
 2790 Printing Trade Services

- 2800 Chemicals and Like Products  
 2810 Industrial Inorganic Chemicals  
 2820 Plastics and Synthetics  
 2830 Drugs  
 2840 Soap, Cleaners, & Toilet Goods  
 2850 Industrial Organic Chemicals  
 2870 Agricultural Chemicals  
 2890 Misc. Chemicals Products

- 2900 Petroleum and Coal Products  
 2910 Petroleum Refining  
 2930 Paving & Roofing Material  
 2990 Misc. Petroleum & Coal Products

- 3000 Rubber & Misc. Plastics Products  
 3070 Misc. Plastics Products

- 3100 Leather and Leather Products  
 3110 Leather Tanning and Finishing  
 3130 Boot & Shoe Cut Stock & Findings  
 3140 Footwear, Except Rubber  
 3150 Leather Gloves & Mittens  
 3170 Handbags & Personal Leather Goods  
 3199 Leather Goods, nec.

- 3200 Stone, Clay, and Glass Products  
 3260 Pottery and Related Products  
 3270 Concrete Gypsum & Plaster Products  
 3280 Cut Stone & Stone Products  
 3299 Nonmetallic Mineral Products, nec.

3300 Primary Metal Industries

3400 Fabricated Metal Products

3500 Machinery, Except Electrical

3600 Electric and Electronic Equipment

3700 Transportation Equipment

- 3710 Motor Vehicles & Equipment  
 3720 Aircraft & Parts  
 3730 Ship & Boat Building & Repairing  
 3750 Motorcycles, Bicycles, & Parts  
 3790 Misc. Transportation Equipment  
 3792 Travel Trailers & Campers

3800 Instruments and Related Products

- 3900 Miscellaneous Manufacturing Industries  
 3910 Jewelry, Silverware, & Plated Ware  
 3911 Jewelry, Precious Metal  
 3915 Jewelers' Materials & Lapidary Work  
 3930 Musical Instruments  
 3940 Toys & Sporting Goods  
 3960 Costume Jewelry & Notions  
 3990 Misc. Manufactures

DIVISION E. TRANSPORTATION & PUBLIC UTILITIES

4000 Railroad Transportation

- 4100 Local & Interurban Passenger Transit  
 4110 Local & Suburban Transportation  
 4120 Taxicabs  
 4130 Intercity Highway Transportation  
 4140 Transportation Charter Service  
 4151 School Buses  
 4170 Bus Terminal & Service Facilities

4200 Trucking & Warehousing

- 4210 Trucking, Local & Long Distance  
 4220 Public Warehousing  
 4230 Trucking Terminal Facilities

4300 U.S. Postal Service

4400 Water Transportation

- 4410 Deep Sea Foreign Transportation  
 4420 Deep Sea Domestic Transportation  
 4450 Local Water Transportation  
 4454 Towing & Tugboat Service  
 4459 Local Water Transportation, nec.  
 4460 Water Transportation Services  
 4463 Marine Cargo Handling  
 4469 Water Transportation Svcs., nec.

4500 Air Transportation

- 4510 Certificated Air Transportation  
 4520 Noncertificated Air Transportation  
 4580 Air Transportation Services  
 4582 Airports & Flying Fields  
 4583 Airport Terminal Services

4600 Pipelines, Except Natural Gas

- 4610 Pipelines, Except Natural Gas  
 4612 Crude Petroleum Pipelines  
 4613 Refined Petroleum Pipelines  
 4619 Pipelines, nsp.

4700 Transportation Services

- 4712 Freight Forwarding  
 4720 Transportation Arrangement  
 4780 Misc. Transportation Services

4800 Communication

- 4810 Telephone Communication  
 4820 Telegraph Communication

- 4900 Electric, Gas & Sanitary Services
- 4911 Electric Services
- 4920 Gas Production & Distribution
- 4930 Combination Utility Services
- 4940 Water Supply
- 4950 Sanitary Services
- 4952 Sewerage Systems
- 4953 Refuse Systems

- 5947 Bowling, Bowling, P. Pins, Goods
- 5960 Nonstore Retailers
- 5961 Mail Order Houses
- 5963 Direct Selling Organizations
- 5983 Fuel Oil Dealers
- 5984 Liquefied Petroleum Gas Dealers
- 5992 Florists
- 5993 Cigar Stores & Stands
- 5994 News Dealers & Newsstands
- 5999 Misc. Retail Stores, nec.

- 7342 Car Washes
- 7600 Misc. Repair Services
- 7620 Electrical Repair Shops
- 7622 Radio & TV Repair
- 7630 Watch, Clock, & Jewelry Repair
- 7640 Reupholstery & Furniture Repair
- 7690 Misc. Repair Shops
- 7692 Welding Repair

DIVISION F. WHOLESALE TRADE

DIVISION H. FINANCE, INSURANCE, & REAL ESTATE

- 5000 Wholesale Trade Durable Goods
- 5010 Motor Vehicles & Auto Equipment
- 5013 Automotive Parts & Supplies
- 5014 Tires & Tubes
- 5020 Furniture & Home Furnishings
- 5030 Lumber & Construction Materials
- 5040 Sporting Goods, Toys & Hobby Goods
- 5060 Electrical Goods
- 5070 Hardware, Plumbing & Heating Equip.
- 5080 Machinery, Equipment, & Supplies
- 5090 Misc. Durable Goods
- 5094 Jewelry, Watches, & Precious Stones
- 5099 Durable Goods, nec.
- 5100 Wholesale Trade-Nondurable Goods
- 5110 Paper & Paper Products
- 5122 Drugs, Proprietarys, & Sundries
- 5130 Apparel, Piece Goods, & Notions
- 5140 Groceries & Related Products
- 5150 Farm-Products & Raw Materials
- 5160 Chemicals & Allied Products
- 5170 Petroleum & Petroleum Products
- 5180 Beer, Wine, & Distilled Beverages
- 5190 Misc. Nondurable Goods

- 6000 Banking
- 6010 Federal Reserve Banks
- 6020 Commercial & Stock Savings Banks
- 6022 State Banks, Federal Reserve
- 6025 National Banks, Federal Reserve
- 6030 Mutual Savings Banks
- 6040 Trust Companies, Nondeposit
- 6050 Functions Closely Related to Banking
- 6100 Credit Agencies Other Than Banks
- 6110 Rediscout & Financing Institutions
- 6120 Savings & Loan Associations
- 6130 Agricultural Credit Institutions
- 6140 Personal Credit Institutions
- 6150 Business Credit Institutions
- 6160 Mortgage Bankers & Brokers
- 6200 Security, Commodity Brokers & Services
- 6300 Insurance Carriers
- 6310 Life Insurance
- 6320 Medical Service & Health Insurance
- 6330 Fire, Marine, & Casualty Insurance
- 6350 Surety Insurance
- 6360 Title Insurance
- 6370 Pension, Health, & Welfare Funds
- 6390 Insurance Carriers, nec.
- 6400 Insurance Agents, Brokers & Service
- 6500 Real Estate
- 6510 Real Estate Operators & Lessors
- 6512 Nonresidential Building Operators
- 6513 Apartment Building Operators
- 6514 Dwelling Operators, exc. Apt.
- 6515 Mobile Home Site Operators
- 6530 Real Estate Agents Managers
- 6540 Title Abstract Offices
- 6550 Subdividers & Developers
- 6600 Combined Real Estate, Insurance, etc.
- 6700 Holding & Other Investment Offices
- 6710 Holding Offices
- 6720 Investment Offices
- 6730 Trusts
- 6790 Misc. Investing

- 7800 Motion Pictures
- 7810 Motion Picture Production & Services
- 7813 Motion Picture Production, except TV
- 7814 Motion Picture Production for TV
- 7819 Services Allied to Motion Pictures
- 7820 Motion Picture Dist. & Services
- 7830 Motion Picture Theaters
- 7833 Drive-in Motion Picture Theaters
- 7900 Amusement & Recreation Services
- 7910 Dance Halls, Studios, & Schools
- 7920 Producers, Orchestras, Entertainers
- 7929 Entertainers & Entertainment Groups
- 7932 Billiard, Pool Establishments
- 7933 Bowling Alleys
- 7940 Commercial Sports
- 7990 Misc. Amusement, Recreational Svcs.
- 7993 Coin-op Amusement Devices
- 8000 Health Services
- 8010 Offices of Physicians
- 8020 Offices of Dentists
- 8030 Offices of Osteopathic Physicians
- 8040 Offices of Other Health Practitioners
- 8041 Offices of Chiropractors
- 8047 Offices of Optometrists
- 8049 Offices of Health Practitioners, nec.
- 8050 Nursing & Personal Care Facilities
- 8060 Hospitals
- 8062 General Medical & Surgical Hospitals
- 8063 Psychiatric Hospitals
- 8069 Specialty Hospitals, exc. Psych.
- 8070 Medical & Dental Laboratories
- 8071 Dental Laboratories
- 8072 Dental Laboratories
- 8090 Outpatient Care Facilities
- 8090 Health & Allied Services, nec.

DIVISION G. RETAIL TRADE

- 5200 Building Materials & Garden Supplies
- 5210 Lumber & Other Building Materials
- 5230 Paint, Glass, & Wallpaper Stores
- 5230 Hardware Stores
- 5260 Retail Nurseries & Garden Stores
- 5270 Mobile Home Dealers
- 5300 General Merchandise Stores
- 5310 Department Stores
- 5330 Variety Stores
- 5399 Misc. General Merchandise Stores
- 5400 Food Stores
- 5410 Grocery Stores
- 5420 Meat Markets & Freezer Provisioners
- 5430 Fruit Stores & Vegetables Markets
- 5440 Candy, Nut & Confectionary Stores
- 5450 Dairy Products Stores
- 5460 Retail Bakeries
- 5499 Misc. Food Stores
- 5500 Automotive Dealers & Service Stations
- 5510 New & Used Car Dealers
- 5520 Used Car Dealers
- 5530 Auto & Home Supply Stores
- 5540 Gas Service Stations
- 5550 Boat Dealers
- 5560 Recreation and Utility Trailer Dealers
- 5570 Motorcycle Dealers
- 5600 Apparel & Accessory Stores
- 5610 Men's & Boys' Clothing & Furnishings
- 5620 Women's Ready to Wear Stores
- 5630 Women's Accessory & Specialty Stores
- 5640 Children's & Infant's Wear Stores
- 5650 Family Clothing Stores
- 5660 Shoe Stores
- 5680 Furriers & Fur Shops
- 5699 Misc. Apparel & Accessories
- 5700 Furniture & Home Furnishings Stores
- 5712 Furniture Stores
- 5711 Floor Covering Stores
- 5714 Drapery & Upholstery Stores
- 5719 Misc. Home-Furnishings Stores
- 5722 Household Appliance Stores
- 5730 Radio, Television, & Music Stores
- 5800 Eating & Drinking Places
- 5812 Eating Places
- 5813 Drinking Places
- 5900 Miscellaneous Retail
- 5912 Drug & Proprietary Stores
- 5920 Liquor Stores
- 5930 Used Merchandise Stores
- 5940 Misc. Shopping Goods Stores
- 5941 Sporting Goods & Bicycle Shops
- 5942 Book Stores
- 5943 Stationery Stores
- 5944 Jewelry Stores
- 5945 Hobby, Toy, & Game Shops

DIVISION I. SERVICES

- 7000 Hotels, & Other Lodging Places
- 7010 Hotels, Motels, & Tourist Courts
- 7020 Rooming & Boarding Houses
- 7030 Camps & Trailer Parks
- 7200 Personal Services
- 7210 Laundry, Cleaning, & Garment Svcs
- 7215 Coin-op Laundry & Cleaning
- 7216 Dry Cleaning Plants, except Rug
- 7217 Carpet & Upholstery Cleaning
- 7220 Photo Studios, Portrait
- 7230 Beauty Shops
- 7250 Barber Shops
- 7250 Shoe Repair
- 7260 Funeral Service & Crematories
- 7299 Misc. Personal Services
- 7300 Business Services
- 7310 Advertising
- 7320 Credit Reporting & Collection
- 7330 Mailing, Reproduction, Steno
- 7333 Commercial Photography & Art
- 7340 Services to Buildings
- 7341 Window Cleaning
- 7342 Disinfecting & Exterminating
- 7349 Building Maintenance Svcs, nec.
- 7350 News Syndicates
- 7360 Personnel Supply Services
- 7370 Computer & Data Processing Svcs.
- 7390 Misc. Business Services
- 7392 Management & Public Relations
- 7393 Detective & Protective Services
- 7394 Equipment Rental & Leasing
- 7395 Photofinishing Labs
- 7399 Business Services, nec.
- 7500 Auto Repair, Services, & Garages
- 7512 Passenger Car Rental & Leasing

- 8100 Legal Services
- 8200 Educational Services
- 8210 Elementary & Secondary Schools
- 8220 Colleges & Universities
- 8230 Libraries & Information Centers
- 8241 Correspondence Schools
- 8243 Data Processing Schools
- 8244 Business & Secretarial Schools
- 8249 Vocational Schools, nec.
- 8300 Social Services
- 8320 Individual & Family Services
- 8330 Job Training & Related Services
- 8350 Child Day Care Services
- 8399 Social Services, nec.
- 8400 Museums, Botanical, Zoological Gardens
- 8600 Membership Organizations
- 8610 Business Associations
- 8620 Professional Associations
- 8630 Labor Organizations
- 8640 Civic & Social Associations
- 8650 Political Organizations
- 8660 Religious Organizations
- 8800 Private Households
- 8900 Miscellaneous Services
- 8910 Engineering & Architectural Svcs.
- 8920 Noncommercial Research Organizations
- 8930 Accounting, Auditing & Bookkeeping
- 8999 Services, nec.

DIVISION J. PUBLIC ADMINISTRATION

- 9100 Executive, Legislative, & General
- 9200 Justice, Public Order, & Safety
- 9300 Finance, Taxation & Monetary Policy
- 9400 Administration of Human Resources
- 9500 Environmental Quality & Housing
- 9600 Administration of Economic Programs
- 9700 National Security & Intl. Affairs

DIVISION K. NONCLASSIFIABLE ESTABLISHMENTS

- 9900 Nonclass Establishments

● village corporation; and

● fishing and processing crab in United States water and processing in Alaska water.

If the computer is used fully, standardization in areas such as this is unavoidable. Because of its existing, general use, the SIC seems the most logical choice.

The Division of Banking and Securities currently is contemplating the introduction of legislation that would drop the requirement that corporations give their stated capital. This requirement appears in 10.05.615 and 10.05.702.

Stated capital is defined as "the sum of

(A) the par value of all issued shares which have a par value,

(B) the amount of the consideration received by the corporation for all issued shares which do not have a par value, except that part of the consideration allocated to capital surplus as permitted by law, and

(C) such amounts as not included in (A) and (B) of this paragraph which have been transferred to stated capital, whether upon the issue of shares as a share dividend or otherwise, less all reductions made as permitted by law; but not withstanding the manner of designation by the laws under which a foreign corporation is organized, the stated capital of a foreign corporation is determined on the same basis and in the same manner as the stated capital of a domestic corporation for the purpose of computing charges imposed by this chapter, fees and franchise taxes..."

The stated capital requirement also derives from the Model Business Corporation Act, which includes it because it is a basis on which franchise and other taxes are determined. Alaska, however, does not base its franchise taxes on stated capital so

8  
it seems to serve no purpose.

Employees in the Corporations Section say the stated capital requirement is one of the most misunderstood on the annual report form. Reports often are returned so that corporations can correct their statements of capitalization.

We can discover no benefit to continuing this requirement, and therefore we would concur in the division's desire to abolish it.

9

We recommend that the Commissioner's office, under the authority granted him in Section 10.05.777 and related sections, begin a policy of spot checking annual reports for accuracy. We would like to see these checks focus on the alien affiliate and 5 percent ownership disclosure requirements.

We reason that without a demonstrated effort at enforcing these provisions, some corporations will not feel compelled to make the required disclosures.

Under 10.05.777, the Commissioner is empowered to require corporate officers to answer specific questions under oath, <sup>and</sup> to compel submission of such corporate documents as minutes of board of directors meetings and complete lists of stockholders. The Commissioner could choose in a more or less random fashion corporations to submit those documents and answer those questions that would verify responses appearing on the annual reports.

Without further study, we are unable to say whether initiation of a vigorous spot-checking effort is possible under current budgetary and personnel constraints.

We recommend an additional reporting requirement (in sections 10.05.615 and 10.05.702) that corporations doing business in Alaska report the names of all unincorporated businesses in which they exercise control or under whose name they do business.

Such a requirement is necessary to follow completely the trail of alien investment in Alaska. Since current alien investment disclosure laws apply only to corporations registered with the state, businesses that are essentially the unincorporated subsidiaries of alien-invested corporations are not systematically identified.

11

We recommend that Section 10.05.519 be amended so that a corporation can be involuntarily dissolved by the Commissioner when it is ~~six~~<sup>three</sup> months delinquent in filing an annual report or paying a license fee or penalty. The law now provides that this delinquency must be six months.

Apparently the six-month period was a function of a situation that no longer exists, i.e. when dissolution of a corporation was a legal action carried out by the attorney general's office. The law has been changed so that dissolution is now an administrative procedure.

The fact that this statute has not been adjusted to reflect that change has pointlessly permitted corporations to file annual reports and pay franchise taxes as long as nine months after they are due with relatively insignificant penalties ( a maximum of \$32.50 for domestics and \$37.50 for foreigners).

Our recommendation would reduce by ~~six~~<sup>three</sup> months the period of delinquency necessary to bring about involuntary dissolution. Present law unnecessarily allows the timely and orderly processing of annual reports to be disrupted.

We also recommend that Section 10.05.675 be amended to conform with 10.06.519 by providing that the certificate of authority of a foreign corporation will be revoked within the same time frame as domestics. Current law appears to provide that foreign corporations may have their certificates of authority revoked <sup>immediately</sup> on Feb. 2 for lateness in filing an annual report or paying fees or taxes.

The present procedure in the corporations section is to treat the revocation of certificates in the same manner as the involuntary dissolutions. It appears likely that dissolutions and revocations will continue to be handled in tandem whether or not this discrepancy is addressed by statute. If it is indeed the desire of the legislature that foreign corporations' delinquencies be dealt with more speedily, and perhaps more harshly, then that wish should be communicated to the Department of Commerce and Economic Development so that policy reflects it. We recommend the following schedule:

Jan. 2 -- annual reports and tax payments of both domestic and foreign corporations due.

Feb. 2 -- annual reports and tax payments of both domestic and foreign corporations delinquent.

March 1 -- foreign and domestic corporations whose annual reports ~~or~~ tax payments are still overdue are mailed letters warning that they will be dissolved or have their certificate<sup>s</sup> of authority revoked in 60 days if they are still not in compliance with the law. (This now occurs on Aug. 30.)

May 1 -- if their annual reports or tax payments are still delinquent, domestic corporations ~~are~~ dissolved involuntarily and foreign corporations ~~are~~ have their certificates of authority revoked. (This now occurs on Oct. 30.)

The Commissioner of Commerce and Economic Development is considering a revision of corporations law that would provide for bi-annual reports for business corporations instead of the present annual reports. We are unable to evaluate the effect of such a change on foreign investment data gathering until we have a chance to examine the proposal in detail. We are waiting for circumstances to permit such a review.

# STATE OF ALASKA

## DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

DIVISION OF BANKING, SECURITIES, SMALL LOANS & CORPORATIONS

*Sign here*  
JAY S. HAMMOND, GOVERNOR

POUCH D  
JUNEAU, ALASKA 99811

August 24, 1979

Honorable Fred F. Zharoff  
Chairman, Foreign  
Investment Committee  
Box 405  
Kodiak, Alaska 99615

Dear Mr. Zharoff:

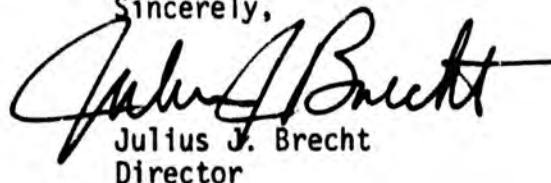
Enclosed is a copy of the letter recently sent to Alaska Star, Inc., regarding disclosure of its alien affiliates.

While this office does not have the manpower to conduct extensive research of the information provided on the annual reports, I am willing to work with your committee in any way possible. The research of Mr. Pat Dougherty was most helpful in this regard.

We will continue to send you copies of letters similar to the one enclosed as they are sent to the corporations.

If I can be of further assistance, please feel free to contact me.

Sincerely,

  
Julius J. Brecht  
Director

JJB:aw

Enclosure

STATE OF ALASKA  
DEPARTMENT OF COMMERCE  
& ECONOMIC DEVELOPMENT  
BANKING & SECURITIES  
POUCH, D.  
JUNEAU, ALASKA 99817

September 25, 1979

Mr. Robert M. Thorstenson  
President  
Icicle Seafoods, Inc.  
1569 N.W. 167th Street  
Seattle, Washington 98177

Dear Sir:

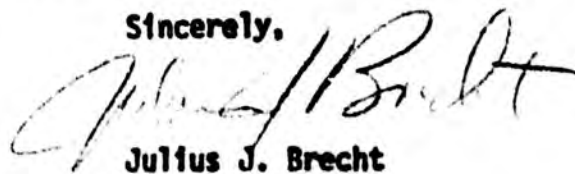
It has come to our attention that your 1978 annual report may have been deficient.

Specifically, do you have any stockholders who own at least 5% of the company's outstanding stock other than R. M. Thorstenson, T. E. Thompson, Gordon Jensen and Magnus Marters?

It may be helpful for you to review the statutes governing disclosure of 5% shareholders (AS 10.05.702 (8)). You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention to clearing up this matter will be appreciated.

Sincerely,



Julius J. Brecht  
Director

JJB/tb2/2

cc: Jan Clemetson, Supervisor  
Corporations  
Section

bcc: Rep. Fred F. Zharoff  
Chairman, Foreign  
Investments Committee

August 22, 1979

Mr. Robert M. Thorstenson  
Alaska Star, Inc.  
1569 Northwest 167th  
Seattle, Washington 98177

Dear Mr. Thorstenson:

It has come to our attention that your 1978 annual report may have been filled out incorrectly.

Specifically, you reported that A. S. Kawabe Company is the only alien affiliate of Alaska Star, Inc. Our files, however, show that Icicle Seafoods, an 80% owner of Alaska Star, Inc., owns jointly with Mitsubishi International, a company called Sitka Sound Seafoods. If this is indeed the case, the Japanese firm Mitsubishi International should be disclosed as an alien affiliate of Alaska Star, Inc.

It may be helpful for you to review the statutes governing disclosure of alien affiliates (AS 10.05.702 and 10.05.825 including amendments in 1975 and 1976, and definitions) since they are far-reaching in terms of the information that must be reported. You should also be aware of the sanctions which may be imposed for failure to disclose this information (AS 10.05.519).

Your timely attention in clearing up this matter will be appreciated. Please reply directly to the Corporations Section within this division.

Sincerely,

Julius J. Brecht  
Director

JJB/cwh

cc: Jan Clemetson, Supervisor  
Corporation Section

bcc: Representative Fred F. Zharoff  
Chairman, Foreign Investments Committee

Alaska State Legislators

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. Box 405  
KODIAK, ALASKA 99618  
(907) 488-8284



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 488-4888  
488-4881

House of Representatives

March 18, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Robert L. Burgner, Director  
College of Fisheries  
260 Fisheries Center  
University of Washington  
Seattle, Washington 98195

Dear Mr. Burgner:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy. Please feel free to comment on this report or related areas of interest.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Fred F. Zharoff".

Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

UNIVERSITY OF WASHINGTON  
SEATTLE, WASHINGTON 98195

*College of Fisheries*  
*Fisheries Research Institute*

11 March 1980

Mr. F.F. Zharoff, Chairman  
House Interim Committee on Foreign Investment  
Alaska Legislature  
Juneau, AK 99801

Dear Mr. Zharoff:

It would be very much appreciated if you could send me one copy of the following:

Eliason, R.I., and W. Miles. 1980. Foreign investment in the Alaska seafood industry. Frank Orth & Assocs., Inc., and W. Patrick Daugherty, Inc.

I am directly involved in supervising research on Alaska fisheries, and am a scientist member of the International North Pacific Fisheries Commission and a member of the Scientific and Statistical Committee of the North Pacific Fishery Management Council.

Thank you for your attention.

Yours very truly,



Robert L. Burgner  
Director

RLB:as

REPRESENTATIVE  
**FRED F. ZHAROFF**  
P.O. Box 408  
KODIAK, ALASKA 99618  
(907) 486-8284



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 486-4886  
486-4881

House of Representatives

March 18, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAR  
KODIAK  
OUZINKIE

Wendy Reed  
1509 8th Ave. West  
Seattle, Washington 98119

Dear Ms. Reed:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Please find enclosed the requested copy of the report. Feel free to comment on this report or related areas of interest.

Sincerely yours,

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
**FRED F. ZHAROFF**  
P.O. BOX 408  
KODIAK, ALASKA 99518  
(907) 486-2224



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 486-4888  
486-4881

House of Representatives

March 25, 1980

DISTRICT 14:

BELLEPLAYS  
CHINIAK  
KODIAK  
OUZINKIE

Tom Radcliffe  
880 Larch St.  
Eugene, Oregon 97405

Dear Mr. Radcliffe:

Thank you for expressing your interest in the interim committee report on "Foreign Investment in the Alaska Seafood Industry". Enclosed please find the requested copy. Please feel free to comment on this report or related areas of interest.

Sincerely yours,

Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

*Good luck with your studies -*

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99518  
(907) 486-8284



HOUSE OF REPRESENTATIVES  
PO BOX 7  
JUNEAU, ALASKA  
99801  
(907) 485-4906  
485-4981

House of Representatives

March 11, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAR  
KODIAR  
OUZINKIE

Kurt Grimmer  
Washington State Department  
of Commissions  
312 First Avenue N.  
Seattle, Washington 98109

Dear Mr. Grimmer:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy of the report and we apologize for the delay in waiting for the second printing. If you have any comments on this report or other related areas, please do not hesitate to express them to us. Thank you.

Sincerely yours,

*Leina M. Smith*

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REP. FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 486-8884



WILLIE H. JENSEN  
PO BOX 7  
JUNEAU, ALASKA  
99811  
(907) 488-4888  
488-4881

House of Representatives

March 11, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAR  
KODIAK  
OUZINKIE

Jenice Valbert  
1425 Bank of California  
900 4th Ave.  
Seattle, Washington 98164

Dear Ms. Valbert:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy and we apologize for the delay due to re-printing. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Linn M. Smith".

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99618  
(907) 486-8284



HOUSE OF REPRESENTATIVES  
PO BOX 9  
JUNEAU, ALASKA  
99811  
(907) 486-4000  
486-4001

House of Representatives

March 11, 1980

DISTRICT 14:

SELLSPLATS  
CHINIAR  
KODIAR  
OUZINKIE

Intersea Fisheries, Ltd.  
4225-23rd Ave. W.  
Seattle, Washington 98199

Attention: B.E. Gilman, Vice President

Dear Mr. Gilman:

Thank you for expressing an interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed are the requested copies of the report. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Fred F. Zharoff".

Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
**FRED F. ZHAROFF**  
P.O. BOX 405  
KODIAK, ALASKA 99618  
(907) 486-6284



MAIL ROOM  
POUCH 7  
JUNEAU, ALASKA  
99811  
(907) 485-4986  
485-4981

House of Representatives

March '1, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Jeff Hendrix and Associates  
P.O. Box 190  
Anacortes, Washington 98221

Dear Mr. Hendrix and Associates:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy and we apologize for the delay brought on by re-copying. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Fred F. Zharoff".

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99518  
(907) 486-2254



WHILE IN JUNEAU  
FOURTH FLOOR  
JUNEAU, ALASKA  
99901  
(907) 485-4888  
485-4881

House of Representatives

March 11, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Main Hurdman and Cranston  
P.O. Box 21805  
Seattle, Washington 98111

Attention: Marilyn

Dear Marilyn:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy and we apologize for the delay that was brought on by a second printing. Please feel free to comment on this report or related areas. Thank you.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Fred F. Zharoff".

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99518  
(907) 486-8284



HOUSE OF REPRESENTATIVES  
PO BOX 7  
JUNEAU, ALASKA  
99811  
(907) 486-4000  
486-4081

House of Representatives

February 27, 1980

DISTRICT 14:

CELLSFLATS  
CHINIAR  
KODIAK  
OUZINKIE

Fuji Bank Limited  
1001 4th Ave  
C-First Bldg., Suite 3630  
Seattle, Washington 98154

Attn: Mr. T. Sakemi

Dear Mr. Sakemi:

Enclosed please find the request copy of the interim committee report on Foreign Investment in the Alaska Seafood Industry. Thank you for informing us of your interest. Please feel free to send us your comments on this report or related matters.

Sincerely yours,

*Linn M. Smith*

*for*  
Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 486-8284



OFFICE IN JUNEAU  
PO BOX 4  
JUNEAU, ALASKA  
99801  
(907) 486-4986  
486-4851

House of Representatives

February 26, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAR  
KODIAK  
OUZINKIE

Geoff Meggs  
138 E. Cordova St.  
Vancouver, B.C.  
Canada V6A1K9

Dear Mr. Meggs:

Thank you for expressing your interest in the Interim Committee report on FOREIGN INVESTMENT IN THE ALASKA SEAFOOD INDUSTRY through Roger Painter of the ALASKA FISHERMEN.

Enclosed please find the requested copy of the report. We hope that it will be of use to you. Please feel free to give us your comments on the report or on related matters. Thank you.

Sincerely yours,

*Lynn M. Smith*

*for* Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
FRED F. ZHAROFF

P.O. Box 405  
KODIAK, ALASKA 99518  
(907) 452-4991



HOUSE OF REPRESENTATIVES  
POUCH V  
JUNEAU, ALASKA  
99901  
(907) 452-4991  
452-4991

House of Representatives

February 26, 1980

DISTRICT 14:

BELLEPLATE  
CHINIAK  
KODIAK  
OUMKIK

Craig Bartlett  
Fishermen's News  
C3 Bldg., Rm 110  
Fishermen's Terminal  
Seattle, Washington 98119

Dear Mr. Bartlett:

Thank you for expressing your interest in the Interim Committee report on Foreign Investment in the Alaska Seafood Industry.

Enclosed please find the requested copy of the report, and the legislation that was forthcoming. At this point, House Bill 767 is the only bill which is directly related to the report.

We hope this information will be of use to you. Please feel free to comment on this report, H.B. 767, or related matters. Thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Fred F. Zharoff".

Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 488-8284



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 488-4988  
488-4981

House of Representatives

March 3, 1980

DISTRICT 14:

BELLSPATS  
CHINIAK  
KODIAK  
OUZINKIE

Michael Parker, Office Manager  
Pacific Fishing  
2208 N.W. Market St.  
Seattle, Washington 98107

Dear Mr. Parker:

Thank you for informing us of your interest in the interim report on Foreign Investment in the Alaska Seafood Industry.

Because of the great demand for this report, we have run out of copies made in the first printing. A second printing is underway, and when it is completed we will mail the requested copy.

Once again, thank you.

Sincerely yours,

*Lynn M. Smith*

for: Fred F. Zharoff, Chairman  
Interim Committee on Foreign  
Investment

FFZ:lms

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 40  
KODIAK, ALASKA 99518  
(907) 485-8284



STATE OF ALASKA  
PO BOX 4  
JUNEAU, ALASKA  
99811  
(907) 485-4985  
485-4981

House of Representatives

February 28, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Mr. Alan MacNow  
Tele-Press  
342 E. 79th St.  
New York City, N.Y. 10021

Dear Mr. MacNow:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry.

Enclosed please find the request copies of the study. Please feel free to comment on this report or related matters. Thank you.

Sincerely yours,

*Levin M. Smith*

for: Fred F. Zharoff, Chairman  
Interim Committee on Foreign  
Investments in the Alaska  
Seafood Industry

FFZ:lms

Enclosure

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99518  
(907) 485-2224



MAIL TO JUNEAU  
PO BOX 7  
JUNEAU, ALASKA  
99811  
(907) 485-4888  
485-4881

House of Representatives

March 3, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Professor Ole A. Mathisen  
University of Washington  
College of Fisheries  
Fisheries Research Institute  
260 Fisheries Center  
Seattle, Washington 98195

Dear Professor:

Thank you for expressing your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry.

Because of the great demand for this report, we have run out of copies made in the first printing. A second printing is underway, and when it is completed we will mail the requested copy.

Once again, thank you.

Sincerely yours,

A handwritten signature in cursive script that reads "Len M. Smith".

for: Fred F. Zharoff, Chairman  
Interim Committee on  
Foreign Investment

FFZ:lms

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 486-8284



HOUSE OF REPRESENTATIVES  
PO BOX 5  
JUNEAU, ALASKA  
99811  
(907) 488-4888  
488-4881

House of Representatives

February 25, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAR  
KODIAK  
OUZINKIE

Dr. Robert L. Stokes  
Institute for Marine Studies  
University of Washington, HA-35  
3731 University Way Northeast  
Seattle, Washington 98105

Dear Dr. Stokes:

As per your request through Frank Orth and Associates,  
please find enclosed a copy of the "Foreign Investment  
in the Alaska Seafood Industry" interim committee report.  
Please feel free to submit to us any comments you may  
have on this study or related matters. Thank you for  
your interest.

Sincerely yours,

A handwritten signature in cursive script that reads "Fred F. Zharoff".

Fred F. Zharoff  
District 14 Representative

FFZ:lms

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 405  
KODIAK, ALASKA 99519  
(907) 486-5284



OFFICE IN JUNEAU  
POUCH 7  
JUNEAU, ALASKA  
99801  
(907) 485-4888  
485-4881

House of Representatives

February 25, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAR  
KODIAK  
OUZINKIE

Dr. James Bray  
Division of Marine Resources  
3716 Brooklyn Avenue Northeast  
Seattle, Washington 98105

Dear Dr. Bray:

As per your request through Frank Orth and Associates,  
please find enclosed a copy of the "Foreign Investment  
in the Alaska Seafood Industry". Please feel free to  
submit to us any comments you may have on this study.  
Thank you for your interest.

Sincerely yours,

A handwritten signature in cursive script that reads "Fred F. Zharoff".

Fred F. Zharoff  
District 14 Representative

FFZ:lms

REPRESENTATIVE  
**FRED F. ZHAROFF**  
P.O. BOX 405  
KODIAK, ALASKA 99518  
(907) 486-5284



HOUSE OF REPRESENTATIVES  
PO BOX 7  
JUNEAU, ALASKA  
99811  
(907) 486-4900  
486-4981

House of Representatives

February 25, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAR  
KODIAK  
OUZINKIE

Mr. Roger W. Johnson  
216 First Avenue South  
260 Grand Central on the Park  
Seattle, Washington 98104

Dear Mr. Johnson:

As per your request through Frank Orth and Associates,  
please find enclosed a copy of the "Foreign Investment  
in the Alaska Seafood Industry" interim committee report.  
Please feel free to submit to us any comments you may  
have on this study. Thank you for your interest.

Sincerely yours,

A handwritten signature in cursive script that reads "Fred F. Zharoff".

Fred F. Zharoff  
District 14 Representative

FFZ:lms

ALASKA 200th Anniversary  
REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 486-8234



WHOLE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 485-4888  
485-4881

House of Representatives

April 22, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAR  
KODIAK  
OUZINKIE

Western Alaska Fisheries  
2020 Bank of California Center  
900 4th Ave.  
Seattle, Washington 98165

Attention: Kris

Dear Kris:

Thank you for expressing an interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy of the report.

Please feel free to comment on this report or related areas of interest.

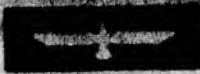
Sincerely yours,

*Lin M. Smith*

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure



# AMERICAN PRESIDENT LINES, LTD.

P. O. BOX C81411 • SEATTLE, WA 98108

March 3, 1980


Mr. Fred F. Zaroff  
State Representative, District 14  
Pouch V State Capitol  
Juneau, Alaska

Dear Representative Zaroff:

I would like to ask if you would please send me a copy of the report done by Frank Orth and Associates, Inc. on the Japanese interests in Alaska seafood processors. This report would be helpful to me in keeping track of which Japanese trading companies are involved in which plants in Alaska.

I am sure that you are aware that American President Lines is making a sizeable investment in Alaska to serve the seafood industry. Since March, 1979 we have started service in both Kodiak and Dutch Harbor. We will complete the new terminal facility in Dutch Harbor later this month which will give Dutch Harbor the most modern ocean transportation facilities west of Kodiak. We can ship only export cargo to the Far East at this time but have hopes of securing domestic authority in the near future to provide additional service to Kodiak and the Aleutian Chain.

Sincerely,

  
James D. Weimer  
Manager, Alaska Sales

JDW:ms



15

## Intersea Fisheries, Ltd.

4225 - 23rd Ave. W.  
Seattle, Washington 98199  
(206) 285-5630  
Telex: 32-1256

March 6, 1980

Mr. Fred Zharoff  
District #14  
Pouch V  
State of Alaska  
Juneau, Alaska 98111

Dear Mr. Zharoff:

Please consider this a request for three copies of the study on Japanese control of the Northwest and Alaska seafood processing industry as completed by Frank Orth & Associates.

I understand the study was made public a week ago and copies are now available.

Thank you,

INTERSEA FISHERIES, LTD.

B. E. Gilman  
Vice-President

KR

UNIVERSITY OF WASHINGTON  
SEATTLE, WASHINGTON 98195

*College of Fisheries*  
*Fisheries Research Institute*

26 February 1980

Mr. F. F. Zharoff, Chairman  
House Interim Committee on Foreign Investment  
Alaska Legislature  
Juneau, Alaska 99801

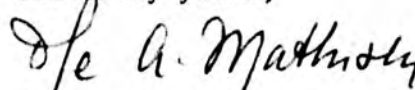
Dear Mr. Zharoff:

I am asking if you would be kind enough to send me a copy of

R. I. Eliason and W. Miles: "Foreign Investment in the  
Alaska Seafood Industry", Frank Orth and Associates Inc.  
and W. Patrick Daugherty Inc. 1980.

The reason is my 34 years' involvement in salmon research in Bristol  
Bay.

Sincerely yours,



Ole A. Mathisen  
Professor

OAM:lcs

Seattle, Washington 98107  
(206) 789-5333

# Pacific Fishing

February 26, 1980

Fred F Zharoff  
Pouch V  
State Capitol  
Juneau, AK 99811

Dear Mr. Zharoff,

Pacific Fishing is a new commercial fishing magazine serving the U.S. west coast. We are interested in obtaining a copy of the study, Foreign Investment in the Alaska Seafood Industry.

Could you please send a copy to the above address? If there is any charge the invoice should be sent to the same address.

Thanking you in advance,

*Michael Parker*

Michal Parker  
Office Manager

**WEST COAST FISHERIES  
DEVELOPMENT FOUNDATION**

720 S.W. Washington, Suite 418  
Portland, Oregon 97205  
Phone (503) 222-3518

**WILLIAM S. JENSEN**  
Executive Director

2-29-80

Dear Mr. Thoroff,

I thank you for sending  
a copy of the Orth study  
of foreign ownership.  
Attached are title sheets  
of the two Canadian studies  
I mentioned to you. If  
you contact: Mr. John Allan  
Ministry of the Environment  
Parliament Building  
Victoria, British Columbia  
Canada

I am sure that we can obtain  
copies for you. If this office can  
ever be of assistance, please don't  
hesitate to contact us.

Sincerely,  
Bill Jensen

An Economic Study  
of the  
STRUCTURE OF THE BRITISH  
COLUMBIA SALMON INDUSTRY

by MARVIN SHAFFER, Ph.D.  
Consulting Economist

April 1979

All opinions expressed in this report are those of the author. Opinions expressed do not necessarily reflect the view of the Department of Fisheries and Oceans Canada nor the Ministry of Environment, British Columbia and this report does not constitute an expression of governmental policy. This study was prepared under contract for the Salmonid Enhancement Program, 1090 West Pender Street, Vancouver, B. C. V6E 2P1. Financing, technical guidance and coordination of government agency review were provided jointly by the Department of Fisheries and Oceans Canada and the British Columbia Ministry of Environment.

**FOREIGN INVESTMENT IN  
BRITISH COLUMBIA FISH PROCESSING**

Prepared for British Columbia Ministry of Environment

by

Quadra Economic Consultants Ltd.

in association with

McDaniels Research Ltd.

*Aug 1979*

HOKUYO SUISAN COMPANY, LTD.

Seattle Representative Office

KUNIO ADACHI

2715 48th Avenue S. W.

Seattle, Washington 98116

Tel. (206) 932-2431

Telex: 32-8048

March 9, 1980

Home Office

9-13 7 - Chome Tsukiji

Chuo-Ku, Tokyo, Japan

Tel. (03) 542-2571

Telex: 252-2987

Mr. Fred Zharoff

Pouch 5 - V

State Capital

Juneau, Alaska 99811

Dear Mr. Zharoff

In this writing, I would count on your kindness and courtesy.  
Will you kindly send me two copies of " FOREIGN INVESTMENT IN THE ALASKA  
SEAFOOD INDUSTRY ", prepared by Frank Orth & Associates, Inc. and  
W. Patrick Dougherty, January, 1980.

I enclose a self-addressed label.  
Please send me a bill for your cost.

Sincerely yours,



Kunio Adachi

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 486-8284



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 485-4888  
485-4881

House of Representatives

March 24, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAR  
KODIAK  
OUZINKIE

John Allan, Economist  
Ministry of Environment  
Parliament Buildings  
Victoria, British Columbia  
CANADA V8V 1X4

Dear Mr. Allan:

Thank you for sending the requested copies of your reports. Please find enclosed a copy of the interim report on "Foreign Investment in the Alaska Seafood Industry". I hope that it will be of some use to you.

Please feel free to comment on this report or related areas of interest.

Sincerely yours,

A handwritten signature in cursive script that reads "Fred F. Zharoff".

Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure



March 16/80

Fred F. Zharoff

Chairman

Interim Committee on Foreign Investment

Dear Mr. Zharoff,

Please find enclosed copies of the reports requested in your letter of March 4, 1980.

Thank you for your offer to send a copy of the report, "Foreign Investment in the Alaska Seafood Industry." I would very much like to receive this report.

Please excuse my handwriting. I am about to take two weeks of annual leave and wanted to get these reports in the mail as soon as possible.

Perhaps we might exchange future reports and ideas on foreign investment in our respective fisheries.

John Allan  
Economist.

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 486-8284



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 488-4886  
488-4981

House of Representatives

March 28, 1980

DISTRICT 14:

BELLSPLATS  
CHINIAR  
KODIAK  
OUZINKIE

Y. Takaguchi, Director, Secretary  
Nippon Suisan (U.S.A.), INC.  
3718 Seattle - 1st National Bank Bldg.  
1001 - 4th Avenue  
Seattle, Washington 98154

Dear Mr. Takaguchi:

Thank you for your letter of March 25, 1980 in which you indicate your interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed are the two (2) copies you requested. Please feel free to comment on this report or related areas of interest.

Sincerely yours,

*Levin M. Smith*

*for*

Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

Mr. Frank  
District  
State of  
Nassau

Dear Sir:

We were given your name and address by an associate of  
ours in regard to a volume which you have on hand.

The name of the volume is: **WILDERNESS IN THE ALASKA  
WILDERNESS**. Prepared for House Select Committee on  
Foreign Investment of the House of Representatives by  
Frank Green, Associate, Inc. and W. Douglas Douglas,  
January, 1957.

We would like to order a volume of the above mentioned  
if there are no charges. Please invoice us.

Thank you very much for your attention to this matter.

Sincerely,  
  
WILLIAM SUTHERLAND  
  
W. SUTHERLAND  
Director, Secretary

WSS

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. Box 408  
KODIAK, ALASKA 99618  
(907) 486-8284



WHILE IN JUNEAU  
FOUCH V  
JUNEAU, ALASKA  
99811  
(907) 488-4986  
488-4981

House of Representatives

April 16, 1980

DISTRICT 14:

BELLFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Dr. Paul Anton, Dep. Director  
Dept. of Commerce & Economic Development  
State of Washington  
General Administration Bldg.  
Olympia, Washington 98504

Dear Dr. Anton:

Thank you for your letter of March 19, 1980 in which you express an interest in the interim report on "Foreign Investment in the Alaska Seafood Industry". Enclosed is the requested copy.

Please feel free to comment on this report or related areas of interest.

Sincerely yours,

*Levin M. Smith*

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure



STATE OF  
WASHINGTON

Dixy Lee Ray  
Governor

DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT

General Administration Building, Olympia, Washington 98504

206/753-5630

March 19, 1980

Representative Fred Zharoff  
Pouch B  
Juneau, AK 99811

Dear Representative Zharoff:

I am interested in obtaining a recent study done by Frank Orth and Associates for the Alaska Legislature entitled "Foreign Ownership of Alaskan Fish Processing Firms."

Could you please forward this publication to me along with any charges that might be acquired.

Sincerely,

A handwritten signature in cursive script, appearing to read "Paul Anton".

Dr. Paul Anton  
Deputy Director

PA:34/111

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 405  
KODIAK, ALASKA 99515  
(907) 485-5284



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 485-4986  
485-4981

House of Representatives

April 16, 1980

DISTRICT 14:

BELLSFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Andrea G. Coffman, Librarian  
Ocean and Coastal Law Center  
School of Law  
University of Oregon  
Eugene, Oregon 97403

Dear Ms. Coffman:

Thank you for expressing your interest in the interim committee report on "Foreign Investment in the Alaska Seafood Industry". Enclosed is the requested copy.

Sincerely yours,

*Linn M. Smith*  
for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure



Ocean and Coastal Law Center

School of Law  
UNIVERSITY OF OREGON  
Eugene, Oregon 97403

503/686-3845

April 7, 1980

Chairman  
House Interim Committee on Foreign Investment  
Alaska Legislature  
Pouch V  
State Capitol  
Juneau, Alaska 99811

Dear Sir or Madam:

The Ocean and Coastal Law Center would appreciate receiving a copy of the following publication(s) for our library:

FOREIGN INVESTMENT IN THE ALASKA SEAFOOD INDUSTRY. Prepared by Frank Orth and Assoc., Inc., Jan 1980, for The Committee

We are part of the Oregon State University Sea Grant Program sponsored by NOAA. If there is a charge for the publication(s), please send an invoice. However, if the price is more than \$5.00 for any one publication, please notify us of the cost before sending the publication.

Thank you very much.

Sincerely,

*Andrea G. Coffman*

Andrea G. Coffman  
Librarian

*an equal opportunity affirmative action employer*

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 405  
KODIAK, ALASKA 99615  
(907) 466-5254



WHILE IN JUNEAU  
POUCH V  
JUNEAU, ALASKA  
99811  
(907) 465-4986  
465-4951

House of Representatives

May 7, 1980

DISTRICT 14:

BELLEFLATS  
CHINIAK  
KODIAK  
OUZINKIE

Mr. John Bishop  
National Marine Services  
Statistics and Market News Office  
100 Westlake Ave. N, Rm. 732  
Seattle, Washington 98109

Dear Mr. Bishop:

Thank you for expressing an interest in the interim committee report on Foreign Investment in the Alaska Seafood Industry. Enclosed is the requested copy. Please feel free to comment on this report or related areas of interest.

Sincerely yours,

*Fred F. Zharoff*

for: Fred F. Zharoff  
District 14 Representative

FFZ:lms

Enclosure

*Foreign*

The following is a list of names that you requested who would be interested in receiving a copy of the Interim Committee Report on Foreign Investments:

United Fishermans Marketing Assoc.  
Jeff Stephans, Manager  
P.O. Box 1035

Shrimp Trawlers Assoc.  
Al Burch, Manager  
P.O. Box 991

Marine Advisory Program  
Hank Pennington  
Pouch K.  
Kodiak, Ak.

Kodiak Island Borough  
Gary Hovanec, Manager  
P.O. Box 1246

City of Kodiak  
Clair Harmony, Manager  
P.O. Box 1397

Kodiak Daily Mirror  
Roger Brigham, Editor  
P.O. Box 1307

KNXT, FM  
Lin Stafford, News Director  
P.O. Box 484

Kodiak Times  
Neil Waage, Editor  
P.O. Box 2368

Would like to have a copy for the Information Office as well.

Will send other names as I have them. Mary Jo

LIST OF PERSONS AND ADDRESSES TO WHOM ONE COPY OF  
FOREIGN INVESTMENT IN THE ALASKA SEAFOOD INDUSTRY SHOULD BE SENT

Dr. Robert Siegel, Economist  
Economic and Marketing Research Division  
National Marine Fisheries Service, NOAA  
3300 Whitehaven Street N.W.  
Washington, D.C. 20235

Representative Les AuCoin  
721 House Annex #1  
Washington, D.C. 20515  
ATTN: Dan Panshin

Mr. Jay Hastings  
610 United Pacific Building  
1000 2nd Avenue  
Seattle, Washington 98104

Mr. Richard Meier, Deputy Director  
Office of Foreign Investment in the U.S.  
U.S. Department of Commerce, Room 6093  
Washington, D.C. 20230

Senator Ted Stevens  
Room 260  
Russell Senate Office Building  
Washington, D.C. 20510  
ATTN: Steve Perles

Representative Don Young  
Room 1210  
Longworth House Office Building  
Washington, D.C. 20515  
ATTN: Rod Moore

Mr. John Everett, Director  
Fisheries Development Division  
National Marine Fisheries Service, NOAA  
3300 Whitehaven Street N.W.  
Washington, D.C. 20235

Ms. Christine Dawson  
Commerce Committee  
126 Russell Senate Office Building  
Washington, D.C. 20510

Dr. Gene Wunderlich  
Senior Agricultural Economist  
Economics, Statistics and Cooperative Service  
G.H.I. Building, Room 402  
500 - 12th Street S.W.  
Washington, D.C. 20250

Mssrs. George K<sup>r</sup>uer and James Bonkamp  
Bureau of Economic Analysis, Room 1518  
U.S. Department of Commerce  
441 G Street N.W.  
Washington, D.C. 20230

Mr. Michael Grable, Chief  
Financial Services Division  
3300 Whitehaven Street N.W.  
Washington, D.C. 20235

Mrs. Virginia O'Brien, Director  
Division of Foreign Costs  
M-731, Room 4868  
Commerce Building  
Washington, D.C. 20230

Mrs. Ruth D. Appleton, Chief  
Office of Tender Offers and Acquisitions  
Securities and Exchange Commission  
500 North Capitol Street  
Washington, D.C. 20549

Ten (10) copies to:

Frank Orth & Associates, Inc.  
225 - 108th Avenue N.E., Suite 311  
Bellevue, Washington 98004

# FRANK ORTH & ASSOCIATES

Economic and Business Consultants • 225 108th Ave. N.E., Suite 311, Bellevue WA 98004 • (206) 455-3507

February 22, 1980

TO: Representative Fred Zharoff  
FROM: Peter Rogers *PR*  
SUBJECT: Request for copies of "Foreign Investment in the Alaska Seafood Industry"

In the past few weeks, we have received three additional requests for the report. Please send one copy to each of the following persons:

Dr. James Bray  
Division of Marine Resources  
3716 Brooklyn Avenue Northeast  
Seattle, Washington 98105

Mr. Roger W. Johnson  
216 First Avenue South  
260 Grand Central on the Park  
Seattle, Washington 98104

Dr. Robert L. Stokes  
Institute for Marine Studies  
University of Washington, HA-35  
3731 University Way Northeast  
Seattle, Washington 98105

Thank you in advance for your cooperation in this matter.

PWR:kh

*Fred  
This looks good,  
as far as I am  
B. White*

1 IN THE HOUSE

BY THE RESOURCES COMMITTEE

2 HOUSE BILL NO.

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to the disclosure of alien affiliates  
7 in Alaska businesses; and providing for an effective  
8 date."

9 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

10 \* Section 1. AS 10.05.250 is amended to read:

11 Sec. 10.05.250. REORGANIZATION; DISCLOSURE OF ALIEN AFFILIATES  
12 [INTERESTS]. Not less than 20 days before the consummation of a corpo-  
13 rate reorganization the corporation which is to survive or control shall  
14 deliver to the commissioner the following information:

15 (1) a list of the names and addresses of each alien affiliate  
16 of the surviving corporation [WHICH IS A NONRESIDENT ALIEN OR CORPORA-  
17 TION WHOSE PLACE OF INCORPORATION IS OUTSIDE THE UNITED STATES, AND];

18 (2) the percentage of outstanding shares controlled by each  
19 alien affiliate; and

20 (3) a specific description of the nature of the affiliation  
21 between the surviving or controlling corporation and its alien affiliate

22 \* Sec. 2. AS 10.05.255(a)(3) is amended to read:

23 (3) the purpose or purposes for which the corporation is  
24 organized and the code number from the identification code established  
25 under AS 10.05.703 which most closely describes the activity in which  
26 the corporation will initially engage;

27 \* Sec. 3. AS 10.05.255(a)(13) is amended to read:

28 (13) the name and address of each alien affiliate and a speci-  
29 fic description of the nature of the affiliation between the corporation

1 and its alien affiliate [WHICH IS A NONRESIDENT ALIEN OR A CORPORATION  
2 WHOSE PLACE OF INCORPORATION IS OUTSIDE THE UNITED STATES].

3 \* Sec. 4. AS 10.05.519(a)(1) is amended to read:

4 (1) the corporation is delinquent three [SIX] months in  
5 filing its annual report or in paying a license filing fee or penalty;

6 \* Sec. 5. AS 10.05.519(a) is amended by adding a new paragraph to read:

7 (6) a misrepresentation of a material matter has been made in  
8 an application, report, affidavit, or other document submitted under  
9 this chapter.

10 \* Sec. 6. AS 10.05.615(5) is amended to read:

11 (5) the purpose the corporation proposes to pursue in the  
12 transaction of business in the state and the code number from the iden-  
13 tification code established under AS 10.05.703 which most closely de-  
14 scribes the activity in which the corporation will engage in the state;

15 \* Sec. 7. AS 10.05.615(12) is amended to read:

16 (12) the name and address of each alien affiliate, [WHICH IS A  
17 NONRESIDENT ALIEN OR A CORPORATION WHOSE PLACE OF INCORPORATION IS  
18 OUTSIDE THE UNITED STATES AND] the percentage of outstanding shares  
19 controlled by each alien affiliate, and a specific description of the  
20 nature of the affiliation between the foreign corporation and its alien  
21 affiliate; [.]

22 \* Sec. 8. AS 10.05.702(3) is amended to read:

23 (3) a brief statement of the character of the business in  
24 which the corporation is engaged in the state and the code number from  
25 the identification code established under AS 10.05.703 which most  
26 closely describes the activity in which the corporation is engaged in  
27 the state;

28 \* Sec. 9. AS 10.05.702(8) is amended to read:

29 (8) the name and address of each alien affiliate, [WHICH IS A

1 NONRESIDENT ALIEN OR A CORPORATION WHOSE PLACE OF INCORPORATION IS  
2 OUTSIDE THE UNITED STATES AND] the percentage of outstanding shares  
3 controlled by each alien affiliate, and a specific description of the  
4 nature of the affiliation between the corporation and its alien affi-  
5 liates; [.]

6 \* Sec. 10. AS 10.05 is amended by adding new sections to read:

7       Sec. 10.05.700. STOCKHOLDER REPORTS. A domestic corporation or  
8 foreign corporation which publishes a report to its stockholders shall  
9 submit a copy of its most recent stockholder report with the annual  
10 report required in AS 10.05.699.

11       Sec. 10.05.703. IDENTIFICATION CODE. The commissioner of commerce  
12 and economic development and the commissioner of revenue shall jointly  
13 establish, adopt and publish a numerically coded list of business acti-  
14 vities and shall make the list available to the public.

15 \* Sec. 11. AS 10.05.771 is amended to read:

16       Sec. 10.05.771. PENALTY FOR FAILURE TO FILE ANNUAL REPORT. Each  
17 domestic or foreign corporation that fails or refuses to file its annual  
18 report within the time set by this chapter is subject to a penalty of 10  
19 percent of the amount of the franchise tax for each month that the  
20 corporation fails or refuses to file the annual report. If the amount  
21 of the franchise tax as originally assessed is adjusted in accordance  
22 with this chapter, the amount of the penalty shall also be adjusted to  
23 10 percent of the amount of the adjusted franchise tax for each month  
24 the corporation fails or refuses to file the annual report. The amount  
25 of the franchise tax and the amount of the penalty shall be separately  
26 stated in a notice to the corporation.

27 \* Sec. 12. AS 10.05.783 is amended to read:

28       Sec. 10.05.783. FAILURE TO ANSWER INTERROGATORIES. Each domestic  
29 or foreign corporation that fails or refuses to answer truthfully and

1 fully within the time prescribed by this chapter interrogatories pro-  
2 pounded by the commissioner in accordance with this chapter is guilty of  
3 a misdemeanor [AND UPON CONVICTION MAY BE FINED IN AN AMOUNT NOT EX-  
4 CEEDING \$500].

5 \* Sec. 13. AS 10.05.786 is amended to read:

6 Sec. 10.05.786. PENALTIES IMPOSED UPON OFFICERS AND DIRECTORS.  
7 Each officer and director of a domestic or foreign corporation who fails  
8 or refuses within the time prescribed by this chapter to answer truth-  
9 fully and fully interrogatories propounded to him by the commissioner in  
10 accordance with this chapter, or who signs any articles, statement,  
11 report, application or other document filed with the commissioner which  
12 is known to the officer or director to be false in any material respect,  
13 is guilty of a misdemeanor [, AND UPON CONVICTION MAY BE FINED IN AN  
14 AMOUNT NOT EXCEEDING \$500].

15 \* Sec. 14. AS 10.05.825(18) is repealed and re-enacted to read:

16 (18) "affiliate" includes but is not limited to

17 (A) a person directly or indirectly owning, controlling  
18 or holding with power to vote, five percent or more of the out-  
19 standing securities of a person subject to this chapter;

20 (B) a person five percent or more of whose outstanding  
21 securities are directly or indirectly owned, controlled, or held  
22 with power to vote by a person subject to this chapter;

23 (C) a person directly or indirectly controlling, con-  
24 trolled by, or under common control with, a person subject to this  
25 chapter;

26 (D) a director, officer, or partner of a person subject  
27 to this chapter; or

28 (E) a person under whose name business is transacted by  
29 another person who is subject to this chapter;

1 \* Sec. 15. AS 10.05.825(20) is amended to read:

2 (20) "person" means an individual, a corporation, a partner-  
3 ship, an association, a joint-stock company, a joint venture, a com-  
4 pany, a firm, a society, an estate, a trust where the interests of the  
5 beneficiaries are evidenced by a security, an unincorporated organiza-  
6 tion, a government, or a political subdivision of a government;

7 \* Sec. 16. AS 10.05.825 is amended by adding new paragraphs to read:

8 (22) "alien" means

9 (A) an individual who is not a citizen or national of  
10 the United States, or who is not lawfully admitted to the United  
11 States for permanent residence, or paroled into the United States  
12 under the Immigration and Nationality Act (8 U.S.C. secs. 1101 -  
13 1503), as amended; or

14 (B) a person, other than an individual, that was not  
15 created or organized under the laws of the United States, or whose  
16 principal place of business is not located in any state;

17 (23) "state" means any of the United States, the District of  
18 Columbia, the Commonwealth of Puerto Rico, the Northern Mariana Islands,  
19 Guam, the Virgin Islands, American Samoa, the Trust Territory of the  
20 Pacific Islands, or any other territory or possession of the United  
21 States.

22 \* Sec. 17. This Act takes effect January 1, 1981.  
23  
24  
25  
26  
27  
28  
29

Request for  
Special Interim  
Committee on  
FOREIGN INVESTMENTS

REPRESENTATIVE  
FRED F. ZHAROFF  
P.O. BOX 408  
KODIAK, ALASKA 99618  
(907) 486-8254



WHILE IN JUNEAU  
FOUCH V  
JUNEAU, ALASKA  
99811  
(907) 485-4986  
485-4981

House of Representatives

DISTRICT 14:

MEMORANDUM

BELLEPLATE  
CHINIAR  
KODIAK  
OUZINKIE

To: Representative Terry Gardiner, Speaker of the House  
From: Representative Fred F. Zharoff *FZ*  
Re: Foreign investment

As discussed with you earlier this session, I would like to request an interim committee for the study of foreign investment and involvement in Alaska business. Because the involvement may be quite extensive, it is my goal to focus primarily on foreign involvement as it pertains to fisheries with preliminary investigation into other Alaskan resources, i.e. timber and land.

The study will focus on three (3) main areas. These are the three (3) major areas of concern with me:

1. Ownership: Identifying all fisheries and processing related companies owned or controlled by foreign countries.
2. Alaska's Corporate Disclosure Law: This section of the study would point out discrepancies in the Alaska Disclosure Law, focusing on information or lack of information, the time frame in which such information is gathered or requested by the State, the utilization of such information, ect.
3. Bottom fisheries involvement: This is important in respect to the quota system. Does foreign involvement in Alaska's processing industries create an incentive, or does it create obstacles or barriers for bottom fisheries development?

This committee, if funded, would be a sub-committee of the Special Interim Committee on Bottom Fisheries, all of which would fall under the guidance of the House Resources Committee. I have discussed this with Alvin Osterback and Frank Orth, Bottom Fisheries Committee Consultant, and they anticipate no problems. The findings of the Foreign Investment Study Committee will, in the end, be coordinated with the Bottom Fisheries Committee.

I have also talked with Pat Dougherty and he is assisting me in this venture. Because of his background in this area and the information he has compiled previously, I request that he be appointed the Administrative Aide to this special committee. I have a good deal of confidence in him and I feel that because our views are compatible he would do a good job.

Enclosed please find:

1. Budget
2. Budget Narrative
3. Memo from Pat Dougherty regarding a foreign investment study
4. H.B. 87 (present status)
5. HCR 1 (present status)
6. Proposed committee member list

Thank you for your consideration.

April 9

MEMO

To: Rep. Fred Zharoff

From: W.P. Dougherty

Subject: Budget for foreign investment study

B U D G E T

I. Professional Services

|   |                   |
|---|-------------------|
| Project manager: 166 hours at \$40        | \$6,640           |
| Principal researcher: 1,000 hours at \$25 | \$25,000          |
| Economic analyst: 330 hours at \$25       | <u>\$8,250</u>    |
|   | \$39,890 Subtotal |

II. Direct Costs

|  |                   |
|--|-------------------|
| Legal services subcontract: 43 hours at \$70 | \$3,010           |
| Communications:                              | \$2,000           |
| Report preparation:                          | \$500             |
| Secretarial services: 100 hours at \$12      | \$1,200           |
| Fees and contingency:                        | <u>\$5,200</u>    |
|  | \$11,910 Subtotal |

(more)

III. Travel and Per Diem

Seattle-Juneau travel

|   |              |
|---|--------------|
| \$207 x four trips (plane fare)                 | \$828        |
| \$60/day x seven days x four trips (expenses)   | \$1,800      |
| \$32/day x seven days x four trips (car rental) | <u>\$896</u> |
|   | \$3,524      |

Juneau-Washington, D.C. travel

|  |              |
|--|--------------|
| \$524 x two trips (plane fare)                 | \$1,048      |
| \$60/day x seven days x two trips (expenses)   | \$840        |
| \$37/day x seven days x two trips (car rental) | <u>\$518</u> |
|  | \$2,406      |

---

Subtotal \$5,930

I. \$39,890

II. \$11,910

III. \$5,930

---

\$57,230 Total



## BUDGET NARRATIVE

### I. PROFESSIONAL SERVICES

The project requires a manager who will be responsible for developing a detailed work plan and schedule for performance, coordinate the activities of the researchers, administer the project funds, report to the client group on the progress of the project, oversee preparation of the final report, and conduct overall review of the work of project participants.

A principal researcher will handle the bulk of the research and investigation for Parts I and II of the study. This includes locating and identifying the processing and fishery-related companies owned or controlled, directly or indirectly, by Japanese corporations. Research will involve a search of Alaska corporate records, SEC filings and other documents, as well as interviews with processors and various industry contacts. The principal researcher also will investigate the state's corporate disclosure policy with several questions in mind: Are the disclosure statutes properly and efficiently enforced? Are data compiled in usable forms? Are they compiled in a timely fashion? How could the information be compiled otherwise, and at what cost? What changes or adjustments would be most desirable from the state's point of view?

The economic analyst will review the recent economic decisions of the state's processors in an effort to determine whether there is a pattern of investment contrary to the goal of a prospering American bottomfish industry. The analyst will design the appropriate research methodology and assess and interpret the results.

### II. DIRECT COSTS

The legal services subcontract provides for a legal analysis of the state's disclosure statutes and privacy restrictions. It would attempt to expose loopholes or gaps in the present statutes that thwart the legislative intent of public scrutiny of economic trends and developments. It would assess the effectiveness of current penalties for non-compliance with the law.

(more)

Communications represents the cost of close coordination between an office in Juneau and one in Seattle. It would cover long distance toll charges, delivery services such as Goldstreak, postage, copying, office supplies, and possibly office or equipment rental.

Report preparation includes the cost of reproducing, proofreading, collating, binding and designing the number of copies desired by the client (perhaps 25 - 50).

Secretarial services refers almost exclusively to typing needs. Project demands would include correspondence, memoranda, and preparation of a draft and final report.

Fees and contingency amounts to a percentage (10%) of the total project cost which is charged as compensation for the investment of capital and assumption of commercial risks associated with management of the project. (Essentially this is one form of billing. Some other firms will accomplish the same profit mark-up through a higher charge rate for professional services. It reflects a charge comparable with other firms with like backgrounds and qualifications for similar work.)

### III. TRAVEL AND PER DIEM

The two principal points of interest for this study are Juneau, where many of the records and other sources are located, and the Seattle-Olympia area, where the Alaska fishing industry is headquartered and many of the other records are kept. This cost represents the exploitation of all these sources of information as well as allowing for the close coordination of offices in both locales. Possibly by combining Seattle-Juneau travel needs for this project with those of other developing projects, this budget item can be held to a minimum.

A trip to Washington, D.C., by the principal researcher and the project manager is desirable because it would permit the coordination of this project with work being conducted out of the offices of the Alaska congressional delegation. There also are benefits to be reaped by interaction with those federal agencies with oversight responsibilities in the area of foreign investment. (This is particularly true of the Department of Commerce, which has studied foreign investment in the fishing industry, specifically, in the recent past.)

April 9

MEMO

To: Rep. Fred Zharoff

From: W. P. Dougherty

Subject: The foreign investment study

As we discussed Saturday, a study of this nature is long overdue. Japan's influence over the fisheries of Alaska is well known but almost totally unexamined. In the instance of the Alaska fishing industry, the state has a critical need to understand the role of the Japanese in the processing industry before embarking upon a grand program to foster an American bottomfishery. In addition, recent revelations concerning the use and non-use of the state's progressive corporate disclosure laws underscore the helplessness of the state in trying to determine trends in its own economy when such business data are either not available, or not available in a usable form.

In accordance with the guidance you gave me, I will outline here my suggestion for a three-part study costing between \$45,000 and \$50,000.

PART I. Who owns what?

As a starting place, I suggest that we locate and identify all those processing and fishery-related companies that are owned or controlled, directly or indirectly, by the Japanese. This would involve a search of Alaska corporate records, SEC filings and other documents, as well as interviewing processors and

other contacts. I would need to travel to Seattle-Olympia for review of Washington state records and interviews since so much of the Alaska processing industry ultimately resides in Washington. This investigation would provide the state with the only current, specific picture of the way the industry is structured, including the relationships between companies. The cost for Part I would be about \$10,000. I would do almost all of the work, with assistance and review by Dr. Frank Orth of Seattle.

PART II. Alaska's corporate disclosure law. How are data compiled, and how are they used?

This is the heart of the study. It is the foundation for the future understanding of industry in the state of Alaska. If the state is ever to put itself on a solid footing from which it can scrutinize and guide development in Alaska, an accurate, timely compilation of relevant corporate data is absolutely essential. As you know, at present, the state's disclosure statutes are enforced laxly, if at all. Data are compiled in unusable forms, and often so tardily that they are virtually worthless. This portion of the study would examine what is being done now, what could be done and at what cost, and what would be optimally desirable from the state's point of view. We would want to study the degree to which information is related and yet held separately by, for example, the Department of Fish & Game, the Department of Revenue, the Department of Commerce and the Department of Labor. The aim would be to reduce the number of instances in which the left hand doesn't know what the right is doing. We would subcontract for a legal analysis of the disclosure statutes and privacy restrictions to determine the degree to which the state handicaps itself in trying to understand current trends in an industry such as fishing. The cost for this portion of the study would be roughly \$25,000,

with the work to be performed cooperatively by Frank Orth and myself.

PART III. Analysis of the role of foreign investment on bottomfish investment decisions of domestic processors.

This long-overdue study would attempt to determine whether the investment decisions of Japanese-invested processors are calculated to retard or in any way hamper development of a domestic bottomfish industry. It is clear that the Japanese have a vested interest in protecting their industry by opposing, or at the least not helping, an American bottomfishery. So far no one has looked at their use of capital to determine if they are actually engaged in some form of economic subterfuge. Arthur D. Little Co., for example, completely ignored this question in its recent study for the administration. Obviously, since the companies are unwilling to discuss this matter forthrightly with the state or its representatives, it will be necessary to review their recent economic decisions in an effort to note a pattern of investment contrary to the goal of a growing bottomfish industry. Frank Orth would design a research methodology and use it to complete this analysis. The cost would be about \$10,000. I would lend my assistance where needed, as well as reviewing this part of the study.

I hope this overview is helpful to you in envisioning the scope and value of such a study. If additional details would be helpful, please don't hesitate to contact me.

Sincerely,

  
W. P. Dougherty

Introduced: 1/29/79  
Referred: Resources

Funding Information  
General Fund \$43,000  
Other Funds -0-  
\$43,000

BY THE RULES COMMITTEE BY  
REQUEST OF THE LEGISLATIVE  
COUNCIL (for the Interim  
Committee on Bottomfish)

1 IN THE HOUSE

2 HOUSE BILL NO. 87

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act making a special appropriation to the Legisla-  
7 tive Council for the purpose of conducting a study  
8 relating to the extent of foreign investment in  
9 Alaska's fisheries; and providing for an effective  
10 date."

11 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

12 \* Section 1. The sum of \$43,000 is appropriated from the general fund to  
13 the Legislative Council for the purpose of conducting a study relating to the  
14 extent of foreign investment in Alaska's fisheries.

15 \* Sec. 2. The unexpended and unobligated portion of this appropriation  
16 lapses into the general fund June 30, 1980.

17 \* Sec. 3. This Act takes effect July 1, 1979.  
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BY THE RULES COMMITTEE BY  
REQUEST OF THE LEGISLATIVE  
COUNCIL (for the Interim  
Committee on Bottomfish)

1 IN THE HOUSE

2 HOUSE CONCURRENT RESOLUTION NO. 1

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 ELEVENTH LEGISLATURE - FIRST SESSION

5 Directing the Legislative Council to  
6 conduct a study relating to the ex-  
7 tent of foreign investment in  
8 Alaska's fisheries.

9 BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

10 WHEREAS the fishing industry is one of Alaska's principal businesses;  
11 and

12 WHEREAS the extent of foreign control over Alaska's fisheries has not  
13 been accurately determined; and

14 WHEREAS extensive foreign investment in Alaska's fisheries could have a  
15 strong impact on issues which are important to the state, including local  
16 employment, tax revenue, bottomfish development and marketing, and others;

17 BE IT RESOLVED by the Alaska State Legislature that under provisions of  
18 AS 24.20.090 and Uniform Rule 48(c) the Legislative Council is directed to  
19 conduct a study for the purpose of determining:

20 (1) the percentage of total annual seafood harvests within the  
21 200-mile fishery conservation zone off the coast of Alaska harvested by  
22 fishermen wholly or partly financed by foreign investors;

23 (2) the percentage of total annual seafood production in the state  
24 produced by processors which are wholly or partly owned by foreign investors;

25 (3) the percentage of total ownership of seafood processors in the  
26 state owned by foreign investors.

27 For the purposes of the study, "foreign investors" includes any alien  
28 individual, corporation, partnership, association, joint stock company,  
29 trust, unincorporated organization, government subdivision or government that

1 directly, or indirectly through one or more intermediaries, invests in, lends  
2 money to, controls or is under common control with a seafood processor or  
3 fisherman doing business in the state.  
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INTERIM COMMITTEE ON FOREIGN INVESTMENT

Professional Services:

Project manager: Frank Orth

Prinipal researcher (Admin. Aide): W.P. "Pat" Dougherty

Economic Analyst: Open

Committee Members:

Representative Fred F. Zharoff

Representative Alvin Osterback

Representative Richard Eliason

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED  
AS A UNIT IN THE ORIGINAL DOCUMENT.

SCOMM

#29:6

FILE  
Fisheries

January 28, 1981

Blake W. Kinnear  
P.O. Box 2743  
Kodiak, Alaska 99615

TO WHOM IT MAY CONCERN:

This letter has been provoked by the need to document my gear conflict with the Polish trawl fleet that operated in Alaskan waters near Chirikof Island in the fall and early winter of the preceding two years. They have huge ocean going factories, targeting on cod and pollock, but are capable of catching anything. I run a 96', nine year old, American built and expensively remodeled combination boat.

My favorite king crab grounds are also very rich in various types of groundfish. In 1979 the Polish fleet discovered this and moved into the area in force. Heavy tidal currents commonly hold my crab marker bouys under water at least 40% of the time. The polish fleet is not equipped with lights, even if the bouys had been on the surface. My gear was soon in disarray, out of position and 16 pots missing. After frantic appeal to the Coast Guard and other government agencies, it became clear that nothing could be done until 1980. I had to abandon the grounds, and my season was totally ruined.

This past fall I thought things would be straightened out. After all, a years time should be enough. But, as I was setting my gear, the Polish trawler Carnela steamed right across my bow. He wouldn't answer my radio calls on various channels, but only sounded his horn. He expected my to get out of his way! I bluffed him into turning around and defended my gear. It was only temporarily successful, since I was soon missing five more pots. The Coast Guard to whom I appealed for help, informed me that the Polish have a perfect right to fish in the area, and that I was wrong to have maneuvered with them in defense of my gear!

The media picked up this story, I made contact with my representatives and received support from local government, and this community. The Polish government requested their own trawlers to leave, which they did. Because of this voluntary action, I

was able to salvage a good season. But they, or others will be back next year unless we can work out the red tape in time. Meanwhile...I am supposed to get compensation for some \$16,000.00 worth of gear lost in the past two years by applying to some "appropriate fund," with proper documentation (photos if possible)..

Now, let me digress. I don't represent any powerful special interest groups. I don't have money to donate to political causes. I am trying to establish my family in a time of economic stress and uncertainty. My 12 week old daughter, Emileigh, is a second generation Alaskan. All I've ever wanted to do is to make my living fishing. I'd fish for anything that would make a good pay load. If I can live my life without interference, I'll do alright and still pay gruelling taxes, I've proved that for some years now.

There IS interference and there are obstacles that I don't seem to have control of. My home waters have never been more than a bargaining chip in the State Department's world view. I have two degrees from the University of Washington, in Marine Oceanography and Zoology. I will say right now that the administration of these waters by my government has never been undertaken with a view to utilizing the resources as an interrelated system. This must be done. We must use this valuable asset, and incredibly rich waters, wisely in the decades ahead. The King Crab fishery is the only bright spot for management, so far, and that is only a single species program. Their success depends on local management, and a fair degree of cooperation between certain persons in the program and the skippers of the fleet. Now there is an attempt by interests who have come here to fish from other states to undermine even that one successful program by transferring the control to faceless federal bureaucrats. Yes, I am full of digressions.

The point is that valuable resources are harvested in a basically unsupervised manner by large fleets of foreigners, including the Polish. We Alaskan fishermen are subject to the most stringent limits on our fishing. Management has the right to tell us to stop any time, frequently on a matter of a few hours notice. Contrasting with this, it has taken two full years to even close certain grounds, at certain times, to avoid gear conflicts during crab season. And, this matter is not settled yet.

Meanwhile, fish are harvested by these large fleets and actually sold on the American market, in many cases, with all the profit going to other countries. They have no thought for tomorrow, do not care if they overfish species, and are known to commit offenses at every opportunity. Yet, they fish mostly without American observers aboard.

I believe they have badly damaged certain stocks of fish and begun a series of oscillations in our ecosystem, that may permanently destroy its productivity if the trend is not soon reversed. I would be a better person to harvest these stocks. I would have a care for this land and its resources that these Polish, Japanese or Russians can never have. They laugh at us as they rape our waters and sell the fish on a vast international market, including our own country. Another decade and they will have ruined the grounds and moved on heedlessly.

You may have thought the 200 mile limit makes it possible for me to get a share of this quota? Not really. Our markets are flooded with a cheap product, the international fish companies will not give way to make room for us. Initially, our small boats can not compete with the more efficient factory ships, subsidized by governments to turn out a mass product at minimum prices. We need to turn out a different, higher quality product more individually oriented. But, we must create the demand for our product by taking control of our own resources first. That would strengthen our position enough to get started. Joint ventures with large foreign companies are an option that forces us into their price structures, our relative inefficiency becomes manifest, and they bargain for rights to catch the fish themselves.

The offshore oil and gas leasing program creates further interference. The plan is to develop large offshore tracts, right on the fishing grounds, including Shelikof Straits, which is a prime influence on the productivity of the whole system. The government tried last year to push through leases on the east side of Kodiak. I read the impact statement, which convinced me that bureaucrats are willing to trade my livelihood for 25 years of limited hydrocarbon development. Their best estimate is that at least one major spill projected would cause about 10% reduction in resource levels. I totally disagree, and furthermore state that it wasn't a scientific study at all. They gave no explanation of how they arrived at such a convenient

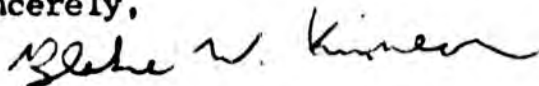
low and uniform reduction in harvest levels of all species. They resorted to political arguments, saying, that the U.S. needs this program to be self sufficient in energy and any delays would hurt our country. Meanwhile, they have locked up vast tracts of onshore reserves that could be drilled and tapped safely with present technology. That was to satisfy the "environmentalists." I say, drill safely above all. Go for the land now, and wait for the offshore drilling until ways have been developed to cope with constant storms, and heavy tidal current. Shelikof Straits has some of the worst sea conditions in the state. This is what would make sense, and preserve the food resource too. But I digress.

This letter is to answer requests for documentation of my claims. The Poles ruined my fishing season last year by driving me off the grounds and costing me invaluable fishing time as well as crab pots. I would have to disclose my secret fishing spots, make them public knowledge, in order to provide the logbook documentation of my gear loss. I am not willing to do that. I resent the fact that my legitimate claims for pots lost in gear conflicts will not be met. Yet, my tax money went to pay for thousands of pots lost by our fleet in the Bering Sea last year because of natural ice conditions.

I won't be a party to such games and I won't give out logbook information. If this is not documentation enough to help keep the Polish out of our resources, then I guess I am just out of luck. I'd like to catch and market the fish at a fair price. The important thing is to keep control of our waters and their productivity. Crab pots are only secondary.

The foreign fishermen have the full support of their respective countries. If I can't get some kind of minimal help for my problems from my own government, I'd at least like to know why. This situation doesn't make sense to me. and I feel the least my country owes me is an explanation.

Sincerely,



Blake W. Kinnear  
Skipper F/V Lin-J

May 7, 1981

Mr. Nick Szabo, Chairman  
Alaska Board of Fisheries  
P.O. Box 1633  
Kodiak, AK 99615

Dear Mr. Szabo:

Thank you for your letter and enclosures relative to the high seas interception of western Alaska chinook salmon. As you know, this has been of great concern to the Governor and members of his Administration. Our concerns have been voiced in strong terms both to members of Japan's Fishery Agency and fishing industry and to our Congressional delegation.

The Governor only introduces resolutions in very rare and specific cases as resolutions are generally considered to be the prerogative of the Legislature. Thus, I will be pleased to provide copies of your proposed resolution to members of both bodies of the Legislature with the hope that a member will introduce such.

Should you have any questions regarding this, please feel free to contact me.

Sincerely,

Keith W. Specking  
Legislative Assistant  
to the Governor

cc: Commissioner Skoog, Department of Fish and Game  
bcc: Senator Richard Eliason  
Senator Bob Mulcahy  
Senator Bettye Fahrenkamp  
Representative Terry Gardiner  
Representative Fred Zharoff  
Representative Tony Vaska  
w/resolution and backup

ALASKA BOARD OF FISHERIES  
NORTH PACIFIC FISHERY MANAGEMENT COUNCIL  
ALASKA STATE LEGISLATURE

REGARDING HIGH SEAS INTERCEPTION OF  
WESTERN ALASKA CHINOOK SALMON


- WHEREAS, the Magnuson Fishery Conservation and Management Act of 1976 reserves to United States fishermen all of the harvestable surplus of fisheries resources when the surplus can be taken by domestic fishermen; and
- WHEREAS, the existing domestic fisheries have the capacity to harvest all potential chinook salmon stocks of Alaskan origin; and
- WHEREAS, the commercial and subsistence fishermen of Western Alaska are dependent on chinook salmon resources as one of the mainstays of their economy and livelihood; and
- WHEREAS, chinook salmon stocks in Alaska are also of primary importance to the expanding recreational fisheries of Western Alaska; and
- WHEREAS, the estimated foreign interception of Western Alaska chinook by the Japanese mothership salmon and Bering Sea trawl fisheries for 1980 is 500,000 fish; and
- WHEREAS, the unreported high sea gillnet dropout may add substantially to the documented interception of Western Alaska chinook salmon; and
- WHEREAS, impact on Gulf of Alaska chinook stocks by Gulf of Alaska trawl and Japanese landbased gillnet catches are unknown; and
- WHEREAS, interceptions of this magnitude on mixed stocks of immature salmon on the high seas adversely impacts the State's ability to assure the conservation and sustained yield of these stocks; and
- WHEREAS, chinook salmon harvests by foreign fisheries on the high seas are still unacceptably high despite regulations of the International North Pacific Fisheries Commission and measures enacted under the Magnuson Fishery Conservation and Management Act of 1976; and
- WHEREAS, it is imperative that the cumulative effect of these interceptions be understood and reduced or eliminated insofar as possible; and

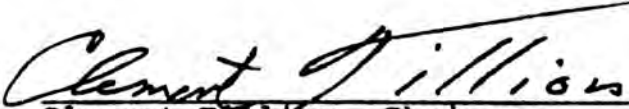
WHEREAS, jurisdiction for management of these fisheries is shared by the North Pacific Fishery Management Council, the International North Pacific Fisheries Commission, and the State of Alaska;

NOW THEREFORE BE IT RESOLVED that all parties take appropriate management measures to mandate the reduction of Alaskan chinook salmon interceptions by all foreign offshore fisheries to acceptable levels.

NOW THEREFORE BE IT RESOLVED that the parties to this resolution request that the Japanese government and fishing industry develop and apply appropriate modifications to their high seas salmon fishing operations that result in significant reductions in their interceptions of Alaska chinook salmon.

BE IT FURTHER RESOLVED that the Federal Government through both the North Pacific Fishery Management Council and International North Pacific Fisheries Commission support research to determine the continent of origin of chinook salmon taken in the Japanese landbased drift net and the foreign Gulf of Alaska trawl fisheries, to improve the understanding of the impacts on Alaskan chinook salmon stock interceptions by the Japanese mothership fishery and foreign Bering Sea trawl fisheries.

  
Mick Szabo, Chairman  
Board of Fisheries

  
Clement Tillion, Chairman  
North Pacific Fishery  
Management Council

Jim Duncan, Speaker of House  
Alaska State Legislature

Jalmar Kerttula, President of  
Senate  
Alaska State Legislature

**BACKGROUND: JAPANESE HIGH SEAS**

**SALMON INTERCEPTION ISSUE**

**MARCH 1981**

**Alaska Department of Fish and Game  
Division of Commercial Fisheries  
Support Building, Juneau, Alaska**

## BACKGROUND: JAPANESE HIGH SEAS SALMON INTERCEPTION ISSUE

The renegotiation of INPFC resulted in a revised treaty that significantly changed the fishing patterns of the Japanese high seas mothership and land based fisheries. Figures 1 and 2 illustrate the changed area and its comparison with what the mothership fishing area used to be. The Japanese are allowed to fish inside of our Fisheries Conservation Zone west of 175° East longitude during times when North American salmon are thought to be in low abundance. During the 1978, '79, and '80 seasons approximately two-thirds of the total mothership catch was taken while fishing in our zone, so the importance of this concession to their fishery is evident. In exchange for fishing in our zone the Japanese voluntarily agreed to restrict some of their activities outside of our zone, notably the land based gill net and mothership fisheries pulled back from 175° West to 175° East longitude south of our zone and the mothership fishery in the Central Bering Sea agreed to limit its effort to a level approximately one-half that experienced in the mid-1960's when Western Alaskan chinook interceptions in this area were unacceptably high.

The renegotiated treaty has had an extremely beneficial effect in terms of Western Alaska sockeye runs. The harvest of Western Alaska maturing sockeye has averaged only 111,000 fish for the last three years compared to about a 2 million average during the previous 22 years. In 1980, a peak year of the Bristol Bay cycle, only 180,000 maturing Bristol Bay sockeye were taken compared to 3.5 to 6 million taken in previous years of peak abundance. Immature harvest has remained the same at about 400,000 fish per year average. It was also felt that the overall reduction in fishing area, coupled with the effort limitations in the Central Bering Sea, would effectively limit their interceptions of Western Alaskan chinook. As you can see from Table 1, the relatively low harvest in 1978 and '79 seemed to support this.

The final Japanese high seas salmon mothership catch of chinook in 1980 was approximately 704,000 fish, the highest since the inception of the mothership fishery in 1952, and the second highest estimated interception of Western Alaska chinook. Unreported dead loss from the gill nets may amount to as much as one third of the total catch. The National Marine Fisheries Service estimates that some 388,000 of these were destined for Western Alaska. In the opinion of our State scientists the estimate of interception may be conservative. Be that as it may, the number is unacceptably high and in fact is higher than the average inshore harvest in Western Alaska by both our commercial and subsistence fishermen. These numbers in comparison with previous years' catches and inshore harvests are shown in Table 1 of the enclosures, which are intended to provide you with the necessary background on this fishery problem.

In 1980 the effort expended by the mothership fishery in the Central Bering Sea about doubled from the previous year, although it was still less than the treaty ceiling. Approximately 60 percent of their total chinook catch was taken out of the Central Bering Sea, and of the estimated interceptions 74 percent were taken in the Central Bering Sea.

This, however, is not the total picture regarding impacts on our stocks. Table 1 also shows groundfish trawl estimated interception of Western Alaskan chinook that has varied between 39,000 and 110,000 fish per year for the last four years. That would bring the total known interceptions to nearly half a million fish in 1980. Estimates of trawl interception for previous years do not exist. The North Pacific Fishery Management Council has been wrestling with methods to reduce this trawl interception level and it should be an item of discussion at the forthcoming Council meeting in Anchorage in late March.

This is still not the total picture of potential impact on Western Alaskan chinook. Chinook salmon are also taken in the Japanese land based fishery to the south of the mothership fishery and in the Gulf of Alaska trawl fishery. Chinook salmon catches in the land based fishery

In recent years have varied from approximately 100,000 to 200,000 chinook, averaging somewhere around 160,000 chinook per year (Table 2). Estimates of Western Alaskan chinook present in the mothership fishery at its southernmost extremes still range around 30 percent, so it seems reasonable that the land based fishery just to the south of this must be taking some percentage of Western Alaskan chinook. We have no estimates for the proportion of Western Alaskan chinook in the Gulf trawl fishery. Another factor that has still not been considered is the unreported dead loss due to dropout from gill nets on the high seas. In the case of maturing sockeye salmon this was estimated to be as much as one third of the total catch. We have no corresponding estimates for chinook, but it may be substantial. In sum, then, it seems possible that half of the total harvest of Western Alaskan chinook may be taken on the high seas as immature fish one or two years away from their inshore migration and weighing less than one third of the total weight they would have had they reached inshore waters.

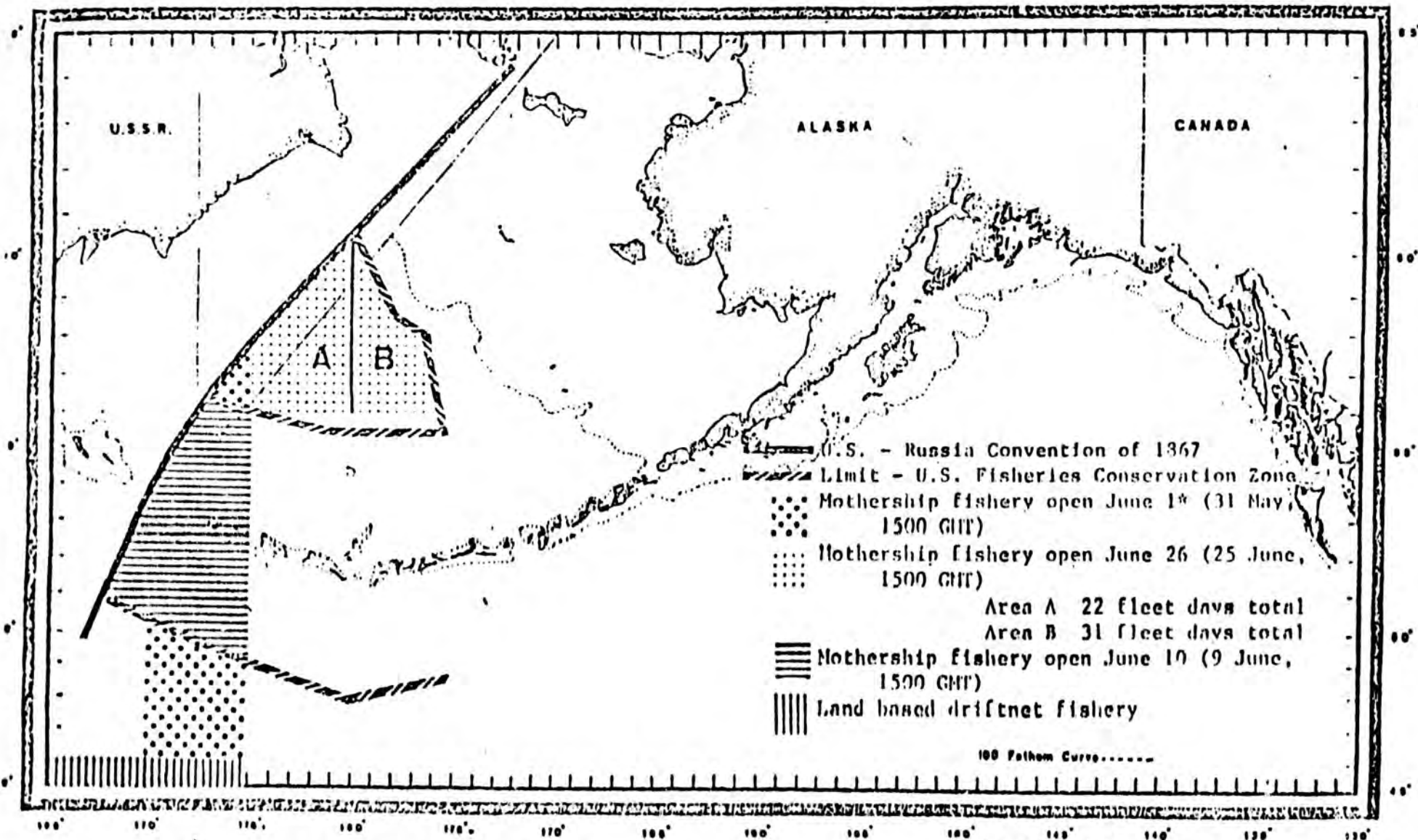
While we can identify to some degree the proportion of Western Alaskan chinook occurring in part of this harvest, we have no way to separate it by river systems or more discrete stocks which, of course, form the basis for our assessment and management inshore. All these inshore systems are managed based on stock abundance and are closely regulated by emergency order openings and closures by the Alaska Department of Fish and Game. Most of these fisheries have experienced extreme reductions in fishing time due to increases in inshore effort to preserve the necessary brood stock. Obviously, the high rate of exploitation on the high seas on mixed stocks as immatures greatly endangers our management of these runs, as well as being a major reallocation away from domestic fishermen.

A table is also enclosed giving the percent by species taken by the mothership fishery east of 180° in the Central Bering Sea and illustrating the relatively small part of their total quota taken in this area.

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Figure 1.  
**JAPANESE HIGH SEAS SALMON FISHERY**  
 as governed by the  
 International Convention for the High Seas  
 Fisheries of the North Pacific Ocean  
 (INPFC)



\* All opening dates in Japanese Standard Time (JST)

Prepared by:  
 National Marine Fisheries Service  
 Law Enforcement

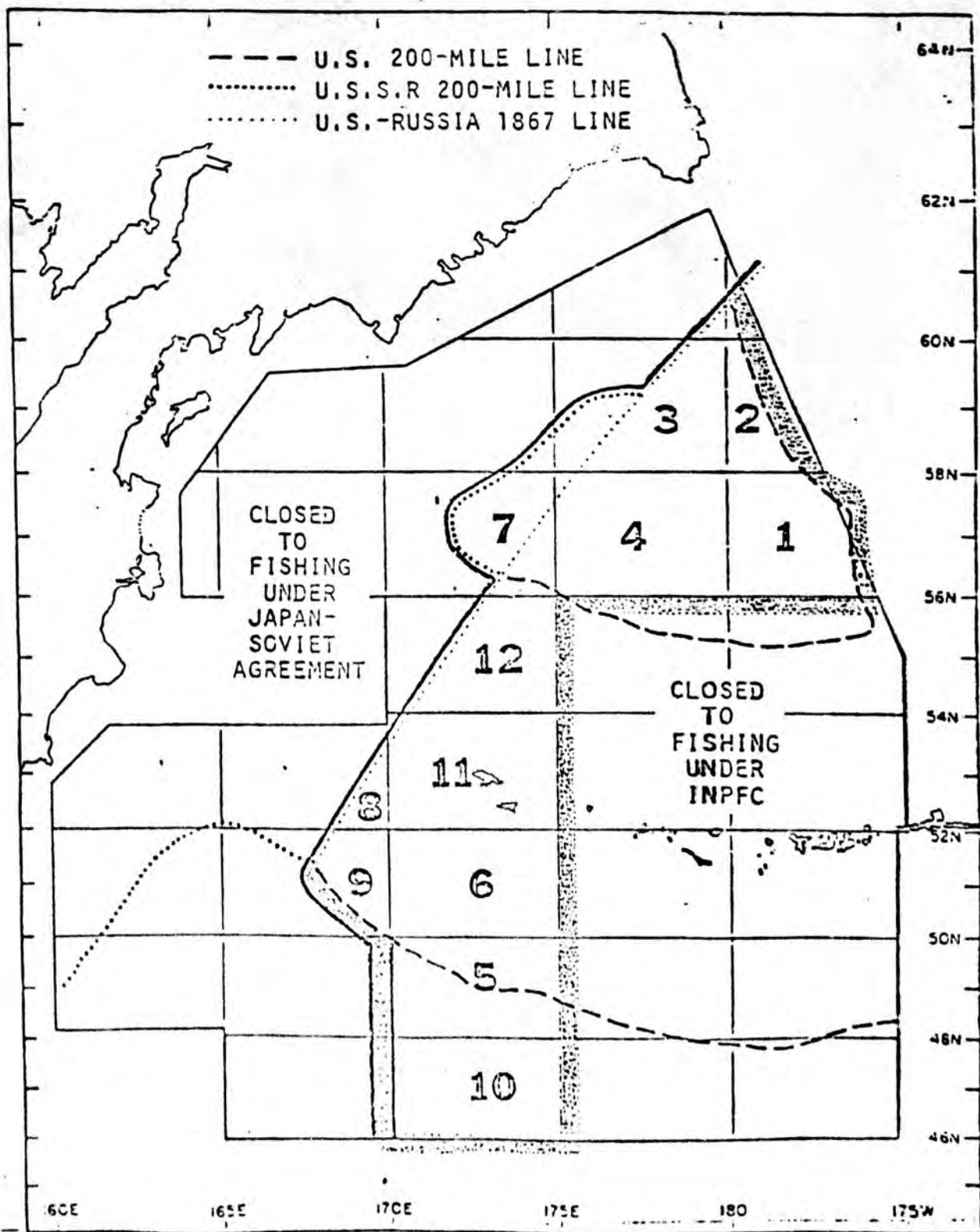


Figure 2. Post-1977 Japanese mothership salmon fishing area showing the rank order, from largest to smallest, of interceptions of western Alaska chinook salmon by 2° X 5° statistical area.

**Table 1.**  
 Estimated total catch in thousands of western Alaska and Canadian Yukon chinook salmon by the Japanese mothership fishery, foreign groundfish fisheries, and U.S. commercial and subsistence fisheries.

| Year              | Mothership <sup>a</sup> | Ground- <sup>b</sup><br>fish | Sub-<br>total | Western Alaska <sup>c</sup> |             | Sub-<br>total | Total |
|-------------------|-------------------------|------------------------------|---------------|-----------------------------|-------------|---------------|-------|
|                   |                         |                              |               | Commercial                  | Subsistence |               |       |
| 1956              | 55.4                    | -                            | -             | 132.7                       | -           | -             | -     |
| 1957              | 15.2                    | -                            | -             | 158.4                       | -           | -             | -     |
| 1958              | 5.4                     | -                            | -             | 181.9                       | -           | -             | -     |
| 1959              | 27.8                    | -                            | -             | 195.1                       | -           | -             | -     |
| 1960              | 135.0                   | -                            | -             | 195.7                       | -           | -             | -     |
| 1961              | 13.9                    | -                            | -             | 243.1                       | -           | -             | -     |
| 1962              | 29.7                    | -                            | -             | 213.1                       | -           | -             | -     |
| 1963              | 40.8                    | -                            | -             | 208.1                       | 66.2        | 274.3         | 315.1 |
| 1964              | 252.9                   | -                            | -             | 260.0                       | 50.5        | 310.5         | 563.4 |
| 1965              | 105.5                   | -                            | -             | 263.0                       | 52.9        | 315.8         | 421.3 |
| 1966              | 111.5                   | -                            | -             | 207.5                       | 69.5        | 277.0         | 388.5 |
| 1967              | 69.8                    | -                            | -             | 284.0                       | 81.9        | 365.9         | 435.7 |
| 1968              | 226.3                   | -                            | -             | 259.0                       | 54.2        | 313.2         | 539.5 |
| 1969              | 435.2                   | -                            | -             | 287.6                       | 65.2        | 352.9         | 788.1 |
| 1970              | 344.8                   | -                            | -             | 290.8                       | 95.1        | 386.0         | 730.8 |
| 1971              | 143.6                   | -                            | -             | 283.2                       | 73.8        | 357.1         | 500.7 |
| 1972              | 169.5                   | -                            | -             | 224.1                       | 66.7        | 290.8         | 460.3 |
| 1973              | 47.0                    | -                            | -             | 177.4                       | 69.7        | 247.1         | 294.1 |
| 1974              | 286.8                   | -                            | -             | 180.2                       | 57.3        | 237.6         | 524.4 |
| 1975              | 109.2                   | -                            | -             | 126.2                       | 77.2        | 203.3         | 312.5 |
| 1976              | 167.7                   | -                            | -             | 241.5                       | 84.0        | 325.6         | 493.3 |
| 1977 <sup>d</sup> | 64.5                    | 43.5                         | 108.0         | 296.1                       | 84.1        | 380.2         | 488.2 |
| 1978 <sup>d</sup> | 31.3                    | 39.1                         | 70.4          | 380.0                       | 74.6        | 454.6         | 525.0 |
| 1979 <sup>d</sup> | 65.0                    | 100.4                        | 165.4         | 412.0                       | 99.3        | 511.3         | 676.7 |
| 1980 <sup>d</sup> | 388.0                   | 110.0                        | 498.0         | 312.0                       | 90.0        | 402.0         | 900.0 |

a Doc. 2344, estimates do not include dropouts.

b Docs. 2121, 2210, 2336 (assuming 100% of the catch is of western Alaska and Canadian Yukon origin).

c Doc. 2351

d Preliminary estimates for western Alaska inshore catch and the 1980 mothership catch.

Table 2.  
North Pacific-Bering Sea foreign chinook harvest potential impact on western Alaska stocks  
in thousands of fish.

| Year           | Foreign Offshore               |                                      | Western Alaska<br>inshore total | Inshore |           |       |                |
|----------------|--------------------------------|--------------------------------------|---------------------------------|---------|-----------|-------|----------------|
|                | Total<br>catch <sup>1/2/</sup> | Known<br>interceptions <sup>2/</sup> |                                 | Misc.   | Kuskokwim | Yukon | Bristol<br>Bay |
| 1965           | 278                            | 106                                  | 316                             | 8       | 55        | 135   | 118            |
| 1966           | 320                            | 112                                  | 277                             | 11      | 80        | 105   | 81             |
| 1967           | 238                            | 70                                   | 366                             | 9       | 91        | 145   | 121            |
| 1968           | 450                            | 226                                  | 313                             | 5       | 78        | 119   | 111            |
| 1969           | 637                            | 435                                  | 353                             | 6       | 109       | 105   | 133            |
| 1970           | 533                            | 345                                  | 386                             | 10      | 136       | 93    | 147            |
| 1971           | 340                            | 144                                  | 357                             | 12      | 90        | 127   | 128            |
| 1972           | 364                            | 170                                  | 291                             | 5       | 100       | 111   | 75             |
| 1973           | 281                            | 47                                   | 247                             | 4       | 93        | 99    | 51             |
| 1974           | 547                            | 287                                  | 238                             | 6       | 61        | 115   | 56             |
| 1975           | 297                            | 109                                  | 203                             | 4       | 79        | 91    | 39             |
| 1976           | 484                            | 168                                  | 326                             | 9       | 110       | 103   | 104            |
| 1977           | 313                            | 108                                  | 380                             | 9       | 117       | 115   | 139            |
| 1978           | 374                            | 70                                   | 455                             | 25      | 102       | 127   | 201            |
| 1979           | 427                            | 165                                  | 511                             | 18      | 110       | 160   | 213            |
| 1980           | 994                            | 508 (.57) <sup>3/</sup>              | 402                             | 24      | 88        | 183   | 107            |
| <u>Average</u> |                                |                                      |                                 |         |           |       |                |
| 65-70          | 410                            | 216 (.39)                            | 335                             |         |           |       |                |
| 71-75          | 366                            | 151 (.36)                            | 267                             |         |           |       |                |
| 76-80          | 518                            | 204 (.33)                            | 415                             |         |           |       |                |

1/ Landbased, mothership, Gulf and Bering Sea trawl. Trawl fishery catches prior to 1977 are not available.

2/ Deadloss due to dropout not included.

3/ Preliminary trawl catch estimate 120 thousand - Bering Sea incidental catch.

**Table 3.**  
**Japanese Mothership Salmon Catch by Species and Effort in the**  
**Central Bering Sea East of 180° Longitude, 1978-80**

|                        | 1978<br>Number (%) | 1979<br>Number (%) | 1980<br>Number (%) |
|------------------------|--------------------|--------------------|--------------------|
| Sockeye                | 4,000 ( 1)         | 67,000 (3.1)       | 46,000 (1.9)       |
| Chum                   | 25,000 ( 1)        | 396,000 (12.1)     | 380,000 (12.3)     |
| Pink                   | 24,000 (1.3)       | 215,000 (5.3)      | 114,000 (20.3)     |
| Coho                   | 0                  | 0                  | 0                  |
| Chinook                | 2,000 (1.9)        | 32,000 (25.4)      | 218,000 (30.1)     |
| Effort<br>(1,000 tans) | 20,000             | 156,000            | 272,000            |

High Seas Salmon Quota  
Soviet - Japan Convention

1978-80

|                  |           |
|------------------|-----------|
| Mothership Quota | 15,500 mt |
| Landbased Quota  | 20,600 mt |
| Japan Sea Quota  | 6,400 mt  |
| Total            | 42,500    |