MEMORANDUM

TO: Council, AP and SSC Members

FROM: Clarence G. Pautzke
Executive Director

DATE: September 19, 1991

SUBJECT: Sablefish Management

ACTION REQUIRED

a. Receive report of technical committee on implementation plan.

b. Final approval of IFQ preferred alternative for Secretarial review.

BACKGROUND

At the Council's August meeting in Juneau, a preferred alternative for sablefish IFQ management was fashioned from the list of proposed alternatives under Council consideration. This preferred alternative is included in your notebook as Item C-3(a). This alternative IFQ system has been aired to the industry via newspapers, industry publications, and the Council newsletter. The Council has noticed the public that this preferred alternative would likely be very similar for the proposed halibut IFQ program. Final action is scheduled for this meeting for both sablefish and halibut IFQ management. If approved, staff will begin preparation of an Addendum Analysis which would dovetail the sablefish and halibut preferred alternatives. This document, along with the implementing regulatory language, would be submitted to the Secretary as soon as practicable after the September meeting. The sablefish IFQ alternative is compared with the halibut alternatives in the next tab, as item C-4(a)(2).

Included in the Council's action in August was the establishment of a technical workgroup to develop the detailed implementation plan and regulatory language necessary to put an IFQ system in place if approved. This workgroup held an initial meeting on September 9 -10 at the Alaska Fisheries Science Center in Seattle. The primary focus of the workgroup at this meeting was on the interactions of the proposed sablefish and halibut IFQ programs. A report from this workgroup will be available to the Council at this meeting. Details of the issues which arose during the workgroup's meeting will also be discussed in an open meeting to public and industry on Monday evening, September 23. Time and place will be announced at the Council meeting on Monday.

Also included in the Council's August action was to establish an industry workgroup to work in cooperation with the technical workgroup in finalizing the details of IFQ implementation. Formation of this industry workgroup will be discussed during this Council meeting; it is hoped that the details of this group can be finalized at this time so that they could meet in conjunction with the technical workgroup on October 16-17 in Seattle.

For reference purposes, item C-3(b), an initial implementation outline presented by NMFS in June, is also included in your notebooks for this meeting.

PREFERRED ALTERNATIVE:
SABLEFISH LONGLINE MANAGEMENT PLAN
As Adopted by the North Pacific Fishery Management Council
August 14, 1991

Sec. 1. DEFINITIONS. Definitions for terms used herein shall be the same as those contained in the Magnuson Fishery Conservation and Management Act, except as follows:

(a) "Person" means any individual who is a citizen of the United States or any corporation, partnership, association, or other entity (whether or not organize or existing under the laws of any state) which meets the requirements set forth in 46 CFR Part 67.03, as applicable. This definition is subject to other restrictions and conditions as set forth in Sec.(2)(c).

(b) An "individual" shall be defined as a natural person who is not a corporation, partnership, association, or other entity.

(c) "Quota share" means a percentage of the fixed gear Total Allowable Catch (TAC) for each management area which is based on historical, qualifying landings.

(d) "Individual fishery quota" (IFQ) means the annual poundage of fish derived by applying the quota share percentage to the annual fixed gear TAC for each management area.

(e) "Fixed gear" means hook and line gear (which includes longlines, jigging, handlines etc.) and pot gear.

(f) "Catcher boat" or "catcher vessel" means any vessel which delivers catch or landing in an unfrozen state.

(g) "Freezer longliner" means any vessel engaged in fishing in the fixed gear fishery which utilizes freezer capacity and delivers some or all of its groundfish product in a frozen state.

(h) Bona fide fixed gear crew member. Any individual that has acquired fishing time at sea, time being equal to port to port, that is equal to 15 months from any commercial fishing activity for species managed by the North Pacific Fishery Management Council, International Pacific Halibut Commission, or State of Alaska, and including salmon, herring and crab, with at least 5 months longline fishing will be considered a bona fide fixed gear crew member.

Sec. 2. FIXED GEAR QUOTA SHARE (QS) AND INDIVIDUAL FISHERY QUOTA (IFQ) SYSTEM FOR SABLEFISH.

(a) AREA. Quota shares and Individual Fishery Quotas (IFQs) shall be made available for each of the management areas identified for the Bering Sea and the Gulf of Alaska.

(b) INITIAL QUOTA SHARE ASSIGNMENT. Quota Shares and Individual Fisheries Quotas shall be assigned to qualified persons on the following basis:

(1) Initial assignments of Quota Shares shall be made to;

(i) a qualified person who is a vessel owner who meets the requirements in this section; or

(ii) a qualified person who meets the requirements of this section engaged in a lease or other "bare-boat charter" arrangement in order to participate in the fishery. (For instances identified under this section, the qualified person shall receive full credit for deliveries made while conducting the fishery under such a lease or arrangement.)

(2) Initial quota share assignments will be made only to persons who meet all other requirements of this section and who have landed sablefish in either 1988, 1989, or 1990.

(3) Initial assignments of quota shares shall be assigned to qualified persons based on recorded landings, as documented through fish tickets or other documentation [for fixed gear landings], for the period 1985 through 1990. For each management area, each person will select five (5) years out of six (6) on which to base that person's quota share.

(4) The sum of the catch in each person's five (5) selected years for each area shall be divided by the total qualifying poundage of all sablefish harvested for the qualifying period in those selected areas. The resultant percentage shall be that person's quota share for that area.

(c) VESSEL CATEGORIES. Quota shares and IFQs shall be assigned by vessel category as follows:

(1) All landings made during the qualifying period by freezer longliners shall be calculated for one category of quota shares.

(2) Any person owning freezer longliner quota shares may sell or lease those quota shares to any other qualified person.

(3) Fish caught with freezer longliner IFQs may be delivered frozen or unfrozen.

(4) All landings made during the qualifying period by catcher boats shall be calculated for a separate category of quota shares. There shall be two categories for catcher boats:

(i) vessels less than 60 feet in length overall.
(ii) vessels 60 feet and over in length overall.
(iii) those owners of record, which have bought or sold vessels and to the extent that the vessels operations were in the 60 foot and less one year and the next vessel owned was in the 60 plus category or the freezer longliner category, the ownership of record would be able to count all quota caught as if it where harvested by the last vessel owned.
(iv) if a quota share recipient owned or leased two or more vessels simultaneously during the qualifying period which landed sablefish, then their allocations will be for each of those vessel classes.

(5) Following initial allocation [for catcher boats]:

(i) In order to purchase catcher boat quota share: must be an individual who is a U.S. citizen and either own a fixed gear vessel or be a bona-fide fixed gear crewman.
(ii) In order to use catcher boat IFQs: own the QS, be a U.S. citizen, either own the vessel (upon which the IFQs will be used) or be a bona fide crew member, be aboard the vessel during fishing operations, and sign the fish ticket upon landing. Those persons who received initial allocations will be allowed to purchase additional QS/ITQs and must own the vessel upon which the QS are utilized or be a bona fide crew member who is aboard the vessel during fishing operations, and sign the fish ticket upon landing. In the event of sale or transfer of the QS the new owner must comply with 2(c)(5)(iii).
(iii) If any person which receives an initial allocation sells or transfers control of the original assignment of QS/IFQs the new owner must comply with Section 2(c)(5).
(iv) The Secretary may, by regulation, designate exceptions to sections (i) and (ii) to be employed in case of personal injury or extreme personal emergency which allow the transfer of catcher boat QS/IFQs for limited periods of time.

(6) Any person owning catcher boat quota shares may sell those quota shares only to an individual who is qualified under (C)(5). Catcher boat quota shares may not be leased. (i.e., annual IFQs cannot be sold)

(7) Fish caught with catcher boat quota shares may not be frozen aboard the vessel utilizing those quota shares.

(8) Quota shares or IFQs arising from those quota shares for either vessel category or any management area may not be transferred to the other vessel category or any other management area.

(d) LIMITATIONS ON OWNERSHIP AND USE OF QUOTA SHARES.

Each qualified person [or individual]:

(1) May own, hold or otherwise control,individually or collectively, but may not exceed, one percent (1%) of the combined total for the Gulf of Alaska/Bering Sea Aleutian Islands except that east of 140 degrees west in the Gulf of Alaska (East Yakutat/S.E. Outside) holdings shall not exceed 1% for that management area.

(2) Any person who receives an initial assignment of quota shares in excess of the limits set forth in paragraph (d)(1) shall:

(i) be prohibited from purchasing, leasing, holding or otherwise controlling additional quota shares until that person's quota share falls below the limits set forth in (d)(1) above, at which time each such person shall be subject to the limitations of paragraph (d)(1) above; and

(ii) be prohibited from selling, trading, leasing or otherwise transferring any interest, in whole or in part, of an initial assignment of quota share to any other person in excess of the limitations set forth in (d)(1) above.

(3) For IFQ accounting purposes, sale of catcher vessel caught sablefish to other than a legally registered buyer is illegal. Frozen product can only be offloaded at sites which NMFS can monitor.

(e) INDIVIDUAL FISHERIES QUOTAS. Individual fisheries quotas are determined for each calendar year for each person by applying that person's quota share percentage to the annual Total Allowable Catch for each management area. Persons must control IFQs for the amount to be caught before a trip begins.

(f) VESSEL AND GEAR RESTRICTIONS.

(1) No more than one percent (1%) of the combined Gulf of Alaska/Bering Sea Aleutian Island quota may be taken on any one vessel, and no more than 1% of the Southeast Outside/East Yakutat quota may be landed by the same vessel except where persons received initial allocation greater than 1%, that quota may continue to be taken on the same vessel.

(2) Quota shares and IFQs arising from those quota shares may not be applied to trawl-caught sablefish from any management area or to sablefish harvested utilizing pots in the Gulf of Alaska.

(g) ADMINISTRATION. All sales, transfers, or leases of quota shares or IFQ arising from those quota shares must occur in a manner approved by the Secretary. All quota share and IFQ assignments and transfers will be administered by NMFS based on regulations established by the Secretary. The Secretary, in promulgating such regulations, shall hold at least one public hearing in each state represented on the Council and in at least one community in each of the management areas governed by the Council.

(h) DURATION. IFQ harvest privileges are good for an indefinite period of time, except that these privileges may be subject to periodic change, including revocation, in accordance with regulations promulgated by the Secretary.

(i) DISCARD OF SABLEFISH. Discard of sablefish is prohibited by persons holding QS and those fishing under the community development quota programs.

Sec. 3. COMMUNITY DEVELOPMENT QUOTAS (CDQs). No more than 20% of the annual fixed gear Total Allowable Catch for each management area in the Bering Sea/Aleutian Islands (BSAI) area shall be made available in that management area for a western Alaska sablefish community quota program. The purpose of the program is to provide the opportunity for disadvantaged western Alaska communities to enter the BSAI area sablefish fishery and thereby assist in the development of a self-sustaining fisheries economy. The program is also intended to complement and work in conjunction with the western Alaska community quota program adopted by the Council for BSAI pollock.

The western Alaska sablefish community quota program shall be implemented through the draft regulations attached. In implementing this program, community development plans shall provide a harvesting preference for residents of the community over any harvesting arrangements with persons who reside outside of the community. Attached are guidelines under which the CDQ program will be implemented.

Sec. 4. AD HOC WORKING GROUPS. Two ad hoc working groups shall be established. One by the Council composed of representatives from longline vessel owners, crew members and processors, who would likely be affected by the Council's action on IFQs. The second group will be established by the Alaska Regional Director, NMFS, composed of administration, data management, enforcement, and legal professionals. The groups will develop a detailed implementation plan covering all aspects of carrying out the Council's preferred alternative for a longline (fixed gear) IFQ management program (for sablefish and halibut). All states represented on the Council shall be given an opportunity to provide technical input to the groups.

Note: The Council is seeking public comment on ways to generate funding ron the IFQ program that would defray the costs of implementation and enforcement. This could be through a fee on the transfer of IFQs or through some other mechanism and likely would require a change in the Magnuson Act.

GUIDELINES FOR IMPLEMENTING THE WESTERN ALASKA COMMUNITY SABLEFISH QUOTA

Sec. 1. PURPOSE AND SCOPE

In order to provide fishermen who reside in western Alaskan communities a fair and reasonable opportunity to participate in the Bering Sea/Aleutian Islands sablefish fishery, to expand their participation in salmon, herring, and other nearshore fisheries, and to help alleviate the growing social economic crisis within these communities, the western Alaska sablefish community quota is established. Residents of western Alaska communities are predominantly Alaska Natives who have traditionally depended upon the marine resources of the Bering Sea for their economic and cultural well-being. The western Alaska sablefish community quota is a joint program of the Secretary and the Governor of the State of Alaska. Through the creation and implementation of community development plans, western Alaska communities will be able to diversify their local economies, provide community residents with new opportunities to obtain stable, long-term employment, and participate in the Bering Sea/Aleutian Islands sablefish fishery which has been foreclosed to them because of the high capital investment needed to enter the fishery.

Sec. 2. WESTERN ALASKA SABLEFISH COMMUNITY QUOTA

(a) The NMFS Regional Director shall hold 20 percent of the annual Total Allowable Catch of sablefish for each management area in the Bering Sea/Aleutian Islands Area for the western Alaska sablefish community quota. These amounts shall be released to eligible Alaska communities who submit a plan, approved by the Governor of Alaska, for its wise and appropriate use. Any of the TAC not released by the end of the third quarter shall be made available for harvest to any individual or vessel providing the person does not own, hold, or otherwise control unused IFQ for that fishing year.

(b) Not more than 12 percent of the total western Alaska sablefish community quota may be designated for a single community, except that if portions of the total quota are not designated by the end of the second quarter, communities may apply for any portion of the remaining quota for the remainder of that year only.

Sec. 3. ELIGIBLE WESTERN ALASKA COMMUNITIES

(a) The Governor of Alaska is authorized to recommend to the Secretary that a community within western Alaska which meets all of the following criteria be a community eligible for the western Alaska community quota program (hereinafter "the Program"):

(1) be located on or proximate to the Bering Sea coast from the Bering Strait to the westernmost of the Aleutian Islands or a community located on an island within the Bering Sea, that the Secretary of the Interior has certified pursuant to section 11(b)(2) or (3) of Pub. L. No. 92-203 as Native villages are defined in section 3(c) of Pub. L. No. 92-203;

(2) be unlikely to be able to attract and develop economic activity other than commercial fishing that would provide a substantial source of employment;

(3) its residents have traditionally engaged in and depended upon fishing in the waters of the Bering Sea coast;

(4) has not previously developed harvesting or processing capability sufficient to support substantial participation in the commercial groundfish fisheries of the Bering Sea/Aleutian Islands because of a lack of sufficient funds for investing in harvesting or processing equipment; and

(5) has developed a community development plan approved by the Governor, after consultation with the North Pacific Fishery Management Council.

(b) Any number of eligible communities may apply under a single development plan. In cases where more than one community applies in a joint application, each community is entitled to its full portion of the quota.

Sec. 4. COMMUNITY DEVELOPMENT PLANS

(a) Within 60 days of the effective date of these regulations, the Governor shall submit to the Secretary, after review by the North Pacific Fishery Management Council, criteria which the community must, at a minimum, include in a community development plan to be eligible to participate in the program. The criteria shall include provisions concerning the following:

(1) amount of quota requested;

(2) length of time community is requesting to receive a share of the quota;

(3) benefits that will accrue to the community from approval of their plan and release of quota, including how the plan will assist in diversifying the community's economy and provide opportunities for training and employment;

(4) how the benefits will be shared within the community;

(5) business plan which will provide adequate information to complete a financial feasibility assessment;

(6) business arrangements which are entered into between a community and residents who reside outside of the community, provided that residents of a community shall receive a preference for a portion of the harvesting quota over any arrangements for harvesting with persons who reside outside of the community; and

(7) Within 30 days of receipt of the criteria from the Governor, the Secretary will approve, disapprove, or return the criteria to the Governor with recommendations for changes necessary to comply with the provisions of this Act, or other applicable law.

Sec. 5. APPROVAL OF PLANS

(a) Within 45 days of receipt of an application for a community, the Governor shall review the community's eligibility for the program and the community development plan and forward the application to the North Pacific Fishery Management Council for its review and recommendations. The application shall be subject to a public hearing before the Council. If the Council does not review the plan at its next regularly scheduled meeting, the Governor shall then submit the application to the Secretary for designation of a portion of the quota. The Governor shall submit the application to the Secretary within 14 days of Council action or within 14 days of the date of the adjournment of the Council meeting without any action taken on the application, unless the application is withdrawn by the applying community.

(b) Within 30 days of the receipt of an application approved by the Governor, the Secretary will designate a portion of the quota to the community, if the community development plan satisfies the criteria developed by the Governor and approved by the Secretary, or return the application to the Governor with his reasons for denial.

JUNE 17, 1991

NMFS REPORT TO THE COUNCIL

INDIVIDUAL FISHING QUOTA (IFQ) PROGRAM IMPLEMENTATION FOR THE HALIBUT AND SABLEFISH FISHERIES OFF ALASKA

Assuring efficient and effective implementation of a sablefish and halibut IFQ program with which there is general compliance is going to be a major task for the Alaska Region.

- It will require substantial investment to set up and maintain - estimated annual administrative costs are slightly less than one million dollars.
- It must be carefully planned to be done correctly from the outset - with a substantial budget and public confidence at stake, we cannot afford to act too hastily to meet a desirable but unrealistic deadline.
- The fishing industry should have ample time to plan their operations under an IFQ program and to understand the new rules before the program begins.

Despite a long history of study and discussion of IFQ programs by the Council, there has been little focus on the intricacies of implementing an IFQ program such that the desired effects are realized. Reasons for this include:

- The lack of a specific preferred alternative being identified by the Council;
- The lack of experience with implementing large scale IFQ programs in the U.S. under the Magnuson Act;
- Analytical effort has been focused on theoretical benefits and costs of various alternatives;

RECOMMENDATION

Create two ad hoc groups: (1) a longline industry advisory group organized by the Council with, say 21, representatives of sablefish and halibut longline vessel owners, and (2) a technical work group organized by the Alaska Region

- The IFQ technical team would be composed of data base

managers, computer programmer/analysts, fishery management, legal and enforcement experts.

- Two end products of the technical group would be (a) an implementation plan and (b) draft proposed rules to carry out the Council's preferred alternative.

- The industry advisory committee would interact with the technical team to advise them on the practicability and acceptability of elements of the implementation plan.

- The purpose of the industry advisory committee would be to find the best way to carry out the Council's preferred alternative; not to debate the IFQ principle.

TIMING

The current schedule for Council action on the sablefish preferred alternative in June 1991 and the halibut preferred alternative in September 1991 would be unchanged. However, Council review and action on draft proposed rule text would have to be delayed until its December 1991 meeting.

- At its June meeting, the Council would decide on a preferred alternative for a sablefish IFQ program, and adopt the above recommendation.

- During July, the Council staff would begin recruiting for and organizing the industry advisory group; the Alaska Region would begin the same for the technical work group.

- The technical work group could meet first in August and begin a rough implementation plan that would detail all aspects from initial allocation through enforcement and penalties. Examples of issues include how IFQ program requirements would interface with existing reporting and observer requirements, how sablefish and halibut management areas can be merged, how catch data can be verified and IFQ transfer requirements simplified.

- In late August or early September, the industry advisors could review the first cut implementation plan and give initial criticisms to the technical team in a joint meeting.

- At its September meeting, the Council would decide on a preferred alternative for the halibut IFQ program, and

check progress on the implementation plan. It is possible, but not likely, that proposed regulations implementing the plan could be prepared at this time.

- Most likely, during October the technical and industry groups would continue refining the implementation plan and begin drafting of proposed rule language could begin.

- November meetings of the technical and industry groups would reach final agreement on the implementation plan and review draft proposed rule language.

- At its December meeting the Council would review and consider adopting the implementation plan and draft proposed rules for submission to the Secretary along with final FMP amendment language and supporting analyses. Analytical work already done would not have to be changed and re-issued for public comment providing there are no radical changes to the preferred alternatives.

PRELIMINARY ENFORCEMENT PLAN

Assuring compliance may be the most difficult part of implementing a sablefish/halibut IFQ program especially given the current level of available enforcement, size of the halibut fleet, value of the product, the geographic distribution of potential landing sites, and international treaty obligations that allow for direct export to Canada. Without broad acceptance and compliance by vessel owners and operators, any individual quota program will fail to produce the desired economic and social benefits, and could lead to biological overfishing of the resource. Of equal importance in designing an effective IFQ monitoring and enforcement plan is assuming realistic personnel and funding requirements.

Although these factors seem to suggest that nothing short of an enforcement officer monitoring every unloading of halibut will assure the necessary compliance, this level of enforcement is neither necessary or practical. The success of an IFQ program for the sablefish and halibut longline fisheries will depend instead on the risk of suffering severe penalties if violations are discovered, the likelihood of being caught and the benefits that will accrue to the fishery if all participants adhere to the rules. Hence, to a large extent successful compliance will depend on the understanding and cooperation of the fishermen who have the most to gain from a successful IFQ program.

Potential landing requirements

- All buyers of sablefish and halibut at the first point of sale would be licensed. Fishermen could sell these fish only to licensed buyers. Public sales directly by the fisherman who caught it would require special permitting.

- Halibut and sablefish landings at 10 primary ports would not require advance notice, but landings at an additional 10 to 15 secondary ports would require a minimum 24-hour advance notice of landing.

- Fishing vessels would be prohibited from landing or unloading their catch at sea unless the fishing vessel is first inspected at a designated port and the receiving vessel is licensed as a first-point-of-sale buyer.

- Fishing vessels landing or unloading in any state other than Alaska or in any foreign nation (including transhipment to foreign cargo vessels) would be required to first clear through a designated port such as Kodiak or Ketchikan.

Potential open access enforcement

- All landings by non-IFQ holders would be required to be at licensed halibut buyers in either primary or secondary ports.

Potential reporting requirements

- Initial reporting of all landings and sales would require electronic reporting via quota card and telephone lines. This would immediately identify the vessel, vessel owner, port of landing, amount of unharvested quota, and would instantly deduct amount landed from outstanding quota.

- Current State of Alaska fish tickets, Federal fishing logbook and processor reports, and IPHC logbooks may be modified to serve as follow-up "paper trail" documentation on all landed halibut.

- Current observer program also could be expanded to collect biological and fishery data on large vessels at sea and at landing sites.

Potential personnel requirements

- The NMFS enforcement staff would be increased by 24 uniformed Federal enforcement officers (FEOs) who would be stationed at the 10 primary ports of landing.

- Enforcement at secondary and other ports would be done by unannounced visits by FEOs and special agents.

- Enforcement staff based at Alaska Region headquarters in Juneau would be expanded by the addition of three special agents who would focus on individual quota cases would also be needed.

- The NMFS Alaska Region also would be expanded by the addition of three positions for computer programer or systems analyst and data entry clerks. These positions would be especially important during the initial allocation phase of the IFQ program.

- NOAA, General Counsel for the Alaska Region (GCAK) would expand its staff by one or two additional staff attorneys and an additional law clerk to prosecute IFQ violations, law suits and appeals.

Penalties.

Violation of an IFQ or other rules implementing the IFQ program for the sablefish and halibut fishery would be prosecuted under the Halibut Act, the Magnuson Act, and other applicable law. The Magnuson Act describes prohibited acts, civil penalties, criminal offenses, and civil forfeitures in sections 307-310 (16 USC 1857-1860). A specific schedule of penalties for IFQ enforcement purposes would be developed by NOAA, General Counsel in consultation with NMFS enforcement. The penalty schedule would be designed in such a manner that a definite economic incentive would exist to comply with the IFQ regulations. Violation of IFQ program regulations could cause severe penalties including but not limited to potential forfeiture of catch, gear and vessels, and sanctions on all or part of a QS or IFQ.

PRELIMINARY ESTIMATE OF IMPLEMENTATION COSTS

For purposes of this analysis, the costs of administering and enforcing any IFQ program are assumed to be primarily borne by the NMFS Alaska Region and NOAA General Counsel, Alaska Region (GCAK). Some administrative costs also may accrue to the ADF&G, the NMFS Central Office, the U.S. Coast Guard, and the IPHC. These costs, however, are assumed to be incidental to the normal interaction with the NMFS Alaska Region. The only exception to this would be in the operation of the appeals board. Another basic assumption used in this analysis is that none of the work

described above would be contracted to a private firm. Although this is an option available to the NMFS, at this time there is not enough information to determine contracting costs.

Administrative costs for initial allocation.

Design and approval of the QS application are assumed to be accomplished by existing staff. Assuming the printing and mailing of about 9000 applications at about $.75 each, distribution of the applications is estimated to cost about $6,750.

Personnel costs of advertising the application period and giving instruction and guidance to applicants could be met with existing Alaska Region staff. However, preparation, printing and mailing of an instruction pamphlet to accompany the application would impose administrative costs in addition to, and about equal to, the application itself. Six workshops to explain the IFQ program and assist applicants with their applications would require additional travel funds of about $3,240 for one Alaska Region staff person.

The Alaska Region would need an additional data management specialist to query fish ticket and vessel ownership data bases in determining initial QS eligibility as applications are returned. Assuming one half year of a full time equivalent (FTE) GS-7, plus fringe benefits and cost of living allowance, this addition to the Alaska Region staff would cost about $17,786. Office space costs for this additional staff person for one half year would cost another $720. No new computer software is anticipated for this part of the program, but additional computer hardware for the additional staff is estimated to cost about $5,400.

Summary of application costs:

printing/mailing instructions	$ 6,750
printing/mailing application	$ 6,750
travel expenses	$ 3,240
personnel	$17,786
office space	$ 720
computer hardware	$ 5,400
Total	$40,646

Researching and copying archived fish tickets, if necessary, in preparation to filing an application also would impose a cost on either the State of Alaska Commercial Fisheries Entry Commission (the ultimate steward of Alaska Department of Fish and Game (ADF&G) fish tickets), or on the applicant. Currently, the Entry Commission provides a computer summary of landings data to permit holders whose permit number matches the permit number on a fish ticket for free or a nominal cost. To search fish ticket archives and copy an actual fish ticket, the Entry Commission

charges the requesting permit holder $20 per hour. The average amount of time necessary to search for and copy fish tickets is estimated at about two hours per fish ticket, however, this time could be reduced when searching for multiple tickets. This cost is not strictly an administrative cost, however, since it would be borne by the applicant making a research request. Although the application procedure would not require copies of actual fish tickets to be submitted with an application, such documents would have to be submitted in support of an appeal or to rebut an audit that indicates significant discrepancy between claimed and recorded landings of sablefish.

Calculation of qualifying poundage and QS, and notice of initial allocation would require another one-half FTE data management specialist at the Alaska Region, including office space for one half year. This cost would be spent largely in performing audits of claimed landings on applications, and in calculating each eligible person's QS by management area. Certified (return receipt) postage at $2.29 each for 9000 initial allocation notices also would be an additional one-time cost of $20,610. No new computer software is anticipated as necessary for this part of the initial allocation process, and the same hardware used for the application process would be used for auditing applications and calculating QS.

Summary of QS calculation and initial allocation notice costs:

mailing		$20,610
personnel		$17,786
office space		$ 720
	Total	$39,116

Costs of operating the administrative appeals board would be directly related to the degree to which grounds for appeals are limited. If the Council and Secretary choose to allow "hard luck" appeals to credit lost fishing, then the number of cases the appeals board would have to adjudicate would likely expand and its costs would be higher than if the policy were to allow exclusion of one year or more from the QS calculation.

Assuming that the Council and Secretary choose not to allow "hard luck" appeals, staffing the appeals board is estimated to require the state agencies and NMFS each the equivalent of one quarter of one GS-12 level staff. If such staff already exist and their work load could absorb this additional appeals board work, then no new personnel costs would be necessary. If new staff are required to meet this need, then the two Alaska members (one from ADF&G and one from the Alaska Region) would cost about $27,300 and the Washington and Oregon members would cost about $22,500. These estimates include salaries and benefits and a generally higher pay scale of Alaska government employees. An estimated $6,600 would be needed for travel expenses if the board were to

conduct only three hearings: two in Alaska and one in Washington. Office space and supplies are assumed to be pre-existing for these personnel.

Summary of appeals board costs:

personnel, WA and OR	$22,500
personnel, AK and NMFS	$27,300
travel expenses	$ 6,600
Total	$56,400

Initial allocation costs, therefore, are summarized as follows:

Application costs	$40,646
QS calculation and notice	$39,116
Appeals board	$56,400
Total	$136,162

Annual specification costs.

The additional cost of implementing this part of the IFQ program would not add significantly to overall costs. If personnel employed for QS and IFQ monitoring purposes could absorb the annual specification process without additional staff, then the administrative costs for this part of the program would be virtually nil. On an annual basis the work load involved in the annual specification process would likely require the services of one FTE data management specialist at the GS-7 level for one month which would cost an estimated $2,964. Office space for this additional person would cost an additional $120. No additional computer software or hardware would be necessary, however additional postage expenses may cost about $2,916. In summary, assuming no absorption of these costs by other ongoing functions, annual expenses for this part of the implementation program would be:

personnel	$2,964
office space	$ 120
mailing	$2,916
Total	$6,000

Administrative costs of monitoring catches and transfers.

Monitoring the individual halibut and sablefish catches of potentially 9,000 quota holders and the expected transfer of QS and IFQ, would require the Alaska Region to substantially upgrade its current computer capability. Particular attention would be given to electronic forms of data transmission. Such upgrading would require about 6 months time of an additional computer systems analyst/programmer (1/2 FTE at the GS-13 level) and at least two additional data management specialists (2 FTEs at the GS-7 level). Including salaries and benefits the systems analyst/programmer would cost about $37,518 per year and each

data management specialist would cost $35,572 per year. Office space for each additional employee would add costs of about $1,320 for the systems analyst/programmer and about $1,440 for each data specialist. Additional computer hardware and software is roughly estimated to cost about $108,000. Additional communication costs for postage, telephone and an additional fax machine are estimated at $9,990.

Summary of monitoring costs:

computer hardware/software	$108,000
personnel (1/2 GS-13 FTE)	$ 37,518
personnel (2 GS-7 FTEs)	$ 71,144
telephone and fax	$ 7,560
office space	$ 4,200
postage	$ 2,430
Total	$230,852

6.5.2 NOAA, General Counsel, Alaska Region (GCAK).

Additional legal work involving appeals, law suits, and prosecution of violations associated with the IFQ program is anticipated to require one additional staff attorney and a law clerk for GCAK. Assuming the staff attorney would be hired at the GS-13 level and the law clerk at the GS-7 level, salaries and benefits for these additional staff are estimated to cost about $110,608. Additional office space would cost GCAK about $4,080. Two new personal computers and associated peripherals are estimated at about $8,640. No new computer software would be required.

In addition, the appeals board would likely need the legal services of GCAK at the rate of about one month of a grade GS-13 lawyer or a cost of about $6,253. Again, this cost depends on whether existing GCAK legal staff could absorb appeals board work load.

The prosecution of IFQ violations would be largely dependent on access to bona fide fish tickets and documentation from other required reports. The NMFS, GCAK and ADF&G may have to arrange, at unknown cost, for a more efficient fish ticket retrieval system than currently exists.

Summary of GCAK costs:

personnel (1 GS-13 FTE)	$ 75,036
personnel (1 GS-7 FTE)	$ 35,572
computer hardware	$ 8,640
appeals board services	$ 6,253
office space	$ 4,080
Total	$129,581

NMFS Alaska Region Enforcement

Although individual quota programs theoretically decrease or eliminate the need for fishing seasons, time/area closures, gear restrictions and other measures designed to limit fishing efficiency, enforcement costs are not reduced but would be substantially increased. This is because enforcement monitoring on shore would increase while that at sea would remain unchanged. Therefore, the use of Coast Guard platforms is expected to continue at present levels. Monitoring compliance and bringing charges against violators of IFQ rules is expected to be the most costly part of carrying out any IFQ program.

Estimating these costs normally focuses on the marginal or incremental costs of enforcement, and assumes that current levels of enforcement are adequate for monitoring compliance of existing rules. The analysis then determines the extra cost of carrying out the proposed new program. In this instance, however, current levels of enforcement may not be adequate. In its review of FY-1992 funding and personnel needs for the NMFS, the National Fish and Wildlife Foundation (NFWF) found an acute lack of manpower and enforcement resources in Alaska. To maintain an appropriate level of on-shore compliance monitoring of existing regulations, the NFWF recommended an increased corps of 22 FEOs to be stationed in ten principal Alaskan fishery ports. Without these additional enforcement personnel, adequate enforcement of IFQ rules would be virtually impossible. However, it would be analytically incorrect to ascribe the total cost of fielding these additional personnel entirely to an IFQ program.

For budget estimating purposes, the NMFS enforcement office assumes an annual cost of $75,000 for each FEO and $100,000 for each special agent. These costs include salary, overtime, benefits, office space, support staff, training, transportation and equipment for a year. Based on these estimates, the addition of 24 FEOs to the Alaska Region, NMFS, would cost $1,800,000 per year. The addition of three special agents would cost $300,000 per year. Combined, these additional enforcement personnel are estimated to cost $2,100,000. This may be the practical cost of enforcing an IFQ program for the sablefish and halibut fisheries since the current enforcement staff could not adequately monitor compliance without the addition of 24 FEOs, three special agents, and several support personnel.

The marginal cost of enforcing a halibut IFQ program would be much less, however. One approach to determining the marginal cost is to assume that a full staff of 24 FEOs would spend about 25 percent of their time monitoring compliance with IFQ rules. This is slightly more than the current enforcement effort to monitor compliance during several 24-hour halibut openings under open access management rules. This makes the marginal cost of the FEOs to be $450,000. Further, assume that 100 percent of the

additional special agents' time would be spend investigating IFQ violations. Under these assumptions, the total marginal cost of enforcing the IFQ program would be $450,000 for the FEOs plus $300,000 for the special agents or $750,000. Another approach would be to assume that the current enforcement staff should be augmented by 22 FEOs, at a cost of $1.65 million, to enforce existing regulations, without any IFQ program. If this were done, then the marginal cost of enforcing the IFQ program would be equivalent to the cost of two additional FEOs plus three special agents, or $450,000.

Implementation cost summary

By function, management, enforcement and GCAK costs can be summarized as follows:

	Marginal	Practical
Management Division		
- Initial allocation	$136,162	
- Annual specification	$ 6,000	
- Monitoring	$230,852	
NOAA GCAK	$129,581	
Enforcement	$750,000	$2,100,000
Total	$1,252,595	$2,602,595

Assuming that 1992 is the first year of implementing the halibut and sablefish IFQ program, but that fishing under it would not occur until 1993, administrative costs would be limited to those associated with initial allocation work and establishment of computer monitoring system. The former would include GCAK costs and the latter would include only those monitoring costs associated with computer hardware and software and the salary, benefits and office space costs of a systems analyst/programmer. Enforcement costs would not be included in the first year, but about half of the needed FEOs should be hired, trained, and posted to various Alaska ports during 1992 to assure a smooth transition to full implementation of the IFQ program the following year

First year (1992) cost summary:	
initial allocation	$ 136,162
monitoring system setup	$ 230,852
GCAK	$ 129,581
Total	$ 496,595

Implementation costs in 1993, the first year of fishing under the IFQ program, would increase over the previous year's costs due to the inclusion of enforcement costs. However, major costs associated with initial allocation and setup of the monitoring

system would not be spent; the computer systems analyst-programmer is assumed to be unnecessary as existing staff would be able to make adjustments to programs as needed. GCAK costs are reduced by the value of one-time computer purchases made in the first year. Onboard or shore-based observers may be involved also with monitoring of IFQ catches and landings. The costs of observers, however, are not included in this analysis as they are assumed to be paid by participants in the fishery either directly or indirectly through an NMFS-administered observer program fee. The only administrative cost of such a program would be those in excess of the total user fees collected. Since such a program is not now in effect, this cost is not estimated.

Second year (1993) cost summary:

IFQ specification		$ 6,000
monitoring		$ 85,334
enforcement		$ 750,000
GCAK		$ 120,941
	Total	$ 962,275

In subsequent years, computer hardware and software purchases are assumed to be zero. Efficiencies under IFQ management will allow greater efficiencies in the monitoring system. Hence, monitoring personnel costs may be reduced to one full time data management specialist. The annual specification of IFQs also could be done by this staff. Enforcement and GCAK costs would be reduced only by amounts not spent for new computer hardware.

Subsequent years' cost summary:

IFQ specification and monitoring		$ 52,762
enforcement		$ 750,000
GCAK		$ 120,941
	Total	$ 923,703

Time requirements.

Initial discussions with data management and program implementation professionals with the ADF&G, Alaska Limited Entry Commission, NMFS, and Council staff indicate that at least 14 to 16 months, from the date of Secretarial approval, would be necessary to accomplish the various hiring, systems design, programming, or contracting and testing tasks necessary to initiate the halibut IFQ program. During this time, workshops also would be held to explain details of the application procedure and rules effecting the IFQ program. The application period and initial allocation procedures could overlap the end of the system design period.

Time requirements to initially allocate halibut QS could take almost a year. The application period is contemplated to continue for up to 120 days from the effective date of final

implementing regulations. The Regional Director's notice of initial allocation would occur no later than 90 days after the end of the application period, and the appeals period would end no later than 90 days after the notice of allocation. Hence, the initial allocation program may not be completed until 300 days after the effective date of the final implementing regulations. In practice, however, these functions could be overlapped. That is, the Regional Director may issue notices of initial allocation on an as-calculated basis rather than wait until 90 days after the end of the application period to issue all notices at once. Likewise, applicants could file appeals immediately after receiving initial allocations rather than waiting to the end of the appeals period.

Table 2.4.5

Regional distribution of vessels owners from 1985-90 for vessel classes in the preferred IFQ alternative for the Exclusive Economic Zone.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	244	457	668	709	639	652	1081
Alaska	168	330	487	546	479	493	832
Other States	76	126	181	163	160	159	249
Alaska %	69%	72%	73%	77%	75%	76%	77%
% CB < 60	67%	73%	77%	79%	77%	78%	80%
% CB ≥ 60	30%	25%	21%	18%	19%	19%	17%
% Freezers	2%	2%	2%	3%	4%	3%	3%
CB < 60	164	333	513	558	493	510	865
Alaska	125	262	398	462	405	413	709
Other States	39	70	115	96	88	97	156
% Alaska	76%	79%	78%	83%	82%	81%	82%
CB ≥ 60	74	113	141	131	122	121	181
Alaska	42	65	86	80	67	74	115
Other States	32	48	55	51	55	47	66
% Alaska	57%	58%	61%	61%	55%	61%	64%
Freezers	6	11	14	20	24	21	35
Alaska	1	3	3	4	7	6	8
Other States	5	8	11	16	17	15	27
% Alaska	17%	27%	21%	20%	29%	29%	23%

Table 2.4.5.1

Regional distribution of vessels owners from 1985-90 for vessel classes in the preferred IFQ alternative for the Aleutian Islands.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	10	38	58	67	62	46	135
Alaska	4	20	18	25	20	15	56
Other States	6	18	40	42	42	31	79
Alaska %	40%	53%	31%	37%	32%	33%	41%
% CB < 60	10%	29%	31%	31%	21%	28%	35%
% CB ≥ 60	60%	55%	47%	48%	45%	52%	46%
% Freezers	30%	16%	22%	21%	34%	20%	19%
CB < 60	1	11	18	21	13	13	47
Alaska	1	7	6	11	6	6	23
Other States	0	4	12	10	7	7	24
% Alaska	100%	64%	33%	52%	46%	46%	49%
CB ≥ 60	6	21	27	32	28	24	62
Alaska	3	12	10	12	7	8	26
Other States	3	9	17	20	21	16	36
% Alaska	50%	57%	37%	38%	25%	33%	42%
Freezers	3	6	13	14	21	9	26
Alaska	0	1	2	2	7	1	7
Other States	3	5	11	12	14	8	19
% Alaska	0%	17%	15%	14%	33%	11%	27%

Table 2.4.5.2

Regional distribution of vessels owners from 1985-90 for vessel classes in the preferred IFQ alternative for the Bering Sea.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	48	36	76	53	30	64	153
Alaska	27	16	40	30	15	23	80
Other States	21	20	36	23	15	41	73
Alaska %	56%	44%	53%	57%	50%	36%	52%
% CB < 60	35%	11%	36%	45%	20%	34%	42%
% CB ≥ 60	58%	75%	50%	26%	20%	39%	40%
% Freezers	6%	14%	14%	28%	60%	27%	18%
CB < 60	17	4	27	24	6	22	64
Alaska	12	3	16	20	5	11	42
Other States	5	1	11	4	1	11	22
% Alaska	71%	75%	59%	83%	83%	50%	66%
CB ≥ 60	28	27	38	14	6	25	61
Alaska	14	12	21	7	5	9	31
Other States	14	15	17	7	1	16	30
% Alaska	50%	44%	55%	50%	83%	36%	51%
Freezers	3	5	11	15	18	17	28
Alaska	1	1	3	3	5	3	7
Other States	2	4	8	12	13	14	21
% Alaska	33%	20%	27%	20%	28%	18%	25%

Table 2.4.5.3

Regional distribution of vessels owners from 1985-90 for vessel classes in the preferred IFQ alternative for the Central Gulf area.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	112	225	322	356	310	377	617
Alaska	64	144	214	261	201	258	445
Other States	48	80	108	95	109	119	172
Alaska %	57%	64%	66%	73%	65%	68%	72%
% CB < 60	49%	56%	64%	67%	61%	67%	69%
% CB ≥ 60	47%	40%	34%	31%	34%	28%	28%
% Freezers	4%	4%	2%	3%	5%	5%	4%
CB < 60	55	127	206	238	189	254	424
Alaska	32	85	146	188	136	186	328
Other States	23	41	60	50	53	68	96
% Alaska	58%	67%	71%	79%	72%	73%	77%
CB ≥ 60	53	90	111	109	104	105	170
Alaska	31	56	66	69	57	66	109
Other States	22	34	45	40	47	39	61
% Alaska	58%	62%	59%	63%	55%	63%	64%
Freezers	4	8	5	9	17	18	23
Alaska	1	3	2	4	8	6	8
Other States	3	5	3	5	9	12	15
% Alaska	25%	38%	40%	44%	47%	33%	35%

Table 2.4.5.4

Regional distribution of vessels owners from 1985-90 for vessel classes in the preferred IFQ alternative for East Yakutat and Southeast Outside.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	120	242	347	387	388	329	630
Alaska	93	186	275	317	319	273	488
Other States	27	56	72	70	69	56	142
Alaska %	78%	77%	79%	82%	82%	83%	77%
% CB < 60	79%	90%	91%	91%	93%	95%	89%
% CB ≥ 60	18%	10%	9%	8%	7%	5%	10%
% Freezers	3%	0%	0%	0%	0%	0%	1%
CB < 60	95	217	316	354	361	311	563
Alaska	80	171	254	295	302	262	455
Other States	15	46	62	59	59	49	108
% Alaska	84%	79%	80%	83%	84%	84%	81%
CB ≥ 60	22	25	30	32	26	17	61
Alaska	13	15	21	21	16	11	30
Other States	9	10	9	11	10	6	31
% Alaska	59%	60%	70%	66%	62%	65%	49%
Freezers	3	0	1	1	1	1	6
Alaska	0	0	0	1	1	0	3
Other States	3	0	1	0	0	1	3
% Alaska	0%	100%	0%	100%	100%	0%	50%

Table 2.4.5.5

Regional distribution of vessels owners from 1985-90 for vessel classes in the preferred IFQ alternative for the Western Gulf area.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	60	68	76	91	98	43	184
Alaska	38	36	43	42	46	17	98
Other States	22	32	33	49	52	26	86
Alaska %	63%	53%	57%	46%	47%	40%	53%
% CB < 60	52%	49%	57%	43%	36%	30%	48%
% CB ≥ 60	42%	44%	32%	40%	45%	47%	38%
% Freezers	7%	7%	12%	18%	19%	23%	14%
CB < 60	31	33	43	39	35	13	89
Alaska	21	23	32	28	24	9	59
Other States	10	10	11	11	11	4	30
% Alaska	68%	70%	74%	72%	69%	69%	66%
CB ≥ 60	25	30	24	36	44	20	69
Alaska	16	12	9	12	15	7	33
Other States	9	18	15	24	29	13	36
% Alaska	64%	40%	38%	33%	34%	35%	48%
Freezers	4	5	9	16	19	10	26
Alaska	1	1	2	2	7	1	6
Other States	3	4	7	14	12	9	20
% Alaska	25%	20%	22%	13%	37%	10%	23%

Table 2.4.5.6

Regional distribution of vessels owners from 1985-90 for vessel classes in the preferred IFQ alternative for the West Yakutat.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	80	133	221	162	187	154	402
Alaska	42	77	134	98	116	82	273
Other States	38	56	87	64	71	72	129
Alaska %	53%	58%	61%	60%	62%	53%	68%
% CB < 60	70%	67%	68%	61%	65%	68%	71%
% CB ≥ 60	29%	32%	31%	38%	31%	28%	27%
% Freezers	1%	1%	0%	1%	4%	5%	2%
CB < 60	56	89	151	99	121	104	285
Alaska	33	55	99	66	85	61	206
Other States	23	34	52	33	36	43	79
% Alaska	59%	62%	66%	67%	70%	59%	72%
CB ≥ 60	23	43	69	61	58	43	108
Alaska	9	21	35	31	26	18	63
Other States	14	22	34	30	32	25	45
% Alaska	39%	49%	51%	51%	45%	42%	58%
Freezers	1	1	1	2	8	7	9
Alaska	0	1	0	1	5	3	4
Other States	1	0	1	1	3	4	5
% Alaska	0%	100%	0%	50%	63%	43%	44%

Table 2.5.5

Regional distribution of catch from 1985-90 and IFQs for vessel classes in the preferred IFQ alternative for the Exclusive Economic Zone.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	12924	19254	26990	28816	27284	25220	23231
Alaska	5548	9248	13839	14506	13287	12532	11380
Other States	7376	9970	13152	14310	13997	12688	11851
Alaska %	43%	48%	51%	50%	49%	50%	49%
% CB < 60	34%	41%	46%	44%	45%	57%	47%
% CB ≥ 60	39%	42%	41%	40%	39%	29%	37%
% Freezers	27%	17%	13%	16%	17%	14%	16%
CB < 60	4367	7872	12505	12709	12143	14285	11004
Alaska	2590	4979	8088	8397	8086	8459	6687
Other States	1777	2857	4417	4311	4057	5825	4317
% Alaska	59%	63%	65%	66%	67%	59%	61%
CB ≥ 60	5104	8128	10947	11569	10578	7298	8508
Alaska	2423	3630	4990	5183	3983	2931	3797
Other States	2681	4499	5956	6386	6595	4367	4712
% Alaska	47%	45%	46%	45%	38%	40%	45%
Freezers	3453	3253	3539	4538	4563	3638	3719
Alaska	*	639	760	926	1218	1142	896
Other States	*	2614	2779	3612	3345	2496	2822
% Alaska	*	20%	21%	20%	27%	31%	24%

* Numbers may not be released because of confidentiality restrictions.

Table 2.5.5.1

Regional distribution of catch from 1985-90 and IFQs for vessel classes in the preferred IFQ alternative for the Aleutian Islands.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	1295	2281	3345	3121	2355	1831	2395
Alaska	47	439	953	1078	651	578	626
Other States	1248	1842	2392	2043	1704	1253	1769
Alaska %	4%	19%	28%	35%	28%	32%	26%
% CB < 60	0%	11%	21%	18%	7%	16%	15%
% CB ≥ 60	8%	33%	41%	38%	27%	32%	33%
% Freezers	92%	57%	38%	44%	66%	53%	52%
CB < 60	#	242	698	547	166	286	362
Alaska	#	72	183	263	88	67	109
Other States	#	171	515	284	78	219	253
% Alaska	#	30%	26%	48%	53%	23%	30%
CB ≥ 60	104	746	1377	1191	638	579	780
Alaska	47	308	558	534	108	151	260
Other States	57	439	819	657	530	428	520
% Alaska	45%	41%	41%	45%	17%	26%	33%
Freezers	1190	1292	1270	1383	1550	965	1253
Alaska	0	*	*	*	455	*	257
Other States	1190	*	*	*	1095	*	996
% Alaska	0%	*	*	*	29%	*	21%

* Numbers may not be released because of confidentiality restrictions.

To retain confidentiality, numbers were added to the catcher boats ≥ 60'category.

Table 2.5.5.2

Regional distribution of catch from 1985-90 and IFQs for vessel classes in the preferred IFQ alternative for the Bering Sea.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	2013	1416	2102	1085	561	1133	1521
Alaska	990	669	1056	283	153	423	628
Other States	1024	747	1046	801	408	711	893
Alaska %	49%	47%	50%	26%	27%	37%	41%
% CB < 60	23%	6%	26%	20%	1%	27%	21%
% CB ≥ 60	53%	63%	48%	18%	14%	34%	43%
% Freezers	23%	31%	26%	62%	84%	40%	35%
CB < 60	469	89	540	215	6	301	326
Alaska	340	*	327	141	*	95	180
Other States	130	*	213	75	*	206	146
% Alaska	72%	*	61%	66%	*	32%	55%
CB ≥ 60	1072	888	1018	191	81	384	658
Alaska	376	374	526	36	*	119	254
Other States	697	514	492	155	*	265	404
% Alaska	35%	42%	52%	19%	*	31%	39%
Freezers	471	439	544	678	474	448	536
Alaska	*	*	203	107	98	208	194
Other States	*	*	341	572	376	240	343
% Alaska	*	*	37%	16%	21%	46%	36%

* Numbers may not be released because of confidentiality restrictions.

Table 2.5.5.3

Regional distribution of catch from 1985-90 and IFQs for vessel classes in the preferred IFQ alternative for the Central Gulf area.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	3346	6160	8693	10569	9927	10729	8449
Alaska	1323	2974	4397	5674	4602	4928	4038
Other States	2024	3150	4296	4895	5324	5801	4411
Alaska %	40%	48%	51%	54%	46%	46%	48%
% CB < 60	29%	36%	44%	43%	45%	59%	47%
% CB ≥ 60	44%	49%	52%	48%	44%	28%	41%
% Freezers	27%	15%	4%	9%	11%	12%	11%
CB < 60	974	2242	3785	4562	4482	6339	4011
Alaska	378	1164	2019	2736	2651	3295	2137
Other States	596	1042	1767	1826	1831	3044	1874
% Alaska	39%	52%	53%	60%	59%	52%	53%
CB ≥ 60	1457	3005	4517	5026	4386	3055	3477
Alaska	743	1544	2094	2630	1681	1271	1638
Other States	714	1461	2423	2396	2706	1783	1839
% Alaska	51%	51%	46%	52%	38%	42%	47%
Freezers	915	913	391	981	1059	1335	962
Alaska	*	266	*	308	271	362	264
Other States	*	647	*	673	788	973	698
% Alaska	*	29%	*	31%	26%	27%	27%

* Numbers may not be released because of confidentiality restrictions.

Table 2.5.5.4

Regional distribution of catch from 1985-90 and IFQs for vessel classes in the preferred IFQ alternative for East Yakutat and Southeast Outside.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	1978	3765	5587	6265	5463	6116	4690
Alaska	1410	2714	4762	4847	4398	4828	3757
Other States	568	1051	825	1417	1066	1288	933
Alaska %	71%	72%	85%	77%	81%	79%	80%
% CB < 60	60%	78%	85%	84%	86%	91%	82%
% CB ≥ 60	30%	22%	15%	16%	14%	9%	17%
% Freezers	9%	0%	0%	0%	0%	0%	1%
CB < 60	1193	2948	4725	5236	4697	5545	3860
Alaska	1000	2202	4019	4117	3814	4427	3145
Other States	193	746	706	1119	883	1118	716
% Alaska	84%	75%	85%	79%	81%	80%	81%
CB ≥ 60	599	817	862	1029	766	571	787
Alaska	410	512	743	731	584	400	573
Other States	189	305	119	298	182	170	214
% Alaska	68%	63%	86%	71%	76%	70%	73%
Freezers	186	#	#	#	#	#	42
Alaska	0	#	#	#	#	#	39
Other States	186	#	#	#	#	#	3
% Alaska	0%	#	#	#	#	#	93%

To retain confidentiality, numbers were added to the catcher boats ≥ 60' category.

Table 2.5.5.5

Regional distribution of catch from 1985-90 and IFQs for vessel classes in the preferred IFQ alternative for the Western Gulf area.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	2016	2245	3172	2964	3812	1516	2335
Alaska	950	891	908	645	1150	391	707
Other States	1066	1354	2265	2320	2662	1125	1627
Alaska %	47%	40%	29%	22%	30%	26%	30%
% CB < 60	26%	35%	25%	15%	18%	17%	25%
% CB ≥ 60	42%	39%	37%	43%	51%	45%	41%
% Freezers	32%	25%	38%	43%	31%	39%	34%
CB < 60	525	792	805	430	697	251	593
Alaska	286	501	481	283	286	58	247
Other States	239	292	324	147	411	192	346
% Alaska	54%	63%	60%	66%	41%	23%	42%
CB ≥ 60	842	885	1169	1274	1946	679	946
Alaska	605	349	366	310	678	232	389
Other States	237	536	803	963	1268	447	557
% Alaska	72%	39%	31%	24%	35%	34%	41%
Freezers	649	568	1198	1260	1169	587	795
Alaska	*	*	*	*	186	*	71
Other States	*	*	*	*	983	*	724
% Alaska	*	*	*	*	16%	*	9%

* Numbers may not be released because of confidentiality restrictions.

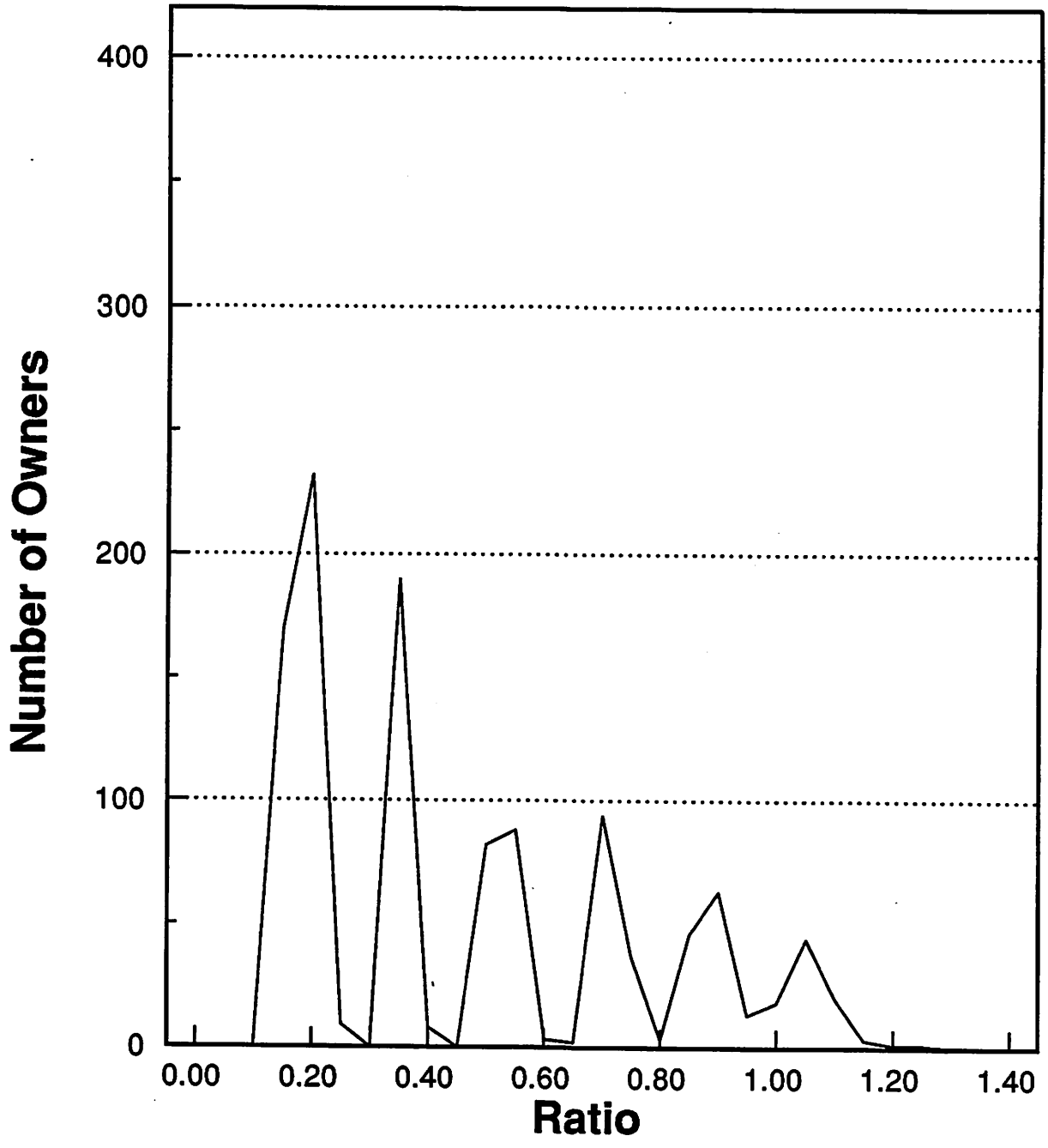
Table 2.5.5.6

Regional distribution of catch from 1985-90 and IFQs for vessel classes in the preferred IFQ alternative for the West Yakutat.

Year	1985	1986	1987	1988	1989	1990	IFQ
All	2274	3314	3932	4767	5158	3890	3842
Alaska	827	1504	1731	1948	2333	1384	1624
Other States	1447	1810	2201	2819	2826	2506	2218
Alaska %	36%	45%	44%	41%	45%	36%	42%
% CB < 60	53%	50%	49%	43%	44%	48%	48%
% CB ≥ 60	47%	50%	51%	57%	51%	47%	48%
% Freezers	0%	0%	0%	0%	5%	5%	3%
CB < 60	1198	1653	1934	2072	2288	1867	1852
Alaska	578	940	1030	960	1312	718	870
Other States	620	713	904	1112	976	1148	982
% Alaska	48%	57%	53%	46%	57%	38%	47%
CB ≥ 60	1076	1660	1998	2696	2628	1815	1860
Alaska	249	563	701	988	881	597	682
Other States	827	1097	1297	1708	1746	1219	1178
% Alaska	23%	34%	35%	37%	34%	33%	37%
Freezers	#	#	#	#	243	208	130
Alaska	#	#	#	#	140	70	71
Other States	#	#	#	#	103	138	58
% Alaska	#	#	#	#	58%	34%	55%

To retain confidentiality, numbers were added to the catcher boats ≥ 60'category.

Ratio of IFQ Pounds to Average Landings For The Preferred Alternative

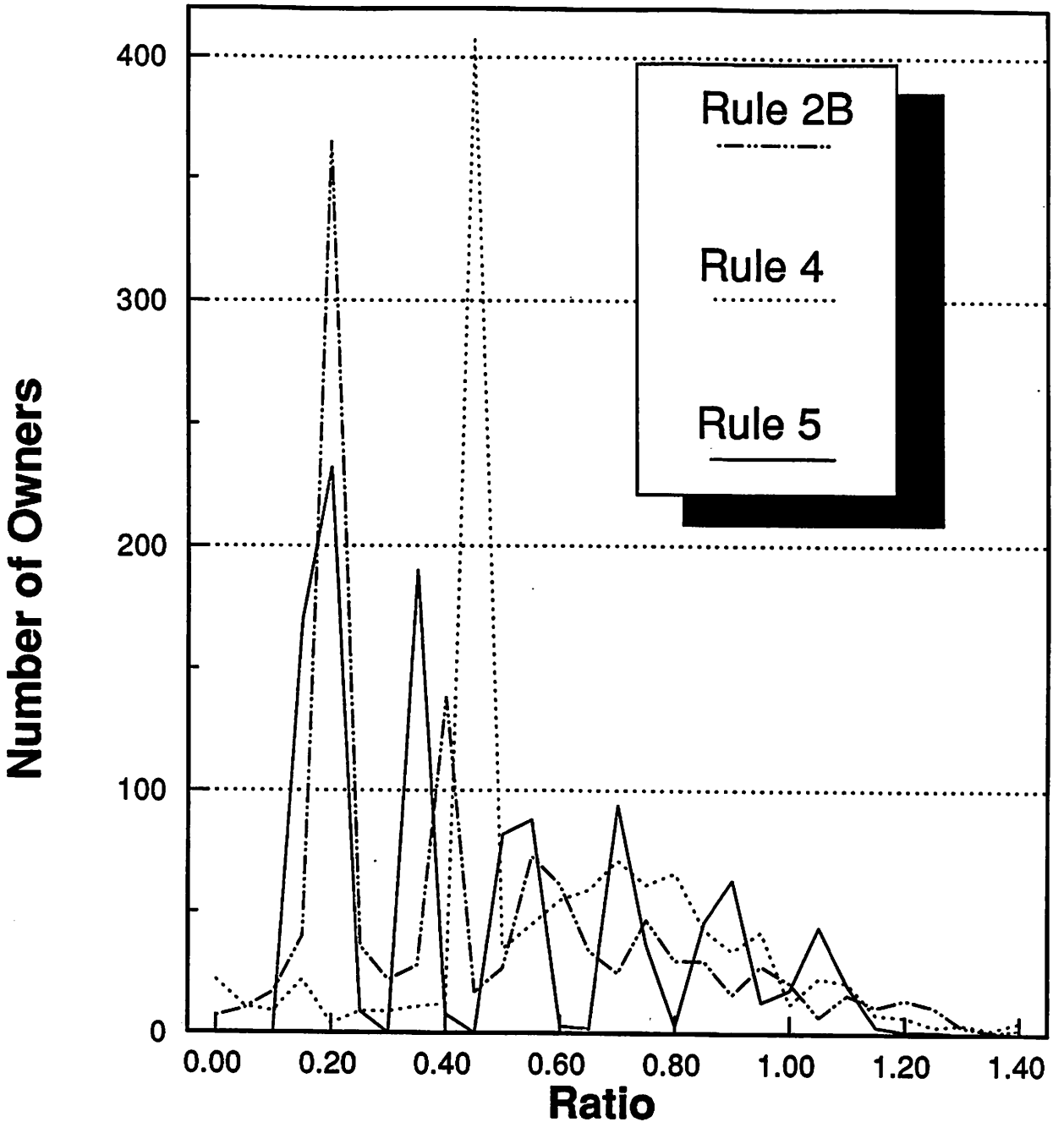


Rule 5: (Preferred Alternative) Must have made landings in 1988-1900; use best 5 of 6 years (85-90).

Notes: Ratios of less than 1 indicate owner will receive a smaller amount of IFQ lbs. than his average landings over the years in which he participated.

With few exceptions the individuals that fished only one year are included in the first cluster. Those who fished two years are in the second cluster, etc.

Ratio of IFQ Pounds to Average Landings



Notes:

Rule 2B: Must have made landings in 1987-89; use best 5 of 6 years (84-89).

Rule 4: Must have made landings in 1988-90; use best year.

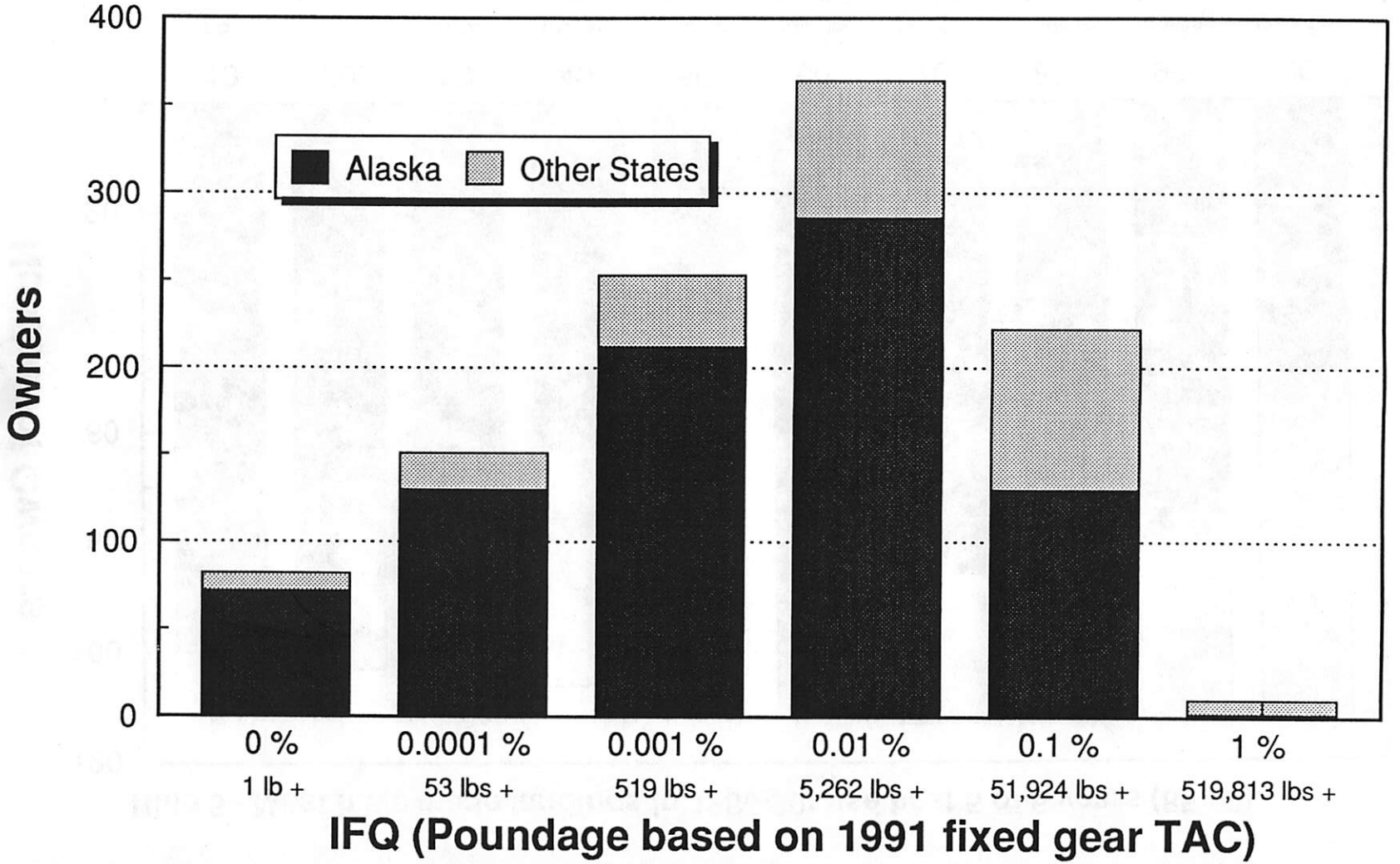
Rule 5: (Preferred Alternative) Must have made landings in 1988-1900; use best 5 of 6 years (85-90).

Ratios of less than 1 indicate owner will receive a smaller amount of IFQ lbs. than his average landings over the years in which he participated.

With few exceptions the individuals that fished only one year are included in the first cluster. Those who fished two years are in the second cluster, etc.

Number of Owners Receiving Different Percentages of Total IFQs

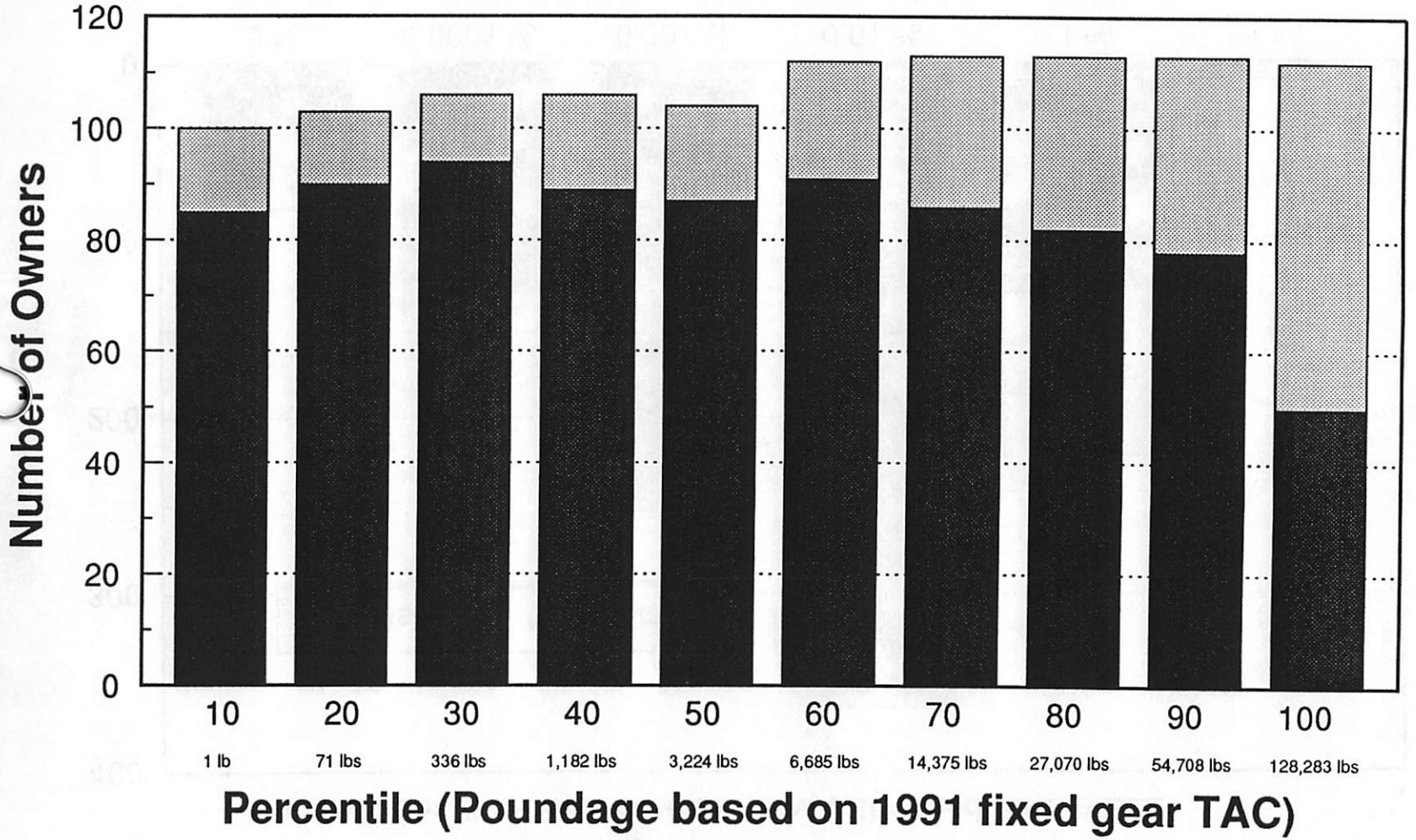
Under Under the Preferred Alternative, Summed for the EEZ



Note: Poundage values represent minimums for each group.

Regional Distribution of Percentile Owners for the Preferred Alternative

Rule 5 - Must have made landings in 1988-90; use best 5 of 6 years (85-90).



Note: Poundage values represent minimums for each group.

APPENDIX V

Calculating Quota Share Under The Preferred IFQ Alternative.

This Appendix is provided to allow potential Quota Share (QS) recipients to estimate the amount of QS they would receive under the Council's preferred alternative. This would allocate QS to all vessel owners or qualified vessel lease holders who made legal landings of sablefish between 1988 and 1990. The allocation will be based on the owner's best 5 of 6 years landings for each management area from 1985 to 1990.

The table below lists the total qualification pounds (metric tons), in round weight equivalents, for each management area and for each of four potential qualifying rules. QS will be management area specific. QS are a percentage of the fixed gear TAC for each area. The corresponding poundage (the annual IFQ) is obtained by multiplying the QS percentage by the fixed gear TAC for a given management area. The following information is expressed in metric tons; each metric ton equals 2,205 pounds. An example will follow.

TABLE 1. Qualifying tons (mt round weight) by FMP area for the preferred alternative.

East Yakutat/Southeast	27,170
West Yakutat	21,791
Central Gulf	45,774
Western Gulf	14,198
Aleutians	12,700
Bering Sea	6,687

The above table incorporates fish ticket and weekly processor report landings from NMFS records and includes all fixed gear landings which accrue under the preferred alternative. A person's QS percentage for an area is based on that person's total qualifying tons, as a percentage of the total qualifying tons (all QS recipients) for that area. If the QS system goes into effect, actual total qualifying tons may vary from the numbers shown above depending on the actual application and appeals process. The examples shown below are based on the assumption that all qualified recipients would claim their QS and there would be no appeals.

Example 1:

Owner 'A' had the following landings of sablefish, by year, for the Central Gulf management area:

1984	1985	1986	1987	1988	1989	1990
25 mt	17 mt	26 mt	20 mt	30 mt	10 mt	18 mt

Under the preferred alternative, his QS would be the total of his best 5 of 6 years, 1985-1990, divided by the total qualifying pounds for the Central Gulf from Table 1 above: 111 mt (dropping 1989) divided by 45,774 or 0.24% of the Central Gulf fixed gear TAC. The annual poundage of this QS would vary from year to year based on the TAC. As an example, this 0.24% QS would equate to 20.5 mt based on the 1991 fixed gear TAC (8,460 mt) for that area. This would be 45,235 pounds (24.5 mt x 2,205).

Example 2:

The same owner 'A' had the following landings for the Western Gulf management area:

1984	1985	1986	1987	1988	1989	1990
18 mt	22 mt	19 mt	16 mt	0 mt	0 mt	0 mt

Under the preferred alternative which requires participation in one of the years 1988-1990, Owner 'A' would qualify for QS in the Western Gulf even though no landings were made in this area from 1988-1990. The qualification rule requires that landings of sablefish must have been made in any area during the qualifying period; QS would then be calculated separately for each area. Owner 'A', in this case had landings of sablefish in 1988-1990 from the Central Gulf so he qualifies for QS in any area. In this example, his qualifying poundage (in mt) would be the best 5 of 6 years from 1985-1990, or 57 mt, divided by 14,198 mt (from Table 1). His QS percentage under this rule would then be .4% of the fixed gear TAC for the Western Gulf. If Owner 'A' had no participation in any area off Alaska during 1988-1990, he would not have qualified for QS under the preferred alternative.

All of the above examples use metric tons which can then be converted to poundage based on the TAC for a given year. Conversely, if a potential QS recipient knows what his landings were in pounds (round weight), he can convert to metric tons by dividing the poundage by 2,205, and estimate his potential QS using the metric ton totals from Table 1.

PROGRESS REPORT
TO THE NORTH PACIFIC FISHERY MANAGEMENT COUNCIL
FROM THE
AD HOC IFQ IMPLEMENTATION TECHNICAL WORK GROUP

September 18, 1991

Background

At its last meeting, August 13-16, 1991, in Juneau, the North Pacific Fishery Management Council approved a tentative "preferred alternative" individual fishing quota (IFQ) program for the longline (fixed gear) sablefish fishery. In taking this action, the Council provided for industry and technical ad hoc work groups to discuss and resolve all issues relevant to carrying out its preferred IFQ alternative for sablefish (and halibut if one is identified in September). This action also specifically requested the NMFS Alaska Region Director to establish the technical work group composed of administrative, data management, enforcement and legal professionals.

The ad hoc technical work group held its first meeting on September 9-10, 1991 at the Alaska Fisheries Science Center in Seattle, Washington. Jay Ginter of the Alaska Region organized the meeting and served as its chair. Eighteen agency representatives participated and two members of the public observed. An attendance list is attached. The group did not complete its agenda (attached). Subsequent meetings are scheduled for October 16-17 and October 29-30 also at the Alaska Fisheries Science Center in Seattle. The group intends to complete its work with the presentation of an implementation plan to the Council at its meeting of December 2-6, 1991.

If the Council approves an IFQ management program for sablefish and halibut fisheries at its September 1991 meeting, then the Alaska Region will draft proposed regulations in consultation with Council staff and NOAA General Counsel prior to the Council's December 1991 meeting.

The Charge

The purpose of the technical work group is to develop an implementation plan that would carry out a sablefish and halibut IFQ program approved by the Council if it is subsequently approved by the Secretary of Commerce. Questions of policy and rationale are avoided. In the course of its discussions, however, the group may uncover a problem with specific provisions of the Council's motion. If the problem involves a policy issue, the group will flag it for Council attention and may recommend an

alternative course that comes closest to achieving the Council's original objective as perceived by the work group.

In its first meeting, the technical work group gave first priority to discussion of issues relevant to combining management of the sablefish and halibut fisheries under a single IFQ program. The Council may wish to address these overlap issues in taking its final action on the sablefish and halibut IFQ program.

I. Sablefish and Halibut Overlap Issues

A. Management Areas

The group agreed that fewer, bigger areas are preferable to more, smaller areas for ease of management, reduce misreporting problems, and increase flexibility for fishermen. Existing boundaries for sablefish and halibut management serve primarily to spread out exploitation and in some cases serve allocation purposes. Even distribution of exploitation rates is still a desirable goal under an IFQ program, however, and the need for some management areas will continue. Any redesignation of area boundaries should be done with the affects on other groundfish fisheries in mind. Therefore, the group recommends Council consideration of this issue in the context of a groundfish plan amendment in 1992.

The overlay of the Council's groundfish management areas on the International Pacific Halibut Commission (IPHC) management areas would create about 16 different IFQ areas for the combined sablefish/halibut program. When combined with the vessel categories (cf. item II below), each area would contain three unique cells, for a total of 48 cells for purposes of allocating quota share (QS), transferring QS, monitoring catches, and enforcing IFQ limits.

The work group discussed the problems that numerous areas would cause and how to resolve these problems. First, numerous areas would likely cause problems with initial allocation. For example, a fisherman could have an initial allocation of sablefish QS for the East Yakutat/Southeast Outside (EY/SEO) and halibut QS for IPHC area 3A but not for 2C. This could limit the fisherman to fishing sablefish within that portion of EY/SEO that lies in IPHC area 3A. Second, numerous areas will increase misreporting problems which increase the difficulty of monitoring and enforcing IFQs. Area misreporting may not be a significant biological problem but could indicate to fishermen that other rules could be violated with impunity and threaten the integrity of the IFQ program in general. Finally, numerous areas translates into more numerous area/vessel category cells. This

would create small internal markets for QS and IFQs, and would constrain the flexibility of fishermen under the IFQ program.

Determining how to combine areas is difficult, however, because of policy and administrative implications for other groundfish fisheries. In addition, changing groundfish management area boundaries would require reprogramming of catch and survey data. On the other hand, changing halibut management area boundaries would require reprogramming catch data and action by the IPHC. Either or both such changes are technically feasible but will be time consuming tasks.

1. In the Gulf of Alaska (GOA). The group discussed some reasonable changes to management areas in the GOA could be made for sablefish and halibut IFQ purposes. These would include (a) changing the boundary between IPHC areas 2C and 3A to coincide with 137 W. longitude, (b) deleting the groundfish boundary at 140 W. longitude, and (c) changing the boundary between IPHC areas 3A and 3B to coincide with 154 W. longitude.

2. In the Bering Sea and Aleutian Islands (BSAI). The IPHC representatives reported that, except for the closed area, most of the IPHC boundaries were designed for allocation reasons. Community development quota (CDQ) implementation in this area also may affect decisions on where IPHC boundaries should be drawn.

B. Seasons

The group preferred a winter closure of directed halibut fishing only in the SE Alaska area. Sablefish fishing with IFQs should be allowed to proceed with a retainable bycatch allowance of halibut (or an allowable bycatch rate) that would be counted against a halibut IFQ. The IPHC staff, however, strongly recommends a winter closure of halibut fishing in all areas, and a prohibition on any bycatch retention.

The IPHC representatives indicated a need to have a winter closed season for halibut (December through February) to protect halibut from exploitation during the spawning and migration period. In particular, the IPHC staff is concerned that halibut harvested in area 2C (southeast Alaska) in the winter would have been available to the Canadian fishery in area 2B during the following summer. In addition, differing stock distributions between winter and summer could seriously confound halibut management in a year-round fishery. A winter closure for sablefish and halibut fisheries, however, would deprive sablefish fishermen of the strong winter market for sablefish in Japan.

C. Gear and Size Limits

Relatively minor differences between existing management programs for sablefish and halibut that can be resolved in the rule-writing process. The group did not see any critical problem in resolving these differences.

For example, pot gear is not legal gear under current IPHC rules but is permissible for sablefish fishing in the BSAI area. Likewise, hook strippers or "crucifiers" are prohibited in the halibut fishery but allowed in the sablefish fishery. The IPHC specifies a minimum size for halibut, but there is no minimum size for sablefish.

Some noted that the use of crucifiers is largely a result of the open access race for fish. The pace of an IFQ fishery is expected to be slower with a higher premium placed on quality fish. These factors could eliminate the need for crucifiers and therefore the regulatory conflict.

II. Vessel Categories

The group suggests that amounts necessary to cover bycatch of sablefish and halibut be allowed to be transferred between vessel categories. This would increase fishermen's flexibility and avoid, for example, the discarding of bycatch halibut for which no QS or IFQ is available within a vessel category/area cell.

The group intends to discuss this issue in greater detail under the initial allocation process. Transfer constraints among the tentative vessels categories were discussed, however. Some vessel category/area cells would be comprised of a very few vessels, and from an economic perspective, form very limited markets. In a directed fishery this may not be an issue, since the amount of quota could be small. However, if the Council intends that all longline catches of sablefish and halibut, including bycatch, apply to IFQs, then these limited markets could severely restrict the prosecution of longline fisheries for which sablefish and halibut are bycatch species.

For example, two or three owners could control all of the freezer quota for sablefish in a given area. Those owners would effectively control all longline fishing by freezers boats for any species in that area. Also, if a separate category for freezer longliners were created in the halibut IFQ program, and QS distributed based on historical participation, then freezer longliners that have not participated in the halibut fishery would be effectively eliminated from any longline fishery for which halibut is a bycatch. Hence, prohibiting any transfer

between vessel categories could prevent the some freezer longliners from full participation in the halibut IFQ program if there were only one, two or no other freezer longliners in a particular cell from which to buy QS.

Ideally, the market for QS and IFQ should be as unconstrained as possible to allow each fisherman flexibility to adapt his IFQ holdings to his fishing behavior and vice versa. From a management implementation perspective, without such flexibility bycatch and discard problems will be aggravated.

III. Definitions

A. "Person"

The satisfaction of citizenship requirements would have to be based on an application procedure in which an applicant signs a sworn statement that listed individuals, corporate owners, and affiliated corporations met the required citizenship standards. These application statements would be investigated by NMFS enforcement personnel on an occasional or as-needed basis.

Some discussion suggested using Coast Guard documentation as prima facia evidence of legitimate U.S. ownership. This could be the source of some enforcement problems, however, since Coast Guard documentation is not well suited to the information requirements of the IFQ program. The State of Alaska is another source of corporate ownership documentation. The same questions of the suitability of information requirements exist with the State documents, however. For example, a "foreign" company under the State's definition is any U.S. company initially incorporated outside of the State of Alaska. An "alien" company is any foreign controlled U.S. corporation. However, an alien company incorporated in the State of Washington could declare itself a foreign company in the State of Alaska, thereby circumventing the control issue. Moreover, not all companies operating in the fisheries off Alaska may be registered with the State.

The group did not have any specific recommendation on the definition of "person." Enforcement investigation could be highly complex but that difficulty may not be critical to the success of the IFQ program. The group noted that while direct control by foreign entities may be constrained by this definition, indirect control through default acquisitions or other means will be more difficult to detect and prevent. The group also noted that many of the corporations currently involved in the sablefish and halibut fisheries probably were formed for tax and liability purposes and include owner-operated or "mom-and-pop" companies. Distinguishing these from large multi-

national corporations could be difficult but desirable in carrying out this definition.

B. "Individual"

The group requests clarification of the one-percent limit as it applies to "persons" and "individuals."

It was not clear to the group that Sec. 2(d)(1) of the Council's IFQ motion would prevent, for example, a family corporation owning one percent and each individual in the corporation also owning the maximum one percent of the sablefish longline TAC. If such aggregation of QS is the intent of the Council, the group was not clear how it could be enforced if a variety of corporate and individual relationships could be employed in acquiring QS.

The NOAA General Counsel representative raised other policy and practical questions regarding the one-percent issue that were beyond the scope of the group. A fundamental question is whether there is a strong rationale for determining that amounts of sablefish TAC in excess of one percent would constitute "an excessive share of fishing privileges" as provided by National Standard 4 of the Magnuson Act. As a policy issue, the group did not attempt to answer this question. More practical questions, however, are whether CDQ operations would be exempt from the one-percent limit, and identification of indices of control (i.e. what constitutes "control" for purposes of the one-percent limit on persons and individuals?).

C. "QS and IFQ"

Each fisherman's QS would translate annually into a specified tonnage or poundage IFQ of sablefish and halibut. The group assumed that this amount of fish would be the "round weight" or unprocessed weight of fish actually caught, regardless of whether the fish are discarded or retained. For monitoring purposes, this will require product recovery rate (PRR) conversion factors and discard rate factors to back calculate the actual round weight of fish that a fisherman probably caught based on the product form he delivers to a processor or buyer. However, treating halibut in terms of round weight could be confusing to fishermen since all halibut poundage (in the industry, statistics and regulations) is traditionally net weight, that is the weight without head and viscera.

The use of PRRs to determine round-weight equivalents introduces a potential problem in achieving an IFQ and ultimately in achieving the TAC of a fishery. Fishermen that achieve higher recovery rates than assumed by the official PRR would be

prevented from harvesting their entire IFQ, and those that realize lower recovery rates than assumed would be able to exceed their IFQ. If more of the TAC is initially processed at substandard recovery rates than is processed at above standard recovery rates, then the entire TAC for a species would be exceed without detection.

The group plans to revisit this issue, but one approach discussed is to use actual recovery rates for vessels that have onboard observers that can verify actual rates. For un-observed vessels, a below average PRR could be assumed. As an additional guard against TAC overages due to uncertainty, TACs should be specified at some level below the ABC for a species.

D. "Fixed Gear"

Clarification should be made that "fixed gear" includes hook-and-line, jig, troll, and pot gear. Use of landings data recorded as fixed gear will be permissible for determining QS except in areas in which catches with pot gear was prohibited.

The group assumed that troll gear was included within the meaning of hook-and-line gear, however, this is not clear from the Council's motion. State fish ticket reports currently place gear types within the following gear types: pot, hook-and-line, jig, troll, trawl, gillnet, and seine. For purposes of determining catch histories for initial allocations of QS, the group assumed that all legal catches recorded using any gear type except trawl, gillnet, and seine could be used.

E. "Catcher Boat" and "Freezer Longliner"

The intent of the "freezer longliner" definition should be made clear regarding any frozen groundfish or any frozen sablefish.

The group questioned whether the catcher boat definition would require further definition of "frozen" fish or "unfrozen state." This was not perceived as a difficult problem, however. The group also noted that the "freezer longliner" definition would apply to any vessel that delivered any groundfish in a frozen state. Hence, a small longliner that normally delivered unfrozen sablefish and halibut, but at least once delivered frozen Pacific cod would be categorized as a "freezer longliner" for purposes of the IFQ program. The group was uncertain that this was the Council's intent.

F. "Bona Fide Fixed Gear Crew Member"

The group suggests as an alternative, minimum criteria of having an Alaska crew member licenses, an interim use permit or a limited entry permit for a specified minimum number of years to qualify as a "bona fide crew member." The group recognizes, however, that such a revised definition may not achieve the Council's apprentice objective.

The group found that there was no evidence in the current licensing data base to carry out this definition. The State of Alaska maintains records of issuing crew member licenses and interim use permits to fishing vessel crew members. The State requires all crew members on State registered fishing vessels to have a crew member license. An interim use permit, or a limited entry permit also satisfy crew licensing requirements. However, these records do not indicate whether the licensed individual actually worked as crew, in what fishery by species or gear type, or for how many months. Even if port-to-port sea time were recorded by the State, the group noted that a crew member working only in the halibut fishery would have to have many years of experience to achieve the five month criterion. One approach to implementing this definition would be to require individuals to sign affidavits declaring that they satisfied the "bona fide crew member" criteria, however, the NOAA would not have the capacity to investigate and verify such claims.

IV. Monitoring and Enforcement

A. Ownership

The group recommends clarification of emergency provisions in Section 2(c)(5)(iv). Inclusion of a special provision to allow for the temporary non-purchase transfer of QS and IFQ may be necessary. The group does not have any specific language to suggest, but could develop a draft of special provision language with clear understanding of Council intent on the de facto transfer of QS to heirs or the estate of a deceased QS holder. The group discussed, for example, a prohibition on use of QS acquired without explicit authorization of the NMFS and a requirement to liquidate the QS within a reasonable period of time, say 90 days. In addition, an emergency transfer should be allowed to a relief fisherman if an IFQ holder dies or becomes incapacitated during a fishing trip to avoid violating the Section 2(c)(5)(ii) requirement of an IFQ holder being on board during fishing.

After the initial allocation of QS, a major implementation task would be to assure that only qualified persons acquire QS and that they do not acquire an excessive QS (i.e. one percent of the total longline sablefish TAC under the Council's tentative

preferred alternative). In addition to the questions raised under the definition of "individual" (cf. III.B. above), the group discussed ways of controlling de facto transfers of QS. For example, a financial institution may acquire QS when a fisherman defaults on loan payments. Someone may acquire QS as a result of the death of, or divorce from, their spouse. One concern to the group in such de facto transfers is that the person who acquires QS in this manner may not satisfy citizenship or other criteria that would allow ownership of QS. Such a person could be prohibited from using the QS, but this could prevent achievement of optimum yield for the fishery as a whole under some circumstances. One approach could be the use of an emergency transfer form to cover unforeseen circumstances. Identity data on such a form could ensure timely action to relieve the situation and track QS to non-participants, thus protecting the integrity of the program for IFQ holders.

B. Catch Reporting

The group determined that credible enforcement and monitoring was critical to the success of the IFQ program. Cheating or "quota busting" with impunity will not only defeat the purposes of the program but could also threaten overfishing of the stocks. Hence, a monitoring system must be capable of verifying the accuracy of fishermen and processor reports, and provide potential buyers with reliable knowledge that the fisherman delivering the fish in fact has IFQ to cover the delivery. Hence, speed and accuracy should be key to the reporting system.

A "paper trail" or accurate transaction record of harvested fish would be fundamental to enforcement if the IFQ program. The simplest reporting system that achieves this objective should be the one adopted. Discussion centered on the pros and cons of using a written transaction log or an electronic system relying on a plastic credit card or quota card. On one hand, the group appreciated the relative ease and speed of using a quota card but was also concerned with potential difficulties involving the electronic transmission of data. The group will continue discussion of the best way to achieve the desired speed and accuracy of catch reporting as simply as possible, but concluded the initial discussion noting that both systems should be used for monitoring catches applied to IFQs.

A sablefish and halibut buyers license should be established. A revokable buyers license would serve as an incentive for prompt, accurate reports and willingness to submit to audits. General Counsel also pointed out that a buyer will need to know that fish he is purchasing was not caught illegally in violation of the Magnuson Act. A transaction log that a fisherman and buyer sign

at the time of landing, certifying its accuracy, would partially satisfy this legal requirement. However, assuring confidentiality of landings data may be a problem with this approach. In this respect, using a quota card to get an electronic confirmation of unharvested IFQ would be good.

Enforcement investigations would search for discrepancies between transaction logs, fish tickets and shipping records. An additional reporting requirement may include a hail weight which also must agree generally with a buyer's records. The purpose of a variety of different reports is to provide a basis for cross checking each report for accuracy.

The primary responsibility for not exceeding an IFQ would rest with the fisherman to whom that IFQ is assigned. At regular intervals, say monthly, computer reports could be sent to IFQ holders to allow them to square their records with official records of landings.

The group needs to spend more time discussing exactly what IFQ-related data needs to be recorded, how it should be communicated to the NMFS, and the speed at which this can occur. There should also be a mechanism for correcting honest errors.

C. Overages

Provision should be made in the IFQ program to accommodate minor IFQ overages. One or more provisions could be used in concert and may include forfeiture of the proceeds of sale of fish over an IFQ, a monetary penalty or deduction from the following year's IFQ.

The group realized that it may be impractical to expect fishermen to land an amount of fish that is exactly equal to his IFQ without causing a discard problem. However, the group is concerned about how best to prevent the accumulation of landings in excess of IFQs from exceeding the overall TACs of sablefish and halibut. The group does not want to see overages that are realized at the point of landing being discarded at sea, or worse, at the buyer's dock. On the other hand, there should be no incentive to exceed IFQs.

Fish that exceed an IFQ should be processed and sold but the fisherman probably should forgo any gain from that sale. In addition, the TACs for sablefish and halibut could be specified at some level below that which would cause biological harm to the stock including accounting of overages. With experience, the Council and the Secretary would learn how large this TAC buffer should be for purposes of absorbing overages. The New Zealand

approach of providing for a grace period after landing an overage within which a fisherman would have to buy IFQ sufficient to cover the overage also was mentioned.

D. Designated Ports

The group discussed the pros and cons of designated ports. The principal benefit of designating specific ports where IFQ fish can be landed is to enhance monitoring and enforcement of quotas. The principal problem with designating landing ports is that it constrains commerce and marketing opportunities for fishermen, could hurt rural communities, and, if enforcement officers are to be stationed in every port, makes enforcement very expensive.

Another use of a designated port is to require all vessels landing IFQ fish out of the State of Alaska to have a hold inspection at a designated Alaskan port prior to unloading elsewhere. This would provide opportunity to file necessary catch reports before leaving the State. General Counsel advised the group, however, that such a requirement would probably violate GATT if the vessel was headed to a Canadian port of landing, but would be ok if it was headed to a port elsewhere in the U.S.

The group concluded that a better approach may be to require IFQ fish to be sold first only to a licensed buyer. A fisherman selling directly to consumers would have to have be a "licensed buyer" for purposes of reporting transactions. Regulations would prevent fishermen from not reporting fish he takes home for personal use. One difficulty, however, is that the U.S. could not license Canadian fish buyers who are operating in Canada. Presumably, a mechanism for prompt monitoring of fish landed in Canada could be developed through a cooperative agreement with Canadian officials and/or via customs data.

The connection between designated ports and licensed buyers would be one of advance notice for enforcement purposes. Ports designated as "principal ports" would have a resident full time enforcement presence, and fishermen may not be required to give advance notice of landing at principal ports. A fisherman intending to land IFQ sablefish or halibut at any other port, however, would be required to give, say 24 or 48 hours advance notice of his landing and an estimated weight of his product. This would give enforcement agents discretion to meet the vessel and monitor the unloading, and monitoring officials notice to expect a transaction or buyers report.

Enforcement costs would be directly related to the number of principal ports deemed necessary. Conversely, the risk of non-

compliance would be inversely related to the number of principal ports. Simply put, lower enforcement coverage would result in higher rates of non-compliance, and vice versa. The group discussed the possibility of using certified weigh masters to do the majority of dock-side monitoring. This could allow more costly uniformed fishery enforcement officers (FEOs) and enforcement agents to do other tasks and increase coverage of non-principal ports. Even with liberal use of weigh masters, however, the group thought that 100 percent coverage of unloading all IFQ sablefish and halibut, as is done in Canada, was highly unlikely. Hence, other means of verifying catch and landings reports should be explored.

The group needs to spend more time considering alternatives to designated ports. The group has no specific recommendation at this time on the most efficient mix of reporting techniques and monitoring by FEOs, weighmasters, or observers.

V. Summary

From an implementation point of view, there was general consensus that any IFQ program should be as simple as possible. An uncomplicated IFQ program will be easier to enforce, less costly to administer, and easier for fishermen to understand and comply with than a complex program. An uncomplicated program, however, may not achieve the Council's economic and social objectives. The view was expressed that complexities (e.g. inconsistent sablefish and halibut management areas) can be simplified in the future if the need for them ceases to exist. The group noted that the political desire for change may not exist if fishermen's investment in the status quo could be diluted as a result of a simplifying change.

Another general conclusion of the group is that it would be critically important to compliance that fishermen under the IFQ program perceive that it can be carried out fairly. Achieving this objective is partly a function of the program's complexity and partly a function of the enforcement agency's willingness to fund enforcement work at appropriate levels. The Council has control over the former, but none over the latter.

The initial meeting of the group was productive. Much work remains to be done in successive meetings. The group is hopeful that the Council will seriously consider its recommendations, especially those indicating a change in the basic design of the tentative IFQ program. The group also looks forward to working with the industry work group in searching for the most practical solutions to implementation problems.

AD HOC IFQ IMPLEMENTATION TECHNICAL WORK GROUP
PARTICIPANTS AT MEETING OF SEPTEMBER 9-10, 1991 IN SEATTLE

Agency	Participant
Alaska Department of Fish and Game	Galen Tromble
Alaska Commercial Fisheries Entry Commission	Roger Kolden Ben Muse Kurt Schelle
International Pacific Halibut Commission staff	Ian McGregor Gordon Peltonen
National Marine Fisheries Service	
Alaska Region	Jay Ginter
Alaska Region Enforcement	David McKinney
Alaska Fisheries Science Center	Joe Terry
Observer Program	Janet Wall
NOAA General Counsel	Jonathan Pollard
North Pacific Fishery Management Council staff	Russell Harding Marcus Hartley Chris Oliver Clarence Pautzke
Oregon Department of Fish and Wildlife	Mark Saelens
Pacific Fishery Management Council staff	Jim Seger
U. S. Coast Guard	Joe Kyle
Washington Department of Fisheries	Sam Wright

Public observers for at least part of the work group's discussions included Ted Evans and Sheri Gross.

Draft Agenda
IFQ Implementation Technical Work Group
Alaska Fisheries Science Center
Seattle, WA
September 9-10, 1991
Building 4, Meeting Room 2079, 9:00 AM

A. Introductions; agenda review

B. Review Council's tentative preferred alternative for sablefish longline management

C. Determination of sablefish and halibut management areas
- Identify other areas of sablefish/halibut overlap
- Seasons, gear, size limits

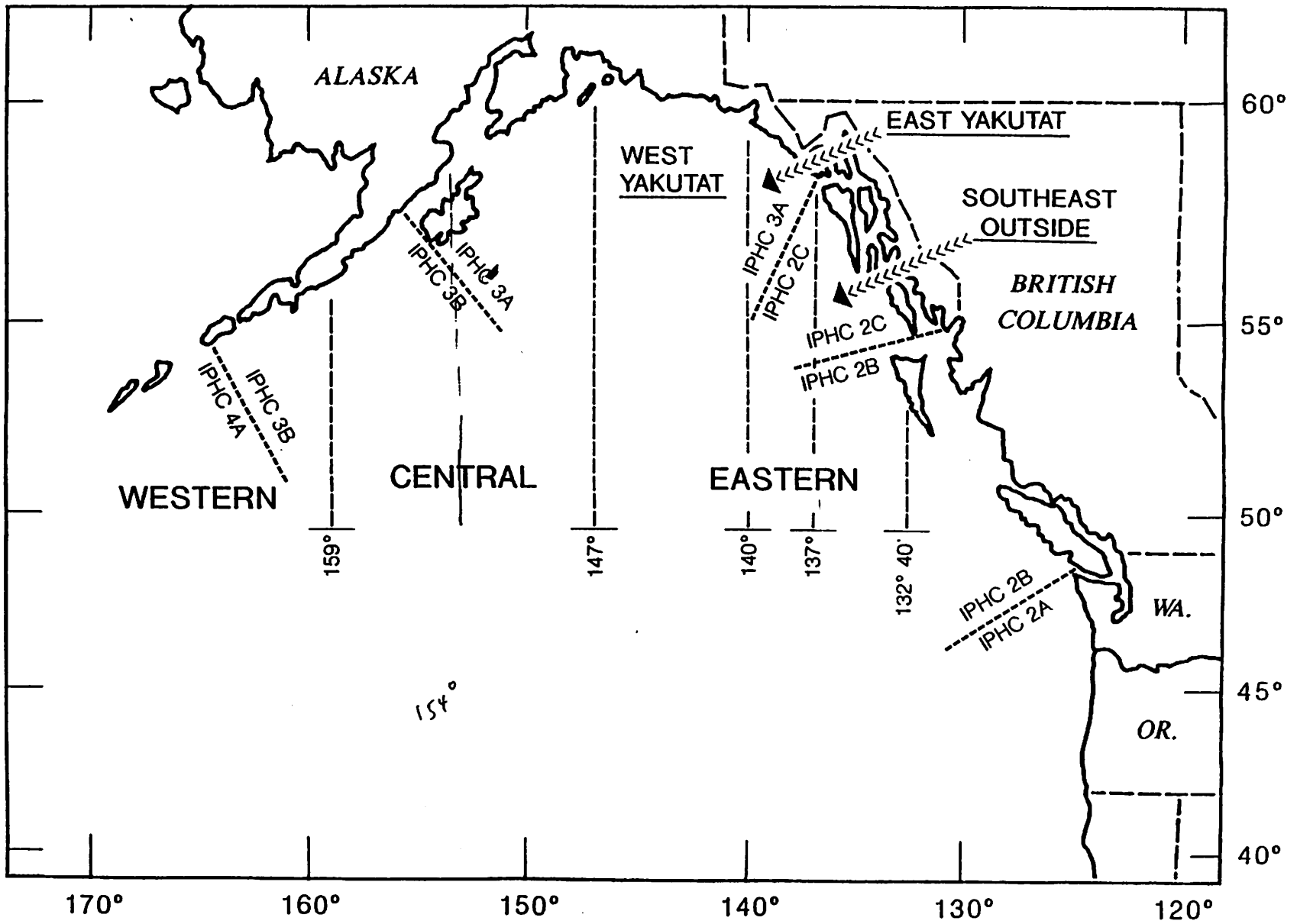
D. Information requirements to determine "person," "individual," "bona fide fixed gear crew member," vessel categories, etc.

E. Initial allocation process
- Application procedures
- Determination of eligibility; quota share (QS)
- Catch history data base
- Notice of initial allocation; appeal procedure

F. Annual specification process
- Calculation of IFQ from TAC
- Accounting of community development quota
- Define fishing season

G. Monitoring and enforcement
- Catch reporting procedure and documentation
- Catch verification
- Licensing buyers and auditing procedures
- Monitoring and approval of QS and IFQ transfer
- Designated ports
- Bycatch of sablefish and halibut in non-IFQ fisheries

H. Infrastructure requirements
- Personnel, computer hardware and software needs
- Estimated dollar and time costs
- State/Federal interaction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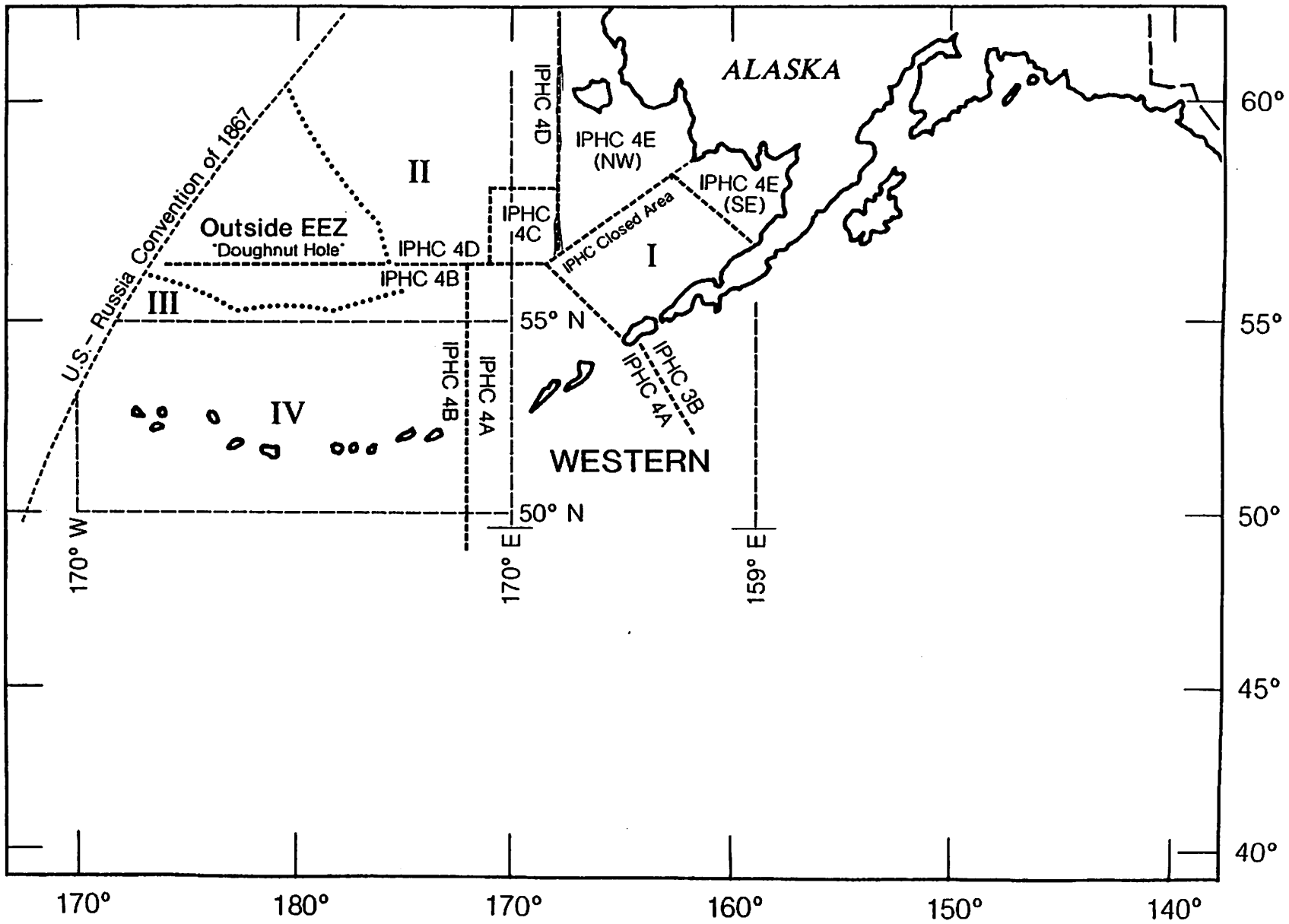
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AGENDA C-3
SEPTEMBER 1991
SUPPLEMENTAL

C.C Directors
Production Committee

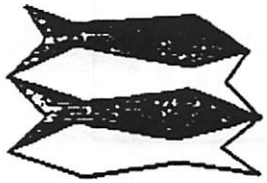
Don Mclead

BUILDING ON PROGRESS

FISHERIES POLICY DEVELOPMENT IN NEW ZEALAND

By

Peter H Pearse



A report prepared for the Minister of Fisheries

Wellington: July 1991

This document was commissioned by the Ministry of Agriculture and Fisheries. The views and proposals it contains are, of course, those of the author and not those of the Ministry.

Copies can be obtained from:

MAF Policy
PO Box 2526
Wellington
Phone: (04) 720-367

FOREWORD

I am happy to provide this foreword to Dr Pearse's study which I commend to everyone with an interest in fisheries management.

From earliest times in New Zealand, fisheries have made a fundamental contribution to our economy and lifestyles. Increasing population and improving technology have come to place ever greater demands on New Zealand's wild fisheries. Our fisheries management techniques must evolve to cope with these demands while protecting the health and future productivity of our fisheries.

The last significant step in the development of our fisheries management regime was the introduction in 1986 of the Quota Management System. Thirty-two major commercial species are now managed under Individual Transferable Quotas. After nearly five years experience with the QMS, it is time to take stock of the results of that bold innovation.

With this in mind, the Ministry of Agriculture and Fisheries commissioned Dr Peter Pearse, an internationally recognised expert in natural resources management, to review independently the current state of our fisheries management and to highlight opportunities for improvement.

This report has become available just as I have announced an independent review of all fisheries legislation presently administered by MAF. One of the main challenges of the review is to fit the complex issues of fisheries management into a consistent legal framework.

In this report, Dr Pearse provides a coherent overview of how fisheries policies might progress. That vision should, at the very least, provide a useful reference point on which discussion can focus. I believe the current debate of conservation, commercial, recreational and Maori issues in fisheries management will benefit by having "Building on Progress" as a common starting point.

Hon D L Kidd

Minister of Fisheries

CONTENTS

PREFACE

New Zealand embarked on a fundamental reform of fisheries policy in the mid-1980s. The intervening years have been a test of the new approach. It is now timely to review the system, to appraise its successes and failures, and to identify opportunities for improvement.

Late in 1990, the Ministry of Agriculture and Fisheries invited me to assess New Zealand's experiment in fisheries management. My terms of reference stipulated that my assessment should be independent, that I should consult with interested parties, and that I should identify opportunities for future policy development. This report documents my conclusions and suggestions.

I must emphasise, at the outset, that I have carried out my review with all the advantages and disadvantages of an external observer. My detachment from both government and private interests has enabled me to take a broad view of the regulatory system, unencumbered by involvement in the stresses and strains within the fishing community. However, it leaves me with limited appreciation of New Zealand's fisheries resources, the complexities of managing them, the subtleties of New Zealand's governmental system, and the interplay of interest groups. Moreover, my investigations were limited to a few weeks of consultation, study and travel in New Zealand. My observations are therefore tentative — intended to suggest possibilities for further discussion rather than firm proposals for policy development.

I do not attempt, in this short report, to document the historical events leading up to the present management system, or to describe it in detail; these are well documented elsewhere (see "References" at the end of this report). Instead, I turn directly to assess the policy framework as it stands today, its major shortcomings as I see them, and the opportunities for improving it. I confine my commentary to a broad overview of the system, and to a long-term perspective on policy development. Thus I deliberately leave aside much of the operational detail of the regulatory system, and many immediate administrative problems. Finally, I do not attempt to deal with certain matters on which I am not competent to offer useful advice; the most important of these are New Zealand's arrangements with other nations, and the whole question of Maori rights.

While I was carrying out my review, the Minister of Fisheries appointed an independent task force to assist in the formulation of new fisheries legislation. That group is expected to undertake a much more thorough and detailed investigation of those issues which I have been able to examine only superficially.

In the following pages I refer to views held by those involved in fishing and in the administration of fisheries. This is based on my consultations, which were mostly with spokespersons for the main interest groups concerned with New Zealand's ocean fisheries: the fishing industry, recreational and Maori

fishing interests, environmental organisations, and agencies of Government. My consultations were intensive, and I believe representative, but I cannot claim to have weighed the opinions of all those who should be consulted in developing fisheries policy.

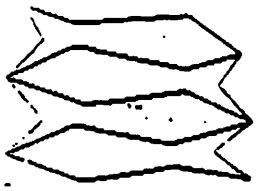
> *"We have arrived at the time when exploitation of fish resources and conservation must work together to ensure sustainable ecosystems."*
>
> *David Thom, Chairman*
> *Conservation Authority*

My investigations benefited a great deal from the commentary and advice I received from others. Without exception, my enquiries met with open, receptive, and constructive response. Any contribution this project makes to New Zealand's fisheries policy development must be credited, in large measure, to those who so generously gave me their support, assistance, and guidance in carrying it out.

I am particularly indebted to officials of the Ministry of Agriculture and Fisheries whose helpfulness in providing information, advice, and documentation, made my project manageable, and whose support and hospitality made my visit to New Zealand both productive and pleasant.

As my report explains, I view New Zealand's quota management system as a promising first step. Indeed, it has made New Zealand the world leader in fisheries management systems. But the policy urgently needs further development. If the improvements are made, New Zealanders will keep their place at the forefront of fishing nations, and, in so doing, realise the fullest possible economic, social and environmental benefits from their ocean resources.

Peter H. Pearse C.M.
Wellington: July 1991



CHAPTER 1

INTRODUCTION

Fishing nations around the world are searching for better ways to manage their resources. The reason is simply that traditional management systems have failed to maintain healthy fish stocks, or to sustain prosperous fishing industries. Recreational and subsistence fishing have suffered also. In both eastern and western nations, in developed and developing economies alike, fisheries have been characterised by depressed resources, overexpanded fishing fleets, low incomes to fishermen, heavy dependence on governmental support and regulation, and conflict among fishing groups.

With ever-increasing pressures on fish stocks, and growing public demands for sustainable development of natural resources, traditional management regimes are proving to be inadequate.

> *"People say you can't turn the clock back. I agree, but you can reset the clock."*
>
> *Hon Marin Rae*

In the search for new approaches to fisheries management, New Zealand has been the world's leading innovator. Other fishing nations have watched with keen interest as New Zealand abandoned centuries-old traditions of free-for-all competitive fishing by issuing to each fisher a right to take a defined quota or share of the available catch. This quota management system, introduced in the 1980s, has become the dominant feature of New Zealand's fisheries policy. A number of other nations have recently initiated regulatory experiments following New Zealand's experience.

The quota management system has produced notable benefits but, as must be expected of such a fundamental policy change, it has also given rise to new problems. After five years' experience with the new system, it is time to review the experiment.

This report presents an assessment, from the viewpoint of an external observer, of New Zealand's current fisheries policy. It takes the form of a broad overview, concentrating on the basic objectives of fisheries policy, the essential structural and administrative framework for implementing it, and the opportunities for improving it.

Policy Objectives

In assessing any public policy it is helpful, at the outset, to clearly identify its objectives. Except for certain elements of fisheries policy, notably recreational and Maori fishing and management planning, the objectives of fisheries policy in New Zealand have not been articulated in any official way. However, the available documentation suggests that it is reasonable to assume that they include the following:

- To conserve the natural resources, to ensure that their use and development is sustainable, and to maintain the diversity and integrity of ecosystems.
- To allocate access to fish resources, fairly and equitably among competing users and groups of users.
- To ensure a high level of economic efficiency in commercial uses of fish.

To these primary goals, additional objectives became relevant to ensure the long-term effectiveness of the policy framework, especially:

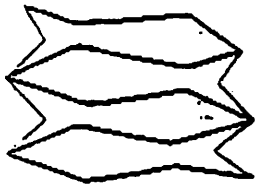
- To accommodate changing economic conditions and public preferences; and to encourage response to opportunities in resource enhancement and new technology.
- To ensure efficiency and effectiveness in public administration.

In the following pages I try to evaluate present fisheries management arrangements with reference to these objectives, and my proposals are aimed at advancing them.

"No sort of scientific teaching, no kind of common interest, will ever teach men to share property and privileges with equal consideration for all. Everyone will think his share too small and they will be always envying, complaining and attacking one another."

Fyodor Dostoyevsky
The Brothers Karamazov

I turn first to an appraisal of progress, so far, in the shift toward a new management approach based on property rights and economic incentives. This points to opportunities for improvements which I discuss in separate chapters on extending the quota management system, improving the terms and conditions of quota rights, and harmonizing other parts of the policy framework with the new system.



CHAPTER 2

THE QUOTA MANAGEMENT EXPERIMENT

Until recently, New Zealand's fisheries management regime was broadly similar to that of other fishing nations. Anyone who wanted to fish could do so in open competition with others. When fishing pressure became excessive, governments tried to protect the stocks by restricting fishing gear, closing fishing areas, shortening fishing seasons and imposing other controls on fishing. Methods were also devised to protect one fishing group from another. As demands on fish resources grew, governments were drawn ever more deeply into managing stocks and yields, prescribing fishing technology and fishing methods, allocating catches and resolving conflicts.

In New Zealand, as elsewhere, the weaknesses of this regulatory approach to managing fisheries became increasingly evident. Fishing fleets expanded well beyond the capacity needed to harvest the available catch, efforts to constrain fishing pressure failed to protect stocks from depletion, fishermen's incomes often declined, conflicts among fishing groups intensified, and governmental managers often found themselves on a treadmill of regulatory design and enforcement.

During the 1970s, New Zealand, like many other fishing nations in the developed world, began to look for ways of controlling the growth of fishing effort. But in the face of developing technology, and the conflicting incentives of fishermen and vessel owners, these attempts met with mixed success.

Introduction of Quota Management

In the 1980s, after New Zealand extended its authority over fishing 200 miles seaward, and extensive new stocks were discovered, a new regulatory scheme was introduced that involved a fundamental break with the traditional regulatory approach. Instead of issuing licenses to fish and to "catch as catch can", commercial fishing enterprises were allocated individual quotas representing shares of the total allowable catch in a fishery. This is the quota management system, which has become the cornerstone of fisheries policy in New Zealand.

> *"With the introduction of Individual Transferable Quotas (ITQs), firstly for the deepwater fisheries and subsequently for the majority of the commercial fisheries, New Zealand took a revolutionary step in the management of its fisheries."*
>
> *Ray Dobson*
> *NZ Fishing Industry Board*

The quota management system is intended to eliminate the rush for the fish, the destructive competition for the limited available catch, and the wasteful over-expansion of fishing capacity. Quotas were made divisible and transferable, so that fishing enterprises could adjust their holdings to their needs and organise more efficient operations. It was expected that the new system would facilitate management of fish resources and reduce the burden on regulatory control of fishing. More fundamentally, it represented an attempt to improve the economic performance of the fishing industry, in addition to the traditional objective of protecting the stocks.

The quota management system was introduced first in the offshore fisheries and subsequently to many of the older, more complex inshore fisheries. Today it applies to 32 species in 10 management areas.

Since its introduction, the quota management system has given rise to a variety of problems and controversies over such things as adjustments in

the total allowable catch, incidental catches (or by-catches) of non-target species, rental payments for quota holdings, enforcement and other issues, most of which are discussed below.

General Assessments

Experience with the quota management system is now sufficient for those involved in fishing and its regulation to form judgements about its value as an instrument of fisheries policy. My consultations within the fishing community and governmental agencies have revealed a substantial consensus which can be summarised as four general conclusions.

1. The quota system is a better way of managing fisheries and should be retained.

Virtually everyone I consulted — not only those who hold quota rights but also recreational, Maori, and environmental representatives, as well as governmental officials — agreed that the quota management system has proven to be a progressive innovation in fisheries policy. Notwithstanding many criticisms of the way it has been introduced and administered, no-one with whom I consulted argued that it should be abandoned in favour of a return to regulated competitive fishing.

This support for the quota system is consistent with my own observation that it has been beneficial in advancing the policy objectives identified in the preceding chapter. Though many problems and aggravations have arisen, it is easy to underestimate the greater difficulties that would almost certainly prevail under the traditional system of undefined rights to fish.

The quota system can be credited with improving the management of stocks, reducing redundant fishing capacity, alleviating conflicts over the allocation of catches, substantially improving the economic returns from fishing to both the fishing industry and the Government, and reducing pressures on fisheries managers.

> *"All in all, the Quota Management System appears to be an efficient means of controlling commercial fisheries. There is evidence that most fishermen within the industry support it, and there is quite a deal of support for it amongst Maori too."*
>
> *Waitangi Tribunal*

2. Changes are urgently needed to make the system work better.

Everyone I consulted pointed to needed revisions in the quota system, or in other elements of the policy framework. Thus there is considerable support for the review being undertaken by the task force on fisheries legislation, and for the consultative approach it will take toward its work.

In my own opinion, too, substantial changes are needed. If the quota management system is to be retained and built upon, and if its potential contribution to fisheries management is to be realised, major improvements must be made to the quota system itself, and to the regulatory framework within which it is embedded.

3. Those who hold rights to fish should have more responsibility for managing them.

Although proposals for policy changes vary widely, I found significant convergence of opinion in favour of assigning greater responsibility for managing fisheries and fishing activity to those

who hold the rights to use the resources. The concomitants of this view are that users should bear the costs of management and be accountable for actions that impinge on other interests.

This observation is, in effect, an endorsement of the idea that a system based on property rights, and the economic incentives that accompany them, can be an effective alternative to increasing governmental regulation. It also implies that the new approach has been adopted only partially, leaving scope for further development and improvement.

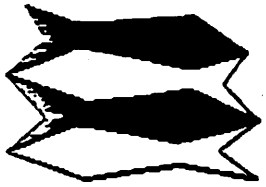
4. *Environmental concerns are not well handled.*

While the quota system facilitates the management of fishing, it depends on other processes to identify and protect public interests that are sometimes adversely affected by fishing. Such impacts take many forms, such as detrimental effects of fishing some stocks on the food supply of other stocks, mortality of sea-birds and mammals caught up in fishing gear, damage to ocean habitats and impairment of aesthetic values. These concerns often call for sensitive weighing of non-commercial values against commercial values in determining allowable catch levels and the rules of fishing. The present, uncertain, arrangements lack the confidence of both environmental groups and the fishing industry.

> *"In spite of its admitted shortcomings, the quota managment system is working and the establishment of tradeable property rights to harvest fish has had positive consequences."*
>
> *Hon Douglas Kidd*
> *Minister of Fisheries*

Directions for Future Development

These general findings will not be surprising to those within the fishing community. They are nevertheless important, because they serve as the starting point for discussion about further development of fisheries policy, and point the direction in which changes need to be made. They imply that the challenge, today, is to make the quota system work better. They imply also that this can be done by building on the capacity of the quota system to engage users in managing the resources, and by improving the arrangements for taking account of the environmental impacts of fishing. The first of these focuses on the role of private fishing interests, the second on the role of government, suggesting a need to re-examine and rationalise the responsibilities of the two. This issue underlies many of the proposals in the remainder of this report.



CHAPTER 3

EXTENSIONS OF THE QUOTA SYSTEM

Adoption of the quota management system signalled a basic shift in fisheries policy from a regulatory approach to one based on property rights. The new approach eliminates the single-minded competition for fish and the wasteful over-investment in fishing capacity which occurs when the claims of individual fishers to the catch are not defined. Instead, it provides users with well-defined, securely-vested and valuable interests in the catch, giving them strong incentives to develop efficient fishing enterprises and to support good, long-term resource management. The benefits of the quota system derive from this realignment of fishers' incentives.

So far, however, the quota system has been adopted only partially. If it is to be developed as the foundation of fisheries policy the remaining gaps in the system should be closed.

> *"Management of resources must seek to balance social, cultural, environmental and economic costs and benefits arising from different uses."*
>
> *MAF Fisheries*
>
> *National Policy for Recreational Fishing*

During the past five years the quota management system has been progressively applied to 32 of New Zealand's most important commercial species. Today, its application remains incomplete in two important respects. One is that some fisheries remain outside the system; the other is that it excludes recreational fishing. Both of these deficiencies impede efficient resource management and orderly fisheries development.

Non-Quota Fisheries

Permits are now issued to fish more than 130 species which are not covered by the quota management system. Most of these are not yet heavily exploited, but some are, and some are potentially highly productive. In many cases catches are largely incidental, and in most cases scientific knowledge about the stocks is meagre. The Ministry's management control over these stocks is weak.

Quotas on some species, but not others, aggravates pressures on those outside the system. Facing well-defined limits on their catches of quota species, fishers turn their effort to the remaining unrestricted opportunities in non-quota species. Their incentive to do so is sharpened considerably by the usual practice, when quota systems are introduced to new fisheries, of issuing the initial quotas to established fishermen in accordance with their historical catches. This gives rise to the well-known practice of "fishing for quota", which means fishing in non-quota fisheries for the purpose of establishing a claim on quotas when they are introduced. The result is that non-quota species are often poorly managed, and they are brought into the quota system only with difficulty.

In my opinion, the sooner the quota management system is extended to include all species, the better. This view is widely shared within the fishing community.

All or most of the non-quota species should be brought under quota management at once. The alternative, of dealing with them sequentially over time, will aggravate distortions in fishing patterns by shifting fishing effort from one excluded species to the next. In the following chapter I consider ways of bringing new species under quota management without the distortions associated with past practices.

Recreational Fisheries

The quota management system has been adopted, so far, to commercial fisheries and it has clearly benefited and strengthened commercial claims on fish resources.

Recreational interests have been left behind, and seem to me to be unsatisfactorily provided for within the present policy framework.

> *"The implementation of the Quota Management System has produced anomalies we must all address. ... There has been no clear evidence of allowance for recreational fishing allocations.*
>
> *Bob Burnell, President*
>
> *NZ Recreational Fishing Council*

Recreational fishing is an important element in the New Zealand lifestyle, with something like a third of the population going fishing every year. It also generates considerable economic activity. Its demands on resources are highly focused on a few species, such as snapper, kahawai and rock lobster, and in these fisheries they compete with commercial fishers.

The *Fisheries Act* requires the Minister to take account of recreational interests in determining the total allowable catch to be allocated as quota to commercial fishers. This provision, and related policy statements suggesting priority to non-commercial fishing in some circumstances, are valued by recreational fishing groups as protection of their interests. But in the long term they are likely to be inadequate for several reasons:

- The absence of specific rights, and any form of licensing, leaves a dearth of information about the numbers of recreational fishers and their catches of fish. This is essential information that recreational fishing groups need to promote their interests, and resource managers need to manage recreational fisheries;
- Commercial fishers' quotas give them a stronger legal claim on the catch, which is likely to leave recreational fishers in a weak position as their demands grow. Moreover, recreational fishers are left with no means of increasing or adjusting their share of the catch;
- Recreational fishing is vulnerable to the charge that only commercial fishers contribute to the cost of fisheries management.

In addition, present arrangements leave recreational fishers with no qualification to participate with quota-holders in collective management pursuits of the kind I propose later in this report.

Ultimately, the solution is to make recreational fishing congruent with the quota management system, by allocating the recreational share as explicit quota. The quota assigned to recreational fishers could be held on their behalf by central or local government, though I suspect that new organisations based on fisheries management areas, and modelled on Fish and Game Councils, would be able to organise and advance recreational interests most effectively. Recreational catches can be monitored by means of periodic surveys.

> *"Recreational fishing is a cherished, traditional activity making a contribution to the social and economical well-being of New Zealand."*
>
> *NZ Recreational Fishing Council*

This proposal is controversial. It is widely supported by those responsible for fisheries management, but it is resisted by many recreational fishers who perceive it as an unwarranted interference with the traditional freedom to fish in the sea without charge or restriction, and who insist that recreational demands should always be accommodated first, before commercial catch levels are determined. The benefits of an explicit recrea-

tional quota, in terms of a more secure share of the harvest and improved resource management, are not yet acknowledged by many recreational fishers, though I have no doubt that, with time, they will be increasingly recognised.

Maori Interests

The Government's freedom to allocate quota rights in the face of Maori claims of ownership has been a subject of protracted and complicated litigation, court rulings and findings of the Waitangi Tribunal. At present, injunctions restrict the Government from applying the quota system to additional species unless certain principles are followed, and Maori concur with the procedure. Until outstanding issues are settled, extension of the quota system will be difficult, and any new quota allocations will probably have to be temporary. However, final solution of the issue of Maori access to the fishery will permit extension of the quota system to the remaining species, and the entrenchment of the rights of Maori and other groups in permanent quota allocations.

> *"We have been making a noise for years about getting access to our fish. Now the ball is in our court and we had to do something. It is our duty to find work for our young people so we are laying the foundations for the people to take up the challenge."*
>
> *Lee Te Moana, Chairman*
> *Runanga o Te Whanau*

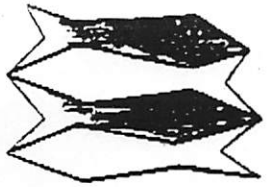
Thus, although much remains to be settled, it appears that Maori interests in commercial fishing can be well accommodated within the quota system. However, Maori rights to take fish in certain traditional ways fall outside the present quota system. Some, but not all of these traditional demands on fish stocks, are taken account of along with recreational interests in determining the catches available to commercial quota-holders.

Traditional rights take several forms, and are administered variously by the Ministry and local Maori elders. Some of these might be more satisfactorily provided for through quota rights. Others, such as traditional shellfish areas, might be better recognised as rights over defined areas, along the lines of the reserves provided for under the *Maori Fisheries Act* or the leases discussed later in this report. Such alternatives can provide more security, and permit traditional rights to be recognised in ways that are better attuned to the property rights approach to fisheries management. Where they cannot be more explicitly defined, they should be recognised along with environmental constraints in the conservation prescriptions proposed in Chapter 5.

Non-Consumptive Interests

It has been suggested that non-consumptive interests in fish could be provided for through the quota system as well. These interests include the intrinsic value of preserving nature, biodiversity, and the integrity of ecosystems. The suggestion is that those who seek to protect these values could do so through the quota system, by purchasing and not exercising rights to exploit fish stocks. One benefit is that the cost of withholding resources from economic use would become apparent.

However, I believe that environmental interests are so varied and diffuse that the Government must take ultimate responsibility for them. I suggest below that this should be done in the process of prescribing conservation objectives and ground-rules for fisheries. This need not preclude interest groups from going further and acquiring exploitation rights from fishers.



CHAPTER 4

TERMS OF QUOTA RIGHTS, RESTRICTIONS AND CROWN CHARGES

The effectiveness of the quota system as a mechanism for managing fishing depends on the characteristics of the quota rights, the way they are administered and the restrictions on their holders. Experience suggests that some of the present arrangements should be re-examined with a view toward making the system work better.

Initial Allocations

The permanent quota rights already issued present no further problems of allocation. However, I suggested earlier that species now outside the quota system should be brought into it, and that the method of doing this hitherto was creating difficulties. Most importantly, the method should be altered to avoid the incentive to "fish for quota" in anticipation of new quota fisheries.

It is helpful to distinguish between non-quota species which are already being fished and those that are not. For the former, quotas can be allocated most expediently on the basis of the catch histories of existing fishers. If this is done quickly, it will forestall further distortions of fishing effort, and at the same time respect expectations. If Maori issues delay action, the problem would be alleviated by an official declaration that future catches will have no bearing on new quota allocations, and that some other method, such as auctions, will be adopted henceforth.

Quotas for species yet to be fished can best be auctioned. The successful bidders will thus obtain rights to specific percentages of whatever allowable harvest of the species may be set in future. This would provide a simple one-off process for resolving access to these fisheries. It would eliminate "fishing for quota", give the quota-holders strong incentives to develop the fisheries and to prove up stocks in order to establish allowable harvest rates, and it would provide them with the means of association to take on collective management responsibilities. In short, it would ensure the orderly development of resources which are now inadequately managed.

Term of Quota Rights

Most quota rights have been issued with perpetual terms, but the Government recently undertook to issue no more permanent quota until certain Maori concerns were resolved. Since then, special legislation has been adopted to enable rock lobster to be brought into the quota system with quotas carrying limited terms of 25 years.

> *"You cannot make long term investment decisions on the basis of short term access to resources."*
>
> *NZ Fishing Industry Association Inc*

Limited terms reduce the security and value of fishing rights. They also reduce the incentive of quota-holders to conserve and enhance stocks, and to undertake long-term investments in the fisheries, especially as the terms approach expiry. These disadvantages are not likely to be outweighed by any public benefit from periodic reallocation of term quotas, especially if the Government maintains its opportunities to purchase and sell permanent quota. Thus, as soon as the issue of Maori entitlement can be resolved, it will be advantageous to resume the practice of issuing new quotas with perpetual terms.

Proportionate Versus Specific Quota

Until 1989, quotas were denominated in specific quantities of fish, usually in tonnes. It was expected that the Government would raise revenue by auc-

tioning additional quota as information about stocks accumulated and allowable catches increased, and if reductions were necessary the Government would purchase quota back. However, when it became clear that the productivity of orange roughy stocks had been significantly overestimated, the cost of effecting the needed reduction in catches by purchasing quota was considered unmanageable (the idea of keeping revenues from quota sales in a revolving fund for such purposes having been rejected when the policy was originally designed). To solve the problem, all quotas were changed to *percentages* of the total allowable catch, so that total catches could be adjusted without requiring the Government to intervene as a buyer or seller in the quota market.

Percentage quota, as it is now administered, has two significant disadvantages over specific tonnages. One is that it is much less certain and secure; hence it is a less valuable property right. The second is that it puts the responsibility for making adjustments to allowable catches on the Government, while the costs and benefits of adjustments are borne by quota-holders. This division of responsibilities inevitably creates conflict.

On the other hand, percentage quota can advance the policy objective of engaging those who hold fishing rights in the responsibilities of resource management. By assigning quota-holders defined shares not only in the current catch but also in all potential yields, percentage quota gives them strong incentives to support good management, research and enhancement.

In any event, percentage quotas are now widely accepted. Accordingly, in Chapter 5, I suggest arrangements to take advantage of the incentives of quota-holders to support resource management, and at the same time to alleviate the present dichotomy of responsibilities between decision-making and cost-bearing.

Restrictions on Quota-Holders

Quota-holders are restricted in the amount of quota any one may hold: generally to not more than 35 percent of the total commercial quota in offshore fisheries and 20 percent in inshore fisheries (though the limit for rock lobster is 10 percent). Another restriction is that quota-holders must be citizens of New Zealand. (Corporations holding quota must be at least 75 percent owned by New Zealanders.)

Both of these restrictions raise issues of general economic policy, extending well beyond fisheries management, which I cannot deal with in this review. However I can offer two comments. One is that restrictions of any kind tend to lower the value of quota, so it is important to ensure that they are effective in their intended purpose. The purpose of restricting the amount of quota held is apparently to protect small fishing enterprises from large, and the purpose of the restriction on foreign holders is to maintain domestic control of the fishery. Recent trends in the structure of the fishing industry suggest that the intended effect of these restrictions has been limited and that there may be more effective means of achieving the desired results.

My second observation is that these restrictions bear on issues of general economic policy, having to do with the concentration of industry, and foreign investment and control. Accordingly, they would seem to be better dealt with, and more consistently incorporated into economic policy, in the *Commerce Act* rather than in fisheries legislation.

Restrictions on Pledging Quota

Quota-holders seeking to borrow money face formidable obstacles in using quota rights as collateral. The Government cannot guarantee the integ-