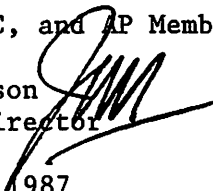


M E M O R A N D U M

TO: Council, SSC, and AP Members

FROM: Jim H. Branson
Executive Director 

DATE: December 2, 1987

SUBJECT: Halibut Management

ACTION REQUIRED

Approve allocative measures for halibut fisheries in Areas 4C and 4E.

BACKGROUND

The Council directed the Halibut Management Team, at the September meeting, to prepare analyses of proposals to continue allocative regulations promulgated last year by the IPHC for halibut fishing near the Pribilof Islands and Nelson Island (Areas 4C and 4E, respectively). The MT has prepared an environmental assessment/regulatory impact review/initial regulatory flexibility analysis [item C-4(a)] for those proposals as well as reasonable alternatives.

The alternative allocative regimes for Areas 4C and 4E include:

Alternative 1 - Status Quo continuing the trip limit and vessel clearance requirements previously established by the IPHC. This alternative requires action by the Council to reaffirm those regulations.

Alternative 2 - Remove Allocative Regulations eliminating preferential allocation to local fishermen of the Pribilof Islands and the Nelson Island area. This alternative does not require specific action by the Council.

Alternative 3 - Local Fishery Priority allowing local fishermen in Areas 4C and 4E to capture a certain percentage of the overall catch limit before nonlocal fishermen may begin to harvest in the respective areas. This option could eliminate the need for day on-day off and clearance regulations for nonlocal boats.

Alternative 4 - IPHC Implementation of NPFMC Allocation for which the Council would only determine what percentage of the area catch limit should be allocated to local fishermen, and the IPHC would implement appropriate regulations to accomplish such an allocation within their otherwise conservation-based management regime.

The Council should choose which alternative is preferred and approve release of the EA/RIR/IRFA for Secretarial review and implementation. At its meeting on January 25-28, 1988, the IPHC will adopt their own regulations for the halibut fishery and will have had time to analyze the Council's actions and incorporate them as necessary for prudent management of the fishery. Both IPHC and Council regulations should be implemented by the start of halibut fishing in early April 1988 (see attached schedule).

NPFMC'S HALIBUT REGULATION SCHEDULE

- Step 1 August 15 Publically announce cycle for halibut regulations and release a call for regulatory proposals (except for proposals specifically dealing with harvest quotas).
- Step 2 September 15 Deadline for receiving regulatory proposals. Initial review by management team (MT).
- Step 3 September 17 Halibut RAAG (regulatory amendment advisory group, similar to PAAG for groundfish plan amendment review) reviews proposals and team recommendations:
- Step 4 September 23 At the September Council meeting the Council reviews recommendations of the Halibut RAAG and team, and drops or approves regulatory proposals, and possibly adds proposals of their own.
- Step 5 October 15 MT submits a Notice of Availability (NOA). NOA is published in the Federal Register for 30-45 days of public comment.
- **Step 6 December 9 At the December Council meeting the Council reviews public comments, further MT analyses, comments from IPHC, and takes final action on regulatory proposals. IPHC is notified of Council action and asked to consider any changes in their regulations that might be needed to implement Council measures.
- Step 7 December 20 Send final package to Secretary of Commerce for action. SOC reviews, approves/disapproves/amends, and publishes a Notice of Proposed Rule Making (NPRM) in 30 days.
- Step 8 January 20 NPRM 30-day comment period begins. IPHC meets late January, can comment to SOC on Council actions. Bio/conservation regs they develop will be implemented at approximately the same time as Council regs -- mid-April.
- Step 9 February 20 SOC prepares a Final Rule Making package (FRM).
- Step 10 March 10 FRM is published in the Federal Register.
- Step 11 April 10 Regulations become effective; published in IPHC regulatory package.

DRAFT

ENVIRONMENTAL ASSESSMENT
AND
REGULATORY IMPACT REVIEW/INITIAL REGULATORY FLEXIBILITY ANALYSIS
OF
MANAGEMENT PROPOSALS
FOR THE
HALIBUT FISHERY OFF ALASKA
(specifically Regulatory Areas 4C and 4E)

Submitted by the
North Pacific Fishery Management Council

Prepared by the
Halibut Management Team
and Staff of the
North Pacific Fishery Management Council

December 1987

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1.0 INTRODUCTION

The North Pacific Fishery Management Council has established an annual cycle for considering proposals to amend regulations for the halibut fishery off Alaska. Pursuant to the Northern Pacific Halibut Act of 1982 and responding to a request from the National Marine Fisheries Service, the Council will consider allocative, or socioeconomic, regulations while leaving biological, or conservation-based, regulatory measures to continued action by the International Pacific Halibut Commission (IPHC).

The Council solicited amendment proposals in July 1987, and by September 15 had received 73 which were then reviewed and evaluated by the Council's Halibut Management Team (MT) and Halibut Regulatory Amendment Advisory Group (RAAG). At its meeting on September 23-25, 1987 the Council reviewed the recommendations of the Halibut MT and RAAG, and decided to consider, during this amendment cycle, only those allocative measures adopted recently by the IPHC for the Pribilof Islands and Nelson Island (Regulatory Areas 4C and 4E, respectively). These previous actions for Areas 4C and 4E may not be continued by the IPHC, considering their allocative nature, and therefore require Council approval if they are to remain in effect.

In October 1987 the Council released a draft of this environmental assessment/regulatory impact review/initial regulatory flexibility analysis and received no public comments during a thirty day review period noticed in the Federal Register.

1.1 Proposed Regulatory Amendments

At the Council's meeting in September 1987, two amendment proposals were approved for further analysis and public review. These proposals constitute a continuation of the status quo for Regulatory Areas 4C and 4E:

- (a) Pribilof Islands - retain existing allocative management measures for Regulatory Area 4C.
- (b) Nelson Island - retain existing allocative management measures for Regulatory Area 4E.

Maintaining the status quo requires that the Council approve those "allocative" measures adopted in recent years by the IPHC. Although it may be debatable that even the designation of Areas 4C and 4E had allocative effects, this analysis assumes that the IPHC remains empowered to specify regulatory areas, as well as catch limits, size limits, licensing requirements, and other established management measures. This analysis will concentrate upon:

- (a) Fishing periods as they relate to allocation in Areas 4C and 4E,
- (b) Vessel clearance and hold inspections as they relate to allocation in Areas 4C and 4E, and
- (c) Trip limits as applied in Area 4C, and proposed for 4E.

This analysis also explores two alternatives wherein the Council would more directly allocate proportions of the available catch limits to local fishermen in Areas 4C and 4E, and allow the IPHC to establish appropriate regulatory measures, within their conservation-based management regime, to accomplish those allocations.

1.2 Purpose of the Document

This environmental assessment (EA) and regulatory impact review (RIR) provides background information and assessments necessary for the Secretary of Commerce to determine that proposed regulatory actions are consistent with the Northern Pacific Halibut Act, the Magnuson Fishery Conservation and Management Act, and other applicable federal law, such as the National Environmental Policy Act (NEPA), the Regulatory Flexibility Act (RFA), and Executive Order 12291.

1.2.1 Environmental Assessment

The specific purpose of an EA is to analyze the potential impacts of proposed actions, and reasonable alternatives, on the quality of the human environment. If the action is determined not to be significant, then the EA will result in findings of no significant impact (FONSI); this EA would then be the final environmental document required by NEPA. If, however, a FONSI cannot be made, then a more detailed environmental impact statement (EIS) must be prepared.

1.2.2 Regulatory Impact Review

The purpose of a RIR is to analyze several socioeconomic aspects of proposed regulatory actions, to assure that such actions enhance the public welfare in an efficient and cost-effective manner. The RIR also serves as a basis for determining whether the proposed regulations are "major" under criteria provided by E.O. 12291 and whether they will have a significant economic impact on a substantial number of small entities in reference to the RFA.

1.3 Structure of the Document

This document combines the EA/RIR for each of the two proposals into Chapter 2 (Allocation in Regulatory Area 4C) and Chapter 3 (Allocation in Regulatory Area 4E). Within each chapter, the proposals and reasonable alternatives are discussed first in general terms, then in terms of environmental concerns, and finally in socioeconomic terms. For each of the two regulatory areas, the relative environmental and economic impacts of the various alternatives are evaluated according to the following general protocol: first, the impacts expected under Alternative 1 (Status Quo) are discussed in relation to the impacts that would be expected under Alternative 2 (Remove Allocative Regulations). Then, the impacts expected under Alternatives 2-4 are discussed in relation to the status quo (Alternative 1). Chapter 4 discusses the alternative actions in relation to other applicable law. Chapter 5 presents draft regulatory language necessary to implement the proposals.

1.4 Background Information

Halibut Regulatory Area 4 was subdivided in 1983 with a separate catch limit for 4C to allow the Pribilovians and Nelson Islanders an opportunity to develop a halibut fishery. The opening regime then was four days on/one day off, with a vessel clearance requirement in Dutch Harbor between openings for vessels that fished in 4C. The clearance requirement did not apply to residents of 4C.

In 1984 Area 4C was subdivided to create Area 4E, resulting in area designations used for 1984-87 (Figure 1). A catch limit of 50,000 pounds was established along with a two-day on/one day off regime for the new area. In that year, 4C openings were reduced to one day on/one day off. Vessel clearances in Dutch Harbor between openings in 4C and 4E were required for fishermen who were not residents of those areas. The separate regime was created for 4E in 1984 to insulate the Nelson Island fishery from any impacts caused by large boats fishing around the Pribilofs. Also, the opening regime in 4C was modified to make that fishery less attractive to nonlocal fishermen.

A trip limit provision for Area 4C was adopted at the 1987 IPHC meeting with the stated reason that the U.S. Department of Commerce had a trust relationship with the Pribilovians and, therefore, was duty-bound to create an economy there to replace the fur seal harvest. As adopted by the Commission, the 10,000 pound trip limit was to have applied until 40% of the area catch limit was harvested. Under threat of lawsuit, NOAA/NMFS altered the regime so that it applied only until 25% of the catch limit was taken and promised not to try to implement such regulations through the IPHC again.

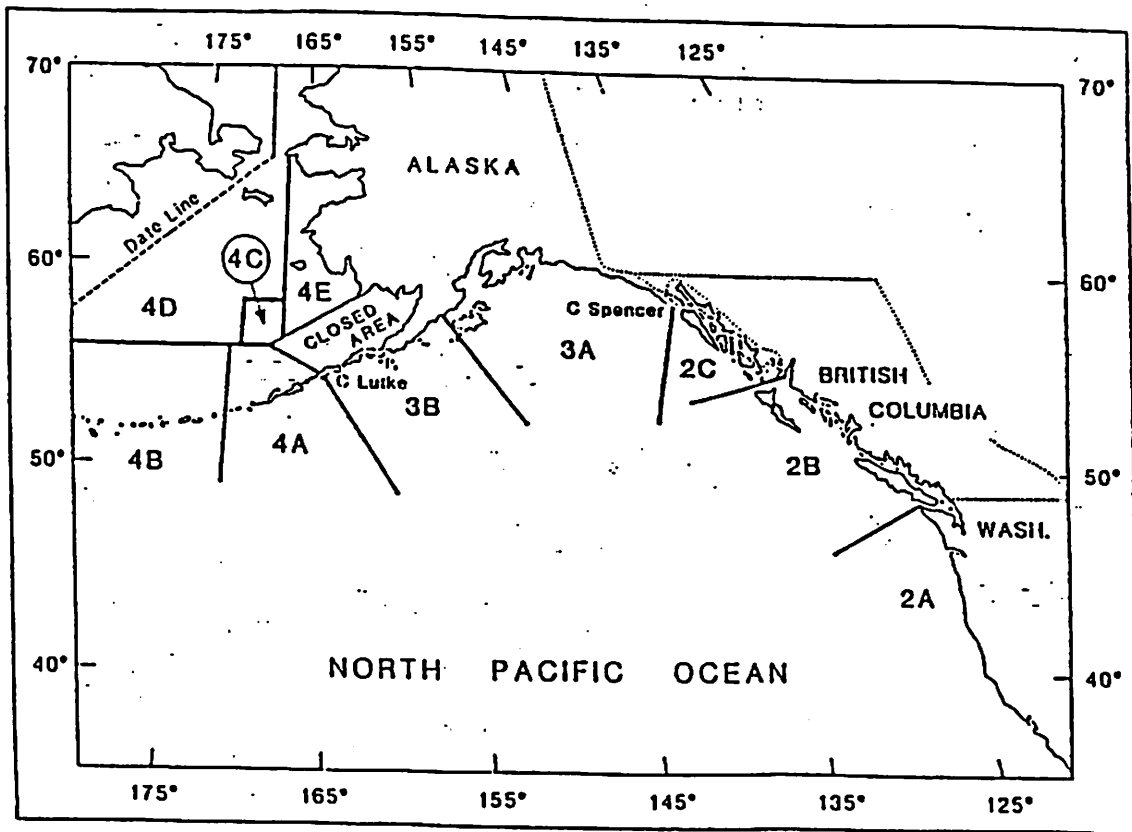
Until recently, eastern Bering Sea villagers have only caught halibut for subsistence purposes. They previously lacked the vessels, gear, and access to markets that would allow commercial harvest of the resource.

Within the past few years villagers in IPHC Area 4C have begun commercially harvesting halibut as part of an effort to develop local economies. Because the villages lack harbor facilities, these fishermen have mostly been using small vessels (less than 5 net ton) that can be hauled ashore at the end of each fishing trip. The villagers fish within 12 miles of their village communities, conducting mostly a day fishery. Below is a brief description of the history of the commercial fishing efforts in each village community.

Residents of St. George Island began commercial harvesting halibut in 1982 when 20 fishermen using 10 skiffs (14-18 ft.) and hand-jigs landed over 14,500 pounds. The fish were purchased from the fishermen by the village corporation, St. George Tanaq, and brokered to Taiyo Fisheries Company, Ltd. In 1983, 32 fishermen, most of whom used hand-jigs, landed over 94,000 pounds of halibut. These fish were processed on the island and shipped to markets outside Alaska. St. George Tanaq has spent over \$800,000 for the construction of a fish processing plant that has a 500,000 pound freezer storage capacity.

The halibut fishery at St. Paul Island began as a demonstration project in 1981. Forty villagers fishing hand-jigs from skiffs landed over 10,000 pounds of halibut. Two 29-ft. boats rigged with longline gear were used as training vessels and landed another 8,000 pounds. Most of the product from the first year was sold in the Anchorage area. In 1982, only 12 local residents harvested halibut during the mercial season. Because the weather was too rough for their small skiffs, they were only able to fish a few days and landed approximately 4,000 pounds. The 1983 fishery at St. Paul saw a substantial expansion in the number of fishermen participating, to over 40, and the total landings, to 59,000 pounds. While most fishermen used hand-jigs from skiffs, by the end of the season eight vessels 29 ft. and over were being used to fish longline gear. St. Paul fishermen sell their halibut to Tanadgusix Village Corporation. The catch is processed on the island at a small freezing plant (200,000 pounds holding capacity) and then shipped to markets in the Los Angeles area.

Figure 1



IPHC Regulatory Areas

The residents of Toksook and Tununak on Nelson Island initiated a commercial halibut fishery in 1982. During that year, 35 villagers fishing out of skiffs with manually-operated hook-and-line gear landed approximately 11,000 pounds of halibut. In 1983, 42 fishermen participated in the fishery harvesting approximately 15,000 pounds. Halibut harvested by the Nelson Islanders is marketed through the Nelson Island Fisheries Association and sold primarily within the state of Alaska. Approximately 60 percent of the product is sold in Nome, Bethel and Dillingham with the remainder marketed in Anchorage and Fairbanks.

The following tables provide a summary of the halibut fishery in Areas 4C and 4E.

HALIBUT FISHERY PROFILE
AREA 4C (PRIBILOF ISLANDS)

Fishing Days	Year	Outside Vessels		Local Vessels		
		Vessels	Pounds	Vessels	Pounds	
36	1979	5	150,726			
44	1980	3	92,058			
42	1981	6	278,534	11	19,263	St. Paul
27	1982	7	224,884	7	4,047	St. Paul
				14	14,584	St. George
32	1983	4	258,345	30	59,792	St. Paul
				24	97,084	St. George
33	1984	5	329,999	15	142,285	St. Paul
				18	107,440	St. George
24	1985	8	349,357	12	143,350	St. Paul
				16	126,999	St. George
18	1986	13	564,971	8	78,025	St. Paul
				8	43,189	St. George
6	1987*	20	614,709	10**	213,016	St. Paul
				8**	50,392	St. George

*Preliminary

**Includes 1 large boat.

HALIBUT FISHERY PROFILE
AREA 4E (NELSON ISLAND)

Fishing Days	Year	Outside Vessels*		Local Vessels	
		Vessels	Pounds	Vessels	Pounds
42	1981	1	3,998		
27	1982			32	7,189
32	1983			65	14,465
110	1984	1	1,861	73	33,387
108	1985	1	8,803	67	27,244
48	1986	3	3,708	59	39,323
30	1987**	4	13,383	102	76,473

*Includes Dillingham vessels.

**Preliminary

2.0 ALLOCATION IN REGULATORY AREA 4C

Regulatory Area 4C was originally established in 1983, and was given a separate catch limit to allow local residents an opportunity to develop a halibut fishery without strong competition from outside of the area. The regulatory area, with its separate catch limit, also served a conservation function by isolating the management of catch in this region from the catch in others. Area 4C was further subdivided in 1984, leaving Area 4C as a small region immediately surrounding the Pribilof Islands and creating Area 4E along the eastern portion of the Bering Sea near Nelson Island northward (see Figure 1). This proposal addresses the current Area 4C, immediately surrounding the Pribilof Islands.

Pertinent regulations specific to management in Area 4C are found in 50 CFR, Sections:

- 301.4 (h) designating the regulatory area,
- 301.5 (a) designating fishing periods for Area 4C,
- 301.9 designating trip limits for Area 4C,
- 301.12 (b,h) requiring vessel clearance and hold inspections for Area 4C, and
- 301.15 (h) exempting Area 4C from 72-hour pre-period fishing restriction.

2.1 Alternative 1 - Status Quo in Area 4C

This alternative, although labeled the status quo, requires Council action because existing allocative regulations likely will not be continued by the IPHC. Existing regulations call for "one-day-on, one-day-off" fishing periods, and for non-local vessels fishing in 4C to be cleared in Dutch Harbor or Akutan, approximately 500 miles round-trip from the Pribilofs, between each trip. Also, current regulations impose a trip limit of 10,000 pounds per vessel until such time as 25% of the area's catch limit is taken.

Analysis of the environmental and economic impacts of this alternative was based on a model developed by the Halibut Management Team. The model assumes that the Commission will impose season closure in a timely manner which minimizes the deviation of the total catch from the area catch limit. The model further assumes that the IPHC will re-institute a 600,000 lb. catch limit for this area in 1988. Other model inputs, derived from data provided by the IPHC, are: (1) size of the non-local fleet in 1987 = 20 vessels; (2) unconstrained catch rate for non-local vessels = 24,000 lbs. per vessel-day; (3) constrained catch rate for the local fleet = 32,000 lbs. per day; (4) unconstrained catch rate for the local fleet = 64,000 lbs. per day. The difference between the unconstrained and constrained catch rates for the local fleet is due primarily to catches taken by two large vessels operating as Pribilovian vessels.

The model was used to evaluate a total of 54 cases, which involved three trip limits (5,000, 10,000, and 15,000 lbs.), three fractions of the catch limit to which the trip limit would be applied (0%, 25%, and 50%), three levels of fishing effort (100%, 125%, and 150% of 1987 effort), and two scenarios dealing with the non-local fleet's response to trip limits. The first scenario assumed that the non-local fleet would respond to trip limits in a

Table 1. Area 4C projections. Catches given in 1000's of lbs.

Trip Limit:	-----5-----			-----10-----			-----15-----		
% of Catch Limit:	0	25	50	0	25	50	0	25	50

Scenario 1-----

Season Length

Days (max)	2	4	7	2	4	5	2	2	4
(min)	1	3	4	1	2	3	1	2	3

Catch

Local (max)	112	220	280	112	180	200	112	144	168
(min)	60	160	192	60	144	144	60	96	120
Non-Local (max)	720	780	600	720	700	560	720	612	528
(min)	480	368	120	480	448	240	480	408	300
Total (max)	792	972	856	792	880	760	792	756	688
(min)	592	528	312	592	624	384	592	504	420

Scenario 2-----

Season Length

Days (max)	2	3	4	2	3	4	2	2	2
(min)	1	2	4	1	2	2	1	2	2

Catch

Local (max)	112	144	240	112	160	160	112	144	144
(min)	60	120	144	60	120	100	60	96	96
Non-Local (max)	720	580	300	720	680	400	720	450	450
(min)	480	125	200	480	250	250	480	300	300
Total (max)	792	708	540	792	840	560	792	594	594
(min)	592	245	344	592	370	350	592	396	396

Both Scenarios-----

Season Length

Days (max)	2	4	7	2	4	5	2	2	4
(min)	1	2	4	1	2	2	1	2	2

Catch

Local (max)	112	220	280	112	180	200	112	144	168
(min)	60	120	144	60	120	100	60	96	96
Non-Local (max)	720	780	600	720	700	560	720	612	528
(min)	480	125	120	480	250	240	480	300	300
Total (max)	792	972	856	792	880	760	792	756	688
(min)	592	245	312	592	370	350	592	396	396

manner similar to that observed in 1987, in which a portion (estimated in the model as 40%) of the fleet participated in the fishery under the trip limit, while the remainder of the fleet deferred participation until the trip limit was removed. The second scenario assumed that the entire fleet would participate in the fishery throughout the season.

Table 1 on the following page summarizes the results of these projections. In the first two sections of Table 1, the projections are summarized in terms of season length (number of one-day openings) and catches accruing to both local and non-local vessels for each scenario, trip limit, and catch limit percentage. Maximum and minimum values are given for each result. The third section in Table 1 considers maximum and minimum values bounding both scenarios simultaneously. The center column (10,000 lb. trip limit applied to the first 25% of the catch limit) corresponds to the status quo.

The discrete nature of the problem causes the results of this analysis to be somewhat confusing. Because the catch is taken in large increments and because it is usually not possible to equate catch with catch limit exactly, the consequences of different management strategies do not always vary in a smooth or intuitive fashion. For example, non-local vessels may actually obtain a higher total catch under a 5,000 lb. trip limit applied to the first 25% of the catch limit than under no trip limit at all (Scenario #1, "max" values). In general, however, the results tend to reinforce the following intuitive conclusions: (1) imposing higher trip limits lead to shorter seasons, lower catches for local vessels, and higher catches for non-local vessels; and (2) applying the trip limits to higher percentages of the catch limit leads to the reverse.

Considering the variability exhibited within any given column of Table 1, it is clear that the impacts of these regulatory schemes vary in a complex fashion, and are highly dependent on two factors: (1) the behavioral response of the non-local fleet to the imposition of trip limits (Scenario #1 vs. Scenario #2), and (2) the increase in fishing effort from 1987 to 1988. Since both of these factors are difficult to predict, model projections will generally be presented as ranges throughout this document.

2.1.1 Environmental Impacts

Environmental impacts of continuing the current management practices are considered insignificant, particularly since both the overall and area-by-area harvests of halibut are controlled by a catch limit system established by the IPHC for conservation of the resource. If trip limits were instituted for the duration of the season, there might be some benefit to the environment stemming from a reduced risk of over- or under-harvest that results when, as in the 4C halibut fishery, the unconstrained daily catch rate is close to the season catch limit (544,000 lbs. vs. 600,000 lbs., respectively, assuming 1987 effort levels). However, model projections indicate that when the trip limit in 4C applies only to the first part of the season, the effect tends to be the opposite: if the trip limit is removed after a significant catch has already been taken, it is likely that the catch limit will be missed by a greater margin. Also, when the trip limit applies only to the first part of the season, model projections indicate that the extent of over- or under-harvest tends to increase as the size of the trip limit decreases. Nevertheless, the

likely magnitude of such errors is small enough that no significant impact on the environment is expected.

2.1.2 Economic Impacts

In calculating the economic impacts of this alternative, output from the model was supplemented by the following economic inputs: (1) cost of operating a small local vessel for a single opening = \$300; (2) cost of running a vessel from the Pribilofs to Dutch Harbor and back (to meet clearance requirements) = \$1,000; (3) cost of operating a non-local vessel for a single opening while the trip limit is in effect (net of clearance costs, above) = \$2,000; (4) cost of operating a non-local vessel for a single opening after the trip limit has been removed (also net of clearance costs) = \$3,900; (5) average Pribilof price per lb. = \$1.00; and (6) average Dutch Harbor price per lb. = \$1.40. Given these inputs, Alternative 1 can be discussed in terms of its economic impacts on fishermen, processors, and consumers. Impacts on both fishermen and processors, in turn, can each be discussed in terms of local and non-local participants.

(A) Local Fishermen. For local fishermen, current regulations can be expected to affect both revenues and costs. On the revenue side, major impacts come from changes in the expected catch. Model projections indicate that local fishermen should catch between 48,000 and 120,000 lbs. more under current regulations than in the absence of any special regulations (Alternative 2). Assuming an average Pribilof price of \$1.00 per pound, this implies a revenue increase ranging from \$48,000 to \$120,000. On the cost side, major impacts stem from the longer seasons that tend to result from current regulations. Model projections indicate that cost increases should range from \$7,600 to \$19,000 over what could be expected in the absence of any special regulations. Given these revenue and cost projections, the economic impact resulting from the current regulations (compared to Alternative 2) should be a positive net benefit to local fishermen ranging in amount from \$40,400 to \$101,000.

(B) Non-Local Fishermen. The likely economic impact of current regulations on non-local fishermen is more difficult to estimate. As with local fishermen, the central impact on non-local fishermen's revenue pertains to the current regulations' effect on the catch distribution. However, because of the problems involved in trying to match catch with catch limit in the 4C halibut fishery, this effect can vary both in its direction and its magnitude. Model projections indicate that current regulations may actually result in increased catches to non-local fishermen, although a decrease is more likely. The projections show possible impacts ranging from a 420,000 lb. decrease to a 200,000 lb. increase relative to catches likely to occur in the absence of any special regulations. Assuming an average Dutch Harbor price of \$1.40 per pound, this implies a shift in revenue ranging from a loss of \$588,000 to a gain of \$280,000.

Cost impacts on non-local fishermen take two forms. First, increased operating costs may be forced onto non-local fishermen choosing to fish in 4C by virtue of the clearance required in Dutch Harbor or Akutan between fishing periods. Model projections indicate that clearance requirements should result in a cost impact ranging from no change to a \$20,000 increase.

The second form of cost impact involves actual operating costs, i.e. costs other than those imposed by the clearance requirement. Impacts on operating costs involve the effect of current regulations on the number of fishing trips and on the level of effort deployed during each trip. Current regulations tend to lengthen the season, which, considered in isolation, would tend to increase costs to non-local fishermen by increasing the number of days fished. However, since the trip limit restricts the amount of effort that can be deployed by a vessel during the first part of the season, current regulations might also have a tendency to decrease costs (e.g. smaller bait and equipment costs might be accrued while the trip limit is in effect). Model projections indicate that current regulations should cause a shift in operating costs ranging from an increase of \$40,000 to a decrease of \$57,000.

Considering the above revenue and cost effects simultaneously, the current regulations should result in a net economic impact on non-local fishermen ranging from a loss of \$531,000 to a gain of \$240,000. Although this range includes possible net gains as well as possible net losses, model projections indicate that a net loss is more likely. By far the largest contributor to this net impact is the effect of current regulations on the distribution of harvest between local and non-local fishermen.

Although the above analysis indicates that the net benefit (in absolute terms) accruing to local fishermen from current regulations may be outweighed by the net cost to non-local fishermen, two other factors should be kept in mind. First, the above analysis assumes only two possibilities: fishing under current regulations and fishing without any special regulations. However, for non-local fishermen at least, there is another possibility regardless of which regulatory regime is adopted in 4C, namely the alternative of participating in a different fishery altogether. By definition, non-local participants in the 4C fishery are relatively mobile. Thus, potential costs implied by current regulations may not be fully realized if non-local fishermen opt to deploy their effort in an alternative fishery. This is especially likely to occur if the IPHC decides to structure the season with concurrent openings in different regulatory areas. On the other hand, the vast majority of local fishermen are basically non-mobile, and do not have the option of participating in the range of alternative fisheries open to non-local fishermen.

The second factor is that while the net economic impacts of current regulations may appear to be negative in absolute terms, the result might be different if these impacts were weighted relative to the average incomes of local vs. non-local fishermen. While most of the non-local fishermen are able to earn a significant portion of their living by fishing in other regulatory areas, or by participating in other fisheries or occupations altogether, this is not so true of local fishermen. Thus, it is conceivable that the relative benefits accruing to local fishermen are more significant than the relative costs imposed on non-local fishermen.

(C) Local Processors. Economic impacts of current regulations on local processors are difficult to quantify. Last year's experience indicates that local processors suffered to some extent from the clearance requirement imposed upon non-local fishermen. This requirement prevented local processors from obtaining fish caught by non-local fishermen during the portion of the season governed by the trip limit, since these vessels had to be inspected in Dutch Harbor or Akutan and would tend to sell their catches there. However,

this loss was offset to a small extent by higher local catches than would have occurred in the absence of any special regulations.

(D) Non-Local Processors. As with local processors, economic impacts of current regulations on non-local processors are difficult to quantify. Generally, non-local processors obtain their fish from non-local fishermen. While the total harvest by non-local fishermen may be less under current regulations than in the absence of any special regulations, the proportion of such harvest processed by non-local processors is higher, due to the vessel clearance requirement. Thus, the net economic impact on non-local processors resulting from the catch redistribution is somewhat ambiguous. Current regulations could also have a slight positive economic impact by spreading the harvest over a longer period of time.

(E) Consumers. The economic impact of current regulations on consumers is probably insignificant, particularly since a small percentage change in price paid for the Area 4C catch is negligible compared to prices paid elsewhere for the entire Pacific halibut catch limit of over 60 million pounds. Current regulations could have a slight positive economic impact by spreading the harvest over a longer period of time, thus improving product quality and extending the time over which fresh product is available.

2.2 Alternative 2 - Remove Allocative Regulations in Area 4C

Inaction by the Council likely will result in repeal of the current allocative regulations, including trip limits and vessel clearance requirements, promulgated originally by the IPHC.

2.2.1 Environmental Impacts

As with Alternative 1 (Status Quo), the potential environmental impacts resulting from such a repeal are considered to be insignificant. Removal of current regulations might have a slight positive impact on the environment, since harvests should then be less difficult to manage within conservation-based catch limits. Furthermore, any possible adverse environmental impacts resulting from removal of the current regulations would not be unique to the Pribilofs, and are handled routinely without such specifically allocative regulations in other areas by the IPHC.

2.2.2 Economic Impacts

Economic impacts of simply repealing current regulations are more pronounced, and are generally converse to those discussed under Alternative 1 (Status Quo). Impacts on season lengths and catches can be examined by comparing columns 4 and 5 in Table 1 (10,000 lb. trip limit applied to 0% of the catch limit vs. 10,000 lb. trip limit applied to 25% of the catch limit). Removal of current regulations would likely result in a transfer of harvest revenue from local fishermen to non-local fishermen (an impact on local revenue ranging from a decrease of \$48,000 to a decrease of \$120,000, and an impact on non-local revenue ranging from a decrease of \$280,000 to an increase of \$588,000). The season would likely shorten, with possible savings in operating costs an impact on local operating costs ranging from a decrease of \$7,600 to a decrease of \$19,000, and an impact on non-local operating costs ranging from a decrease of \$40,000 to an increase of \$57,000). Non-local fishermen would

be saved the cost of complying with current clearance requirements (an impact on non-local clearance costs ranging from no change to a \$20,000 decrease).

Simple estimates of direct costs and benefits indicate that removal of current regulations should tend to impose a net loss on local fishermen and a net gain on non-local fishermen, with the latter tending to outweigh the former (model projections: a net impact on local fishermen ranging from a decrease of \$40,400 to a decrease of \$101,000, and a net impact on non-local fishermen ranging from a decrease of \$240,000 to an increase of \$531,000). However, these results should be viewed in light of the limited alternative fisheries available to local fishermen, and in light of local fishermen's limited incomes.

As with Alternative 1 (Status Quo), impacts on local and non-local processors may be somewhat offsetting, with local processors benefiting and non-local processors losing under this alternative. Impacts on consumers should be insignificant.

2.3 Alternative 3 - Local Fishery Priority in Area 4C

A distinct allocation could be made by not opening the regulatory area to non-local fishermen until such time as local fishermen have captured a certain proportion of the catch limit. In 1987, local fishermen captured approximately 30% of the harvest in Area 4C. A status quo allocation under this alternative might be achieved by allowing local fishermen sole access to halibut within Area 4C until they had captured at least 15% of the catch limit, at which time the area would be opened to all fishermen. Once the area were opened to non-local fishermen, the overall catch limit would likely be taken in one more day of fishing, depending on other regulatory measures adopted by the IPHC. Model projections indicate that, under a reasonable variety of effort levels, this last opening should be sufficient to result in a total catch by local fishermen equal to at least 30% of the catch limit (Table 2).

Table 2. 1988 season projections under Alternative 3.

% of '87 Effort	Season Length	-----Catch (lbs)-----		
		Local	Non-Local	Total
100	2+1=3 days	192,000	480,000	672,000
125	2+1=3 days	240,000	600,000	840,000
150	1+1=2 days	192,000	720,000	912,000

2.3.1 Environmental Impacts

As with Alternative 1 (Status Quo) and Alternative 2 (Remove Allocative Regulations), environmental impacts of this alternative are considered insignificant, since both the overall and area-by-area harvests of halibut are controlled by IPHC catch limits for conservation of the resource. As with Alternative 1, however, there may be a greater risk (relative to

fishery is delayed until after a significant catch has already been taken. Nevertheless, the likely magnitude of such errors is small enough that no significant impact on the environment is expected.

2.3.2 Economic Impacts

As with Alternative 1 (Status Quo), economic impacts can be discussed in terms of fishermen (local and non-local), processors (local and non-local), and consumers...

(A) Local Fishermen. Model projections indicate that even though current regulations resulted in local fishermen taking 30% of the catch in 1987, they may be unable to take 30% of the catch limit in 1988 due to increased competition. Projections show, in fact, that the catch taken by local fishermen in 1988 may fall to as little as 20% of the catch limit under current regulations (Table 1). Relative to Alternative 1 (Status Quo), then, this alternative should result in higher revenues for local fishermen. Model projections indicate that, relative to Alternative 1, the impact of this alternative on revenue to local fishermen should range from an increase of \$16,000 to an increase of \$120,000.

However, costs to local fishermen may also tend to be higher under this alternative than under Alternative 1, since the two large local vessels will incur the additional costs associated with fishing at the unconstrained rate. Model projections indicate that, relative to Alternative 1, the impact of this alternative on costs to local fishermen should range from no change to an increase of \$15,200.

In terms of net economic benefits to local fishermen, model projections indicate that the impact of this alternative should range from an increase of \$16,000 to an increase of \$104,800 relative to Alternative 1.

(B) Non-Local Fishermen. With respect to non-local fishermen, model projections indicate that this alternative should result in economic impacts comparable to those expected under Alternative 2 (Remove Allocative Regulations). Although this result seems counter-intuitive, it follows from the fact that the catch should be reached after a single day of unconstrained fishing by nonlocal fishermen under either Alternative 2 or 3. Relative to Alternative 1 (Status Quo), the impact on revenue should range from a decrease of \$280,000 to an increase of \$588,000. The impact on clearance costs should range from no change to a decrease of \$20,000. The impact on operating costs should range from a decrease of \$40,000 to an increase of \$57,000. The net economic impact should range from a decrease of \$240,000 to an increase of \$531,000. As with Alternative 2, model projections indicate that a net benefit to non-local fishermen is a more likely result of this alternative than a net cost.

(C) Local Processors. By insuring a local harvest equal to 30% of the catch limit and by removing the vessel clearance requirement, this alternative should result in greater net benefits to local processors than either Alternative 1 (Status Quo) or Alternative 2 (Remove Allocative Regulations).

(D) Non-Local Processors. Like Alternative 2 (Remove Allocative Regulations), the impacts of this alternative on non-local processors should be somewhat offsetting. Catches by non-local fishermen will likely increase, but the proportion of those catches delivered to non-local processors may decrease, since the vessel clearance requirement would no longer be in effect. The net effect is difficult to determine.

(E) Consumers. Relative to Alternative 1 (Status Quo), this alternative's effect on consumers is probably insignificant. Since expected season length under this alternative (2-3 days, Table 2) is virtually the same as under Alternative 1 (2-4 days, Table 1), it is unlikely that this alternative would result in noticeable changes in either product quality or availability.

2.4 Alternative 4 - IPHC Implementation of Council Allocation in Area 4C

Another alternative is for the Council simply to allocate a specific minimum proportion of the catch limit to local fishermen and request the IPHC to establish regulations that would attain such an allocation within their otherwise conservation-based management regime. This alternative would allow the IPHC maximum flexibility to manage the halibut fishery, while most simply and directly fulfilling any Council intent to allocate a minimum portion of the resource to local fishermen. Similar to the priority allocation of groundfish to DAP operations, the Council could establish an allocation of the halibut catch limit in Area 4C for local fishermen; non-local fishermen could be prohibited from harvesting more than the difference between the overall catch limit and the allocation to local fishermen. To approximate the 1987 fishery, such an allocation would be set at 30% of the 1988 Area 4C catch limit established by the IPHC.

2.4.1 Environmental Impacts

There are no identifiable environmental impacts associated with this alternative, because the means by which the IPHC would achieve the Council's allocation are unknown. However, since these means would be integrated into a regulatory regime designed to achieve conservation goals, it may be presumed that environmental impacts would be minimal.

2.4.2 Economic Impacts

It is also difficult to quantify the economic impacts, given that the means by which the IPHC would achieve the Council's allocation are unknown. However, relative to Alternative 1 (Status Quo), the economic impacts of this alternative should be roughly equivalent to Alternative 3 (Local Fishery Priority), since Alternative 3 is designed to achieve the same goal. Accordingly, this alternative should result in higher revenues to both local and non-local fishermen than would be expected under Alternative 1, although a decrease in revenues to non-local fishermen is also possible. The possibility of increased revenues accruing to both local and nonlocal fishermen arises from the fact that this alternative tends to result in total catches exceeding the catch limit by a small amount (Table 2). Slightly higher costs should accrue to local fishermen as a result of increased local effort. Non-local fishermen should experience a decrease in clearance costs, although the impact on their operating costs is difficult to determine. Local processors should

experience some benefit, while the impact on non-local processors is difficult to determine. The impact on consumers should be insignificant.

2.5 Summary of Impacts for Area 4C

In summary, environmental impacts are expected to be insignificant under any of the alternatives examined. The economic impacts of the four alternatives vary with respect to the different participants in the fishery, both in terms of their relative preferability and in terms of their likely magnitude. Table 3 presents a rough ranking of the preferability of the four alternatives for each of the five affected groups. In absolute terms, the magnitudes of these impacts should tend to affect the various participants in the following order (from greatest impact to least): (1) non-local fishermen, (2) local fishermen, (3) local processors, (4) non-local processors, and (5) consumers. Again, weight should also be given to the magnitude of these impacts relative to the participants' incomes, in which case the benefits to local fishermen and processors might rank higher.

Table 3. Ranking of alternatives in Area 4C.

-----Rank with Respect to Affected Group-----

Alternative	Local Fishermen	Non-Local Fishermen	Local Processors	Non-Local Processors	Consumers
1	2	3	3	1	1,2
2	3	1,2	2	2,3	3
3,4	1	1,2	1	2,3	1,2

Rank of 1 is most beneficial
Rank of 3 is most detrimental

3.0 ALLOCATION IN REGULATORY AREA 4E

Regulatory Area 4E encompasses the very eastern portion of the Bering Sea (Figure 1), within which the dominant halibut fishery is conducted from villages on Nelson Island. Pertinent regulations specific to management in Area 4E are found in 50 CFR, Sections:

- 301.4 (j) designating the regulatory area,
- 301.5 (a) designating fishing periods for Area 4E,
- 301.12 (c,h) requiring vessel clearance and hold inspections for 4E, and
- 301.15 (h) exempting Area 4E from 72-hour pre-period fishing restriction.

In contrast to the halibut fishery in 4C, the small-scale nature of the fishery in 4E results in a very limited database. Thus, analysis of environmental and economic impacts resulting from alternative regulatory schemes is limited mostly to qualitative considerations.

3.1 Alternative 1 - Status Quo in Area 4E

Continuation of the status quo requires Council action because existing allocative regulations likely will not be continued by the IPHC. Existing regulations call for vessels fishing in Area 4E to be cleared in Dutch Harbor or Akutan between each two-day fishing period. The status quo in 4E is not completely analogous to the status quo in 4C, because the former does not include a trip limit. Thus, analysis of this alternative is divided into two parts: the true status quo (Alternative 1), and the status quo plus a trip limit (Alternative 1b).

3.1.1 Environmental Impacts

Environmental impacts of this alternative are expected to be basically the same as for Alternative 1 in 4C; the central conclusion in both cases is that adverse environmental impacts are minimal. This is especially true in 4E, where the fishery has historically exhibited low daily catch rates in proportion to the catch limit (4% of the catch limit per day in 1987), thereby enhancing the IPHC's ability to end the season at a point when the catch approximates the catch limit. The catch limit in 4E is by far the smallest of any halibut regulatory area, so if a significant large-boat fishery were to develop there, the risk of over-harvest might be great. It is unclear whether the present absence of a significant large-boat fishery is a result of current regulations or is attributable to other factors.

3.1.2 Economic Impacts

Economic impacts under this alternative are difficult to quantify, but it is anticipated that they would be qualitatively similar to those discussed under Alternative 1 (Status Quo) for Area 4C in terms of revenue re-distribution between local and non-local fishermen. Relative to what would be expected in the absence of any special regulations, then, this alternative should result in equivalent or larger catches (and revenues) for local fishermen, and equivalent or smaller catches (and revenues) for non-local fishermen. One difference between the fisheries in 4E and 4C, however, is that non-local

interest in the 4E fishery has been fairly limited. From 1981-87, non-local participation has been limited to 1-4 vessels, each typically fishing only one opening per season. The impact of the vessel clearance requirement on non-local fishermen's costs is therefore unclear. It is possible that non-local fishermen would continue to fish only a single opening per year and would continue to originate their trips from Dutch Harbor or Akutan, even without a clearance requirement. If this is the case, then no significant costs attributable to the vessel clearance requirement are being imposed. If, on the other hand, non-local fishermen would choose to fish more than one opening per year, or would prefer to originate their trips elsewhere (e.g. Bristol Bay), then some clearance costs are being imposed under this alternative.

3.1.3 Alternative 1b - Status Quo with Trip Limit in Area 4E

Alternative 1b would incorporate Alternative 1 (Status Quo), and in addition establish a 6,000 lb. trip limit for the first 25% of the catch limit in Area 4E. The size of the proposed trip limit has been taken from recommendations proposed by representatives of Nelson Island fishery associations.

3.1.3.1 Environmental Impacts

Environmental impacts are expected to be qualitatively similar to those discussed under Alternative 1 (Status Quo). No significant impact is expected.

3.1.3.2 Economic Impacts

Economic impacts should also be qualitatively similar to those discussed under Alternative 1 (Status Quo). The distribution of revenue between local and non-local fishermen may be skewed more toward local fishermen than would be expected in the absence of any special regulations. Since the average per-vessel catch rate among non-local fishermen last year was less than 3400 lbs. per trip, it is unlikely that the addition of a 6,000 lb. trip limit will have much effect unless the composition of the non-local fleet changes drastically.

3.2 Alternative 2 - Remove Allocative Regulations in Area 4E

Inaction by the Council likely will result in repeal of the current allocative regulations, specifically the vessel clearance requirements, originally promulgated by the IPHC.

3.2.1 Environmental Impacts

Again, since it is unclear whether the absence of a large-boat fishery is due to current regulations, it is unclear whether repeal of these regulations would lead to the development of such a fishery. If it did, the danger of overharvest would increase. Even in the worst-case scenario, however, environmental impacts are expected to be minimal, since the IPHC would continue to limit catches on the basis of sound conservation of the resource.

3.2.2 Economic Impacts

Economic impacts should run converse to those discussed under Alternative 1 (Status Quo). Relative to what would be expected under Alternative 1, then, this alternative should result in equivalent or smaller catches (and revenues) for local fishermen, and equivalent or larger catches (and revenues) for non-local fishermen. The impact of this alternative on revenues accruing to the nonlocal fleet may be two-fold. First, revenues to present nonlocal fishermen might increase (e.g., some Bristol Bay fishermen might currently be deterred from entering the fishery due to vessel clearance requirements). Because the relative importance of this second factor is unknown, the cost impacts resulting from removing the clearance requirements are difficult to evaluate.

3.3 Alternative 3 - Local Fishery Priority in Area 4E

In 1987, local fishermen captured approximately 85% of the Area 4E harvest. A status quo allocation under this alternative might be achieved by allowing local fishermen sole access to halibut within Area 4E until they had captured 80% of the catch limit, at which time the area would be opened to all fishermen. Once the area were opened to non-local fishermen, the overall catch limit would likely be taken in one more opening, depending on other regulatory measures adopted by the IPHC. Assuming that the catch rate by local fishermen during this final opening is greater than or equal to the average catch rate observed in 1987 (6.8% of the catch limit per opening), they should end up taking approximately 85% of the catch limit. Based on 1987 catch rates, the total 1988 season would run for approximately 13 two-day openings.

3.3.1 Environmental Impacts

Since daily catch rates in Area 4E are low relative to the catch limit (6.8% and 17.8% of the catch limit per opening in 1987 for the local and non-local fishermen, respectively), it is unlikely that forcing the non-local fishery to take place at the end of the season will have significant environmental impacts. The IPHC would continue to limit catches on the basis of sound conservation of the resource.

3.3.2 Economic Impacts

Again, the economic impacts of this alternative are difficult to quantify, and are dependent to some extent on the degree to which current regulations are responsible for the minor role played by non-local fishermen in Area 4E. If overall fishing effort remains constant between 1987 and 1988, this alternative should have no significant impact on either local or non-local fishermen relative to Alternative 1 (Status Quo). However, if current regulations are limiting participation by non-local fishermen (e.g. Bristol Bay fishermen who might be deterred from entering the fishery due to the vessel clearance requirement), fishing effort might increase under this alternative. In such case, the catch limit would be exceeded by some (presumably small) amount. The resulting impact on local fishermen should be insignificant, but non-local fishermen would likely realize a net benefit.

3.4 Alternative 4 - IPHC Implementation of Council Allocation in Area 4E

Under this alternative, the Council would simply allocate a specific minimum proportion of the catch limit to local fishermen and request the IPHC to establish regulations that would attain such an allocation within their otherwise conservation-based management regime. To approximate the 1987 fishery, such an allocation would be set at 85% of the 1988 Area 4E catch limit established by the IPHC.

3.4.1 Environmental Impacts

As with all of the alternatives, environmental impacts are expected to be insignificant. Regardless of which implementing regulations might be adopted, the IPHC would continue to manage the fishery to attain a conservation-based catch limit for the area.

3.4.2 Economic Impacts

It is difficult to provide a specific assessment of economic impacts without knowing which implementing regulations might be adopted by the IPHC. Relative to Alternative 1 (Status Quo), however, economic impacts under this alternative should be qualitatively similar to those discussed under Alternative 3 (Local Fishery Priority), since this alternative and Alternative 3 are designed to achieve the same result. Repeating the conclusions discussed under Alternative 3, then, the economic impacts of this alternative will depend on the change (if any) in fishing effort between 1987 and 1988. Relative to Alternative 1, this alternative may result in no economic impact at all (if effort remains the same), or it may result in a net increase in benefits to the non-local fleet (if additional non-local fishermen enter the fishery and no vessel clearance is required).

3.5 Summary of Impacts for Area 4E

In summary, environmental impacts are expected to be insignificant under any of the alternatives examined. As has been stressed in the above discussion, comparison of the economic impacts of these alternatives is made difficult both by the lack of available data and by the small-scale nature of the fishery. Assuming no drastic changes in fleet composition between 1987 and 1988, however, the following rough rankings can be made: Local fishermen should fare best under Alternative 3 (Local Fishery Priority) or Alternative 4 (IPHC Implementation of Council Allocation), followed by Alternative 1 (Status Quo), with Alternative 2 (Remove Allocative Regulations) ranking last. Non-local fishermen should fare best under Alternative 2, followed by Alternatives 3 and 4, with Alternative 1 ranking last. Again, weight should also be given to consideration of the participants' relative incomes and availability of other employment options, in which case benefits to local fishermen and processors might rank higher.

4.0 RELATION TO OTHER APPLICABLE LAW

All of the alternative regulatory measures considered in this analysis, except Alternative 2, are designed to sustain similar allocative benefits to local Pribilof and Nelson Island halibut fishermen that they experienced in 1987 under current halibut regulations. Hence, the objective is to achieve the status quo. Alternative 1 does this by re-implementation of the same allocative regulations currently in place for Areas 4C and 4E. Alternatives 3 and 4 provide for substantially the same allocative effect as Alternative 1 in these areas, but with more explicit specification of how the catch limits are to be shared between local and nonlocal fishermen. Alternative 2, or no action by the Council, provides for no specific allocative measures for Areas 4C and 4E. However, catch limits and other regulations implemented through the IPHC for these areas may have unanticipated allocative effects of some kind.

Regardless of action taken by the Council, the IPHC will provide for biological conservation of the halibut resource, primarily through catch limits for Areas 4C and 4E and other measures to prevent harvests from exceeding those limits. Therefore, significant environmental effects of the halibut fishery in these areas are not expected under any of the alternatives discussed. Likewise, major economic effects of any of the status quo Alternatives 1, 3 or 4 are not anticipated. However, since Alternative 2 would not provide for preferential allocations of the halibut resource to local fishermen, they could expect certain negative economic effects from this particular alternative.

The following applicable laws are reviewed in this context.

4.1 National Environmental Policy Act

For the reasons discussed above, implementation of any of the alternatives assessed in this document would not significantly affect the quality of the human environment. Therefore, preparation of an environmental impact statement on the final action is not indicated.

4.2 Endangered Species Act

None of the alternatives would constitute actions that may affect endangered species or their habitat within the meaning of the regulations implementing Section 7 of the Endangered Species Act of 1973. Consultation under Section 7 on the final actions and their alternatives will not be necessary.

4.3 Coastal Zone Management Act

Any of the alternatives discussed in this document would be implemented in a manner consistent, to the maximum extent practicable, with the Alaska Coastal Zone Management Program within the meaning of Section 307(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

4.4 Executive Order 12291

Under Alternatives 1, 3 or 4, no significant economic impact is expected relative to the costs and revenues associated with halibut fishing in Areas 4C

and 4E in recent years. This is because these alternatives are specifically designed to maintain approximately the same share of the halibut quota harvested by local and non-local fishermen as was actually caught in 1987.

Under Alternative 2, local fishermen in Area 4C could expect a loss of revenue relative to the status quo due to their anticipated inability to harvest their status quo share of the total halibut catch in competition with nonlocal fishermen. Likewise, local fishermen in Area 4E could expect a loss relative to the status quo. Benefits to nonlocal fishermen in Areas 4C and 4E, due to the relaxation of allocative regulations, are expected. These economic effects would not be significant relative to the costs and revenues of the entire halibut fishery but may be significant to local economies in these areas. However, it would not have an annual effect of \$100 million or more since the local economies in total probably amount to less than this amount.

None of the alternatives would have significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of U.S. based enterprises to compete with foreign enterprises in domestic export markets because of the relatively small part of the U.S. economy affected by any of the alternatives. Also, since there would be no significant changes in the quantity of halibut being harvested overall, none of the alternatives are likely to lead to a substantial increase in the price paid by consumers, individual industries, government agencies or geographic regions. However, to the extent that any alternative is more or less difficult to implement and enforce, costs to Federal agencies may vary, but are anticipated to fall within current budgetary constraints.

4.5 Regulatory Flexibility Act

In 1987, twenty nonlocal vessels fished in Area 4C and four fished in Area 4E. A total of 18 and 102 local vessels fished in these areas respectively during the same year. The 1987 halibut catch by nonlocal vessels in Area 4C was about 615,000 pounds while that for local vessels was about 260,000 pounds. Harvest by nonlocal vessels in Area 4E was about 13,000 pounds; for local vessels it was about 76,000 pounds. With exvessel price per pound ranging between \$1.00 and \$1.40, the total exvessel value of halibut fisheries in Areas 4C and 4E likely does not exceed \$1.5 million.

Implementation of Alternatives 1, 3 or 4 would not significantly affect these fishing and processing firms, however Alternative 2 could reduce revenues of local fishing and processing firms in Areas 4C and 4E. Nonlocal fishing and processing firms could be benefited under Alternative 2 by some increment while their costs of inefficiencies imposed by regulation would be reduced. The overall halibut fishery off Alaska would not be significantly affected by any alternative assessed in this document.

5.0 CHANGES TO THE REGULATIONS

Regulations for managing the halibut fishery are found in 50 CFR Section 301. To date they have been developed by the IPHC, but Council recommendations for allocative regulations will also be listed at 50 CFR 301, in conjunction with those of the IPHC for conservation-based management of halibut.

5.1 Alternative 1 - Status quo

No changes to the current regulations are necessary for Alternative 1. However, adding a trip limit of 6,000 pounds for Area 4E under Alternative 1b, would require an additional regulation:

Trip limit [add a subparagraph (b) to existing regulations for trip limit in Area 4E]

301.9 Trip limits

- (b) Vessels fishing in Area 4E shall be limited to a maximum catch of 6,000 pounds (3 metric tons) of halibut per fishing period until 25 percent (18,750 pounds) of the catch limit specified in 301.8 (a) has been taken.

This proposed regulation would need to be modified somewhat if the IPHC alters the overall catch limit for Area 4E for conservation reasons.

5.2 Alternative 2 - Remove Allocative Regulations in Area 4C and/or 4E

As mentioned before, allocative regulations are found in specific paragraphs in 50 CFR 301. Some of the following regulations would need to be repealed, for Areas 4C and 4E respectively, to accommodate this alternative:

Regulatory areas [not necessary to repeal if there is a conservation rationale]

- 301.4 (h) designation of Area 4C
301.4 (j) designation of Area 4E

Fishing periods [not necessary to repeal if there is a conservation rationale]

- 301.5 (a) one day on/one day off for 4C
301.5 (a) two days on/one day off for 4E

Trip limits [necessary for repeal]

- 301.9 10,000 pound trip limit for 4C

Vessel clearance and hold inspection [necessary for repeal; other paragraphs would need modification to remove reference to paragraphs b and c]

- 301.12 (b,j) clearance at Dutch Harbor or Akutan between each fishing period for 4C
301.12 (c,j) clearance at Dutch Harbor or Akutan between each fishing period for 4E

Fishing restriction [should not be repealed if fishing periods are not changed]

- 301.15 (h) exemption from 72-hour pre-period prohibition on fishing for both 4C and 4E

5.3 Alternative 3 - Local Fishery Priority in Area 4C and/or 4E

Under this alternative, for Areas 4C and/or 4E, the same regulations repealed under Alternative 2 would be repealed, but in this case new regulations would be promulgated by the Department of Commerce to assure that only local fishermen harvest halibut until they have attained their specific allocation:

Fishing periods [add subparagraphs (e) and (f) to existing regulations for fishing periods in Areas 4C and 4E]

301.5 Fishing periods

- (e) No vessel, other than a vessel that lands its total annual halibut catch at ports within Area 4C, may fish for halibut in Area 4C until 15 percent or more of the catch limit for Area 4C specified in Section 301.8(a) has been taken.
- (f) No vessel, other than a vessel that lands its total annual halibut catch at ports within Area 4E, may fish for halibut in Area 4E until 80 percent or more of the catch limit for Area 4E specified in Section 301.8(a) has been taken.

5.4 Alternative 4 - IPHC Implementation of Council Allocation in Area 4C and/or 4E

Under this alternative, for Areas 4C and/or 4E, the same regulations repealed under Alternative 2 would be repealed, and the following regulations would be established by the Department of Commerce. Additional regulations would be promulgated by the IPHC, within their otherwise conservation-based management regime, to accomplish the Council's intended allocation to local fishermen:

Allocations [insert a new paragraph in existing regulations, for allocations to specific user groups]

301.19 Allocations

- (a) Vessels that land their total annual halibut catch at ports within Area 4C shall be allocated at least 30 percent of the catch limit for Area 4C specified in Section 301.8(a). Such allocation is accomplished by [regulations to be promulgated by the IPHC].
- (b) Vessels that land their total annual halibut catch at ports within Area 4E shall be allocated at least 85 percent of the catch limit for Area 4E specified in Section 301.8(a). Such allocation is accomplished by [regulations to be promulgated by the IPHC].

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7.0 COORDINATION WITH OTHERS

The Halibut Management Team is comprised of fishery scientists and managers from the National Marine Fisheries Service, the Alaska Department of Fish and Game, the International Pacific Halibut Commission, and the North Pacific Fishery Management Council. The Halibut MT also coordinated with other staff of those agencies as well as members of the academic and fishing communities.

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INTERNATIONAL PACIFIC HALIBUT COMMISSION

ESTABLISHED BY A CONVENTION BETWEEN CANADA
AND THE UNITED STATES OF AMERICA

7 December 1987

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Dear Jim:

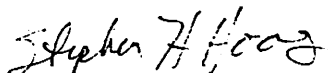
With regard to management proposals for halibut allocation in Areas 4C and 4E, the IPHC staff favors the approach outlined in Alternative 4, i.e., where the Council determines the percentage allocation to local residents but allows IPHC to implement regulations that achieve the allocation. This approach avoids the possibility of conflicting regulation, allows for maximum flexibility at the IPHC January meeting, and is similar to the approach taken by the Pacific Council.

The staff will recommend trip limits and a series of openings (perhaps 3 or 4 days each) for the Bering Sea to achieve its conservation goals. Depending on the Council's actions, the staff may suggest that Area 4C open simultaneously with Areas 4A, 4B, and 4D to spread fishing effort. Although the staff's proposal is not intended to provide any special allocation to local residents, it could result in a longer season and greater catch for local residents than occurred last year.

If the Council chooses Alternative 4, I'm sure the Commission would work closely with the Council in implementing mutually satisfactory regulations.

Steve Hoag and Bob Trumble will attend the December Council Meeting and be available to assist the Council in this matter.

Sincerely yours,



for Donald A. McCaughran
Director

SHH:ps