# MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: April 8, 1997

SUBJECT: Gulf of Alaska Improved Retention and Utilization Program

ESTIMATED TIME
2 HOURS

ACTION REQUIRED

Review document and approve for public review.

BACKGROUND

When the Council approved the IR/IU program for the BSAI, they initiated development of a similar program for the GOA, with the expectation of concurrent implementation of both programs in 1998. The analysis for the GOA program was mailed to you in late March, and was reviewed by the Council's IR/IU Committee on April 1. Dr. Lew Queirolo, primary author of the IR/IU documents, will review the analysis for the Council, followed by the IR/IU Committee report. That report is included in your notebooks as Item C-5(a).

The Committee also reviewed a summary of the proposed rule for the BSAI program and their comments are contained in the report. The actual proposed rule is not yet published, so the formal comment period is still pending. The summary of the major components of the proposed rule is under Item C-5(b).

# Improved Retention/Utilization Committee - Report to the Council

The IR/IU Committee met on April 1, 1997 in Seattle with the following persons present:

Members: Joe Kyle (Chair), Brent Paine, Chris Blackburn, John Iani, Denby Lloyd, Vince Curry, John Henderschedt, Teresa Kandianis, Paul MacGregor

Agency Staff: Lew Quierolo, Dave Colpo, Chris Oliver, Kent Lind, Jay Ginter, Earl Krygier, Seth Macinko,

Others: Mike Atterberry, Tom Casey, Denise Fredette, John Gauvin, Mike Szymanski, Jan Jacobs, Ed Richardson, Eric Hollis, Laura Jensen

The Committee undertook two tasks at this meeting: (1) to review and comment upon the analysis for the Gulf of Alaska IR/IU program, and (2) to review the proposed regulations for the Bering Sea program.

Gulf of Alaska EA/RIR/IRFA

Dr. Queirolo summarized for the committee the GOA analysis, which essentially mirrors the Preferred Alternative for the BSAI. A general discussion centered on the differences between the GOA and the BSAI, with the following major points raised:

(1) Aggregation of the subareas of the GOA will not reflect the differences among these subareas which may be relevant; for example, because more of the current GOA discards are coming from the Central Gulf, more of the impacts of this program will be felt in the Central Gulf. Overall the Committee feels that the analysis could provide some breakdowns of information by Central, Eastern, and Western subareas to better characterize impacts, or at least highlight potential differential impacts by region.

(2) Referring to Table 3.2.1 on page 43, the Committee recommends providing estimates of observer coverage levels for each fishery category.

(3) Regulatory discards represent a higher proportion (perhaps significantly of overall discards in the GOA than in the BSAI. For example, discards of pollock and cod in the arrowtooth target fishery are mostly regulatory at present. Another example cited was the lack of a directed fishery for pollock and cod by the offshore sector in the GOA. Because the analysis does not break down total discards between regulatory and economic, the 'savings' of discards, and associated gross value estimates , are likely overestimated. This should be noted in the analysis, though the Committee recognizes the difficulty with trying to accurately quantify the ratio of regulatory to economic discards. As with the BSAI, there will still be regulatory discards under the GOA program, though the expectation is for changes in behavior and changes in directed fishing standards which will tend to minimize the regulatory discards.

(4) After reviewing the numbers of dual qualified vessels (BSAI and GOA) from the analysis, the committee agrees that a substantial risk of preemption is present if a similar IR/IU program is not adopted for the GOA.

(5) The assumption that complementary regulations will be implemented by the State of Alaska is particularly important in the GOA, since approximately 75% of landings are delivered to onshore processing plants.

(6) The table on page 127 needs to be checked and clarified – the amounts of fish defined as 'marketable' do not appear to be intuitively accurate in some cases, and the table is confusing as currently presented.

(7) The 'Catch 22' issue previously described in the BSAI may be more of an issue in the GOA where there are many more smaller vessels which do not sort at sea. This is the issue, when directed fishing standards kick in, of having to hit exactly 20% retention. For example, when a species is in bycatch model, a vessel must retain up to the allowable retention standard, but discard beyond that amount.

In terms of assessing whether this program will have 'significant impacts' on various target fisheries, the Committee made the following points or recommendations:

(a) Within target fishery categories, there could be differential impacts to different size categories of vessels.

(b) Regarding Table 3.2.1, and whether significant impacts would be expected - Arrowtooth should be changed to N, because most are currently regulatory discards; P. cod should be N, with a footnote (current draft has Y with a footnote); Rex sole should be an N, noting that, unlike the BSAI, it's not a big deal in the GOA because pollock is just not that abundant; Flathead sole should be an N for onshore, but still a Y for offshore.

(c) Because the shallowwater flatfish complex contains many species, the analysis should provide information, as available, on the expected catch composition of this complex within the various target fisheries. As some of these species may have limited, or no, market value, this could affect to extent to which this program will 'significantly impact' those target fisheries.

REVIEW OF BSAI PROPOSED REGULATIONS

While a formal proposed rule was not available at this time, the Committee was provided with a summary of the major provisions of that draft rulemaking. The primary issue discussed by the Committee relates to the level of detail contained in the regulations regarding enforcement of utilization and retention requirements. As drafted, the regulations will not specify the methodologies or secondary information to be employed by enforcement agents in assessing compliance. While it is obvious that discarding is prohibited, and that utilization is subject to a 15% minimum recovery rate, some members of the Committee felt that the regulations should further specify the allowable product forms and the secondary data sources (such as observer data and blend data) which would be used to determine compliance. It is understood that these issues will be described in the preamble to the proposed rule, if not explicitly contained in regulation.

The Committee appreciates the opportunity provided by the Council to review the IR/IU programs for both the BSAI and the GOA. While we feel that our task as a Committee is complete, we are willing to reconvene in the event any additional issues arise prior to or during implementation of the IR/IU programs.

March 24, 1997

MEMORANDUM FOR: Improved Retention/Improved Utilization (IR/IU) Committee

FROM: Kent Lind
NMFS Alaska Region

SUBJECT: Amendment 49 proposed rule for Bering Sea and Aleutian Islands Area

The proposed rule to implement an IR/IU program as Amendment 49 to the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area is currently under agency review and is scheduled to be published in April 1997. For this reason, a text of the proposed rule is not yet available for public review. As an alternative, I have summarized each provision of the draft proposed rule for your information and input.

## 1.0 Vessels and processors affected by the proposed regulation

All vessels fishing for groundfish in the BSAI and all at-sea processors processing groundfish caught in the BSAI would be governed by the retention and utilization requirements of the proposed rule regardless of size, gear type, or target fishery. Because the Magnuson-Stevens Act does not authorize NMFS to regulate on-shore processing of fish, Federal utilization requirements would not be extended to shore-based processors.

Parallel State regulations are necessary to establish utilization requirements for on-shore processors as well as to address the relationship between the processing plant and the delivering vessel. It is especially necessary that a shore-based IR/IU program require a processor to accept all IR/IU species offered for delivery by vessels operating in BSAI groundfish fisheries. In the absence of such a requirement, rejection of deliveries would be the equivalent of discarding of IR/IU species by the processor.

## 2.0 IR/IU species

The proposed regulation would define four groundfish species as "IR/IU species," namely, pollock, Pacific cod, rock sole and yellowfin sole. Retention and utilization requirements would apply to pollock and Pacific cod beginning January 1, 1998, and rock sole and yellowfin sole beginning January 1, 2003.

3.0 Minimum retention requirements.

Operators of catcher vessels would be required to retain all IR/IU species brought on board the vessel until lawfully offloaded to an authorized party. Operators of catcher/processors and motherships would be required to retain a primary product from all IR/IU species brought on board the vessel until lawfully transferred or offloaded to an authorized party. These minimum retention requirements would be secondary to any directed fishing closure in effect for an IR/IU species as outlined the following table:

| IF YOU OPERATE A... | AND DIRECTED FISHING FOR AN IR/IU SPECIES IS... | YOU MUST RETAIN UNTIL LAWFULLY OFFLOADED OR TRANSFERRED... |
|---|---|---|
| catcher vessel | open | all fish of that species brought on board the vessel |
| | on bycatch-only status | all fish of that species brought on board the vessel up to the MRB amount in effect for that species |
| | on prohibited status | no fish of that species |
| catcher/ processor | open | a primary product from all fish of that species brought on board the vessel |
| | on bycatch-only status | a primary product from all fish of that species brought on board the vessel up to the point that the round-weight equivalent of primary products equals the MRB amount in effect for that species |
| | on prohibited status | no fish or product of that species |
| mothership | open | a primary product from all fish of that species brought on board the vessel |
| | on bycatch-only status | a primary product from all fish of that species brought on board the vessel up to the point that the round-weight equivalent of primary products equals the MRB amount in effect for that species |
| | on prohibited status | no fish or product of that species |

3.1 Bleeding codends and shaking longlines.

The minimum retention requirements outlined above apply to all fish of each IR/IU species that are brought on board a vessel. Any activity intended to cause the discarding of IR/IU species prior to their being brought on board a vessel, such as bleeding codends or shaking fish off longlines, would be prohibited. NMFS recognizes that some escapement of fish from fishing gear does occur in the course of fishing operations. Therefore, incidental escapement of IR/IU species, such as fish squeezing through mesh or dropping off longlines, would not be considered a violation unless the escapement is intentionally caused by an action of the vessel operator or crew.

3.2 IR/IU species used as bait.

IR/IU species could be used as bait provided the bait is physically attached to authorized fishing gear when deployed. Dumping IR/IU species as loose bait (e.g., chumming) would be prohibited.

3.3 Discard of fish or product transferred from other vessels.

The retention requirements of the proposed rule apply to all IR/IU species brought on board a vessel, whether caught by that vessel or transferred from another vessel. Discard of IR/IU species or IR/IU products that were transferred from another vessel would be prohibited.

4.0 Minimum utilization requirements.

All vessels processing groundfish harvested in the BSAI must maintain a minimum utilization rate of 15 percent as determined by vessel type and directed fishing status.

4.1 Catcher/processors.

If you operate a catcher/processor, the minimum utilization requirement for an IR/IU species is determined by the directed fishing status for that species according to the following table:

| IF DIRECTED FISHING FOR AN IR/IU SPECIES IS... | YOUR TOTAL WEIGHT OF RETAINED OR LAWFULLY TRANSFERRED PRODUCTS PRODUCED FROM THE CATCH OF THAT IR/IU SPECIES DURING A FISHING TRIP MUST... |
|---|---|
| open | equal or exceed 15 percent of the round weight catch of that species during the fishing trip |
| on bycatch-only status | equal or exceed 15 percent of the round weight catch of that species during the fishing trip, or 15 percent of the MRB amount in effect for that species, whichever is lower |
| on prohibited status | equal zero |

4.2 Motherships.

If you operate a mothership, the minimum utilization requirement for an IR/IU species is determined by the directed fishing status for that species according to the following table:

| IF DIRECTED FISHING FOR AN IR/IU SPECIES IS... | YOUR WEIGHT OF RETAINED OR LAWFULLY TRANSFERRED PRODUCTS PRODUCED FROM IR/IU SPECIES RECEIVED DURING A REPORTING WEEK MUST... |
|---|---|
| open | equal or exceed 15 percent of the round weight of that species received during the reporting week |
| on bycatch-only status | equal or exceed 15 percent of the round weight of that species received during the reporting week, or 15 percent of the MRB amount in effect for that species, whichever is lower |
| on prohibited status | equal zero |

5.0 Simultaneous compliance with retention and utilization.

A vessel operator must simultaneously meet both the minimum retention standard and the minimum utilization standard to be in compliance with the proposed IR/IU program. Compliance with either standard in the absence of the other would be considered a violation.

6.0 Recordkeeping requirements

The proposed rule includes changes to existing recordkeeping requirements to aid the monitoring and enforcement of the IR/IU program. Beginning January 1, 1998, all catcher vessels and catcher/processors that are currently required to maintain NMFS logbooks would be required to log the landed round weight of pollock and Pacific cod in the NMFS catcher vessel or NMFS catcher/processor logbook on a haul-by-haul or set-by-set basis. Motherships would be required to log the landed round weight of pollock and Pacific cod in the NMFS mothership logbook on a delivery-by-delivery basis. Beginning January 1, 2003, this requirement would extend to rock sole and yellowfin sole. These changes are necessary to provide vessel operators and enforcement agents with round weight information for each IR/IU species in order to monitor compliance with the IR/IU program.

# EXECUTIVE SUMMARY

of the

# "PRELIMINARY"

ENVIRONMENTAL ASSESSMENT/REGULATORY IMPACT REVIEW/
INITIAL REGULATORY FLEXIBILITY ANALYSIS
FOR AMENDMENT 49
OF THE FISHERY MANAGEMENT PLAN FOR THE GROUNDFISH FISHERY
OF THE GULF OF ALASKA AREA
TO IMPLEMENT AN
IMPROVED RETENTION - IMPROVED UTILIZATION
GROUNDFISH MANAGEMENT PROGRAM

Prepared by

National Marine Fisheries Service
Alaska Fisheries Science Center
Alaska Region

**April 14, 1997**

## 1.0 Improved Retention/Improved Utilization

The Council has proposed that GOA commercial groundfish fisheries be required to reduce discards. Accordingly, a GOA "Improved Retention/Improved Utilization" (IR/IU) FMP amendment would be expected to, ***"... provide an incentive for fishermen to avoid unwanted catch, increase utilization of fish that are taken, and, thus, reduce discards of whole fish."***

***"In addition, the Council recognizes the potential risk of preemption of certain existing GOA groundfish fisheries which could occur in response to economic incentives displacing capacity and effort from BSAI IR/IU fisheries. This risk can be minimized if substantially equivalent IR/IU regulations are simultaneously implemented for the GOA."***

### 1.1 The Improved Retention Requirement

The GOA IR/IU proposal, adopted at the December 1996 Council meeting, contains two "Improved Retention" alternatives (i.e., the requisite "status quo" alternative, and a *"species-based"* retention approach). The proposal extends IR to all gear-types, and requires 100% retention of *Alaska pollock, Pacific cod,* and the *'shallow water flatfish'* complex.

The GOA 'shallow water' flatfish complex is comprised of rock sole, yellowfin sole, butter sole, English sole, starry flounder, Petrale sole, sand sole, Alaska plaice, and "general" flounders. Some of these species are currently marketable, while others are not. When fully implemented (in addition to full retention of pollock and P.cod), IR/IU would mandate 100% retention of each of these flatfish species, whenever present in any groundfish fishery in the Gulf. If 'shallow water' flatfish bycatch is composed predominantly of "marketable" flatfish species, clearly, the impact of 100% retention will be substantially smaller than if it is composed predominantly of "unmarketable" species.

In the case of the flatfish complex, the IR/IU proposal contains a provision which would **"delay"** implementation of the 100% retention requirement for a period of five years following implementation of the GOA program. In the interim, however, 100% retention of pollock and P.cod would be mandated for all operations, beginning as soon as possible (presumably, January 1, 1998).

### 1.2 The Improved Utilization Requirement

The Council's GOA IR/IU proposal contains two "Improved Utilization" alternatives (i.e., the no-action, "status quo" alternative and the an alternative that provides that the retained catch of the IR/IU groundfish species of concern may be processed into *any* product form, regardless of whether or not the resulting product is suitable for direct "human consumption"). The resulting product form could be "meal", "bait", or any other "processed product". This alternative would establish a *minimum* 15 percent utilization standard for each species of concern (i.e., pollock and P.cod, immediately upon implementation; 'shallow water' flatfish, beginning five years after implementation) for all groundfish processors. This IU alternative pertain only to the use of these specific groundfish species, allowing all other groundfish species to be used (or discarded) at the discretion of the operator.[1]

[1] Subject, of course, to other prevailing laws and regulations.

## 2.0 Environmental Impacts of IR/IU

Possible ecological impacts of IR/IU relative to the status quo would primarily occur through the decrease in the amounts of Alaska (walleye) pollock, Pacific cod, and 'shallow water' flatfish that are returned to the sea. Stock assessments of pollock, cod, and 'shallow water' flatfish already assume 100% mortality of the discards of these species so no change in the population status of these species is anticipated due to any of the proposed options.[2] However, the decrease in discards returned to the sea could result in a decrease in the amount of food available to scavengers and produce a decline in growth or reproductive output of species that rely on discards for a major portion of their food intake. Also, changes in energy flow to the detritus and local enrichment through an increase in processing waste (offal) could occur.

Groundfish species likely to benefit from offal production and presumably also from whole discards include: Pacific cod, arrowtooth flounder, Pacific halibut and sablefish. Other upper-trophic level scavenger species that consume offal and discards include sculpins, crabs, other predatory invertebrates, marine mammals (particularly pinnipeds), and marine birds such as gulls, kittiwakes, and fulmars. The annual consumptive capacity of the scavenging groundfish is about twice as large as the total amount of offal and discards in 1995. The amount of offal and discards under the status quo option is relatively small if the total consumptive capacity of scavenging birds, groundfish, and predatory invertebrates were to be taken into account. This evidence and the evidence suggesting no correlation between scavenger population trends and offal and discard production in the Gulf of Alaska is an indication that the current levels of offal and discards are not a significant source of energy for these populations. The range of possible decline in the amount of dead organic matter returned to the sea under improved retention, given a range of product recovery rates of 15% to 100%, is 2% to 11%, respectively. It is likely that adoption of improved retention would not cause a large decline in the amount of dead organic matter returned to the sea and would have **no significant positive or negative impacts** on scavenger species. Analysis also suggests that offal and discards as a percent of total detrital flow under all the alternatives is small, evidence of **no significant impact** on detrital flow. Finally, the small estimated change in total offal production relative to current shoreside offal production in the Gulf of Alaska under the proposed IR/IU action is an indication of **no significant impact** due to a change in local enrichment.

## 3.0 Impacts of Improved Retention

The analysis of the IR Alternatives retains the effort-apportioning criteria employed in the standard Alaska Region target definitions and contained in the NMFS Blend files. Adoption of the *"species-based"* retention alternative would have a broad potential impact on the groundfish fisheries of the Gulf. This is so, because the proposed IR alternative requires that, for **any** groundfish fishery operating in the GOA management area, 100% of the *pollock, P.cod,* and *'shallow water' flatfish complex* contained in the catch be retained. Any other groundfish species present in the catch could be retained or discarded at the discretion of the operator.[3]

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[2] Except perhaps insofar as IR/IU induces significant changes in fishing technology or practices resulting in successful avoidance of unwanted bycatch. At present, no empirical data are available with which to assess this potentiality.

[3] Subject, of course, to compliance with any other prevailing regulation or statute, e.g, EPA discharge requirements, NMFS Directed Fishing Standards.

[4] To the extent that harvesters are able to avoid bycatches of unwanted fish, these discard estimates may be further reduced by imposition of a "retention" requirement. Presumably, adjustments to a "retention" requirement would occur over time as fishermen learn new techniques, or adjust fishing practices, patterns, and areas. It may require the observation of these operations over several seasons under a "retention" requirement before such

The potentially affected vessels, by size, operating mode, and fishery are identified in the following tables. The indicated "Significant Impact" of the IR alternative reflects the *fleet-wide* response.[5]

information could be obtained, however.

[5] There will be individual differences in the relative "compliance-burden" among vessels within any given target fishery. For example, in a fishery in which the "fleet-as-a-whole" **will** (likely) experience significant compliance impacts attributable to IR/IU, one or more *individual* vessels may not. Alternatively, in a fishery that, on-average, is **not** expected to incur significant impacts, there may be an individual vessel which will find compliance difficult. The preliminary findings reported in the table do not reflect these potential differences within a fleet.

## Table 3.0.1 Trawl Vessel Count by Target, Vessel Length, and Processor Class [1]

(Target is based on retained catch by processor, week, area, gear.)

| | Motherships | | Catcher-processors | | | Catchers boats | | | | Significant Impact of compliance (Y/N) |
|---|---|---|---|---|---|---|---|---|---|---|
| | More than 124 | Less than 60 | More than 124 | 60 to 124 feet | Less than 60 | More than 124 | 60 to 124 feet | Less than 60 | Unk. | |
| 1995 | | | | | | | | | | |
| Pollock bottom | - | - | - | - | 15 | 14 | 3 | | | N |
| Pollock pelagic | - | - | - | 15 | 85 | 17 | 5 | | | N |
| Sablefish | - | 3 | - | - | - | - | - | | | N |
| Pacific cod | 5 | 9 | 5 | 3 | 78 | 53 | 8 | | | N[2] |
| Arrowtooth | - | 3 | - | - | 12 | - | 3 | | | N[3] |
| Rex sole | - | 6 | 7 | 1 | 10 | - | - | | | N |
| Flathead | - | 4 | 5 | - | 4 | 1 | - | | | Y[4] |
| Flat deep | 1 | 2 | 4 | 1 | 15 | 3 | 1 | | | N |
| Flat shallow | - | 4 | 5 | - | 29 | 7 | 2 | | | N |
| Rockfish | - | 17 | 3 | 1 | 10 | - | - | | | N |
| Atka mack | - | 2 | - | - | - | - | - | | | N |
| 1996* | | | | | | | | | | |
| Pollock bottom | - | - | - | - | 8 | 11 | 1 | | | N |
| Pollock pelagic | - | - | - | 4 | 34 | 16 | 3 | | | N |
| Sablefish | - | 1 | - | - | - | - | - | | | N |
| Pacific cod | 3 | 13 | 3 | 5 | 47 | 54 | 2 | | | N[2] |
| Arrowtooth | - | 6 | 7 | - | 6 | 1 | 1 | | | N[3] |
| Rex sole | - | 9 | 7 | - | 3 | - | - | | | N |
| Flathead | - | 4 | 6 | - | 5 | 1 | - | | | Y[4] |
| Flat deep | - | 1 | 2 | - | 13 | 1 | 2 | | | N |
| Flat shallow | - | 2 | 6 | - | 18 | 6 | 3 | | | N |
| Rockfish | - | 12 | 4 | - | 6 | - | - | | | N |
| Atka mack | - | 8 | 1 | - | - | - | - | | | N |

1/ Catcher/processor vessels in these fisheries with the capability to "fillet" product will face **"no significant burden"** in complying with the IR provisions (according to the Council's IR/IU Industry Working Group). Vessels limited to "H&G" operation may be **"significantly disadvantaged"** by the retention requirement.

2/ There may be **"significant impacts"** on trawl catcher boats less than 60', in the Western Gulf directed fishery for P.cod. Because these vessels have limited room onboard, and cannot sort, inadvertent bycatches of pollock, while seeking cod, could end their trip, if all pollock must be retained. If required to land the pollock bycatch, queuing time to off-load an unsalable (or relatively less valuable) catch than the P.cod deliveries of competing boats could force a vessel to forego most of the short P.cod opening, with devastating consequences, according to industry sources (per. comm., Denby Lloyd, Aleutian East Borough, Feb. 1997).

3/ Pollock and P.cod discards in the arrowtooth target fishery are, reportedly, virtually entirely attributable to Regulatory requirements, and would, therefore, be unaffected by the proposed IR/IU action.

4/ For the onshore only in this fishery reportedly, virtually all pollock and P.cod discards are attributable to Regulatory requirements, and would, therefore, be unaffected by the proposed IR/IU action.

* Fish Ticket data for 1996 are incomplete at this time. These data are employed to derive "unique" vessel counts, by fishery, by vessel category, by size class. Therefore, the totals for 1996 are subject to change as up-dated Fish Ticket data become available.

## Table 3.0.2 Non-trawl Vessel Count by Target, Vessel Length, and Processor Class

(Target is based on retained catch by processor, week, area, gear.)[6]

| | Motherships | | Catcher-processors | | | Catchers boats | | | | Significant Impact of compliance (Y/N) |
|---|---|---|---|---|---|---|---|---|---|---|
| | More than 124 | Less than 60 | More than 124 | 60 to 124 feet | Less than 60 | More than 124 | 60 to 124 feet | Less than 60 | Unk. | |
| 1995 | | | | | | | | | | |
| Sablefish | | | | | | | | | | |
| Longline | - | - | 9 | 7 | - | - | 57 | 239 | 11 | N |
| Pacific cod | | | | | | | | | | |
| Longline | 1 | - | 7 | 12 | 1 | - | 36 | 359 | 14 | N |
| Pot | 3 | - | 2 | 1 | 1 | 8 | 70 | 102 | 6 | N |
| Rockfish | | | | | | | | | | |
| Jig | - | - | - | - | - | - | - | 10 | - | N |
| Longline | - | - | - | - | - | - | 3 | 101 | 5 | N |
| 1996* | | | | | | | | | | |
| Sablefish | | | | | | | | | | |
| Longline | 1 | - | 4 | 6 | 1 | - | 27 | 130 | 6 | N |
| Pacific cod | | | | | | | | | | |
| Longline | 1 | - | 4 | 12 | - | - | 12 | 250 | 8 | N |
| Pot | 2 | - | - | 1 | - | 4 | 52 | 84 | 8 | N |
| Rockfish | | | | | | | | | | |
| Jig | - | 1 | - | - | - | - | - | 12 | - | N |
| Longline | - | - | - | - | 1 | - | 3 | 86 | 5 | N |

Notes: Targets were calculated by AFSC staff. A mothership is defined as a vessel which solely operated as a mothership during a year. Likewise a catcher vessel solely operated as a catcher vessel. However a catcher-processor may have also operated as a mothership or catcher vessel in addition to catcher-processing.

* Fish Ticket data for 1996 are incomplete at this time. These data are employed to derive "unique" vessel counts, by fishery, by vessel category, by size class. Therefore, the totals for 1996 are subject to change as up-dated Fish Ticket data become available.

Source: NMFS Alaska Region Blend Estimate, ADFG fish tickets, and NORPAC.

[6] As proposed, five-years following implementation of the GOA IR/IU alternative it is anticipated that 100% retention of the bycatch of 'shallow water flats' in all groundfish fisheries will be required. However, after examining the vessel counts "with" and "without" this additional requirement, one concludes that there are almost no additional vessels that caught some 'shallow water' flatfish, but no pollock or Pacific cod, during the base years. Therefore, the vessel counts cited above are a reasonable approximation of the number of operations which will potentially be impacted when 'shallow water' flatfish retention is added to the 100% pollock and P.cod retention requirement.

## 3.1 The Potential Aggregate Effect on Discards

Taken as a whole, the several GOA groundfish target fisheries identified above, which would be directly impacted by the proposed IR alternative, accounted for an estimated total groundfish catch in 1995 of approximately 219,000 mt. In 1996, that total was estimated to be 205,000 mt (see Table 3.1 ). These fisheries collectively discarded an estimated 39,272 mt of groundfish (or approximately 18% of total catch) in 1995, and 41,137 mt (or about 20% of total catch) in 1996.[7]

Had the initial retention provisions of the IR alternative been in effect in these fisheries in these years, aggregate discards could have *potentially* been reduced by approximately 29% in 1995; approximately 31% in 1996 (assuming increased retention of IR regulated species was not substantially offset by increased discards of unregulated species, and/or that the pollock and P.cod discards were predominantly "economic", and not "regulatory", in nature).

This *upper-bound* estimate of bycatch *savings* would have represented about 4.0% of the total GOA groundfish TAC in 1995; approximately 5.0% of TAC in 1996. Assuming, for sake of argument, 100% retention of 'shallow water' flatfish had been required in these two seasons, total retained catch would have increased by less than 0.7% in 1995, and just over 0.6% in 1996, all else equal.

The proposed IR amendment may have other effects consistent with the Council's stated objectives for this action. First, by creating in the GOA a *"substantially equivalent"* regulatory environment to that which was adopted in the BSAI, the Council will have eliminated any potential economic incentive for effort and capacity to move from BSAI to GOA to avoid retention requirements in the former management area.

Second, by increasing operating costs associated with meeting the retention requirements, the GOA IR proposal may induce operators to adopt fishing techniques to avoid, to the maximum extent practicable, catching unwanted and/or undersized fish. While the magnitude of the economic inducement to "avoid" bycatch will vary from operation to operation and fishery to fishery, it may represent an important *potential* benefit attributable to adoption of the Council's GOA IR action.

[7] More than 40% of the total groundfish discards in these GOA fisheries is comprised of arrowtooth flounder.

**Table 3.1 -- Total Catch and Discards of Groundfish in the Gulf of Alaska, 1995-96**

| | Catch metric tons | Species percent of catch | Discards metric tons | Species percent of discards | Discard rate |
|---|---|---|---|---|---|
| **1995** | | | | | |
| **Pollock** | **73,194** | **33.4%** | **7,927** | **20.2%** | **10.8%** |
| **Pacific cod** | **68,984** | **31.5%** | **3,539** | **9.0%** | **5.1%** |
| Shallow | 5,116 | 2.3% | 1,433 | 3.6% | 28.0% |
| Sablefish | 20,569 | 9.4% | 1,072 | 2.7% | 5.2% |
| Arrowtooth | 18,003 | 8.2% | 15,884 | 40.4% | 88.2% |
| Deep flat | 1,994 | .9% | 440 | 1.1% | 22.1% |
| Flathd sole | 2,078 | .9% | 575 | 1.5% | 27.7% |
| Rex sole | 3,941 | 1.8% | 388 | 1.0% | 9.8% |
| Rockfish | 18,915 | 8.6% | 3,624 | 9.2% | 19.2% |
| Atka mack. | 425 | .2% | 198 | .5% | 46.6% |
| Oth/unk | 5,603 | 2.6% | 4,192 | 10.7% | 74.8% |
| Groundfish total | **218,823** | **100.0%** | **39,272** | **100.0%** | **17.9%** |
| **1996** | | | | | |
| **Pollock** | **51,123** | **24.9%** | **5,139** | **12.5%** | **10.1%** |
| **Pacific cod** | **68,293** | **33.3%** | **7,581** | **18.4%** | **11.1%** |
| Shallow | 9,340 | 4.6% | 1,299 | 3.2% | 13.9% |
| Sable fish | 18,149 | 8.8% | 862 | 2.1% | 4.7% |
| Arrow tooth | 22,449 | 10.9% | 17,152 | 41.7% | 76.4% |
| Deep flat | 2,151 | 1.0% | 607 | 1.5% | 28.2% |
| Flathd sole | 3,048 | 1.5% | 668 | 1.6% | 21.9% |
| Rex sole | 5,834 | 2.8% | 299 | .7% | 5.1% |
| Rockfish | 18,172 | 8.9% | 3,605 | 8.8% | 19.8% |
| Atka mack. | 1,321 | .6% | 120 | .3% | 9.1% |
| Oth/unk | 5,333 | 2.6% | 3,805 | 9.2% | 71.3% |
| Groundfish total | **205,213** | **100.0%** | **41,137** | **100.0%** | **20.0%** |

Source: NMFS Alaska Region blend estimates.

## 3.2 Delayed Implementation for Shallow Water Flatfish [8]

From very early in the IR/IU development process, including some provision to ameliorate the most undesirable impacts of implementation of the 100% retention requirement has been a priority of the Council. By proposing a *"substantially equivalent"* IR/IU program for GOA, the Council explicitly incorporated the implementation delay provision for the 'shallow water' flatfish complex bycatch, as an element of the GOA analytical package.

It is expected that a delay in implementation for 'shallow water flats' would, 1) grant interim relief from the economic and operational burden of IR, in the case of bycatches of species for which adequate markets do not currently exist; 2) place the industry on notice that at a 'date-certain' in the future, 100% retention of this species complex would be required; 3) provide an opportunity and incentive for the industry to develop markets and/or improve gear selectivity, while; 4) proceeding immediately to 100% retention of pollock and P.cod bycatches in all GOA groundfish fisheries.

A quantitative analysis of the impacts of delaying IR/IU implementation for the 'shallow water flats' complex is necessarily limited by the absence of data and "probable-response" information available. One may conclude, however, that if the IR/IU requirement was delayed for five years, 'shallow water' flatfish discards could potentially continue at *"status quo"* levels for five successive seasons after implementation of the 100% retention requirement was adopted for pollock and P.cod. If all else is assumed constant, this means that approximately 1,360 mt of 'shallow water flats' could be legally discarded each year during the "delay".[9] The ABC for 'shallow water' flatfish was 492,780 mt in 1995; 447,120 mt in 1996.

While a five year delay would not *assure* adequate time for the industry to prepare for 100% retention compliance, it would increase the opportunity substantially over immediate adoption. Secondarily, having adopted a "five year delay" in 100% retention of yellowfin and rock sole in the BSAI IR/IU program, the GOA 'shallow water' flatfish delay would result in a *"substantially equivalent"* program structure in the two management areas, thus minimizing the possibility of confusion, management complexity, and monitoring/reporting/enforcement burdens on all affected parties.

## 3.3 Potential for Capacity and Effort Transfer

Another of the principal concerns of the Council with respect to the GOA IR/IU program was ***"... the potential risk that significant capacity and effort would migrate, from the Bering Sea, to the Gulf of Alaska..."***, should IR/IU be adopted in the former management areas and not simultaneously in the latter. Because of the current "Moratorium-on-Entry" into these fisheries, and the expectation of a permanent "License Limitation Program" (LLP), some constraint on such movement already exists. Nonetheless, an assessment of the remaining opportunity for migration of effort and capacity has been undertaken.

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[8] NMFS Enforcement and Coast Guard Officers advised the Council that requiring any level of retention compliance below 100%, for a given species, would be effectively unmonitorable and unenforceable, within the context of an IR/IU program. However, a "delay" in implementation, as distinct from a "phase-in", for one or more of the species of concern, could be accommodated, given existing monitoring and enforcement resources and practices.

[9] Approximately the average total discard of 'shallow water flats' in the GOA groundfish fishery, in 1995 and 1996.

Based upon the analysis performed by the Council staff in connection with the LLP proposal, there are (at least) 365 groundfish vessels which would have the legal ability to move between groundfish fisheries in the BSAI and one or more of the GOA management areas. Of these, 285 are LLP-designated "catcher-only" vessels. This group is comprised of 19 boats "greater than 124'" in length; 154 boats in the "60' to 124'" class; and 112 boats "under 60' in length".

Eighty qualifying vessels are LLP-designated "catcher/processor". Forty-seven of these are reportedly "greater than 124'" in length; 31 are "between 60' and 124' in length"; and 2 are listed in these data as being "less than 60'".

Would the implementation of IR/IU regulations in one area, but not the other, actually create a sufficient economic incentive to induce area switching? And if so, how many operations would actually shift substantial amounts of fishing effort from the Bering Sea/Aleutian Islands fisheries, into Gulf groundfish fisheries, to avoid IR/IU?

At present, these questions cannot be answered definitively. It may be sufficient to address the Council's concern, however, to note that apparently ***significant*** numbers of vessels, representing a ***substantial*** amount of fishing (and processing) capacity, have the ***potential*** to move between the BSAI and GOA management areas. The possible undesirable economic and socioeconomic impacts can be largely avoided by assuring that a *"substantially equivalent"* IR/IU management program is implemented in the Gulf of Alaska, simultaneously with the IR/IU program in the Bering Sea/Aleutian Islands area.

## 4.0 Monitoring Increased Retention

The proposed IR management action could confirm *retention* compliance principally in two ways. The first involves the procedures for verifying IR compliance during random at-sea boardings by the Coast Guard and NMFS Enforcement Officers. In the case of an enforcement boarding, catch round weights reported in the vessel's fishing log would be compared to the round weight equivalent catch estimates obtained by "back-casting" from primary product weights. That is, boarding officers would physically inspect the product in the vessel's hold, identifying species/product form and product weight. From this information, a "round weight equivalent" estimate of the catch would be derived. This estimate would be compared to the logged catch weight. If the two sources of catch estimates, for each species of concern, are within acceptable limits, compliance with the *retention* requirement would be confirmed.[10]

The second means of monitoring retention compliance under this alternative could rely upon the review of catch and production reports, submitted by industry to the agency, along with the associated observer catch records. Each operation participating in any GOA groundfish fishery is required to maintain and submit regular reports to NMFS (or to the State of Alaska), on catch and/or production, e.g., Weekly Production Reports, ADF&G Fish tickets, Daily Fishing Logs, etc. On the basis of these reports, NMFS could derive

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[10] There may be some practical difficulties with relying on hold-counts at sea. In some cases, it may not be possible to compare catch round weights with the primary product weights without escorting the vessel to port to perform a case-by-case hold count. Although a volumetric hold count may be sufficient for giving a general idea of the amount of product onboard a vessel, it is not exact. Bulkheads, conveyor belts, and other obstructions can undermine accuracy. If the logbook and volumetric hold count do not match, then a case-by-case count must be conducted in order to substantiate a violation. For a variety of reasons, including safety considerations, a case-by-case count will likely not be conducted at sea.

estimates of total catch, by species of concern, both from catch records and by use of standard PRRs applied to reported product. These estimates could then be compared to observer catch estimates, for the same operation and period. If the two estimates agree, within some reasonable limit (to be specified in the enabling regulations), retention compliance would be assumed.

Reliance upon this monitoring system has several potential difficulties. First, it necessitates combining catch estimate information from different sources (observer and processor), which will lead to conflicting conclusions in some cases. Another difficulty in this method is that observer estimates of total catch and species composition are made on a *haul-by-haul* basis. Production data is recorded daily and is not required to be tied to a specific haul, although record keeping and reporting requirements could be changed. Finally, with existing observer coverage levels, it will be possible to apply this compliance verification method ***only*** to the observed hauls, and not to all catch of the vessel (or delivered to a plant).[11]

Another potential limitation is the substantial reliance upon "industry supplied" catch and production reports. Indeed, unless an operator essentially *"self-reports"* a violation, by maintaining or submitting catch logs which are in significant disagreement with its own production reports or product in-the-hold when boarded, it is highly unlikely that failure to comply with the 100% retention requirement will be detected.

As proposed, this alternative would rely primarily upon existing observer, enforcement, and management staff and resources.[12] Therefore, if adopted as proposed, there would be ***no significant additional cost*** attributable to IR Compliance Monitoring in the GOA management area.

## 5.0 IR/IU Conflicts with Other Regulatory Requirements

The Gulf IR/IU program could be in conflict with a number of existing management practices, regulations, and Federal statutes. These conflicts present a range of challenges for the design and implementation of a workable retention/utilization program.

### 5.1 Directed Fishing Standards (Maximum Retainable Bycatch amounts)

Annually, NMFS assesses each groundfish TAC to determine how much of a species' TAC is needed as bycatch in other groundfish fisheries. The remainder is made available as a directed fishing allowance, defined in regulations as, *"... any fishing activity that results in the retention of an amount of a species or species group onboard a vessel that is greater than the maximum retainable bycatch (MRB) amount for that species or species group."*

Current regulations prohibit the retention of a species closed to directed fishing in amounts that exceed the MRB percentage, and all excess catch **must** be discarded. The MRB percentages established in regulations serve as

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[11] For reference, observers sample about 60 percent of hauls on "100%" observed trawl vessels, somewhat more while actually on-board "30%" vessels, but obviously much less of total catch for such operations, and nothing of the catch of vessels under 60'. In the GOA groundfish fisheries, the vast majority of vessels are "unobserved", while many of the remainder are, at most, "30%" observed.

[12] If, however, no additional resources, e.g., FTE, are forthcoming in connection with adoption of GOA IR/IU, diversion of staff from other functions to monitor, investigate, and prosecute IR/IU cases will mean reduced efforts being applied to other programs.

a management tool to slow down the rate of harvest of a species placed on *"bycatch-only"* status and to reduce the incentive to fishing vessels to target on the species.

During the course of a fishing year, NMFS routinely closes "directed fishing" for specified groundfish species. Directed fishing closures occur because, 1) a fishery has reached a halibut, crab, salmon, or herring bycatch allowance, 2) the directed fishing allowance for a target groundfish species has been attained, or 3) because of overfishing concerns for another groundfish species taken as bycatch. If TAC is reached, however, the species becomes *"prohibited"*, and all catch of the species **must** be discarded.

Even if the Council adopts and the Secretary approves the GOA proposal, Directed Fishing Standards regulations will supersede IR/IU requirements.

The complexity associated with monitoring and enforcing compliance with the Council's IR/IU proposal is increased by the fact that mandatory retention of pollock, P.cod, or 'shallow water flats' is **secondary** to NMFS regulations that require discard of the portion of the catch of these species that exceed MRB amounts (or prohibit their retention when on *"prohibited"* status). However, the only alternative to directed fishing closures that would still allow for full retention under the proposed IR/IU program would be a program that required full retention of designated species, without triggering a directed fishing closure, as TAC is approached. Such a program would, necessarily, also require that once a species' TAC is reached, all gear/area fishing operations that would be expected to take any additional amounts of that species would be prohibited, i.e., complete fishery closures. This option could be expected to result in **significant** foregone harvesting opportunities, with substantial economic and socioeconomic consequences for affected sectors, dependent communities, and the Nation, as a whole, without commensurate off-setting benefits.

## 5.2 Interactions with Other Fishery Management Programs

VIP Bycatch Rates - Under the IR/IU proposal, vessels would have greater incentive to undertake action to be more selective in what they catch. Avoidance of certain fishing grounds or fishing depths, and gear modifications are obvious means to increase selectivity of catch. Some gear modifications, such as increased codend mesh size, could increase bycatch *rates* of prohibited species such as halibut or crab. This could occur because small-sized fish escape through the trawl/codend mesh, thus reducing the absolute amount of groundfish harvested per unit of time; yet the bycatch amount of halibut or crab would remain relatively unchanged.

Because *total catch*, **not** *retained catch*, is considered the basis for the bycatch rate, the denominator of the VIP compliance calculation is the weight of all groundfish in the sample. Vessels that undertake action to be more *"selective"*, in terms of their groundfish catch composition, e.g., under the IR/IU program, could increase their vulnerability to higher bycatch rates of halibut and crab, and thus of prosecution under the VIP.
Some have suggested specifying increased VIP bycatch rate standards in terms of *retained* catch. The option of redesigning the VIP using bycatch rate standards based on retained catch rather than total catch poses **prohibitive difficulties**, unless all groundfish catch is retained.

At-sea Weighing - Current methods for estimating discards and options for monitoring retention and utilization standards are discussed in Section 1.8 (Estimating Catch and Discards), Section 4.0 (Monitoring Compliance with Increased Retention Standards), and Section 6.0 (Increased Utilization) of the Gulf EA/RIR/IRFA. The use of scales would **not** alleviate most of the monitoring and enforcement difficulties identified in these sections. Scales would not provide direct measurement of discards, nor would they alleviate the uncertainty associated with verifying compliance with retention requirements by comparing observers' total catch weight estimates with the round weight equivalent of processed product (see Section 4.2.3). Furthermore, it is not possible to assess the potential cost of acquiring, installing, maintaining, and operating scales (or certified bins) on all potentially

affected vessels, at this time. It is, however, reasonable to assume that these costs would be **significant**. Because, it appears, total enumeration of catch will **not** substantially enhance monitoring and enforcement of IR/IU, there would be no commensurate off-setting benefit from requiring use of these technologies, under this action.

Moratorium on Entry - The requirements of the proposed GOA IR/IU program may potentially adversely impact vessels currently under the moratorium on entry. Vessel upgrades, which may become necessary because of the requirements of IR/IU, are limited by the 20% rule. Vessels unable to upgrade because of the moratorium length restrictions necessarily could find compliance with IR/IU technically impossible, and would have to substantially curtail or cease operations.

License Limitation Program - The license limitation program (LLP) has been proposed by the Council as another step in developing a comprehensive and rational management program for the fisheries in the U.S. EEZ off Alaska. Like the moratorium on entry, LLP would establish a MLOA for a qualified vessel that will be based on the length overall (LOA) of that vessel on June 24, 1992. The same 20% rule also would apply, except that the LLP would also require that a vessel remain within a specified vessel length class based on its June 24, 1992 LOA. This added limitation could exacerbate the problem of upgrading a vessel to meet the requirements of the GOA IR/IU program, cited above.

Loadline and Vessel Classification - Three principal requirements may impose significant barriers to IR/IU compliance for some (primarily the smallest) operations currently participating in the GOA groundfish fisheries. These include, 1) "Certificate of Compliance" [46 CFR sec. 28.710]; 2) "Loadline Certification" [46 CFR sec. 41-47, subsec."e"]; and 3) "Survey and Class" certification [46 CFR sec.28.720].[13] Not every vessel would be required to acquire each of these certifications. However, each of these certifications have the potential to impose significant costs on any operation which finds it necessary to obtain one or more of these in order to comply with IR/IU and/or remain operationally competitive under the GOA IR/IU program.[14]

## 6.0 The GOA Improved Utilization Alternative

The Council's "GOA Utilization Alternative" provides that the retained catch of the IR/IU groundfish species of concern may be processed into ***any*** form, regardless of whether or not the resulting product is suitable for "direct human consumption". The resulting output could, therefore, be meal, bait, or any other *processed product*.

Compliance with the IU requirement under this alternative would require only that *"... no whole fish of an IR/IU species of concern (initially, pollock and P.cod; subsequently, 'shallow water' flatfish) be discarded in-the-round..."*. That is, each pollock, P.cod, [and after five-years 'shallow water' flatfish] must either, 1) be delivered in-the-round for processing to an operation capable and authorized to process the fish, or 2) be processed onboard the catching vessel itself.[15]

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[13] Per. comm., Lt. Cmd. Mike Gardiner, U.S. Coast Guard, Juneau, AK., April 1996.

[14] Per. comm., Michael Macri, American Bureau of Shipping, Seattle, WA., April 1996.

[15] Under the LLP, as proposed, a vessel with a "catcher-only" designation will not be permitted to process its catch. This IU alternative would, therefore, require that it deliver (or otherwise convey) IR-species to an operator with the capability and authority to process groundfish, to be in compliance. A vessel with an LLP "catcher/processor" designation could either deliver (or otherwise convey) raw fish to an authorized processor, or process IR/IU regulated catch itself, to be in compliance with this IU alternative.

## 6.1 Impacts of Improved Utilization

The estimated "discard savings" and "retained product" values should be regarded as *preliminary upper-bound estimates* of the potential increase in output attributable to adoption of the competing IU alternative. In fact, the actual savings may be substantially lower if, 1) "regulatory" discards account for a significant portion of total discards, and/or 2) additional operating costs of retaining, delivering, and processing bycatch species are significant.

Assuming 100% retention of each of the IR/IU species of concern, and assuming the proposed IU alternative had been in place in the 1995 fishing season, the aggregate incremental increase in product value, deriving from IR/IU discard savings from all GOA groundfish fisheries, would have totaled approximately $11 million. Add to this the "retained product value" (approximately $114 million, in 1995) from the species/quantities historically retained and the total *gross* output value under the proposed IU alternative would have been approximately $125 million in 1995.

In 1996, the same estimates are roughly $12 million in *gross* product value deriving from "discard savings", $106 million in "retained product value, for a total of $118 million, all else equal (see Table 6.0). These figures must be regarded as an *"upper-bound"* estimate, since they reflect *"gross"* product value estimates which do not account for the cost of production. As a result, they "overstate" the potential value which may accrue from discard savings to an unknown, but perhaps significant, extent.[16]

## 6.2 GOA Fish Meal Reduction Capability

At present, meal capacity does not exist, to any significant extent, in many sectors of the GOA groundfish industry. For the base year 1995, a total of 19 operations in the GOA groundfish *at-sea* sector were identified as "... having fish meal production capability." When GOA *onshore* catch records were examined, a total of 5 processors were identified as having processed meal from GOA groundfish catches, i.e., have meal capacity. Interestingly, however, of these five facilities, three were identified as being in "Dutch Harbor", one in "Akutan", and one in "Sandpoint". Apparently, a portion of the Gulf groundfish catch is being landed and processed outside of GOA. In 1996, 17 at-sea operations were cited as "having meal capability", while five onshore operators were identified. The onshore group again included the plants in "Dutch Harbor" and "Akutan". The Kodiak community facility did not show up in these counts because it is not a "primary processing" facility. It, nonetheless, represents a significant capital asset within the context of the proposed GOA IR/IU program, as noted below.

With respect to the *onshore* fish meal component, the Gulf should be regarded as comprised of a number of different and relatively distinct areas.[17] Most of the pollock and Pacific cod shorebased tonnage caught in the Gulf of Alaska is delivered to Kodiak where, reportedly, adequate meal facilities exist. Industry sources suggest that the Kodiak plant is capable of handling all the whole fish sent to it for meal production.

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[16] It is implicit in these estimates that no operational adjustments are made in response to the IU requirements. That is, we have not attempted to predict the response of the industry, at the advice of the IR/IU industry working group.

[17] Chris Blackburn, Alaska Groundfish Data Bank, "Re: GOA IR/IU". February 25, 1996.

There is, at present, one meal plant in the Western Gulf. According to industry sources, the smaller Western Gulf processors may have to incur costs under IR/IU, either for a meal facility or for shipping unused whole fish to a meal facility. Recently, plans to build a fish meal reduction facility at King Cove have been made public. The facility is expected to "come on-line" in January, 1998, coinciding with the proposed implementation date of IR/IU.[18] This could represent an important additional asset available to GOA groundfish operations as they seek to comply with IR/IU requirements.

The Cook Inlet/Prince William Sound area does not have meal plants, but processes only a relatively small amount of groundfish. Owners of several of the plants in this area report they may incur some adverse impacts, but feel IR/IU is *"... worth the cost"* (ibid.).

Southeast does not have meal capacity, although groundfish deliveries are mostly from pot and longline gear. Most of these deliveries are IFQ species where IR/IU is already mandated for Pacific cod. Pollock is, according to these sources, rare in a longline or pot operation. No significant net change is expected in these fisheries as a result of adopting IR/IU.

As noted, the major source of fish meal reduction capacity in the GOA is, at present, located in Kodiak, where Kodiak Reduction, Inc., processes discards and waste from several facilities in the community. One should not underestimate the importance to the IR/IU proposal of this operation as a source of fish reduction capacity in the GOA. Indeed, because the collective fleet of GOA groundfish fishing and processing vessels is composed of so many relatively small vessels, it is almost literally impossible for the existing fleet to acquire additional meal capacity, at-sea. It must, therefore, largely rely upon onshore capacity (at least in the short run) to comply with the IR/IU mandate, for that portion of the bycatch which is "unavoidable", and yet "unmarketable" in a form other than meal.

The foregoing discussion indicates that fish meal reduction capability is limited and concentrated largely onshore within the potentially impacted GOA groundfish fisheries. While "through-put" (i.e., raw material input/meal output) information for the existing reduction capacity is, for the most part, not currently available, it would appear that reliance on meal production as a "primary" means to absorb the increases in retained bycatch is, in general, **not feasible** for most fisheries which would come under IR/IU regulation. This may be so, not only because of the limited number of meal plants in a sector, but also due to physical and logistical considerations of operators without plants.

### 6.3 GOA IU Monitoring and Compliance

As adopted for BSAI, and proposed for GOA, monitoring "utilization" compliance under the IU alternative would require that the sum of the product weights of all primary and ancillary product forms, prepared from the retained catch, by species, be *at least* 15% of the logged catch weight of that species. In other words, if an operation recorded catches of, say, P.cod in a given reporting week of 100 mt, the GOA IU alternative would require that the *aggregate* product weight for all primary and ancillary products made from that 100 mt of cod equal at least 15 mt, to confirm compliance with the *utilization* standard.[19] The *minimum* 15%

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[18] Per. comm., Mr. Clyde Sterling, Peter Pan Seafoods, February 26, 1997.

[19] The 15% PRR was identified as an "acceptable" *minimum* utilization standard by the IR/IU Industry Working Group and adopted as part of that group's report, for purposes of this analysis, by the Council at its April 1996 meeting.

"utilization" threshold is only half the test for compliance, however. That operator must ***simultaneously*** meet the "retention" standard, discussed above under GOA IR, to be judged "in compliance" with the requirements of IR/IU (i.e., compliance with *either* standard, in the absence of the other, is not sufficient).

As noted in the context of the BSAI Amendment, the ability of NMFS to monitor **any** utilization requirement associated with the GOA IR/IU alternative will be limited, and some "leakage" will be unavoidable. This is so for several reasons. First, some fish are inevitably damaged beyond use in both the fishing and processing activities of any operation. The quantities involved would be expected to be relatively small, however.

Second, reliance upon PRRs as a tool to monitor compliance on an individual operation basis is expected to present difficulties. Third, GOA groundfish fisheries are dominated by small vessels, thus, observer coverage of the various target fleets will be limited. Fourth, GOA groundfish production is dominated by the onshore sector, effectively placing the majority of groundfish production activity outside the Council's IR/IU program, for "utilization" monitoring and enforcement purposes. Finally, no monitoring is possible beyond the "primary" processing level in any case. This constrains, even further, the agency's ability to assure complete IU compliance.

### 6.3.1 Monitoring Procedures

The proposed method of assessing IU compliance would rely primarily upon random boardings of processing vessels (and presumably "spot-checks" of plants[20]) by U.S. Coast Guard and/or NMFS Enforcement agents, and auditing of catch and production records periodically submitted to NMFS, as an inducement to IU compliance.

In the case of random boardings (or "spot-checks"), the logged catch of the species of concern would be compared to the product weights, by statistical reporting area, of all products onboard (or appearing in production logs). A judgment as to *"utilization"* compliance could then be made by the boarding officer, on the basis of criteria specified in the IR/IU enabling regulations and discussed above, and (if necessary) an enforcement action initiated.

Leakages will occur, and should be anticipated, under this IU compliance monitoring system. However, the *risk* of detection of violations of the utilization requirement is expected to provide a sufficient *"incentive-for-compliance"* to achieve an acceptable level of adherence to the IU mandate, while recognizing the limitations of a program based on "secondary" data and existing monitoring and enforcement capabilities.

No provision for increased observer or enforcement resources is contained in the Council's proposed GOA IU action. Therefore, adoption would impose **no significant** additional administrative, monitoring, or enforcement costs, as compared to retention of the "status quo" alternative.

## 7.0 Improved Utilization and the Marketplace

In the first five years following implementation of the GOA action, only bycatches of pollock and P.cod would be required to be fully retained. If catch composition is assumed essentially constant at the base-year levels, then the total quantity of additional landings, from GOA IR/IU regulated groundfish fisheries, of *pollock* would

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[20] As noted, the conduct of IU compliance "spot-checks" of onshore plants by Federal enforcement personnel would require the State of Alaska to adopt regulations extending such authority.

be expected to represent between 10% and 11% of pre-IR/IU landings, while increases in *P.cod* landings would be between 5% and 11%. If the industry, as hoped, reduces bycatches of unwanted pollock and P.cod by adopting alternative fishing techniques or technologies, these increases could be somewhat smaller.

Because the GOA groundfish fisheries account for only a small fraction of the total U.S. domestic production of P.cod and Alaska pollock, the effects of adopting this program should have a minimal impact on the aggregate market for these U.S.-processed products.[21]

Even if we assume that the "high end" of the range of retained bycatch of pollock and P.cod in the GOA fisheries is realized, the quantities involved would be on the order of 8,000 mt round weight for each species, per year. It is apparent that an increase of this size in a U.S. domestic fishery that produces annual pollock catches in the range of 1.3 million mt to 1.4 million mt, and P.cod catches of more than 310,000 mt, per year, would be expected to have ***'no discernable impact'*** on either market supply or price.[22]

Localized effects could accrue if small and/or isolated operators were required to absorb a disproportionate share of these IU induced increases, but there is no indication that such a result would occur. Because of the sheer size of the pollock and P.cod fisheries in the BSAI, GOA operators would be expected to have very little market leverage and would, effectively, be *"price-takers"* in this market.

## 8.0 Legal Authority

A December 1, 1989, memorandum from the NOAA Office of General Counsel to the North Pacific Fishery Management Council summarized the Council's authority to prohibit roe-stripping and increase retention and utilization of pollock:

*(1) There is authority under the Magnuson Fishery Conservation and Management Act to limit wasteful practices. Controlling wasteful practices is as legitimate a purpose as conserving a stock of fish or allocating fishing privileges. Requiring fuller utilization of a fishery resource should be justified as a means of achieving optimum yield.*

*(2) There are a multitude of conservation and management measures, directed at harvesting activities, available to eliminate or restrict practices such as roe-stripping. These include seasons, quotas, gear requirements, discard restrictions, and catch limits.*

*(3) There is also authority under the Act to limit wasteful practices requiring at-sea processors to retain harvested fish rather than discarding them. At-sea processing is "fishing" subject to regulation under the Act.*

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[21] In 1995 and 1996, reported BSAI pollock catch accounted for over 95%, GOA just under 5.0%, of the aggregate catch of this species. For P.cod, BSAI accounted for 78%, GOA 22%, of aggregate catch in each year.

[22] Eight-thousand tons of pollock would represent an increase in total U.S. landings of this species of just over 0.5%. An equivalent quantity of P.cod would increase total landings of this species by 2.6%, over average 1995-96 reported levels. These percentages would be smaller yet, once BSAI IR/IU retention of 100% of that region's pollock and P.cod bycatch is added to total production.

*(4) There is authority -- though not as clear-cut -- to limit wasteful practices by requiring at-sea processors to utilize fish flesh for food products and fish meal. There have been no instances thus far of directly mandating what a processor does with legally possessed fish for purposes of full utilization.*

*(5) There is no authority to limit wasteful practices by regulating onshore processors, because onshore processors can be regulated only indirectly as an incidence of managing "fishing."*

This remains the opinion of the NOAA Office of General Counsel.

As a result of this legal opinion, the need for the Council to affirm that the State of Alaska will adopt *"essentially equivalent"* regulations governing the utilization of IR/IU species by onshore processors is fundamental to the viability of the proposed GOA IR/IU amendment.

In the absence of parallel regulations, roughly 75% of total GOA groundfish production would be beyond IR/IU management authority. Under such a circumstance, it is unlikely that the primary objectives, identified by the Council for GOA IR/IU in its problem statement, could be a achieved, (i.e., the GOA IR/IU alternative would not produce significant improvements in retention or utilization of bycatch). Furthermore, under these conditions, the proposed action would likely impose a significant, disproportionate, and unjustifiable economic burden on one segment of the industry. As a result, the expected benefits from adopting IR/IU for GOA would most probably **not** exceed the attributable costs (i.e., there would likely be **no *"net benefit to the Nation"***). [23]

[23] In addition, this becomes particularly significant from a management perspective, for the viability of the IR/IU program as it pertains to the relationship between the processing plant and the delivering vessel. It is necessary that an IR/IU program *require* a processor to accept all pollock, P.cod, and (eventually) 'shallow water' flatfish offered for delivery, by vessels operating in GOA IR/IU regulated fisheries. If such a requirement does not exist, rejection of deliveries would constitute effective discarding of IR/IU regulated species by the processor, and place the catcher-boat operator in an untenable position, i.e., no means of delivering the IR/IU-regulated catch, and a strict prohibition against discarding it.

Lew Q (6b)

# Percent of Total GOA Groundfish Catch Observed

**(by gear-type and target, 1995)**

| GEAR-TYPE<br>Target | UNOBSERVED | 30% OBSERVED | 100% OBSERVED |
|---|---|---|---|
| **JIG** | | | |
| P.cod | 99% | 0% | 1% |
| Rockfish | 100% | 0% | 0% |
| **LONGLINE** | | | |
| P.cod | 40% | 52% | 8% |
| Rockfish | 99% | 1% | 0% |
| Sablefish | 56% | 38% | 6% |
| Other | 28% | 48% | 23% |
| **POT** | | | |
| P.cod | 59% | 39% | 2% |
| **TRAWL** | | | |
| Pollock (bottom) | 30% | 62% | 8% |
| Pollock (pelagic) | 14% | 68% | 18% |
| P.cod | 26% | 52% | 22% |
| Shallow Flats | 13% | 83% | 3% |
| Sablefish | 1% | 0% | 99% |
| Arrowtooth | 19% | 63% | 19% |
| Rex sole | 0% | 55% | 45% |
| Flathead sole | 1% | 70% | 29% |
| Deep Flats | 3% | 77% | 20% |
| Rockfish | 0% | 9% | 91% |
| Other | 2% | 6% | 93% |

Source: NMFS Alaska Region Blend, ADF&G Fishtickets. All targets calculated by AFSC staff.

Fishermen's Finest

# North Pacific Fishing, Inc.

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April 15, 1997

Richard B. Lauber, Chairman
North Pacific Fisheries Management Council
605 West 4th Avenue
Anchorage, AK 99501

**RE: IR/IU Agenda Item C-5**

Dear Chairman Lauber:

Our company has submitted testimony on the IR/IU proposal with respect to its effect on the head & gut (H&G) catcher-processor fleet throughout the Committee and Council review process. Prior to the Council's release of the Draft GOA EA/RIR, we once again would like to comment on serious flaws that we perceive in the IR/IU that has been submitted for the Council's consideration. Simply put, the EA/RIR before the Council states that the proposal approved for the BSAI will not meet its first goal: assuring the long-term health of the stocks. Further, the BSAI EA/RIR did not provide sufficient analysis to determine whether or not the proposal meets the Council's second goal: reducing bycatch and waste while improving utilization.

The irony of this is that the current proposal is that the EA/RIR recognizes that it will hurt a small offshore fleet that does not compete in a significant way with the large entities that have meal plants and thus will not be affected by the regulation. The current plan encourages continued economic loss and waste by: 1) allowing the fish that are currently discarded be turned into meal, and 2) encouraging the use of resources to produce products worth less than the cost of production.

I urge you to consider and correct the flaws of the BSAI EA/RIR prior to releasing the GOA EA/RIR. Specific comments follow.

**1. The BSAI EA/RIR analysis concludes that there will be no environmental benefit resulting from the IR/IU plan, otherwise the CEQ regulations would be required to prepare an EIS.**

the Council of Environmental Quality regulations implementing NEPA state that it is necessary to prepare an EIS for significant federal actions affecting the environment. The EA/RIR concludes that none of the options would result in a "significant regulatory impact" or "significantly affect the quality of the human environment" (BSAI EA/RIR, page 143.) However, the test for *significance includes beneficial effects.* (See 40 CFR 1508.27(b)(1).) In other words, if there is no finding of significant impact resulting from IR/IU, there is no environmental benefit expected from the proposal.

Effects which trigger an EIS also include indirect effects such as changes in the use of ecosystems, and changes in historic and social effects whether or not they are indirect or cumulative. (40 CFR 1508.8(b)). Significance also flows from the degree which the effect on the human environment is highly controversial (1508.27(b)(4)) or will establish precedent. (1508.27(b)(6).) The fact that the primary stated goal of the program is to avoid public censure of "waste" at the national level implies that this proposal is controversial. It certainly stands to establish a precedent for the nation and therefore deserves the close consideration of an EIS. In other words, the EA/RIR's finding that the H&G community will be significantly disadvantaged is contrary to the Secretary finding that IR/IU will have no significant impact.

Finally, no legislative EIS was performed when Congress adopted the current *Magnuson-Stevens Act* improved utilization provision, therefore the public and Congress needs the benefit of the EIS on IR/IU as much as the agency. Congress left the details of the program to NMFS and having no legislative EIS to assist it, NMFS must prepare one. (NEPA Sec. 102(C)).

**2. Since the EA/RIR found no environmental benefit resulting from the IR/IU proposal, Executive Order 12866 requires that a cost benefit analysis be performed.**

No cost-benefit analysis was performed for the BSAI EA/RIR. If there is no biological benefit, a significant reduction in the economic benefits to the nation as a result of the proposal must undergo cost-benefit scrutiny. (EO 12866, 58 FR 51735, (1993).) While the BSAI EA/RIR specifically states that no quantitative cost benefit analysis was performed, the BSAI EA/RIR determines that IR Option 1, 100% retention of selected species (the only IR option), in combination of any of IU options would result in substantial economic impact on small entities. (Page 143, paragraph 3.)

As an example of these effects found by the analysis, the EA/RIR states:

> "[A] vessel limited to H&G operation will be **significantly disadvantaged . . .**" (BSAI EA/RIR, page 31, *emphasis in original.*)

However, the analysis provides the decision makers with no quantitative analysis of that cost. The BSAI EA/RIR essentially shows that the IR/IU program defeats the stated goals of the program by reducing the benefits to the nation gained from the groundfish fishery. To justify such a drastic result without a corresponding environmental benefit, an EIS must be prepared so that the decision makers are aware of and balance the effects of the program.

**3. The plan does not answer the goals identified by the Council's problem statement.**

Failure to meet Goal 1: Seeking to assure the long-term health of the fish stocks.

This BSAI plan as currently constructed will most likely result in a decrease of long-term economic benefits to the nation (BSAI EA/RIR, 7/1/96, pages 8-17) while failing to provide any conservation or positive environmental impact. (BSAI EA/RIR, pages 8-17. See discussion of item 1, above.)

Failure to Meet Goal 1: Reducing Bycatch, Waste, and Improve Utilization.

Further, the BSAI EA/RIR did not provide sufficient analysis to determine whether or not the proposal meets the Council's second goal. While some short attention was paid to defining waste, there was not sufficient analysis to resolve the real question raised by the program, will we expend more resources and receive less benefit from our fish resources by implementing the proposal? (See discussion of item 2, above.)

**4. Possible Adverse Environmental Impacts:**

The proponents of the proposal have stated that part of the goal of the program is to encourage fishermen to use gear that results in minimal bycatch and promotes escapement. However, the NMFS has refused to implement a regulation approved by the NPFMC requiring the use of large mesh trawl nets to reduce the harvest of small unmarketable fish.

I understand that the Chief of NMFS Fisheries Management Division has expressed concern over allowing the use of larger meshed trawl nets. He is concerned that increased escapement will reduce the effectiveness of Catch Per Unit Effort (CPUE) data used in determining stock abundance thus either lowering biomass assessments or increasing the uncertainty of the assessments. If the IR/IU program is intended to change fishing behavior in a manner that will degrade the ability of stock managers to perform their functions, the proposal's efficacy should be rigorously questioned by an EIS.

**5. New evidence of the inability to monitor and manage the program has developed.**

The enforcement of IR/IU relies heavily on back calculation using NMFS standard product recovery rates (PRRs). While it had been thought that PRR's were considered an effective management tool for H&G vessels, *we have recently learned that NMFS is not confident that it can calculate a vessel's retention looking into the vessel's hold.* Because NMFS has so little confidence in PRRs, it currently manages the fishery by estimating retained product through the use of extrapolated observer data that has been blended with vessel data. Given the fine line between retaining too much product and retaining to little under the IR/IU regulations, the regulation become untenable when the PRR method of calculating retention is no longer reliable.

While NMFS enforcement has promised to resolve such problems by a common sense approach, NMFS has recently determined that even if a regulation defies common sense and the history behind it, the regulation must be strictly interpreted and applied. (NMFS Alaska Region News Release 97-44, 4/2/97). NMFS must resolve this problem before it can implement the proposed IR/IU regulation.

**6. Failure to Consider Size Restriction Alternatives Already in Use in the Crab and Halibut Fisheries.**

Perhaps the most unfortunate failing of the IR/IU proposal is that the analysis looked at only one improved retention option. (BSAI EA/RIR, pages 4 & 5.) All other options submitted were

rejected prior to analysis. We strongly believe that at least the Council must at least analyze the option of requiring retention only of fish deemed marketable by virtue of being over a certain minimum size. While other fisheries managed by NMFS have lower end size limits (eg: 36" for the directed Pacific Halibut fishery), the Council has, so far, refused to consider industry proposals to have IR/IU only require retention of fish greater than 1.0 lbs. or 1.5 lbs. (eg: 12" to 18") citing enforcement concerns.

A minimum size standard applied to the IR/IU proposal would make this an effective program for reducing waste. The analysis itself bases its cost/benefit calculations on a set of minimum marketable sizes (EA/RIR, pages 126 - 127):

| Species: | Weight: | Length: |
|---|---|---|
| Pacific cod | 900 -1,360 grams | 47 cm |
| Pollock | 350 - 450 grams | 40 cm |
| Rocksole | 300 grams | 29 cm |
| Yellowfin Sole | 260 grams | 28 cm |

While these sizes would still place great constraints on both the fleet and shoreside plants as well as on our industry's current markets,** they are an independent assessment that can serve as a basis for a minimum size standard above which the IR/IU program would apply.

The fact that only one alternative was considered for improved retention is a serious defect in the analysis, and the fact that the above described option of using traditional size restrictions is available, strongly suggests that this alternative should be considered as viable for the purposes of analysis even if the NPFMC does not intend to select that alternative.

**Conclusion:**

I urge you to correct the flaws in the BSAI EA/RIR by performing an EIS with cost benefit analysis on the IR/IU Proposal prior to sending it out for public comment. Since the National and Regional fishing industry economies are of concern to the Council, the Council has the time to carefully consider these alternatives since there is no environmental benefit expected from IR/IU.

Sincerely,

Rudy A. Petersen

Rudy A. Petersen

** For example, this includes a great deal of cod under the 6 lb. size necessary to receive full price for catcher-vessel deliveries last summer.