### **MEMORANDUM**

TO:

Council, SSC and AP Members

FROM:

Clarence G. Pautzke

**Executive Director** 

DATE:

January 25, 1999

SUBJECT:

Groundfish Management Issues

ESTIMATED TIME 6 HOURS (all D-1 items)

### **ACTION REQUIRED**

(d) Receive report from Vessel Bycatch Accountability (VBA) and Halibut Mortality Avoidance Program (HMAP) Committees and consider implementing pilot programs.

(e) Discuss differences between state and federal definitions of pelagic trawls.

(f) Consider adequacy of current methods.

#### BACKGROUND

# (d) <u>VBA/HMAP Committees</u>

In October 1998, the VBA/HMAP Committees reported on their findings, and recommended that a pilot program be developed for both VBA and HMAP. The Council tasked the committees to hammer out the details of VBA and HMAP pilot programs. In December, the Council also tasked the VBA committee with developing options for PSC caps for co-op vessels in non-pollock fisheries as part of the American Fisheries Act amendment measures.

The Committees met again on January 7-8 at the Alaska Fisheries Science Center. Minutes from the meeting are attached as <u>Item D-1(d)(1)</u>. Committee chairs Steve Hughes (VBA) and Beth Stewart (HMAP) will be available to report on the Committee's findings and recommendations. At this meeting, the Council will review the committee report and determine the next steps.

### (e) Pelagic Trawl Definition

In March 1999, the Board is scheduled to take complementary action for state waters to mirror the bottom trawl ban in federal waters adopted by the Council in June 1998. The Board sent a letter to the Council (see Attachment 2(b)(1) of joint Council/Board meeting) which identifies a conflict between the federal and state definitions of pelagic trawl gear. The federal definition is included as Attachment 2(b)(2) of the joint NPFMC/BOF meeting. At its meeting in January 1999, the Joint Board/Council Committee recommended that this issue be referred to the Council's Enforcement Committee. A report would be scheduled at the next joint Committee meeting (tentatively in July 1999), allowing possible action by both the Council and BOF in the fall of 1999.

# (f) Total Weight Measurement

Sections 313(h)(1) and (2) of the Magnuson-Stevens Act require that the Council assess and make determinations about the adequacy of the total catch weight estimates on which the management of the North Pacific groundfish fisheries is based. At its meeting in February 1998, NMFS provided information to the Council on the accuracy of catch estimates for groundfish and prohibited species. Based on this and other information, the Council's SSC determined that the North Pacific groundfish fisheries are one of the best monitored fisheries in the world, although improvements always can be made. Also in February, ADF&G reported that its harvest enumeration methods for all scallop, salmon, crab, and groundfish species managed under FMPs, were adequate to meet the requirements of the Act.

The Council then requested analysis of a requirement for either certified bins or scales in the offshore BSAI pollock and yellowfin sole fisheries. It also requested NMFS to prepare a matrix of current measures used in each fishery and a framework plan to improve total catch estimation over time, and report back to the Council as staff availability allows. And finally, the Council asked NOAA GC to provide a legal opinion on whether the Council was meeting the requirements of the Sustainable Fisheries Act.

In October 1998, NMFS reported back to the SSC and AP on catch accounting methodology for each BSAI and GOA fishery. Item D-1(f)(1) contains the NMFS report and SSC and AP comments. The Council did not have time to receive this report in October. Since the February 1998 meeting NMFS has implemented at-sea scale performance standards and criteria as a precursor to the at-sea scale requirements established for the MS CDQ program. Currently, 20 catcher/processors and two motherships have scales approved by NMFS for use in the MS CDQ fisheries. The AFA also requires all pollock catcher/processor vessels to have NMFS-approved scales onboard by 2000. Therefore, with the exception of pollock mothership operations, the pollock fishery will be using scale weight measurements of catch by the year 2000, as will some other non-pollock catcher/processors that participate in the MS CDQ fisheries.

Time is needed to assess the new at-sea scale weight measurement program before it is further expanded. NMFS should be requested to report to the Council at the end of 1999 and 2000 on the use of scales for total catch weight measurements so that the Council can better assess the feasibility of expanding this program beyond the pollock and MS CDQ fisheries.

# VBA/HMAP Committee DRAFT Summary of Proceedings, January 7-8, 1999

### Members Present:

Steve Hughes (NRC/UBC, Chair VBA)
Beth Stewart (AEB, Chair HMAP)
Chris Blackburn (AGDB)
Craig Cross (Alaska Trawl)

Dave Fraser (F/V Muir Milach)
John Gauvin (Groundfish Forum)
Bob Alverson (FVOA)

The vessel bycatch accountability (VBA) and the halibut mortality avoidance (HMAP) committee met in Seattle on January 7-8 at the Alaska Fisheries Science Center. The primary objective of the meeting was to develop pilot programs for both VBA and HMAP. The Council had also tasked the VBA Committee to develop options for PSC caps for co-op vessels in non-pollock fisheries.

## **VBA Pilot Program**

The Committee developed a pilot program for VBAs. The Committee worked from a proposal (prepared by Dave Fraser), that incorporated many of the elements that the committee had discussed at previous meetings. This is a very simplified version of a program previously considered by the committee. It is the fervent wish of the Committee that this pilot program be implemented in 2000 by experimental fishing permit or other means. Details of the pilot program are listed below:

<u>Purpose</u>: to achieve bycatch savings, provide positive incentives to participants, and achieve OY.

Length: two years, but pools have annual commitment (vessels can't leave) and PSC allocations are annual

<u>Fisheries</u>: all BSAI and GOA non-pollock bottom trawl fisheries.

<u>Participation</u>: voluntary, but subject to certain criteria. <u>Eligibility</u>: any trawl vessel with landings in 1995-97.

<u>Pooling</u>: a minimum of five vessels (of any sector mix) must be included in each pool.

Monitoring: - for catcher/processors: 2 observers, one of whom is MS-CDQ qualified, and scales.

- for catcher vessels sorting onboard: one observer, and full retention of groundfish until delivered

and weighed (regardless of vessel length).

- for motherships receiving unsorted codends: 2 observers, one of whom is MS-CDQ qualified.

Pool monitoring: In addition to normal NMFS reporting, all vessels would utilize an independent monitoring

service and make daily reports which would be distributed to the authorized representative of

each vessel.

PSC Species: halibut and crab in BSAI; halibut in GOA

Bycatch reduction: PSC for participating vessels would be reduced by 5%. It would not be re-allocated.

<u>Use restriction</u>: A pool would only be able to use 25% of its PSC caps outside the open access seasonal

apportionment and/or in a target fishery other than from which the PSC cap was derived.

Allocation: The proportion of the PSC limit for a target fishery to be apportioned to a pool will equal the

proportion of the total catch in that fishery accounted for by vessels in that pool 1995 though 1997; 5% of that would be set aside to decrese bycatch. In other words, allocation would be based on 1995-97 catch history of vessels participating in each pool. PSC is determined using average catch of all groundfish in each target times the PSC allocated to that fishery in the year 2000 and

2001. See the table below for an example.

Procedure: Interested vessels form a pool and prepare a proposal of their group to participate in the pilot

program. The proposal describes how they will meet the guidelines specified by NMFS, including monitoring, reporting, internal pool rules for transfer, etc. NMFS decides which pools can participate. If approved, pools are notified of how much PSC they will have limited to specified

targets, and how much PSC is available for use in other targets.

Size of Program: NMFS will determine how many pools that they can manage under this pilot program. The Committee recommends that a minimum of three pools be approved, with approval based on a ranking of the proposals merits.

The Committee used the chalkboards to help understand how the allocation would work. It's actually quite simple, as shown in the adjacent box. The numbers shown in bold are those that would be "issued" to the pool. The "fixed" PSC is the amount that must be used in the target fishery; the "flex" PSC is that amount that can be used in any fishery and/or outside of the seasonal apportionment.

	Ave 1995-97	Ave 1995-97	Year 2000			
		Total groundfish	Total halibut	Pool Share	Pool's "Fixed"	Pool's "Flex"
Target	in target (A)	in target (B)	in target (C)	(A/BxCx.95)	halibut PSC	halibut PSC
COD	5,000 mt	50,000 mt	1,500 mt	142.5	106.875 mt	35.625
YFS	2,000 mt	20,000 mt	1,000 mt	95	71.25 mt	23.75
RS/FH	3,000 mt	30,000 mt	700 mt	66.5	52.5 mt	17.5
Total						76.875 mt

The Committee discussed concerns about a multi-species VBA pilot program versus a single species program. The concern was that vessels currently participating in cod fisheries could use some of their "flex" PSC to target flatfish, potentially affecting the current group of vessels that target flatfish (higher supply, lower prices). On the other hand, vessels currently targeting flatfish could participate in cod fisheries, and increase their catch of codfish but the suballocation between catcher processors and catcher vessels limited potential for expansion in this direction. A single species program, such as yellowfin sole for example, would only allow those vessels targeting yellowfin sole to use their PSC savings to catch more yellowfin sole. The Committee addressed these concerns by recommending a multi-species pilot program, but limited the amount of "flex" PSC to only 25%.

The Committee also wished to note the following:

- 1. Floating caps should be considered in the future.
- 2. The observer program will need to set guidelines for monitoring compliance in a VBA pilot program.
- 3. Currently, there are a limited number of MS CDQ trained observers.

### **HMAP Pilot Program**

John Gauvin showed a video on his experiment with a halibut excluder device. The halibut excluder is essentially an aluminum grate sewn into the trawl's intermediate, with an escape chute on the top for halibut to escape. The grate, which costs about \$5,000 to make, has PVC rollers on horizontal bars to help halibut and skates escape the net. John tested the device in the GOA deepwater flatfish fishery using two different vessels. Halibut bycatch was reduced 94% but catch of target species was reduced by 20%. While the Committee agreed that the excluder device provided promising results, the Committee did not feel that these devices should be required. Rather, the Committee noted that an HMAP or VBA program will provide incentives to avoid bycatch, and that the excluder device is still in developmental stage and effects of using this on different sized vessels remains unknown.

The experiment also provided another opportunity to test deck sorting procedures. After codends were hauled aboard, the catch was slowly dumped into fish holds. Crew members sorted out the halibut and set them aside for observers to measure and make viability observations. Sorting normally took about 3 minutes, but depended

on tow size and number of halibut caught. Procedures used for decksorting allowed for a large percentage of the halibut to be removed from codends on the deck.

The Committee reviewed John Gauvin's proposal for a HMAP pilot program, and suggested several modifications. These modifications were incorporated into the final draft (see attached). The Committee noted that it is not necessary that every halibut get sorted on deck to achieve reductions in halibut bycatch mortality. An estimate of those that get by will be provided within normal catch sampling procedures. Because processing would not be allowed below decks until deck sorting is complete, only one observer would be required.

The Committee strongly recommends that a HMAP Pilot Program be implemented for the 2nd quarter GOA deepwater flatfish fishery as soon as possible. This fishery takes place during a period of good weather, has a core group of participating vessels, and generally catches larger halibut that are more easily sortable. The pilot program as detailed should provide a more accurate assessment of halibut mortality, and provide incentives to lower the halibut mortality rate. The Committee also recommends that the pilot program participants be allowed to carry experienced observers to ensure that sampling does not hinder the experiment.

### **AFA PSC Sideboards**

In December, the Council tasked the VBA Committee with developing options for PSC caps for co-op vessels in non-pollock fisheries. The Committee reviewed this issue, and felt that it would be better to let the affected industry groups discuss this and report directly to the Council. However, the Committee suggests that, rather than use VIP rates to determine PSC caps, a better option would be based on catch history ratios (like suggested for the VBA pool limits).

Others in attendance at the meeting were:

Paul MacGregor Brent Paine Joe Terry Gregg Williams Dale Myer Mike Syzmanski Donna Parker Craig Rose Jan Jacobs Dave Benson Dave Witherell (staff)

# Draft HMAP Pilot January 26, 1999

Candidate fisheries for pilot: 2<sup>nd</sup> quarter GOA deep water flatfish fishery, or the July Oflat fishery in BS/AI. (First choice is 2<sup>nd</sup> quarter GOA deep water flatfish because GOA has large halibut which improves ability to sort, and survival probability is related to size of halibut)

Purpose: Pilot will allow interested participants to formally test and refine methods to lower the mortality assigned to their halibut bycatch. Currently, most trawl fisheries are achieving mortality rates that approach 80%. Lower mortality and additional fishing opportunities will be achieved by HMAP's procedures. Procedures include rapidly sorting halibut as the codend is emptied, counting and measuring halibut from the tow, assessing viability, and returning halibut to the sea. Participants in the pilot program will be compensated to their efforts to reduce mortality by benefiting from the halibut mortality rate assigned to participants in the pilot.

Voluntary Participation: Companies wishing to participate must sign up prior to the program and agree to follow all the procedures for deck sorting. In signing up, companies agree in writing to subject themselves to a list of both subjective and objective criteria to assess whether they are following the required procedures. Determinations by NMFS are binding and participants' recourse has specific legal limitations (e.g. complaints specifically limited to arbitrary judgements). Companies not wishing to participate can fish in the regular fishery on the halibut not assigned to the pilot.

Options for potential penalties: Those not deemed to be following deck sorting procedures: Revert to regular fishery participation during pilot.

Can no longer participate in either pilot or regular fisheries.

Forfeit ability to participate in HMAP if implemented beyond pilot.

Potential limits or restrictions on participation: LLP or AFA sideboards may prevent or limit participation of some vessels in pilot. The HMAP pilot is not intended to serve as a means of circumventing or preempting other Council restrictions. Option: Vessels can participate in pilot up to sideboard limits of groundfish catch if they meet LLP requirements.

Halibut set aside for pilot and regular fisheries: The proportion of halibut assigned to the HMAP pilot will be pro rata based on the number of participants wishing to participate and some measure of the division of catching power between vessels in the pilot fishery and those in the regular fishery. This assignment will be made through the annual specification process. No assignment of groundfish TAC between pilot and regular fisheries will be made to maximize incentives for reducing halibut mortality in the HMAP pilot.

Halibut mortality rate assignment to the pilot and regular fisheries: The halibut bycatch of vessels in the pilot fishery will be assessed at an estimated rate for the first one-half of the pilot fishery's halibut allocation. Viability data, averaged across all participants in the HMAP pilot during the first half of the fishery, will be used to recalculate the mortality from the first half of the fishery. This rate will also be used to determine the mortality rate for the second half of the pilot, but the overall effectiveness of the HMAP pilot will be assessed with the data from the entire pilot period. The regular fishery will receive the current IPHC/NMFS/Council halibut mortality rate.

#### Required procedures (checklist) for HMAP deck sorting:

Tow duration time limit of two hours. Verified by log book and possible spot checks by observer (note: tow tonnage restrictions have been dropped for practical reasons but tow time is likely to

- accomplish the same objective. Because participants gain additional fishing time by reducing mortality, it is anticipated they will keep codends small to keep viability high).
- No sorting (other than for halibut) or processing of fish from a tow that is selected for observer sampling until deck sorting for that tow is complete and observer is in position and ready for species composition sampling.
- Vessels must take observer coverage necessary to verify that deck sorting occurs on all tows. For larger vessels, this probably means two observers on board. For smaller vessels that will not fish around the clock, one observer at all times may be sufficient. Companies must submit a fishing plan with HMAP pilot application and applications will be reviewed for feasibility.
- Halibut must be counted and measured by census on sampled tows and viability must be assessed on all sampled tows (at least representative sample for viabilities and census if this will not increase mortality.)
- Codends must be emptied as soon as possible. Setting another net or switching codends before deck sorting occurs is not allowed.
- If weather conditions do not allow for reasonable safety during deck sorting, fishing during that period is assigned the IPHC/NMFS/Council halibut mortality rate. Viabilities assessed for halibut from tows where deck sorting was not possible will be used to "ground truth" deck sorting viability data.

### Halibut savings:

- Up front 5% reduction in halibut bycatch mortality assigned to HMAP pilot fishery. These savings are not to be harvested in other groundfish fishery.
- Groundfish needed to fund July rockfish fishery will be deducted off the top and April fishery closes when any TAC constraint (minus reserve for July fishery) is attained. Unused halibut from HMAP pilot does not roll to any other quarterly apportionment.

# Adequacy of Catch Accounting for Groundfish and Prohibited Species

# Discussion Paper

**Background.** Assessment of the adequacy of accounting for fishing mortality in fisheries under the jurisdiction of the North Pacific Fishery Management Council is required by the Magnuson-Stevens Act. The Act uses the terms "accuracy" and "enumeration." For purposes of this discussion, we assume the meaning of this language in the Act refers to the adequacy, for fishery management purposes, of the accounting for fishing mortality.

The only fishing mortality data in many fisheries, perhaps most fisheries in the world, are landing statistics. These statistics certainly under-represent fishing mortality. For non-target or bycatch species that are discarded at sea, landings data are useless to assess fishing mortality.

Compared to this norm, catch accounting in the North Pacific groundfish fisheries is much better. The program combining weekly reports from groundfish processors, and from observers aboard many catcher and processor vessels, collects data which enables estimation of fishing mortality for both target and bycatch species. A report, titled "Determination of Catch Quantity and Composition in the Federal Groundfish Fisheries off Alaska," was presented by NMFS to the NPFMC in February 1998, and documents the current information collection system.

This discussion paper presents a table. supplemental to the February report, which shows the percentage of each target species accounted for using the several different data sources that make up the current system. In addition, it discusses some of the structural gaps in the current system resulting in fishing mortality that is not counted in the current system.

**Deficiencies.** One objective of the catch accounting system is to account for all fishing mortality of groundfish species in the North Pacific. Another objective is to account for mortality of prohibited species catch (PSC) in groundfish fisheries.

Some deficiencies exist in the current system with regard to the first objective. Groundfish recordkeeping and reporting regulations, and the observer program, apply to the groundfish fishery. Mortality of groundfish in other fisheries is not well accounted for. Two examples of this deficiency are groundfish mortality in the IFQ halibut fishery, and in crab fisheries. Mortality of Pacific cod, in particular, may be significant in magnitude and needs to be accounted for to ensure that stocks are not overfished. Another significant problem in catch accounting may result in fixed gear fisheries where marine mammals depredate the catch as it is retrieved. Reports from the longline Greenland turbot fishery that in some cases, up to 70 percent of the catch may have been

depredated, indicate a potentially large gap in our ability to account for fishing mortality. In the extreme, overfishing could result from such a gap.

Accounting for PSC in the groundfish fisheries is completely dependent upon observer sampling data. The way in which deployment of observers is tied to vessel length results in inadequate data in some fisheries – particularly those where a large portion of the catch is taken by vessels under 60 feet in length.

Percentage of Catch by Data Source. The attached table lists six sources of data, and the percentage of the catch of each species that comes from that source. A brief description of the methods is given here. Additional information is in the aforementioned report on determination of catch.

Shoreside WPR. Landings at shoreside processors are accounted for using the weekly production reports submitted by the processors. No program exists to assess the accuracy of these data, or to independently estimate catch. The data are often considered adequate because of the State certified scale program, and the buyer-seller relationship between fisherman and processor.

<u>Catcher Vessel Discards</u>. These data are estimated by extrapolating groundfish discard reports from observers to the entire fishery. They are considered a better estimate than the industry reported logbook data.

At-sea Observed Hauls. The blend program selects either the observer report or WPR for each at-sea processor. When the observer report is selected, the data in this column are from hauls where the observer estimated the haul weight.

At-sea Unobserved Hauls. This portion of the catch comes from the observer data set, but these weights are not actually estimated by the observer. For these hauls or sets, the observer records the vessel estimate of catch from the logbook. No standard method exists for determination of these estimates, and no verification of their accuracy is possible.

WPR from Observed At-Sea Vessels. The data in this column are from observed vessels, where the blend program selected the WPR as the data source. This occurs if the total catch from the two sources is within 5 percent, or if the WPR catch is significantly higher than the observer report.

WPR from Unobserved At-Sea Vessels. These data are from WPR, with no observer data available for comparison. Weights of retained catch are calculated from reported products using standard product recovery rates, and weights of discards are those estimated and reported by the vessel.

Some conclusions from examination of the matrix are:

- 1. Catch accounting in the GOA groundfish fisheries comes predominately (78%) from shoreside WPR. In the BSAI, a higher proportion comes from observer estimates on processor vessels.
- 2. A relatively high percentage of flathead sole and rex sole catch in the GOA comes from WPR from unobserved vessels.
- 3. The GOA has a higher percentage than the BSAI of catch from catcher vessel discards. The accuracy of accounting for 'other species' catch may be affected by the large amounts that are discarded at sea. NMFS has relatively low confidence in the accuracy of these discard estimates, though no better data is available.
- 4. Greenland turbot and flathead sole in the BSAI have over half of the catch accounted for using unverified industry reports the combination of at-sea unobserved hauls and WPR from unobserved vessels.
- 5. In the BSAI groundfish fisheries overall, 36 percent of the catch is accounted for using observer estimates of catch.

Improving Accounting for Fishing Mortality. A rigorous quantitative assessment of the accuracy of catch measurement is not possible except in controlled experimental situations. One example of this is the study conducted by the Alaska Fishery Science Center aboard the F/T American Triumph, which compared several methods of determining total catch weight. These results provide insight into the best methods to use, but do not provide an answer to the question of accuracy of accounting in the commercial fishery.

The most productive, practical approach to improving accounting for fishing mortality consists of two initiatives.

First, identify all sources of fishing mortality and institute appropriate data collection programs to estimate and account for the mortality.

Second, continually work to improve the collection of data, and procedures for using the data to account for fishing mortality. Improved methods and tools for data collection, coupled with improved verification and monitoring programs for all the data sources, can be expected to improve the accuracy of catch accounting.

Conclusion. The fishery management system for North Pacific groundfish fisheries attempts to make comprehensive estimates of target catch and bycatch, including fish landed or retained for processing, and fish discarded at sea. The data collection system is, by and large, successful in achieving that goal. We should carefully examine gaps in the current system, and find ways to improve the comprehensive accounting for fishing mortality. Confidence in the catch accounting system can be increased by correcting gaps in the comprehensive program, improving data collection methods, and by increasing verification and monitoring of catch accounting and reporting.

Percentage of catch by source of data

Other Flatfish         12,220         1%         1%         38%         28%         24%           Flathead sole         20,649         0%         3%         27%         26%         19%	erved ea els 0%
rrowtooth Flounder 10,262 0% 8% 31% 26% 21% Other Flatfish 12,220 1% 1% 38% 28% 24% Jathead sole 20,649 0% 3% 27% 26% 19%	els 0%
rrowtooth Flounder 10,262 0% 8% 31% 26% 21% Other Flatfish 12,220 1% 1% 38% 28% 24% Dathead sole 20,649 0% 3% 27% 26% 19%	0%
Arrowtooth Flounder 10,262 0% 8% 31% 26% 21% Other Flatfish 12,220 1% 1% 38% 28% 24% Flathead sole 20,649 0% 3% 27% 26% 19%	
Other Flatfish 12,220 1% 1% 38% 28% 24% Flathead sole 1 20,649 0% 3% 27% 26% 19%	14%
ATT TAKEN TO AN AREA TO AN AREA TO A CONTROL OF THE AREA TO A CONTROL O	8%
	25%
Greenland turbot 7,862 5% 2% 19% 41% 18%	13%
Other Species 1 18,262 0% 8% 28% 41% 16%	8%
acific cod 148,031 27% 0% 24% 35% 9%	5%
ollock 651,147 32% 0% 37% 14% 16%	1%
acific ocean perch 9,269 1% 0% 62% 15% 22%	0%
Other rockfish 387 10% 4% 50% 8% 22%	6%
1-722 III T. T. T. SERMANDEN MARKET MARKET III	11%
	13%
Squid 290 22% 5% 63% 2% 6%	1%
CNO/SRRE 3,584 0% 1% 55% 23% 21%	0%
'ellowfin sole 68,187 0% 0% 44% 32% 19%	5%
otal 1,030,159 24% 1% 36% 21% 16%	3%
Observer Reports for Management (WPR from )	
998 Gulf of Alaska Catcher At-Sea Doserved Unobserved At-Sea At-Sea At-Sea At-Sea At-Sea At-Sea	
Total Shoreside Vessel Observed Unobserved, At-Sea At-Sea pecies Metric tons WPR Discards Hauls Hauls Vessels Vess	
tka mackerel 290 0% 52% 26% 10% 0%	13%
rrowtooth Flounder 11,505 4% 32% 15% 18% 16%	16%
llack/blue rockfish 212 100% 0% 0% 0% 0%	0%
emersal Shelf rockfish 541 78% 14% 2% 3% 2%	0%
Peep water Flatfish 2,393 80% 2% 2% 9% 3%	3%
lathead sole 1,600 44% 7% 4% 9% 8%	28%
	1%
lorthem rockfish: 3,033 50% 3% 17% 11% 18%	8%
Idrithem rockfish         3,033         50%         3%         17%         11%         18%           Other Species         3,357         16%         64%         3%         3%         5%	8% 5%
Idrithem rockfish     3,033     50%     3%     17%     11%     18%       Diher Species     3,357     16%     64%     3%     3%     5%       Pacific cod/line     58,964     84%     3%     2%     3%     3%	
Idrithem rockfish         3,033         50%         3%         17%         11%         18%           Other Species         3,357         16%         64%         3%         3%         5%           Pacific cod         58,964         84%         3%         2%         3%         3%           Celagic shalf rockfish         3,070         22%         2%         31%         20%         24%	5%
Idrithem rockfish     3,033     50%     3%     17%     11%     18%       Other Species     3,357     16%     64%     3%     3%     5%       Pacific cod     58,964     84%     3%     2%     3%     3%       Pacific shelf rockfish     3,070     22%     2%     31%     20%     24%       Collock     90,457     98%     1%     0%     0%     0%	5% 0% 0%
Idrhem rockfish     3,033     50%     3%     17%     11%     18%       Other Species     3,357     16%     64%     3%     3%     5%       actific cod     58,964     84%     3%     2%     3%     3%       elagic shell rockfish     3,070     22%     2%     31%     20%     24%       collock     3,070     98%     1%     0%     0%     0%       ecific ocean perch     8,736     25%     1%     29%     16%     26%	5% 0%
Idrithem rockfish     3,033     50%     3%     17%     11%     18%       Other Species     3,357     16%     64%     3%     3%     5%       Pacific cod     58,964     84%     3%     2%     3%     3%       Pelagic shell rockfish     3,070     22%     2%     31%     20%     24%       Policick     4     90,457     98%     1%     0%     0%     0%       Pelacific ocean perch     8     1%     29%     16%     26%       Rex sole     2,544     8%     1%     9%     13%     21%	5% 0% 0% 2%
Solicition         3,033         50%         3%         17%         11%         18%           Other Species         3,357         16%         64%         3%         3%         5%           Pacific codi         58,964         84%         3%         2%         3%         3%           Pelagic shalf rockfish         3,070         22%         2%         31%         20%         24%           Policitic codi         3,070         98%         1%         0%         0%         0%           Policitic codi         3,070         98%         1%         0%         0%         0%           Policitic codi         3,070         22%         2%         31%         0%         0%           Policitic codi         3,070         22%	5% 0% 0% 2% 48%
Northern rockfish         3,033         50%         3%         17%         11%         18%           Diner Species         3,357         16%         64%         3%         3%         5%           Racificocd         58,964         84%         3%         2%         3%         3%           Pelagic shelf rockfish         3,070         22%         2%         31%         20%         24%           Rollock         90,457         98%         1%         0%         0%         0%           Pelagic shelf rockfish         8,736         25%         1%         29%         16%         26%           Rex sole         8,736         25%         1%         29%         16%         26%           Rex sole         2,544         8%         1%         9%         13%         21%           Sablefish         11,402         77%         4%         5%         8%         4%           Shallow water flatfish         2,961         78%         16%         1%         2%         1%	5% 0% 0% 2% 48% 2%
Northern rockfish:  3,033 50% 3% 17% 11% 18%  Dither Species:  3,357 16% 64% 3% 3% 3% 5%  Pacific cod   58,964 84% 3% 2% 3% 3%  Pelagic shelf-rockfish:  3,070 22% 2% 31% 20% 24%  Polick   90,457 98% 1% 0% 0% 0%  Pacific ocean perch   8,736 25% 1% 29% 16% 26%  Rex sole   2,544 8% 1% 9% 13% 21%  Sablefish   11,402 77% 4% 5% 8% 4%  Shallow water flatfish 2,961 78% 16% 16% 1% 2% 1%  Slope rockfish   2,961 78% 16% 32% 37% 30%	5% 0% 0% 2% 48% 2% 3%
Northern rockfish 3,033 50% 3% 17% 11% 18% Other Species 3,357 16% 64% 3% 3% 3% 5% Pacific cod 58,964 84% 3% 2% 3% 3% 3% Pelagic shelf-rockfish 3,070 22% 2% 31% 20% 24% Pelagic shelf-rockfish 90,457 98% 1% 0% 0% 0% 0% Pacific ocean perch 8,736 25% 1% 29% 16% 26% Rex sole 2,544 8% 1% 9% 13% 21% Sablefish 11,402 77% 4% 5% 8% 4% Shallow water flattish 2,961 78% 16% 16% 1% 2% 1% Slope rockfish 30% 30%	5% 0% 0% 2% 48% 2% 3% 0%

# **Excerpted from SSC Minutes, October 1998:**

### D-1(b) TOTAL CATCH MEASUREMENT

The SSC received an information report from Sally Bibb and Mary Furuness regarding progress in the implementation of the at-sea scales program and the adequacy of catch accounting for groundfish and prohibited species. Public comment was provided by John Gauvin.

Total catch measurement is a topic of interest to the SSC. During the February 1998 SSC meeting the committee spent considerable time reviewing catch estimation algorithms, with explicit plans to continue this review annually. Consequently, during the February 1999 meeting, the SSC intends to address total catch measurement with particular attention to the extrapolation of observer data from sampled to un-sampled hauls. Additionally, the SSC anticipates a review of species composition sampling methods and estimation procedures.

With respect to the information reports provided, the SSC notes that the tabular presentation of the proportion of species catch accounted for by particular elements of the blend estimation algorithm provides fresh insight into the operational impact of this catch estimation method. Nevertheless, the table is a little confusing, particularly regarding the characterization of observed and unobserved catch. A more detailed explanation of column headings, and an expanded discussion of how to interpret the table is warranted.

# **Excerpted from AP Minutes, October 1998:**

### D-1(b) Total Catch Measurement

Based on information presented to the AP at this meeting, information outlined in the SSC from the February 1998 meeting, and information in the Verser report, the AP recommends the Council direct staff to prepare a discussion paper on ways to review and improve the adequacy of catch and bycatch accounting in order to ensure compliance with provisions in the Magnuson-Stevens Act. Motion carries unanimously (19/0).

# Scales and scale requirements summary for catcher/processors and motherships in the BSAI groundfish fisheries

Table 1 lists all catcher/processors that landed groundfish and all motherships (operating outside State waters) that took deliveries of groundfish from the BSAI in 1998.

The list is divided into five categories.

# I. Catcher/processors eligible under AFA

20 catcher/processors are listed as eligible to participate in the BSAI pollock fisheries under AFA section 208(e) ("listed c/ps").

12 of these 20 listed c/ps currently are eligible to participate in the Multispecies Community Development Quota (MS CDQ) fisheries (they are listed in an approved plan).

Section 211(b)(6)(B) of the AFA requires that each of these listed c/ps shall weigh its catch on a scale approved by NMFS while harvesting groundfish in fisheries under the authority of the North Pacific Council (GOA and BSAI groundfish fisheries).

The requirement to weigh catch in all fisheries under the authority of the Council is effective January 1, 1999 for catcher/processors that WILL HARVEST pollock allocated under section 206(a) in 1999. Section 206(a) is the allocation of pollock to the MS CDQ program.

The actual number of catcher/processors required to weigh catch in all fisheries under section 211(b)(6)(B) of the AFA will depend on how many of the 20 listed c/ps intend to harvest pollock CDQ in 1999. At this time, 13 of the 20 listed c/ps have scales installed.

NMFS interprets the AFA to require that if any of these 20 listed c/ps harvest pollock CDQ at any time during 1999, they must have weighed all of their catch in all fisheries starting on January 1, 1999.

For any of the listed c/ps that do not harvest pollock CDQ in 1999, the requirement to weigh all catch is effective January 1, 2000.

# II. Motherships eligible under AFA

One of the three motherships eligible under the AFA to participate in the BSAI pollock fisheries also is eligible to participate in the MS CDQ program. Two of the three motherships currently have scales approved by NMFS to weigh catch at sea.

The AFA does not require the motherships to weigh their catch in all fisheries under the jurisdiction of the Council.

# III. Other Catcher/Processors - Eligible for CDO Program

Section III lists 10 catcher/processors that are eligible to participate in the MS CDQ fisheries (they are listed in a current plan), but are not listed c/ps under the AFA. These catcher/processors are required under NMFS regulations to weigh all catch in their CDQ fisheries, but are not required to weigh catch in any non-CDQ groundfish fishery. Eight of these vessels currently have a scale approved by NMFS.

# IV. Other Catcher/Processors - Not Participating in MS CDO

Section IV lists 13 catcher/processors that made landings in the BSAI in 1998, but are currently not participating in the MS CDQ program. These catcher/processors are not required to weigh their catch at sea. One of these catcher/processors has a scale approved by NMFS.

# V. Catcher/Processors Ineligible Under the AFA

Section V lists eight catcher/processors that made landings of groundfish in the BSAI in 1998, but are among the nine catcher/processors listed as ineligible for permits in any fishery within the U.S. EEZ under section 209 of the AFA.

1/27/99

h:\cdq\scales99.feb

h:\cdq\scales.xls

Table 1. Summary of scale and scale requirements for trawl catcher/processors or motherships reporting groundfish landings in 1998 (as of 1/27/99).

	reporting groundfish landings in	1 1990 (as 0	1 1/2/100).				
						Required to use	
		Approved					
ŀ		Vessel	Eligible	Under a	Approved	in all Fi	sheries
	Vessel Name	Length	under AFA	CDP	Scale	1999	2000
l. Cat	cher/processors eligible under AFA sec	tion 208(e)					
1	ALASKA OCEAN	376	Υ				Υ
2	AMERICAN DYNASTY	272	Υ				Υ
3	AMERICAN ENTERPRISE	210	Υ	Y		Maybe	Υ
4	AMERICAN TRIUMPH	285	Y	Υ	Υ	Maybe	Υ
5	ARCTIC FJORD	275	Υ	Y	Υ	Maybe	Υ
6	ARCTIC STORM	334	Υ	Υ	Υ	_Maybe	Υ
7	ENDURANCE	278	Υ				Υ
8	HIGHLAND LIGHT	270	Υ		Υ		Υ
9	ISLAND ENTERPRISE	304	Υ	Y	Υ	Maybe	Υ
10	KATIE ANN	296	Υ				Υ
11	KODIAK ENTERPRISE	275	Υ	Y	Υ	Maybe	Υ
12	NORTHERN EAGLE	341	Υ		Υ		Υ
13	NORTHERN GLACIER	201	Y	Y	Υ	Maybe	Y
14	NORTHERN HAWK	341	Y	Υ		Maybe	Υ
15	NORTHERN JAEGER	336	Y		Υ		Υ
16	OCEAN ROVER	256	Y				Y
17	PACIFIC GLACIER	276	Y	Y	Y	Maybe	Ŷ
18	SEATTLE ENTERPRISE	270	Ý	Y	Y	Maybe	Υ
19	STARBOUND	240	Y	Y	Y	Maybe	Υ
20	UNIMAK (U.ENTERPRISE)	185	Y	Y	Y	Maybe	Υ
II. Mo	therships eligible under AFA section 20						
1	EXCELLENCE	367	Y Y				_
2	GOLDEN ALASKA	305	Y	Υ	Ý		
3	OCEAN PHOENIX	688	Υ		Y		
<del></del>				····			
	her catcher/processors - eligible for MS	····					
		····		Y	Y		
III. Ot	her catcher/processors - eligible for MS	S CDQ		Y	Y Y		
III. Ot	her catcher/processors - eligible for MS AMERICAN NO. 1	<b>3 CDQ</b> 160		Y			
11. Ot	her catcher/processors - eligible for MS AMERICAN NO. 1 CONSTELLATION	160 150		Y Y Y	Y		
1 2 3	her catcher/processors - eligible for MS  AMERICAN NO. 1  CONSTELLATION  DEFENDER	160 150 120		Y	Υ		
1 2 3 4	her catcher/processors - eligible for MS  AMERICAN NO. 1  CONSTELLATION  DEFENDER  ENTERPRISE	160 150 120		Y Y Y	Y		
1 2 3 4 5	her catcher/processors - eligible for MS  AMERICAN NO. 1  CONSTELLATION  DEFENDER  ENTERPRISE  LEGACY	160 150 120 120 117		Y Y Y	Y Y Y		
1 2 3 4 5 6	her catcher/processors - eligible for MS  AMERICAN NO. 1  CONSTELLATION  DEFENDER  ENTERPRISE  LEGACY  OCEAN PEACE	160 150 120 120 117 219		Y Y Y Y	Y Y Y		
1 2 3 4 5 6 7	her catcher/processors - eligible for MS  AMERICAN NO. 1  CONSTELLATION  DEFENDER  ENTERPRISE  LEGACY  OCEAN PEACE  SEAFISHER	160 150 120 120 117 219 230		Y Y Y Y Y	Y Y Y		

Table 1 cont.. Summary of scale and scale requirements for trawl catcher/processors or motherships

reporting groundfish landings in 1998 (as of 1/27/99).

		Vessel	Eligible	Approved Under a	Approved	Required by AFA to use Scale in all Fisheries		
	Vessel Name	Length	under AFA	CDP	Scale	1999	2000	
IV. Other catcher/processors - currently not participating in MS CDQ								
1	ALASKA JURIS	238						
2	ALASKA RANGER	200						
3	ALASKA SPIRIT	221						
4	ALASKA VICTORY	227						
5	ALASKA VOYAGER	220						
6	ALASKA WARRIOR	215						
7	ALASKAN ROSE	124						
8	ALLIANCE	107						
9	ARICA	186		•	Υ			
10	BEAGLE	107						
11	CAPE HORN	158						
12	GOLDEN FLEECE	104						
13	REBECCA IRENE	140						
V. Catcher/processors removed from fisheries under AFA								
1	AMERICAN EMPRESS	306						
2	CHRISTINA ANN	204						
3	ELIZABETH ANN	220						
4	PACIFIC EXPLORER	236						
5	PACIFIC NAVIGATOR	217						
6	PACIFIC SCOUT	236						
7	REBECCA ANN	217						
8	VICTORIA ANN	217						