ESTIMATED TIME

2 HOURS

# **MEMORANDUM**

TO:

Council, SSC, and AP Members

FROM:

Clarence G. Pautzke

**Executive Director** 

DATE:

June 1, 1998

SUBJECT:

Bycatch Management

### **ACTION REQUIRED**

Receive report from Vessel Bycatch Accountability (VBA), Halibut Mortality Avoidance Program (HMAP), and Individual Vessel Checklist Program (IVCP) Committees and provide further direction to staff.

#### **BACKGROUND**

#### **VBA** Committee

In February 1997, the Council appointed an industry Committee to further develop a 'strawman' VBA program for consideration. A related task of the Committee was to identify, and resolve where possible, a variety of monitoring, enforcement, and legal issues surrounding VBA program development. The Committee has met several times to work through these issues. Chairman Steve Hughes reported the Committee's findings to the Council back in February. The Council recommended that the Committee met once more to iron out remaining issues before initiating analysis of a VBA program.

The Committee met again on May 13 to finalize details and options of a strawman VBA program for Council consideration and analysis. A summary of the proceedings from the meeting is attached as <u>Item D-2(a)</u>. Chairman Steve Hughes will be available to report on the Committee's findings and recommendations. At this meeting, the Council will provide further direction to staff.

### **HMAP and IVCP**

In February 1998, the Council formed a committee to discuss issues related to proposals for a Halibut Mortality Avoidance Program (HMAP) and an Individual Vessel Checklist Program (IVCP). The existing VBA committee was used as a forum for these discussions. The HMAP/IVCP Committee met on May 14, following the VBA committee meeting. Minutes of the meeting are attached as Item D-2(b). The group elected Beth Stewart as committee chair, and she will be available to report on the Committee's findings and recommendations.

# VBA Committee DRAFT Summary of Proceedings, May 13, 1998

#### Members Present:

Steve Hughes (NRC/UC, Chairman)
Chris Blackburn (AGDB)
Dave Fraser (F/V Muir Milach)
John Gauvin (Groundfish Forum)

Shari Gross (HANA) Beth Stewart (AEB) Bob Alverson (FVOA) Steve Ganey (AMCC)

The vessel bycatch accountability (VBA) committee met again in Seattle on May 13 at the Nordby Conference Center. The objective of the meeting was to finalize details on options of a strawman VBA program for Council consideration and analysis. Coffee and bagels were thoughtfully provided by United Catcher Boats. Following introductions and a review of the draft agenda, the committee discussed remaining issues requiring resolution. In combination with the discussions captured in previous minutes, and the options provided for analysis, the committee has concluded its mission for the Council.

<u>Eligibility and Thresholds</u> - Dave Fraser and Beth Stewart reported back to the committee with their findings on the eligibility issue. Clearly, a VBA program would be a limited entry program. New vessels would not be able to enter the fishery without transfer of catch history from another vessel. Because the license limitation program is not gear specific, a first cut at eligibility for a VBA would be based on catch histories for vessels that had made deliveries using trawl gear.

Many vessels could potentially participate in a VBA program with very small amounts of PSC. For example, if BSAI halibut PSC was divided equally among 200-300 trawl vessels, it would equate to about 10-20 mt of halibut per year. Assuming a bycatch rate of 0.5% (BSAI) and 1% (GOA), a catch of 1,000 mt of groundfish (not including midwater pollock) would require 5 to 10 tons of halibut. Smaller halibut PSC amounts would be difficult to monitor. Thresholds could be established as a test of dependancy. Most trawl vessels in the BSAI land over 1,000 mt of groundfish per year. The committee suggested that the following thresholds be analyzed: 100 mt groundfish catch in the BSAI, 30 mt of groundfish in the GOA. Better threshold amounts may be indicated by the data; the committee was not weded to these numbers.

One committee member suggested that eligibility be based on a percentage of a vessels catch, as another option to be examined. For example, a vessel that fished for pollock may have over 100 mt of non-pollock groundfish, but these vessels would not be dependent upon this catch. Smaller vessels would not need to have caught 100 mt of groundfish, but may have a large proportion of their revenues generated by this catch. Still another option for determining dependancy is to examine number of years participating in a particular target fishery. The committee agreed that both tonnage and years participating could be used to address dependancy.

Based on the above discussion, the committee developed several qualifying criteria for vessels to participate in a VBA pool or a default pool. Most importantly, the committee suggests that catch and effort data for the years 1995, 1996, and 1997 be used for VBA allocations. The filters for qualifying were as follows:

- 1. The vessel must be moratorium qualified.
- 2. The vessel must qualify under the license limitation program.
- 3. Landings using trawl gear made during VBA catch history: 1995, 1996, and 1997.
- 4. Vessels fall into a default category (below)
  - < 60', any amount of catch with trawl gear
  - > 60', catch < 30 mt in GOA, < 100 mt in BSAI
  - > 60', catch > 30 mt in GOA, > 100 mt in BSAI
    - note that this last category could be further subdivided into vessel categories

The committee felt that data should be examined to check if the 60 - 125' vessel category should be treated separately from the larger vessels. Also, the committee was interested to know how many vessels fished in both the BSAI and GOA.

Observer Monitoring - John, Brent, Bill Karp, and Lauren Smoker met as a subcommittee to examine what VBA monitoring program would be required to produce usable and statistically reliable data. The first part of the problem is that monitoring based on observer coverage may introduce bias because incentives will change under a VBA program. Bill felt that a binding PSC for individual vessel could cause a vessel to change its behavior in a way that would impede an observer from obtaining a good sample. The second part of the problem is statistical viability. Under the current program, we are unable to measure variability of a blend estimate. It will be even tougher to deal with expansion of rare species in samples for individual vessels. Clearly, the current monitoring problems extend beyond application to a VBA program. However, compared to the rest of the world, we are doing quite well in that we manage with quotas, observers, etc. After much discussion, there is not an answer to the question of how much observer coverage would be required for a VBA program.

In response to the question "what would NOAA-GC need to prosecute a case?", Lauren felt that a procedure that provides statistically accurate estimates would probably suffice. Lauren added that under the Sustainable Fisheries Act, section 313(g)(2), a VBA program must meet the catch weighing requirements of section 313(h), although the Council can use methods other than weighing if those methods provide accurate catch weights of target species, economic discards and regulatory discards. The question of what confidence interval is required for prosecuting a case remains unanswered. Once that question is answered, Bill Karp and the observer program can design an appropriate sampling program. This may require multiple random samples for each haul, or even a census (whole haul sampling). From that, the costs of additional observers, monitoring staff, and other enforcement resources (including attorneys) can be estimated. This cost information is critical to have before a VBA program can be implemented.

It was noted that the current observer system was not designed to produce statistical precision of estimates, but the same system is being used to monitor the IFQ and CDQ program. So some questioned if the current system was good for IFQ and CDQ monitoring, why not for a VBA program? Lauren responded that the IFQ program accounts only for retained catch whereas a VBA program would have to account for unretained or discarded catch, specifically regulatory discards. Under the CDQ program, she stated that CDQ groups will have to account for total catch (all TAC and PSC species). In order to account for total catch, CDQ groups will propose a monitoring system (source of data and method for determining weight or numbers of CDQ and PSQ catch) that must receive NMFS' approval. CDQ groups will then shut themselves down when the agreed to monitoring system indicates that a CDQ or PSQ is reached. CDQ groups will be prohibited from exceeding a CDQ or PSQ and NMFS can pursue cases of reported overages. However, because NMFS recognizes that the minimum sample sizes required to estimate the weight of infrequently occurring species on a haul-by-haul basis with a high level of confidence would be too large to accomodate in the space available on many trawl vessels and may require more than two observers to sort and weigh the catch, there may be instances when the agreed to monitoring system would not provide a statistically viable estimate of infrequently occurring CDQ or PSQ species. Therefore, in some cases when the agreed to monitoring system indicates that a CDQ group reached a CDQ or PSQ limit for an infrequently occurring species yet the CDQ group continues to fish, NMFS may pursue a violation of failing to follow the agreed to monitoring system rather than a violation of fishing in excess of a CDQ or PSQ allocation. CDQ groups would still have the ability to appeal citations on the grounds that an observer did not sample correctly.

Given current sampling procedures, the proposed design of the CDQ program, and the nature of the CDQ program in general, NMFS believes that proposed catch accounting requirements will provide effective monitoring and enforcement of the CDQ program. However, the proposed NMFS standard data sources for verifying catch estimates in the CDQ fisheries may not be appropriate for a VBA program for trawl vessels because such a program would be designed to account for infrequently occurring bycatch species that are required by regulation to be discarded. NMFS expects that experience with the CDQ program will provide valuable

information. It was also noted that CDQ monitoring may not be a good template for a VBA program in that the race for fish is gone under CDQs, and along with some incentives to influence observer sampling.

The observer issue is clearly broader than the VBA program. This includes the statistical reliability issue surrounding the current program, as well as a paradigm shift from a science-based monitoring program to a more compliance-based observer program. We discussed industry working on experimental fishing permits to resolve some of these precision of sampling issues.

Additional NOAA G-C Advice - Lauren had no changes to previous opinion on VBA transfer, cost recovery fees, pooling, or enforcement. In her review, she determined that the statute requires not only a bycatch rate reduction but also a reduction in the actual number and/or pounds of regulatory discards. Reductions in regulatory discards can be calculated using PSC species and/or groundfish. The statutory definition of regulatory discards applies to PSC species as well as other regulatory discards (e.g. cod catch above the maximum retainable bycatch amount). This reduction doesn't have to be the same species or all species, but it must result in a *net* reduction. Lauren further determined that reductions in bycatch mortality alone would not meet requirements of section 313(g). National Standard 9 says that the first priority is to minimize bycatch.

Weighing of target species, regulatory discards and economic discards may be required under the Act for VBA programs. However, enumeration (counting) may still be allowed for some species such as crabs.

One committee member suggested that we examine the New England system of catch and discard accounting. They have no regulatory discard because nothing is prohibited. They have no comprehensive observer program, so that discard data doesn't exist and the industry doesn't have the added expense. In addition, they are able to fish year-round relatively unconstrained by catch quotas. Yet New England fishermen have the support of Greenpeace and a \$50 million buyout program funded by the federal government.

Other Issues - Bob Alverson suggested that a VBA pool be established for the dirty dozen. This would have an effect much like a penalty box, except that instead of a penalty, its a small reward. The dirty dozen could be defined based on standard rate tables, like those produced by dave Fraser in the past.

<u>Committee Recommendation</u> - The Committee recommends that a pilot VBA program be developed. This pilot program would need to be developed using a few vessels per fishery, rather than a fishery specific program. Obviously, there is no benefit to applying a pilot program to one fishery because vessels would have no place to use their VBA savings. Regarding the possibility of having a pilot program for one PSC species, say halibut, there may be too many vessels for NMFS to monitor.

A pilot program could be developed for existing fishery categories. In cases when there are too many vessels, or in cases when the reward of fishing in other fisheries is unavailable (TAC limiting), the pilot program could be limited to specific size class of vessels, some set of volunteers, or set by a lottery system. The fisheries categories would be as follows: GOA = shallow water flatfish, deep water flatfish, rockfish, and cod. BSAI= same as PSC categories.

Others in attendance at the VBA meetings were:		
Bill Karp	Gregg Williams	Lauren Smoker (NOAA-GC)
Brent Paine	Kim Dietrich	Dave Witherell (staff)
Joe Terry	Denise Fredette	

# VBA Committee DRAFT Summary of Proceedings, August 21-22, 1997

#### Members Present:

Steve Hughes (NRC/UCB, Chairman)
Bob Alverson (FVOA)
Chris Blackburn (AGDB)
dave fraser (F/V Muir Milach)
John Gauvin (Groundfish forum)

Shari Gross (HANA)
Carl Merculieff (CBSFA)
Gary Painter/Tom Casey (AFCG)
Beth Stewart (AEB)
Paul MacGregor (for C. Cross)

The vessel bycatch accountability (VBA) committee met in Seattle on August 21-22. The objective of the meeting was to further flesh out details of a VBA program for Council consideration. The meeting began with introductions and a review of the draft agenda. The committee then discussed and approved the summary of the April meeting, and reviewed VBA issues that had been resolved. The following is a summary of discussions under each issue.

### Objectives of VBA Program

A VBA program proposal is intended to be consistent with the revisions to the Magnuson-Stevens Act and addresses the prohibited species bycatch problem by meeting the following three objectives:

- Decrease the bycatch of prohibited species.
- Decrease the cost of controlling bycatch in part by increasing the ability of the groundfish fleet to take the groundfish TACs without exceeding the PSC limits.
- Produce a more equitable distribution of bycatch costs.

<u>Problem Statement and Objectives</u> - The committee developed a draft problem statement based on a draft provided by the Council for review. The committees revised problem statement is as follows:

National concerns regarding impacts of bycatch are reflected in the new Magnuson-Stevens Act. The Magnuson-Stevens Act calls for the reduction and minimization of bycatch to the extent practicable (with specific guidance for the North Pacific in Section 313), while at the same time achieving OY. In order to address these national mandates, the Council will develop specific bycatch reduction measures, which may include programs to promote individual vessel accountability.

For several years, the Council has been frustrated in its attempts to increase the level of individual vessel responsibility for prohibited species bycatch and bycatch reduction. Requiring the overcapitalized fleet to operate within the current bycatch cap program not only has resulted in a race for fish for the directed fisheries, but also for the PSC species. This has resulted in the inability to achieve OY, increased rate of PSC catches, and resulted in

discards of all types. The problem with the current system is that the common PSC cap system fails to provide incentives for individuals to minimize bycatch and maximize catch per unit of available PSC bycatch. Under the status quo, individuals' fishing opportunities are not affected by their own relative use of PSCs, and this does not create strong incentives to minimize bycatch and maximize catch per unit of PSC bycatch.

A VBA program has been proposed to address this problem. Objectives of this program were outlined by the committee, as shown in the above box. Tom Casey noted that peer pressure was another option to a VBA program. Others on the committee disagreed because the industry has exerted increasing amounts of peer pressure and this has not modified the behavior of some companies.

**VBA Species** 

Halibut (BSAI, GOA) Crab (BSAI) <u>VBA Species</u> - The committee agreed at its first meeting to include halibut and crab in a VBA program. VBA crab species for the BSAI would include halibut, Bristol Bay red king crab, Bering Sea Tanner crab (*C. bairdi*), and Bering Sea snow crab (*C. opilio*). Limits for crab would apply to the bycatch zones, and halibut would apply to the entire BSAI and GOA by FMP areas. The committee felt that salmon and

herring should be excluded from this program because the caps are small and currently the bycatch of these species is principally a random event over which fishermen have limited control.

#### **Fisheries**

All Trawl Fisheries (BSAL GOA) Longline ?? (BSAI)

included in a VBA program.

<u>VBA Fisheries</u> - The committee agreed that a VBA program could apply to all trawl fisheries. An option of leaving out the midwater pollock fishery should be considered. It was noted that some groundfish longline vessel representatives had expressed an interest in a VBA program for their gear type. Several Bering Sea freezer longliner companies were present at this meeting and asked to be

#### Fishery Specific VBAs

Option 1: VBAs not specific to target fishery

Option 2: VBAs target fishery specific.

Option 3: A portion of VBAs be target fishery specific for a period of time. Fisherv specific VBAs - The committee continued its discussion on how VBAs would be applied to groundfish fisheries. Two options were developed at the previous meeting. Option 1 would be to divide the total cap and allow vessel operators to determine best use of their VBA allocation. That is, their use would not be fishery specific. Option 2 would be divide the total cap by fishery cells (as we do now in the BSAI), and then lock the VBA allocations into specific target fisheries. That is, their use would be fishery specific. Committee members expressed different concerns and opinions about the benefits of these options. Some members felt that if VBAs are target specific (Option 2), many potential benefits of the program would be lost and the OY

objectives not met. Others felt that even with non-specific VBAs (Option 1), there will still be a race for fish species that are currently fully utilized and constrained by TAC (such as Atka mackerel and POP). There was concern that this could cause effort shifts among some fisheries, so an additional Option 3 was suggested. This option would require that a percentage of PSC must be used in the "cell" it was obtained, and percentage requirement could diminish over time. That is, their use of a declining proportion of the VBAs would be fishery specific.

#### Use of VBAs

individual vessels pooled vessels default pool <u>Use of VBAs</u> - The committee continued its discussion of how a VBA program would be structured. VBAs can be used by individual vessels or pooled vessels. Vessel groups would need to submit a vessels group bycatch monitoring plan for NMFS approval. Non-participating vessels would be part of a default (open-access) pool, which would operate like the current system.

A concern was raised that many of the dirty fishers would choose to remain in the open access pool, and could act as "predatory vessels" by using up a disproportionate amount of PSC. It was suggested that impacts from these vessels would be reduced if the open access pool VBA was stratified by length category (e.g., <60', 60-125', >125').

#### Transfers of VBA

Among vessels within/across pools Vessel-sale related transfers Transferability - The committee discussed how VBAs would be transferred within a pool, among pools, and when a vessel gets sold. It was felt that transfers within a pool are essentially a redistribution, and would not require tracking. On the other hand, transfers among pools would require some type of registration system to track these transfers. NOAA GC had previously advised the committee that VBAs were not

property, and could not be sold or transferred for money. Questions remain regarding transfers, as VBAs may have value depending on the situation. For example, can VBA be transferred via barter as opposed to cash? It was noted that in the CDQ program, there will be a one time trade of PSC allowed to rationalize the program.

The committee recognized that annual VBA allocations could be to vessel owners and thus would not be vessel specific. Therefore, the sale of a vessel could occur with or without the transfer of either an annual VBA allocation or the catch history on which subsequent VBA allocations would be based. The status of VBA at the

time of sale would not change due to the sale. VBA that had been transferred to a voluntary pool of the default pool would remain in that pool subject to the same rules that apply to other VBA in that pool. For VBA that had been transferred to a voluntary pool, the pool's rules would determine if a vessel that had been sold could continue to participate in the pool. This means that the VBA allocation (or what's left) goes with the boat, unless previously surrendered to a pool.

The committee recognized the difficulty of separating the monetary value of the vessel from any value of the VBA allocation or VBA related catch history when either both are transferred with the sale of a vessel. The committee recognized the need to develop a system that would allow convenient tracking by NMFS RAM division. One idea to deal with these transfers would be to tie the VBA to a federal fisheries permit. These permits are issued to vessel owners, and can't be transferred for money.

# **Retention of VBA Species**

Option 1: no retention allowed Option 2: careful release; then retention allowed. Retention of VBA species - At its first meeting, the committee discussed the options of no retention and retention only after all attempts had been made at careful return to the sea within a set time period. Committee members did not want to initiate a VBA program to decrease bycatch, and then turn around and increase the mortality factor by increasing deck time. It was felt that a balance should be struck between accurate bycatch estimation and quick return to the sea.

#### Monitoring and Enforcement

Option 1: status quo coverage, with extrapolation of data.

Option 2: full observer coverage; every haul sampled.

Monitoring and Enforcement Issues - The committee continued discussions on monitoring and enforcement. It was felt that vessels unable to afford the required observer coverage will remain in a default pool. Monitoring of PSC catches in the default pool would be based on whatever sampling is done with extrapolation to all vessels within the default pool. NMFS would monitor the PSC taken by pools, individual vessels, and the default pool. An audit would occur when any pool or individual has used 75% of its VBA based on the NMFS estimate. A

PSC closure would also occur when an individual or pool used 100% of its VBA based on an *estimate* (not proven #). Such closures would be zone specific for BSAI crab, and GOA or BSAI-wide for halibut.

Martin Leofflad of the Observer Program noted several issues regarding the observer program. First, fleet behavior can change with an observer onboard (both good and bad). Second there may be sampling/estimation problems unless fully enumerated (counted), but this comes at a high cost. So we are left with sampling estimates or blend estimates. The third problem is sampling expectations versus reality. Fishermen in a rush to process the catch, yet they expect the observer to generate accurate catch estimates. Similarly, fishermen want to get halibut PSC back into the water to reduce mortality, yet are prevented from doing so until counted by an observer.

The committee reviewed monitoring requirements proposed for the expanded CDQ program, noting that this has received tacit approval from NOAA GC. Based on the proposed rule, vessels <60 feet would not require an observer, but would be required to retain all salmon and herring PSC for counting when landed and to report halibut and crab PSC. Vessels over 60 feet would require 1 observer on trawl, longline, or pot catcher vessels and 2 observers on catcher-processors and motherships. All hauls must be observed. Catcher vessels would be required to retain everything (all CDQ species plus herring and salmon) except halibut and crab. Catcher-processors and motherships will also be required to have certified scales for measuring total catch weight. The monitoring plan also specifies the maximum number of hauls per day and the maximum amount of time an observer can work. Four additional NMFS management personnel and 3 additional observer program personnel will be hired to monitor the CDQ program, at an estimated cost of \$700,000 per year. Enforcement would be after the fact. That is, penalties would be imposed on a CDQ group that exceeded one or more of its groundfish or PSC quotas but NMFS would not immediately remove a CDQ's group's vessels from the fishery once a quota is met. That would be the responsibility of each CDQ.

The level of observer coverage required for a VBA program has yet to be ascertained. Committee members felt that vessels operating under a VBA program would need to provide quality data, at least as good as the current system. The question remains: what level of observer coverage is required to make the system work? Would 100% coverage be required, or would 30% coverage be sufficient if vessels were in a pool? Based on observer coverage required for the CDQ program monitoring, observer costs may be prohibitive for many vessels (particularly the smaller ones). Costs for management, monitoring, and enforcement of a VBA program could be recovered via the IFQ/CDQ fee collection program (up to 3% of ex-vessel value) required under the Magnuson-Stevens Act.

#### Initial Allocation of VBAs

Option 1: Based on catch history Option 2: Based on effort history

Option 3: Based on vessel category

Initial Allocation of VBAs - The committee discussed three options for initial allocation of VBAs based on catch history, effort history, or vessel category. Alternatives discussed range from equal allocation among all vessels to rewarding those vessels with low bycatch rates. The committee strongly recommends that the Council only consider catch or effort history prior to August 22, 1997. The possibility of including future catch or effort into a VBA program could

cause great disruption next season.

Allocation based on <u>catch history</u> could be based on total catch of groundfish, retained catch of groundfish, retained catch of target species (with option of 5% minimum threshold), retained catch of target species not made into fishmeal, catch as discounted by PSC bycatch performance (applicable to all options), and catch discounted from weeks when the fleet had high bycatch rates. The idea of using retained catch, rather than total catch, is to not reward vessels for discarding. One possible problem for analyzing catch histories is that fish tickets may not be available for vessels delivering at sea.

Initial allocation based on <u>effort history</u> could be based on the number of fleet days or weeks in a directed TAC fishery (with no double crediting; i.e., one target fishery per week), vessel pro-rated effort share, or a vessel pro-rated PSC share. In order to keep from rewarding vessels with high bycatch rates, the allocation could be discounted by vessel /weeks above VIP standards. Dave fraser provided an allocation scheme for VBAs based on the number of weeks of effort in a target fishery. Vessels would receive a pro-rated share of that fisheries PSC allocation based on this participation. It was suggested that scalars could be added to adjust for capacity (based on length, horsepower, tonnage).

Initial allocation of VBA could also be made based on <u>vessel category</u>. Such an allocation could be based on a system of vessel capacity ratings by gear type. Capacity rates could be generated from data (length, horsepower tonnage) reported on federal fishery permits. Alternatively, an equal allocation of VBAs could be made to all vessels within a size class. Under either of these alternatives, it was suggested that an option be added to include gear and species endorsements (using target criteria and minimum catch thresholds).

The committee had some general discussions about eligibility; that is, who can apply for initial allocation. It was

### Annual Allocation of VBAs

Target specific, with options

Option 1: Based on rolling 3-year catch history.

Option 2: Based on target species retained catch multiplied by the VIP rate.

Option 3: Based on pro-rated share of PSC cap by target species.

felt that two alternatives be considered: Option 1 is that any vessel with a groundfish limited entry licence could participate. Option 2 is that only vessels meeting some minimum landing requirements or participate within a qualifying time period could be eligible for VBA allocation. The committee decided to work out additional details of eligibility at its next meeting.

Annual Allocation of VBAs - The committee discussed several options for annual allocation (allocations after the first year of the program). The options, as listed in the adjacent box, are all based on groundfish catch history. Option I would require a 1-year startup lag time. Hence, allocation in year 2 of the program would be the same as year 1, but

after that catch history during the program would begin to replace the year one allocation. For example, in year 3, two-thirds of the allocation would be based on the initial year allocation, and one-third on catch during year 1. And in year 5, the allocations would be based on the catch during years 1, 2, and 3 of the VBA program. Therefore, beginning in year 5, the year 1 allocation would not be used in determining the annual allocation. The remaining options are strictly based on what occurred in the previous year or the year before that.

### **Bycatch Reduction**

Option 1: Status quo unused PSC = savings

Option 2: Reduction by schedule

a) 10% per year for 5 yrs

b) biomass based schedule

Option 3: Ratchet reduction system based on annual savings

a) up to 10% per year

b) biomass based schedule

Bycatch Reduction - The committee had a lively discussion about bycatch reduction issues. The Magnuson-Stevens Act allows for a VBA system provided that it results in an actual reduction in regulatory discards. Some felt that this mandated a reduction schedule, whereas others felt that a VBA program would result in overall PSC savings without a mandated schedule (e.g., accumulation of "unused" PSC, particularly in situations where VBA transfers were limited). It was pointed out that reductions in bycatch is not a conservation issue, but a reallocation of the resource to other gear types. Nevertheless, most committee members agreed that VBA program could result in large PSC savings. One member suggested that the goal should be a 50% reduction in the current crab and halibut PSC limits. Several members stated that PSC reduction schedules should be established in accord

with the biomass of crab and halibut resources. Questions concerning whether the Act requires a reduction in bycatch of each PSC species or a reduction in all PSC species (in aggregate) and whether the reduction is from the levels of bycatch that occurred in the past or would occur in the future in the absence of a VBA program still need to be addressed.

#### Specific GOA Issues

Halibut only; no crab caps. Economics of observer coverage. Mixed fisheries. Effort shifts to GOA from BSAI. Area and gear specific VBAs? Include State waters in program? Specific GOA Issues - Chris Blackburn conveyed her concerns about applying a VBA program to Gulf of Alaska trawl fisheries. There are not crab caps in the GOA, so a program would apply only to halibut. Observer coverage is limited for trawlers in the GOA (many 30% boats), and due to their small size and marginal nature of some fisheries, a VBA program requiring 100% coverage may be prohibitive. Additionally, much of the GOA groundfish harvest is taken in mixed fisheries, and that is why halibut is currently allocated into deepwater targets (rex sole, dover sole, arrowtooth, rockfish) and shallow water targets (flathead sole, shallow water flatfish, pollock, P. cod. Atka

mackerel). Development of VBA allocation and use provisions should take this into account. Chris and others were concerned that vessels that had historically fished in the Bering Sea would fish in the GOA prior to fishing under a VBA program in the BSAI. A similar concern exists for the western/central GOA areas. An interesting possibility was raised about trawl vessels using their VBA allocation with another gear type. Also, would harvest in State waters apply to a VBA program?

Issues for Further Discussion

eligibility
due process
underages/overages
annual allocation of VBA

Issues Needing Further Discussion - There remains a number of issues for the committee to address, including due process, underages and overages of VBA by a individual or pool, and annual allocation of VBAs. Additionally, the committee intends to continue its discussions on all details of a VBA program.

The committee recognizes the need for input from General Counsel. That input includes responding to questions posed by the committee

and staff and guidance in designing options that will increase the efficacy of a VBA program. Recall that in February 1997, the Council recommended that not staff time be obligated to VBA's until the legal concerns are addressed.

Committee members who strongly favor a VBA program and are frustrated with current bycatch management under the VIP program, remain realistically concerned about the cost of a good VBA program, NMFS ability to manage a VBA program, and NMFS funding and added manpower that will be required by NMFS to staff a VBA program. The committee feels strongly that NMFS should address these issues with the Council so that development of a VBA program may continue knowing that such a program can be administered. If not, we should all be advised of the limitations, and move forward accordingly.

# Others in attendance at the VBA meetings were:

Thorn Smith
Mike Szymanski
Brent Paine
John Hendershedt
Martin Loefflad
Joe Terry
Denise Fredett
Bob Trumble

Tom Casey
Joel Caughlin
Arni Thomson
Seth Macinko
Jon Iani
Rob Gunderson
Dave Witherell (staff)

# VBA Committee DRAFT Summary of Proceedings, November 14, 1997

#### Members Present:

Steve Hughes (NRC/UCB, Chairman)
Jay Stinson (substitute, AGDB)
Dave Fraser (F/V Muir Milach)
John Gauvin (Groundfish Forum)

Shari Gross (HANA)
Carl Merculieff (CBSFA)
Beth Stewart (AEB)
Craig Cross (ASP)

The vessel bycatch accountability (VBA) committee met again in Seattle on November 14 at the Nordby Conference Center. The objective of the meeting was to further flesh out details of a VBA program for Council consideration. Coffee and bagels were thoughtfully provided by United Catcher Boats. Following introductions and a review of the draft agenda, the committee began their discussions with a report from Lauren Smoker, NOAA General Counsel, and then reviewed VBA issues that had been resolved. The following is a summary of discussions under each issue.

#### DISCUSSION OF LEGAL ISSUES

Lauren Smoker walked the committee through the four priority legal questions posed to General Counsel in a letter from Clarence Pautzke dated 11/7/97. A summary of each issue is provided below.

Legal issues discussed at the November 1997 VBA committee meeting.

- · What does "transferred for monetary consideration" mean?
- Is a VBA program subject to IFQ/CDQ cost recovery fees?
- Does pooling reduce the enforcement burden?
- · What does "actual reduction in discards" mean?

"Transferred for monetary consideration" - - Section 313(g)(2) (page 104 of the red book) specifies that allocations of regulatory discards to individual vessels would be allowed provided that the allocations may not be transferred for monetary consideration. NOAA-GC interprets this to mean that trade or barter of VBAs is permissible under section 313(g)(2) but money (cash, currency or coinage) exchanges are prohibited. Congress did not use the phrase "sale, barter or trade" in section 313(g)(2) as it did in the statutory definition of "commercial fishing." Therefore, NOAA-GC determined that Congress meant what it said and only monetary exchanges are statutorily prohibited under 313(g)(2)(A)(i). NOAA-GC then stated that section 313(g)(2)(B) allows the Council to impose additional regulatory restrictions on the transferability of VBAs. Additional regulatory restrictions could include complete prohibitions on transfer or could allow trades only of other PSC, as opposed to other commodities. At a future meeting, the committee will need to determine what options, if any, to include to restrict transfers. Regulations requiring all parties involved in a transfer to sign a statement that the transfer was not for monetary consideration could be used to increase compliance. NOAA-GC noted that, for tax purposes, the IRS has its own rules concerning trade, barter and exchanges for money.

Cost recovery fees -- Section 304 (d) (p. 67 of red book) mandates the Secretary to collect a fee to recover actual costs directly related to the management and enforcement of any IFQ and CDQ program. This fee can be up to 3 percent of the ex-vessel value of fish harvested under such program. NOAA-GC indicated that the structure of the VBA program would determine if it would be subject to the IFQ and CDQ cost recovery fees. The committee concurred that a VBA program would be structured like an IFQ program and that cost-recovery fees should be collected.

The committee further discussed the basis and use of the fees. NOAA-GC stated that the fees could be based on the ex-vessel value of the groundfish catch (including or excluding discards), the value of the PSC, or some combination of both. Under the Research Plan, the Council recommended that ex-vessel value be based on retained catch due to the difficulty of valuing discarded groundfish and PSC. The committee agreed to three options, they are that the fees would be based on: (1) the ex-vessel value of the total groundfish catch (including discards), (2) the value of the PSC, or (3) some combination of both.

The committee also agreed that the fees from the VBA program should only be used in direct support of that program. NOAA-GC stated that the fees could be used to pay for additional observer coverage costs if those costs are directly related to the management and enforcement of the VBA program. Further review is required to ensure that all of the fees would be used in direct support of the program, as opposed to being used in part, for example, for NMFS Central Office administrative purposes. Regarding the use of fee money, the Limited Access Administration Fund is supposed to be used for purposes of (i) administering the central registry system; and (ii) administering and implementing [the Act] in which the fees were collected. The committee noted that critical elements of the analysis of a VBA program will include: (1) the budget needed by NMFS-AK to monitor, administer, and manage a VBA program; (2) the funds available to support that budget; and (3) the direct cost to the industry.

Pooling issues - NOAA-GC stated that pooling would not reduce the enforcement burden. Pool members would still have all of the rights and protections afforded to them by law and an agreement to stop fishing when an agreed-to estimation procedure indicated the allocation was used does not extinguish those protections. Therefore, the right to a hearing and to question the government's data exists with or without pools. NOAA-GC also stated that it would be equally difficult to use an estimate to prevent a VBA pool of vessels or an individual VBA vessel from continuing to fish after it had been estimated that the pool or individual vessel had exhausted its VBA. A more accurate accounting of groundfish and bycatch removals would be necessary to bring an enforcement action against a pool or individual vessel. This means that enforcement would be after-the-fact, just as it is with IFQ and CDQ programs. Under the CDQ and IFQ programs, it is the individual vessel's responsibility to stop fishing when they reach their quota. They can disagree with the NMFS estimate and keep fishing but, if in the end they are eventually proved wrong, the penalties could be substantial. Most committee members acknowledged that VBA enforcement would be post season. Furthermore, NOAA-GC believes that the pool concept does not reduce the difficulties associated with using current data collection methods for collecting the types of data needed to effectively monitor bycatch and groundfish removals under a VBA program, especially under the fishery-specific VBA allocation options. Finally, the group discussed that NMFS would track bycatch of all individual vessels, but enforcement action may have to be taken against all vessels within a pool. More committee discussion is needed on this issue.

"Actual reduction in discards" -- Section 313(g) (page 104 of red book) allows allocations of regulatory discards to individual vessels as an incentive to reduce per vessel bycatch and bycatch rates in a fishery, provided that such measures will result in an actual reduction in regulatory discards in the fishery. NOAA-GC interprets this language to mean not only a bycatch rate reduction but also an actual net reduction in regulatory discards by = 's or lbs. The committee presumes this means a net reduction in aggregate discards (#'s or lbs.) compared to a baseline amount from one or more previous years. Further, NOAA-GC recommended that the committee focus on actual reductions in the VBA species. If crab and halibut are the VBA species, this would require a reduction in the aggregate (i.e., combined) total bycatch of halibut and crab. Several committee members disagreed pointing out that, under some VBA options, regulatory discards of groundfish would decrease due to the elimination of PSC cap-induced fishery closures which trigger maximum allowable retainable bycatch amounts (MRBs). Based on this discussion, NOAA-GC agreed to further review its opinions on whether bycatch rate reductions must also include actual net reductions in discards and whether groundfish regulatory reductions can be included when calculating actual net reductions of regulatory discards and not just discards of those species (halibut and/or crab) for which VBAs have been issued. The committee also requested additional advice on whether reductions in bycatch mortality alone would meet the requirements of section 313(g).

#### DISCUSSION OF VBA PROGRAM OPTIONS

The committee also continued reviewing details and options for a VBA program. A summary of these discussions is provided below.

Monitoring and Enforcement: Bill Karp reviewed how a VBA program might be monitored by observers. The observer program is currently a scientific program to determine total catch composition, whereas VBA's and

VIP are compliance based programs. Bill believes this to be a critical issue and a VBA program would require a rearrangement of the current program into an individual vessel monitoring program. There are two issues here: authority for observers to determine compliance, and sampling intensity. Sampling powers may need to be increased such that a full census of the catch, rather than sampling, may be required. Bill indicated that, in order to provide data necessary to determine precise vessel-specific bycatch estimates, observers would need to sample large fractions of catches and this would likely require much more sampling effort than is currently available. Fleetwide, the confidence intervals about catch estimates are very narrow for those fisheries examined (pollock and yellowfin sole fisheries). The committee had a lively discussion about the sampling effort that would be required for individual vessel monitoring. Would it require more hauls sampled, more observers per vessel, bigger samples, scales, whole haul sampling of PSC's by the crew, etc..? And what would this cost? It was noted that compliance monitoring at sea is not required for the IFQ program, and committee members questioned why it should be required for a VBA program. The committee formed a subcommittee of Bill, Brent Paine, John Gauvin, and NOAA-GC to examine statistical needs of observer monitoring and report back to the committee at its next meeting. Changes in the observer program are likely and should be identified and considered in the VBA context. Additional work will be needed on this issue.

Initial Allocation: The committee believes that initial allocation should be gear specific. For example, only historical participation in the trawl fishery would be used in determining the initial allocation of VBAs for the trawl fisheries. Two options were identified for the use of VBAs: 1) they would remain gear specific (trawl VBAs could only be used in the trawl fisheries) and 2) they would not be gear specific after they are allocated (trawl VBAs could be used in a longline fishery if both fisheries are part of the VBA program). However some committee members thought that transfers of PSC between gear types should not be allowed at this time and that allowing transfer of trawl PSC to longline PSC may have merit but is too confusing to examine at this time.

Annual Allocation: NOAA-GC indicated that use of a rolling catch history for annual allocation of VBAs was acceptable. The committee agreed that options 2 and 3 for annual allocation developed at the last meeting could be consolidated into a single option for analysis. They both achieve the same end results but using different scalars. NOAA-GC stated that simple allocation rules will tend to decrease the appeals process.

Eligibility: Vessels would be deemed eligible to participate in a VBA program if they were moratorium and license limitation qualified. The committee further discussed adding an option of a minimum landing requirement, particularly if allocations were based on vessel size categories. The committee also began to consider how to answer the following question. If the annual VBA for a vessel is zero or very small, would the vessel be able to participate in the default pool or would the vessel be excluded from the fishery unless it became a member of a voluntary pool? The committee agreed that it may be necessary to establish a VBA threshold. Dave Frascr and Beth Stewart agreed to explore threshold options and report back to the committee.

<u>Pilot program</u>: The committee discussed the possibility of using a scaled down pilot program to assess the potential of and implementation issues for a comprehensive VBA program. The committee felt that the program could start with one PSC species (halibut), rather than start with one fishery (say, Pacific cod trawl fishery). There were concerns that a VBA program for one fishery would exacerbate vessel movements to and from different fisheries (cherry picking issue) and that the changes required for the observer program under a VBA program would be difficult to implement for only specific target fisheries.

Others in attendance at the VBA meetings were:

Bill Karp Mike Szymanski Brent Paine John Hendershedt Jerry Brennen Joe Terry Bob Trumble Seth Macinko

Jay Ginter Lauren Smoker (NOAA-GC) Dave Witherell (staff)

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Ms. Lisa Lindeman NOAA General Counsel P.O. Box 21109 Juneau, AK 99\$02-1109

#### Dear Lisa:

Thank you for getting back to us on legal questions regarding a Vessel Bycatch Allowance (VBA) program. Based on our conversation yesterday, I have chosen a few questions that should receive top priority at this time, based on recommendations from David Witherell, NMFS economist Joe Terry, and VBA Committee chairman Steve Hughes.

"Transferred for monetary consideration" needs to be interpreted with respect to the internal workings of a voluntary vessel group or bycatch management partnership as well as for transfers not associated with a voluntary group (pool). Is a transfer in exchange for something other than money acceptable? For example, could halibut VBA be exchanged for crab VBA? Does the IRS, or other relevant authority, have a definition of "for monetary consideration" that makes it clear that barter is or is not included?

There is still confusion as to whether a VBA program could be subject to the IFQ/CDQ cost recovery fees, and if so, would the fees be based on the ex-vessel value of the groundfish, the regulatory discards covered by the program, or both; and if it is just on the value of the regulatory discards, can't it be argued successfully that the value of the regulatory discards is reflected by the value of the groundfish that they are used to catch?

The VBA proposal that was presented to the Council in February and the derivative of that proposal that was developed by the VBA Committee have two features that are intended to reduce the Enforcement and General Counsel burdens of such a program. First, a vessel owner who receives VBAs for a given year would be able either to use the VBAs in a voluntary VBA pool of one or more vessels or to use them in the default pool, where the latter would be managed as the current common and all inclusive pool is managed. Second, the nature of the right associated with VBAs is not to be able to fish until the VBAs have been taken but rather to be able to fish until a method agreed to by NMFS and the voluntary pool indicates that the VBAs have been taken. Associated with the second feature would be an automatic closure of the fishery to the vessels in the voluntary pool once that method indicates that the pool's VBAs have been taken. Are there any merits in these two features? Would the burden of proof threshold be less for a pool closure, as opposed to individual vessel closure?

The Act states that: (ii) any such conservation and management measures will meet the requirements of subsection (h) and will result in an actual reduction in regulatory discards in the fishery. Some clarification is required with respect to the "actual reduction" requirement. There are two issues here. First, could this requirement be met by a VBA program that decreased the regulatory discards of some species but increased that of others? If it could be, would the total regulatory discards measured in terms of total weight or numbers have

to decrease or could a monetary measure of total regulatory discards be used to account for differences in the importance of different species? Second, is the required reduction relative to what happened in a previous year or to what would happen without the VBA program? The Committee still questions whether this requirement could be met by a VBA program that reduces regulatory discard rates and allows more groundfish to be caught with the same amount of regulatory discards and, therefore, results in a reduction of regulatory discards for that level of groundfish catch?

Any additional information you can provide on other issues that have been raised would also be appreciated by the VBA Committee. Thanks again.

Sincerely,

Chris Oliver

Deputy Director

# HMAP and IVCP Committee DRAFT Minutes, May 14, 1998

### Persons Present:

Beth Stewart (AEB, Committee Chair)
Steve Hughes (NRC/UCB)
Chris Blackburn (AGDB)
Dave Fraser (F/V Muir Milach)
John Gauvin (Groundfish Forum)
Shari Gross (HANA)
Bob Alverson (FVOA)
Steve Ganey (AMCC)

Bill Karp (NMFS)
Joe Terry (NMFS)
Gregg Williams (IPHC)
Kim Dietrich (APO)
Denise Fredette
Jerry Brennen

Dave Witherell (staff)

In February 1998, the Council formed a committee to discuss issues related to proposals for a Halibut Mortality Avoidance Program (HMAP) and an Individual Vessel Checklist Program (IVCP). The Council agreed with the Executive Directors recommendation that the existing VBA committee be used as a forum for these discussions. A meeting of the HMAP/IVCP Committee was scheduled on May 14 to follow a VBA committee meeting. The meeting was held in Seattle at the Nordby Conference Center.

The group elected Beth Stewart as committee chair. The committee worked through each proposal by first hearing a review of the proposed program from the proposer, and then addressing the issues for resolution, which were identified in Joe Terry's discussion paper.

# **Halibut Mortality Avoidance Program**

John Gauvin provided a summary of the HMAP proposal. HMAP was proposed to allow and encourage interested groundfish trawl fishermen to follow a set of procedures designed to increase substantially the survival of halibut that are taken as bycatch. Survival rates for halibut discarded from trawl vessels is thought to depend on deck time, tow duration, and the total weight of the haul. Rules for participating in an HMAP would include minimum observer coverage, sampling of every haul, maximum haul duration, median haul size limits, and deck sorting of halibut under supervision of an observer.

The Committee worked through the list of issues that needed to be resolved for this program before the proposal can be fully analyzed. A summary of the committee's comments are discussed below.

<u>Deck Sorting</u> - Every haul would be deck sorted unless sea conditions prevented safe operations for the observer and crew. No processing of the catch would be allowed until deck sorting was complete. Some halibut may get by and enter the factory (in catcher-processors), and those halibut would be further sorted out there. On catcher boats, some halibut that do not get sorted on deck would be transferred below, and counted shoreside. From an operational standpoint, the deck crew would sort out the halibut and transfer them to an observer, who would record length and viability data before releasing it back into the sea. John expects that halibut can be sorted from most hauls within a 20 minute period, and this should result in much higher survival of halibut. From a scientific standpoint, this deck sorting procedure should result in better estimates of halibut bycatch and viability, as more halibut would be examined by observers.

Tow Length and Haul Size - To be in compliance with the program, vessels would need to limit the amount of fish in their codends. To do this, a threshold haul weight standard could be established, and vessels would need to keep their tows, on median, less than this standard to remain in compliance. Alternatively, or in conjunction with a haul standard, the duration of tows could be limited. It was suggested that increased survival of halibut could be attained if vessels limited their tow time to 2 hours.

Observers - John thought most H&G vessels would require 2 observers onboard, as these vessels will want to fish around the clock. Other vessels may only require 1 observer if they adjust their fishing operations. Regardless, halibut would be sorted from every haul. Regular catch and discard sampling would be done for a random selection of hauls, as is done currently.

TAC and PSC Allocation - For each target of an HMAP program, the PSC would need to be split into two pools, the HMAP pool and the open access (default) pool. For fisheries that are not limited by TAC, no split of catch quota would be required. Depending on the fishery, PSC for the default pool may need to be further subdivided into small and large vessel pools. There are two options available to split the PSC. A mechanical formula would split the PSC proportional to the TAC, or some other measure. A political formula would allow for more PSC available to participating vessels as an incentive.

Rewards and Incentives - The incentive for vessels to participate in an HMAP program is additional access to additional groundfish harvest, by increasing halibut viability and extending the halibut PSC cap. Vessels not participating in the HMAP would likely use up their halibut PSC allocation faster due to higher mortality rates assigned to the open access fishery. There are actually two parts to the incentive: first, vessels participating in HMAP will have a separate allocation of PSC from the open access fishery. Second, lower halibut mortality rates translate into more bycatch available and more groundfish harvest. Committee members suggested that a reduced halibut mortality rate could be applied in year one based on a conservative estimate, similar to what was done for the Pacific cod longline fishery when "careful release" regulations were implemented for that fishery.

<u>Problem Statement and Objectives</u> - Same as for the VBA program. Simply put, the objective of an HMAP program is to increase survival of halibut bycatch, and allow the fishery to harvest more of the TAC within the allowable bycatch cap.

## Committee Recommendations -

The Committee strongly recommends that the Council move forward as soon as possible with developing a HMAP pilot program for GOA deepwater flatfish (2nd quarter), BSAI Other flatfish (July opening), and BSAI yellowfin sole (Fall opening). The Committee believes that an HMAP program for these fisheries will provide useful information (including observer duties, enforcement needs, and catch measurement) for possible application to other fisheries. These fisheries were chosen because they have relatively high halibut bycatch rates, occur during good weather months, and are prosecuted by a core group of vessels. The pilot program should be developed by whatever means necessary, be it a plan amendment, regulatory amendment, experimental fishery, or whatever.

Further, the committee recommends that the Council increase attention to the issue of catch accounting including observer coverage, data collection, and reporting. The questions regarding the observer program include: Do we have appropriate observer coverage? Are we getting what we want from the current system? Can we improve it? Although the Council has assigned this task to the SSC, the Committee believes this issue warrants increased attention as it affects all future individual vessel monitoring programs. The Committee believes that industry participation in this process will be essential.

# **Individual Vessel Checklist Program**

Steve Ganey provided an overview of the IVCP proposal. The IVCP proposal was designed to provide trawl vessel operators with an incentive to: (1) meet conditions that would tend to improve the estimates of total catch, including bycatch, for a vessel and (2) reduce their bycatch of groundfish and other living marine resources. The incentive would be access to a reserve season fishery for which up to 25% of a TAC and the attendant PSC allowances are reserved.

Each target fishery would become a two-permit fishery. All licensed vessels would be eligible to participate in the permit 1 fisheries. Only those vessels that comply with the permit 1 checklist requirements for a specific target fishery would be able to participate in the permit 2 target fishery for the same species. The permit 2 fishery would occur during a portion of the year that provides ample incentive to meet the checklist requirements. Checklist requirements for year 1 would include minimum observer coverage, maximum codend size, electronic reporting capability, accurate catch measurement via scales or full retention, and other requirements. Additional requirements for vessels to participate in later years include a 15% reduction of PSC species bycatch, or a 10% reduction in PSC bycatch and a 15% reduction in bycatch of all other species. These reductions would be required for individual vessels, with reductions measured against a baseline year.

One significant aspect of the IVCP which differs from a VBA or HMAP program is that is would require reductions in all types of bycatch, not just halibut and crab. The committee discussed this issue, and noted that other programs that direct reductions in bycatch of one species had some potential to increase bycatch of other species. Any analysis of any bycatch program, whether IVCP, VBA, or HAP should examine effects on the bycatch of all species, including PSC and non-target groundfish.

In discussion the bycatch reduction part of this proposal, the committee noted that there would be disproportionate costs associated with vessel processing capacity. Vessels with fishmeal plants could easily meet the requirement by simply turning the fish into fishmeal. Increased fishmeal production would not be the intended effect of a bycatch reduction requirement.

<u>Checklist requirements (gear, observers, reporting)</u>- The checklist part of the proposal included requirements that every tow be sampled, a maximum codend size (50 mt for pollock, 25 mt for other targets), electronic reporting daily by the observer, check-in and check-out notices, total catch measurement or full retention.

The committee noted possible obstacles to defining gear requirements for a checklist program. First, trawl gear definitions can be difficult to enforce. For example, the mesh size regulation was dropped because of enforceability concerns. Second, regulations may require that gear restrictions be developed in a nondiscriminatory manner. For example, pot limits for the crab fishery were developed as a function of vessel size, and thus affect large and small vessels equally.

The committee noted that the checklist part of the proposal was not a stand-alone requirement. Without the reward of additional TAC, the objectives and problem statement was not addressed. In light of the above discussions, Steve Ganey agreed that the best way to move ahead was to include the bycatch reduction and moitoring aspects IVCP proposal into the VBA and HMAP programs. PSC reductions could be a featured characteristic of both VBAs and HMAP, as either program provides the tools to help industry lower bycatch limits. The concept of a checklist of items, related to the structure and design, is applicable to both VBAs and HMAP. For example, checklist items such as improved observer coverage and improvements in total catch accounting appear to be necessary for either program.

### **Committee Recommendation**

The Committee recommends that aspects of the IVCP be considered for incorporation into the HMAP and VBA programs. The issues highlighted in the checklist requirement appear to get at many of the same issues. These issues include observer coverage and sampling, reporting requirements, maximum tow size, accurate measurement of catch and discard, and bycatch reduction. Further, the Committee noted that the incentives provided under HMAP (in terms of a PSC pool and lower mortality rates) would provide more immediate rewards to the fleet, as well as be easier to manage. Several committee members noted that adding additional "reward" seasons would make management of small quotas difficult to attain without exceeding the TAC.