

OBSERVER COMMITTEE

Report to the Council

March 27, 2000

The Council's Observer Committee met on March 20-21 in Seattle, WA with the following persons in attendance:

Committee Members: Joe Kyle (Chair), Chris Blackburn, Susan Robinson, Kim Dietrich, John Gauvin, Bob Mikol, Paula Cullenberg, Mandy Merklein, Kathy Robinson, John Iani, (Paul MacGregor attended for Trevor McCabe).

Agency staff: Chris Oliver (NPFMC), Sue Salvesson, Bridgette Mansfield, Sally Bibb (NMFS Region), Dan Ito, Martin Loefflad, Shannon Fitzgerald, Heather Weikart, Ericka Acuna, Bill Karp (NMFS AFSC), Vicki Cornish, Steve Copps (NMFS HQ), Gregg Williams (IPHC).

Other: Bob Alverson, Harold Holten and Duke Bryan (AFU), Jim Greiner, Bryan Belay, Jas Mangat, Cassie Owens, Michael Lake, Fran Bennis, Steve Hughes, Dave Edick

The Committee discussed near-term issues (including regulatory changes and observer availability) as well as long-term programmatic issues. The Committee used the Council's motion from the October 1999 meeting as a reference point for its discussions (attachment 1). A summary of the Committee's discussions and associated recommendations, by topic, follows:

Overview of Issues

Chairman Kyle, Sue Salvesson, and Dan Ito provided some opening remarks to review the Committee's charge, in the context of the primary issues facing the program. Each Committee member, as well as persons in attendance, was given an opportunity to speak briefly regarding their major issues of concern with the program. In summary, the recurring themes echoed by these comments included: (1) need for flexibility in placing observers where we can get the most efficient use for science and catch accounting; (2) need to clearly define baseline program goals and objectives; (3) need to have a work environment that encourages high quality observers (and therefore high quality data); (4) need to reconcile discrepancies between observer data and vessel data; (5) need to address observer availability issue.

Martin Loefflad provided the Committee a summary of the program, including observer duties, what data they collect, and how it is used. Major issues for resolution from the NMFS perspective remain: (1) conflict of interest which is inherent in the current design of the program; (2) no flexibility in placement of observers where most needed; (3) cost inequity; (4) lack of incentive for quality, long-term observers, and quality data. The Committee noted that, while there are certainly areas for improvement in the program, we still have the best, most comprehensive observer program in the U.S.

CDQ Observer Issues

Sally Bibb reported to the Committee regarding the training and qualification requirements for CDQ observers, noting that NMFS does not feel that the current requirements can be relaxed, unless the Council is willing to alter the program management objectives. The Committee discussed whether there might be a compromise that stays largely within the Council's objectives (hard caps), but is not so onerous. Several issues surrounding observer training and qualification were discussed, but the Committee was in basic agreement that these requirements were appropriate in the context of the Council's October motion. However, the Committee was concerned that the current requirements do have disproportionate impacts to specific sector (even preclude some sectors from participating in the CDQ fisheries), and may provide incentives to avoid observer coverage requirements by using smaller vessels. **Specifically, the Committee (consistent with previous Council action) recommends an analysis to examine CDQ observer requirements for longline catcher vessels >60' which examines management trade-offs associated with potentially reduced coverage requirements.** Such an analysis might also examine the use of video monitors as a supplement to on-board observers.

In a more general discussion of these issues, the Committee raised some alternatives for possible future consideration, including: (1) for CDQ or AFA type fisheries, provide a pooled portfolio of species and put the onus on the group, via contract agreements, to stay within that portfolio; (2) remove the minor species from the CDQ accounting mix and deal with those through some other precautionary estimation approach. Generally the Committee circled back to the question of how exact we need to be in our catch accounting, and what levels of coverage are then required. This issue will be explored more in the Committee's consideration of long-term program changes.

Observer Availability

Related to the CDQ training and qualification requirements is the issue of observer availability. Bridgette Mansfield provided an update on this issue, including current estimates of the numbers of level 2 trained observers available (about 175), which indicates that the shortage of observer this year may not be as bad as last fall when this issue was brought to the Council's attention. However, even the number of trained observers can be misleading, as at certain times of the year these people decline observer deployments. Further, it is likely that some shortages in available observers (level 1 as well as level 2) will continue to be a problem, for the following reasons: (1) with the current economy and low unemployment, there simply are far fewer applicants being recruited for observer positions; (2) even with higher pay, the contractors are not able to recruit nearly as many observers as in previous years (though this past year higher pay was offered at a time when many observers were already committed); (3) except for a handful of people who enjoy the flexibility of observing, being an observer is not a career choice, but rather a stepping stone to other employment (making this more of a career path is something that may be addressed in discussions of longer-term solutions); (4) additional AFA (and possibly other) coverage requirements coming on line.

Given the current program structure, NMFS has little control over the provision of observers to industry by the contractors, and therefore limited ability to affect the short-term availability issue. A long-term solution could be integrated into a restructuring of the program which would include the flexibility to place observers where needed the most, as well as measures to recruit and retain observers to the maximum extent possible. It was also discussed that while there may be an actual shortage, some of the shortage really results from inefficiencies in logistics; i.e., management of observer deployments is an area where improvement is possible which may somewhat mitigate the shortage issue. In-season adjustments to observer requirements (such as was done by NMFS last fall in response to the shortage) is another way to mitigate shortages, though the potential to adversely affect data quality is inherent in that approach, and it should only be used with caution.

Options to address the shortage include: (1) reducing training and qualification requirements; (2) reducing required coverage levels; and, (3) increasing the number of available observers. It will be difficult to increase the number of available observers - we cannot control that variable - unless observer pay reaches a level that entices renewed interest. Reducing training and qualification requirements is not an option from NMFS' perspective (unless, again, we are willing to change our management expectations). Similarly, reducing coverage levels will likely require that we revisit goals and objectives, and the coverage levels necessary to achieve those. **Based on recommendations from contractor representatives, as well as others in attendance, the Committee did identify the following possible areas, which in combination may alleviate the shortage in the near-term:**

- allow CDQ training after deployment, but prior to debriefing (to take advantage of potential 'down-time' while waiting for debriefing).**
- provide a list of CDQ certified observers to all contractors.**
- have CDQ training become part of the standard training class for all observers.**
- consider reducing AFA vessel requirements so that both observer do not have to be level 2.**
- allow flexibility regarding the 90-day maximum deployment rule (and 90 day maximum on any one vessel in 12 months) - perhaps allow a plus or minus 10 % to promote efficiencies (and result in cost savings to vessels)**
- encourage more regular, formal contact (maybe workshops) between NMFS program staff and the observer contractors.**

For the longer-term, some additional ideas were raised in the Committee discussions. **One specific recommendation was to encourage the Council to consider reduced coverage levels for AFA vessels in the mid-water pollock fisheries.** It is felt by the Committee that, at least for vessels who do not sort at sea, there may be unnecessarily high coverage in this fishery, and that coverage may be duplicative to the plant observer. This is an area where available observer coverage could be freed up to alleviate the shortage problem, although the Committee recognizes that appropriate coverage levels for all fisheries has to be examined as a long-term program issue. Other considerations relative to this idea include: (1) whether two observers are necessary, or whether both need to be level 2 qualified (for AFA catcher/processors); (2) consider only requiring the 100% coverage (for CVs >125') when fishing non-

pollock fisheries; (3) statistical comparisons could allow post-op examination of whether the reduced coverage is resulting in data deficiencies; (4) critical habitat considerations could be addressed through VMS; (5) for GOA vessels in particular, reduced coverage in pollock fishing could result in increased coverage in other fisheries where data is lacking; for example, allow one pollock trip and count all other fisheries towards to 30% coverage requirements.

Amendments to the current program

The Committee received reports from NMFS staff on the rollover of the existing program through 2002, the development of regulations increasing the hardware requirements for ATLAS, and the omnibus regulatory amendment being drafted for initial review by the Council at the April meeting. **The Committee supports the rollover of the existing program to allow time for further development of long-term program structure changes. Regarding the ATLAS hardware requirements, the Committee supports implementation of those requirements, but did offer the following recommendations in connection with those discussions: (1) that NMFS provide bulletin board reports on amounts of pollock coming from Shelikof (SCA), and (2) that, ideally, all observers should have their own ATLAS-capable laptop computers.**

Regarding the omnibus regulatory amendment package, the Committee understands that it will get an opportunity to review the full analysis of alternatives, after the Council's initial review but prior to final action in June. At that time the Committee can provide recommendations to the Council on preferred options for each issue. The issues, and the Committee's recommendations for the analysis are shown below:

Shoreside plant reporting periods - In addition to the alternatives currently being examined, **the Committee recommends that the analysis also consider using fishery closures as the trigger for weekly coverage requirements (i.e., when the fishery shuts down, due to halibut bycatch or otherwise).**

Shoreside plant observer logistics - move ahead with alternatives as currently drafted.

Concurrent assignment of observers to shoreside plants - move ahead with alternatives as currently drafted.

Groundfish pot observer coverage - **the Committee agrees with the need to address this issue immediately, as the avoidance of observer coverage is compromising data quality. In addition to the specific alternatives currently listed, the Committee recommends consideration of alternatives which would base the coverage trigger on percentage of catch (as opposed to days fished). We also wanted to compare with what is done for trawl fisheries, and, if possible, structure the analysis to cover other gear types.**

Confidentiality of observer personal information - move ahead with alternatives as currently drafted.

Regarding other potential regulatory amendments (such as proposed in the February letter from APO), the Committee feels that these should be dealt with separately and did not consider them for this amendment package; rather, they will be reviewed by the Committee at our next meeting.

Resolution from the Alaska Board of Fisheries

The Committee reviewed the proposal from the Board of Fish (attachment 2), and offers the following comments: Regarding random placement of observers on trawl vessels in the GOA, our current program model does not allow for that, recognizing that this is one of the primary goals of long-term changes to the program. If the Board's request is simply asking that NMFS determine when a particular vessel takes its 30% coverage, as opposed to the vessel deciding, this may be easier to effect but is still not possible under current program regulations. This issue may be addressed through the regulatory amendment discussed above (for example, basing coverage trigger on 30% of catch), and will be addressed in the broader examination of new program structures.

Regarding the other parts of the resolution, it was noted that much of the information being requested is already collected - it is simply a matter of someone making the conversion of lat/long information to state statistical areas. Trawl speed is not collected by observers, due to other duties and uncertainty as to the standard definition (thru water vs over ground, for example). More specific intent of this particular proposal is necessary. It was suggested by the Committee that Board or ADF&G staff confer with NMFS staff to discuss the specific of this resolution, and determine how to most efficiently synthesize existing information to meet the Board's request. The Committee also noted that the Digital Observer Project (see discussion below), or a similar type system, could also be useful in providing some of the kinds of information in the Board's request.

The Committee reviewed a project summary and request for endorsement from the Digital Observer Project (attachment 3), which is seeking funding support for a pilot project to test a video observer system. **The Committee encourages this type of research and is supportive of the Digital Observer Project obtaining the necessary funding and permits to test this system.** It may have potential merit as a supplement to onboard observers, could be applied for other fisheries or purposes in addition to those outlined in the proposal, and could even help alleviate the observer shortage issue to some degree.

Observer seat on the Advisory Panel

This issue was raised and discussed at some length in the Committee. While there was general consensus that an observer representative would provide an important perspective to the AP, there was discussion as to whether that seat should be allowed to vote. There was also advice from NMFS staff that such a seat should be a currently, or recently, working observer, not be a NMFS employee, and not represent an agency perspective. **In summary, the Committee recommends that the observer seat on the AP be reinstated as a non-voting member.**

Long-term program change

Though the Committee spent most of its time discussing short or intermediate term issues, much of those discussions touched on issues underlying long-term program structural changes. Foremost among those

is definition of goals and objectives, necessary coverage levels by fishery to achieve them, and the appropriate funding and delivery model to place the observers. In order to further develop alternatives, the Committee needs additional information, or updates of previous analyses, relating to program costs and available funds which could be generated under various options. The Committee is targeting mid to late May for our next meeting, at which we will focus on the long-term program alternatives. **To the extent possible, the Committee requests that staff prepare the following information to facilitate those discussions:**

- 1. Relative to the idea of reducing coverage in the mid-water pollock fishery, a quantification of the number of vessels affected, and the potential number of observers which would be freed up.**
- 2. Updated estimates of the costs of current observer coverage, exvessel values, and projected fee necessary. A side-by-side comparison of the various primary alternatives, in terms of costs/revenues as well as other program issues, would also be very useful to the Committee (primary alternatives include status quo, fee plan, TAC set-aside, subsidy programs).**
- 3. A comparison of the foreign observer program, and the legal framework which allowed NMFS oversight and flexibility in placing observers. This would include the issue of 'who is the client' and NMFS vs contractor role in that system.**
- 4. Examination of necessary changes to the Magnuson-Stevens Act to allow each major alternative to be developed.**
- 5. Bar graphs depicting general observer needs in each major fishery on a weekly basis (based on most recent estimates of seasons in BSAI and GOA).**

Additionally, the Committee recommends that analyses of necessary coverage levels by fishery (for various goals and objectives) begin on a parallel track with the above information requests. We also recognize that the MRAG review will be available by early May, which should also provide guidance to the Committee as it considers long-term program issues.

Magnuson-Stevens Act reauthorization

The Committee received a report from Vicki Cornish (Team Leader, National Observer Program) on the efforts to coordinate a national observer policy, as well as on potential reauthorization issues as they may affect our observer program options. **The Committee believes that language in the Act needs to be as generic as possible, to allow us the maximum flexibility in designing a program for the future. The current Research Plan language is not likely the appropriate language to give us that flexibility. The Committee recommends that staff work with HQ personnel as appropriate on this issue, and that the next Council Chairman's meeting place this issue on their agenda for consideration.**

Council Motion on Observer Program from October 1999 Meeting

It is the policy of the North Pacific Fishery Management Council to have the best, most accurate, and responsive fishery monitoring program in the world. Rigorous catch accounting is becoming the norm rather than the exception. The Council believes that the MSCDQ program is a prototype for fishery management in the North Pacific. It has set the stage for implementation of the American Fisheries Act and sea lion conservation measures. The problem is how to reconcile the current observer qualification and training requirements with the realities of the new fishery monitoring and management needs imposed by the AFA, sea lion conservation, and MSCDQ programs. Given the shortages of qualified observers, it is apparent that this problem is reaching a critical level. Therefore, the Council will reconstitute the Observer Committee to include appropriate representatives from industry, observers and observer companies, environmental groups, and CDQ organizations. The Council will ask the committee to review the observer program in its entirety and make recommendations to improve the program to attain the Council's policy objectives.

Attachment 2**ALASKA BOARD OF FISHERIES****Resolution #2000-198-FB****A Resolution to the North Pacific Fishery Management Council and the National Marine Fisheries Service Regarding Observer Data Gathering Protocol Aboard Trawl Vessels in the Gulf of Alaska**

WHEREAS, The North Pacific Fishery Management Council (NPFMC) has delegated responsibility for conservation and management of Gulf of Alaska king and Tanner crab stocks to the State of Alaska; and

WHEREAS, king crab stocks in the Gulf of Alaska have been below harvestable thresholds for the past 17 years and the stock continues to decline; and

WHEREAS, Tanner crab stocks in the Gulf of Alaska have been below harvestable thresholds for the past six years; and

WHEREAS, non-pelagic (hard on bottom) trawling is known to have a bycatch component of king and Tanner crab; and

WHEREAS, king and Tanner crab migrate throughout the federal and state marine waters of the Gulf of Alaska; and

WHEREAS, the NPFMC through the National Marine Fisheries Service (NMFS) has instituted an onboard observe program to monitor trawl fisheries in the Gulf of Alaska; and

WHEREAS, current observer data does not provide enough information to accurately determine the trawl-related impacts on king and Tanner crab stocks in the Gulf of Alaska; and

WHEREAS, the current observer program for vessels between 60 and 125 feet in length allows the vessel skipper to choose when the observer is aboard for the required one-third observer coverage.

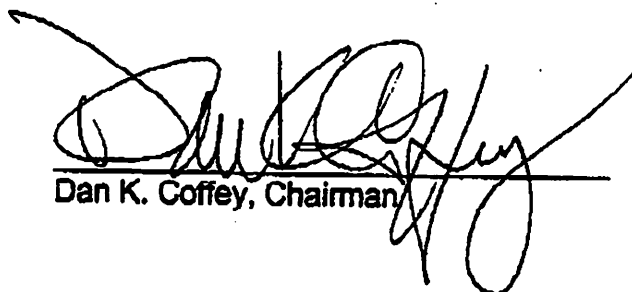
NOW, THEREFORE, BE IT RESOLVED, that the Alaska Board of Fisheries in its concern about the crab stocks in the Gulf of Alaska does hereby make a priority recommendation to the NPFMC and NMFS to take appropriate action to revise the observer protocol for trawl vessels in the Gulf of Alaska as follows:

- **Observers are randomly placed on trawl vessels.**
- **Observers recording of trawl activity (a tow) is located and documented by state statistical area, in both state and federal waters, as well as latitude and longitude.**
- **Observers to record the trawl speed throughout each tow and the time the trawl is in the water on each tow.**
- **Observer bycatch data will include estimation of percent of trip observed, by weight and time. Annual reports will contain a cumulative estimate of percent of fishery observed by weight and time.**

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- **Observed data will be tallied and published monthly for each state statistical area. Monthly reports will include information about corrections or revisions to prior reports. Annual reports will reflect cumulative totals for each state statistical area.**

**DATED: January 25, 2000
Juneau, Alaska**



Dan K. Coffey, Chairman

Digital Observer Project

Attachment 3

To: NPFMC Observer Committee

From: Mark K. Buckley, Leader,
Digital Observer Project

Re: Research-Plan for Scientific Fishing Permit we're requesting your support for

The Digital Observer Project of Kodiak is seeking your support as it attempts to demonstrate that machine vision can be used to identify longline-caught fish at sea. For more information on the project, please refer to the March, 2000 issue of Pacific Fishing Magazine, page 96. That article describes where we are today and where we hope to take the project in the future. Basically, the project seeks to deploy the technologies of automation and machine vision to supplement, and in some cases replace, onboard fisheries observers on longline and other vessels. Benefits to the industry will be reduced cost and liability, improved safety, and the advance of impartial machine analysis of observed fisheries. Government will benefit through an improved data stream.

Some of the project's initial goals are to experiment with digital camera hardware and fish identification software. To that end, we submitted to NPFMC a resolution in favor of our planned applications to NMFS for scientific fishing permits. We are seeking those permits to allow us to charter a longline vessel(s) for a total of 28 days over a 12-month period. We anticipate needing two separate charters: an 18-day period in June 2000 and another 10-day charter in May of 2001. We are requesting permission to retain and sell the fish we catch (exclusive of the halibut) to pay for the charters.

Saltwater, Inc. is involved with and supports the project, and Dr. Dan Ito, head of AFSC's Observer Program, is on the project's advisory committee. Consequently, each charter will be conducted with full observer coverage and the experimental design will be coordinated with NMFS. Data gathered during each charter will be subjected to statistical analysis by project members in consultation with NMFS and under the supervision of Dr. Mitchell Roth, of the University of Alaska Fairbanks's Dept. of Mathematical Sciences. We will provide reports to NMFS, the Observer Committee, and other interested parties on the research conducted during the charters and on our findings.

Charter 1 will be to test and determine the optimal hardware configurations to meet our needs. We will "mix and match" three different types of digital cameras, three different illumination devices, three different distances from camera to fish, three different background colors (necessary to allow edge detection on the fish image) plus experiment with a variety of camera angles to achieve the most definitive photographs. In all, we will conduct more than 90 experiments, gathering up to 50 fish images during each experiment. We'll take those images back to the lab for computer analysis as to which configuration works best.

The 18-day charter will be broken down thus: Set-up and system testing in port (Kodiak), 2 days. Take-down: 1 day. At-sea experimentation: 13 days, or 7 experiments per 12-hour day. Weather days: 2. Charter cost: \$3,800 per day, totaling \$68,400.

The purpose of charter 2, lasting 10 days, and starting in May, 2001, will be to test the accuracy of the fish identification software as applied on a working longliner. The tasks will be broken down thus: Set-up in port (Kodiak): 1 day. Fishing with camera in action: 4 days. On-site software "debugging": 2 days. Shoreside testing: 1 day. Weather: 1 day. Takedown: 1 day. Charter cost: \$3,800 per day totaling \$38,000.

The project has applied to the Alaska Science and Technology Foundation (ASTF) for funding and has raised pledges of support from other industry sources. We will know on April 13 whether the project will be funded. ASTF is allowing the use of fish sale moneys as "matching funds" in support of the project.

It would be helpful to us to have the support of the OAC as a recommendation of support in their report to the council on this meeting. We can keep the OAC updated on the implementation and results of our efforts and are open to suggestions from the committee members as we develop the project.

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