

North Pacific Fishery Management Council

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MINUTES Scientific and Statistical Committee June 8-9, 1995

The Scientific and Statistical Committee of the North Pacific Fishery Management Council met June 8-9, 1995 at the Anchorage Holiday Inn. All members were present with the exception of Marc Miller, Doug Larson and Sue Hills:

Terrance Quinn II, Chair
Seth Macinko, (Alt. Eggers)
Rich Marasco
Jack Tagart
Phil Rigby

Keith Criddle, Vice-Chair
Al Tyler
Harold Weeks
Bill Aron

C-1 INSHORE/OFFSHORE

Council staff presented an overview of additions and changes made to the draft EA/RIR for the proposed reauthorization of Amendment 18/23. Public testimony was provided by Vince Curry, John Gauvin, Rebecca Baldwin, and Joe Blum.

The present document addresses some of the concerns identified in the SSC's April 1995 minutes. Conclusions, about the neutrality of the benefit/cost findings have been tempered somewhat.

In general, the SSC notes that the Council is facing a complex policy decision which cannot be guided by a single quantitative measure. This conclusion is compounded by data limitations and the many distributional equity issues inherent in allocation issues. It was largely for these reasons that the SSC recommended that the analysis be mostly qualitative. Such data limitations and the difficulty posed by the mixture of qualitative and quantitative analytical measures which are not directly comparable are anticipated in E.O. 12866:

In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

The SSC believes that the analysis is based on the best available data. Specific comments on the present document follow.

The general approach of the analysis is to address the issue of net benefits by, "...incorporating by reference the findings from the Supplemental Analysis dated September 3, 1992 and determine how changes in some of the parameters and assumptions which reflect today's fishery conditions would affect the findings. Data limitations constrained this analysis to an examination of changes in gross revenue per ton of processed product, gross revenue per ton of catch and utilization rates (total product production divided by total catch). The gross revenue calculations are contingent on assumptions regarding product prices, product mix and utilization rates. The draft EA/RIR reports estimates of the utilization rates for inshore and offshore sectors. These point estimates mask variability within season and among firms.

Given the weak conclusions reached about economic efficiency, the analysis suggests that more weight may be given to other forms of costs and benefits including stability and community impacts. The SSC notes that "stability" is a multi-dimensional concept. The analysis addresses stability from the perspectives of impacts on communities, impacts on the policy process, and impacts on the regulatory/management environment (and subsequent impacts on industry). These perspectives are reflected in the Council's problem statement. The SSC believes that no single measure is available to assist the Council in considering these perspectives.

Changes in fisheries regulations have distributional consequences. The EA/RIR describes some of the possible changes in the distribution of benefits among regions and between industry sectors. However, it is important to note that it is difficult to isolate the consequences of 18/23 from the background of changes in other regulations, changes in market conditions or the development of local and regional economies.

Public testimony suggested concern that external costs, for example, changes in water quality are not addressed in the EA/RIR. While these costs would need to be factored into a comprehensive cost-benefit analysis, they are likely to be second order effects. That is, the estimate of net national benefits is likely to be more influenced by problems in estimating costs of production, consumer surplus, processor net revenues, etc.

The SSC notes public concern regarding the potential effects of differential exploitation rates inside and outside of the CVOA. We suggest that this issue be addressed by the BSAI Plan Team. In addition we would appreciate some discussion from the Plan Team regarding possible marine mammal interactions within the CVOA. Without the CVOA restrictions, it is likely that pollock exploitation rates would have been even higher in this area.

Finally, the SSC notes an opportunity to improve future analyses of this kind. When a previous analysis has anticipated specific impacts on the fisheries and communities supporting those fisheries, obvious questions arise in subsequent analyses as to whether those impacts have been realized. For example, information on actual employment effects which might be attributable to the inshore/offshore amendment is not provided in the current analysis; although Amendment 18/23 anticipated distributional impacts on employment. Employment data are difficult to obtain, and no data collection was undertaken to monitor the changes in employment. This type of data gap is symptomatic of the lack of attention to post-implementation analyses afflicting fisheries management in general. **Management should implement routine monitoring of social and economic indicators to improve future analyses.**

C-2 LICENSE LIMITATION

The SSC received and reviewed the June 2, 1995 Supplemental Analysis. A brief overview of the contents of the document was provided by Council Staff. Public testimony was provided by David Hillstrand, Mike Szymanski, John Gauvin, and Arnie Thomson. The SSC provided extensive comments on license limitation in its April 1995 minutes. These comments focus on contents of the June 2, 1995 document.

License Limitation Configurations

A critical feature of any access control program is its ability to control effort. Updated tables provided by Council staff indicate that of the groundfish license limitation program configurations in the supplemental analysis only three (1315964, 131596B, and 131596E) reduce the number of vessels below 1993 participation levels (1662). Table 2.5 (p 26) indicates that all of the configurations listed in Table 2.7 (p 30) license fewer vessels than the number qualifying under the moratorium (3889, Feb. 13, Supplemental Analysis, Table 1, p 5). None of the crab fishery configurations reduce the number of vessels from 1993 levels (368, Table 3.5, p 66). All of the crab fishery configurations reduce the total fleet size relative to the moratorium (486) and cap the number of vessels in many of the specific crab fisheries at levels well below the number of potential entrants under the general moratorium fleet.

The June document also indicates that vessel exemptions or exclusions are also being considered. Several potential problems are associated with this feature. First, the excluded portion of the fleet is free to increase effort. Second, there is a potential for an increase in the number of allocation issues that would be brought before the Council. And third, separate monitoring systems would be needed if TACs are divided between licensed and unlicensed vessels.

Appendix I illustrates that because many vessels harvest substantially less than the average within their vessel class, there exists a potential for substantial expansions of fishing effort under many license limitation options. It is important to note that the catch heterogeneity observed within vessel classes can be attributable to a number of different factors including differences in operating costs and objectives and that vessels with the highest catches are not necessarily the most profitable. This type of analysis does not lend itself to making projections about changes in interregional distribution of license owners.

The appropriate basis of comparison for measuring relative fleet size effects is not clear. The document uses a 1993 snapshot as a measure of current participation. A single year may be an inappropriate measure of current participation patterns if annual participation patterns vary. If the moratorium is approved by the Secretary, the de facto current fleet size is established and should be used when considering relative fleet size (as opposed to the 1993 snapshot).

The document indicates the Council's preference for nonseparable area designations. If this feature is built into a license limitation program, it will likely have a negative impact on the market value of licenses.

Throughout the license limitation development process, it has been indicated that licenses represent the first step leading to implementation of an ITQ system. If entities, who have acquired licenses after initial implementation of the program believe that they will be adversely affected by a proposed ITQ program, implementation of any such program might be difficult. Alternatively, if these entities perceive additional benefits from a transition to an ITQ system, the transition may be facilitated. At this point the number of participants falling into these two groupings is unknown.

Realignment of West Yakutat

Another issue discussed in the supplemental analysis is the realignment of the West Yakutat district (between 140 degrees W and 159 degrees W) of the Eastern Gulf management area. If this is done, the SSC recommends that separate ABCs and TACs be set for the Western Gulf, Central Gulf, West Yakutat and SEO (east of 140 degrees W) areas. Information is available to distribute ABCs to these areas for pollock, Pacific cod and flatfish. Survey design for 1996 would have to be modified to allow specification of Pacific ocean perch, shortraker, rougheye rockfish, other slope rockfish and thornyheads ABCs for the above defined areas.

Non-trawl Endorsement for S.E. Outside

The problem statement associated with inclusion of the non-trawl provision in a license limitation program is lacking in the June 2, 1995 document. Assessment of analysis adequacy is hampered by this deficiency. The SSC believes that once the problem is defined, potential impacts of alternative actions can be examined.

C-3 OBSERVER PROGRAM

The Council has recently expressed concerns about several aspects of the observer program procedures for collecting data at sea. Issues include placement of observers on-board vessels, hiring of observers, prioritization of observer deployments, duration of contracts and other procedures relating to the supervision, organization, and accounting and financial procedures involved with the operation of the Program. Some of the concerns involved technical use of the data. The Council would like a general review of the several problem areas that it has identified, and in particular has requested an independent review of statistical data collection methodologies.

Although not specifically addressed by the Council, the SSC believes the Council may also be interested in a review of the operational procedures of the observer program. Such a review might examine the need for and utility of data elements being collected, the data transmission, keypunching, error checking, data screening protocols, compilation, storage and retrieval procedures, and the timeliness of data availability. The Observer Oversight Committee may be the appropriate body to consider many of these problems.

The SSC is concerned with the smooth and effective functioning of the critically important observer program. We regard any circumstance which impairs that smooth functioning as a potentially serious problem. The SSC notes with concern that some observers have not been paid for their work. It seems that the general supervision of the program should be strengthened.

The SSC believes that it can help with the organization of the independent review of the statistical procedures. The data from the observer program is essential for the assessments and management of the fish and shellfish stocks under Council jurisdiction. There is no indication that procedures regarding all sampling problems, for all species, and for the entire fleet need to be part of an independent review. There are issues with selected species and situations in the fleet that need to be reviewed for possible improvement. The SSC suggests that contracts be developed to look at these statistical problems, and that these contracts be administered in the usual manner by council staff.

1. Scoping phase of the review.

At this time it is not clear what the full scope of the review might be. For example, it was suggested in public testimony to the SSC that the estimates of salmon caught as PSC at certain times and in selected areas might be one of the problems for the review. It was suggested there are many other problems as well. Therefore, it would appear that an independent review would start with a phase that determines the minimum set of problems that go forward to full review. A key part of the review will be a scoping phase for the work. A contractor might work with the Council and its staff to place these problems in a technical, statistical context.

2. Analytical phase of the review.

The main part of the work will be a case by case examination of the details of the sampling procedures and their adequacy for statistical hypothesis testing. The concerns would include: the number of vessels that should be sampled to achieve particular kinds of information, the percentage of vessels covered, the percentage of fishing-days, the time and location of sampling, the deck sampling protocol, the conditions on vessels at sea that must

be factored into the sampling constraints, the statistical estimation procedures, and possible improvements in computer data-storage.

C-4(e) Halibut Area 4 Sub-allocation

The SSC heard a report from Jane Di Cosimo on the IPHC recommendations to combine halibut statistical reporting areas 4C-E and its attendant impact on the allocation of fishing privileges under the Sablefish/Halibut IFQ fishery. **The SSC is supportive of the IPHC proposal to distribute TACs in proportion to biomass. We do not view this as an allocation decision, but a biological decision to avoid excessive localized exploitation.** However, in the implementation of these changes, the IPHC needs to be sensitive to the impacts on the administration of the Halibut IFQ program. Prior to implementation, the IPHC needs to give the Council sufficient time to amend the IFQ plan to accommodate adjustments to the allocation of harvest privileges among the IFQ holders in the currently configured statistical reporting areas.

D-1 SCALLOP MANAGEMENT

The SSC received a staff report by Dave Witherell on the proposed Amendment 1 to the Scallop Fishery Management Plan. Doug Pengilly and Bill Nippes made a presentation on ADF&G scallop management. Public testimony was presented by James Fletcher, Mark Kandianis, and Theresa Kandianis.

The complete closure of the EEZ off Alaska to scallop fishing has created severe hardship for scallop fisheries. Alternative 2 sets forth a management regime which could allow a regulated scallop fishery to take place in 1996. However, the SSC does not know whether either Option One or Two for harvest levels, observer coverage, closed areas and bycatch limits have the potential for successful management given the uncertainties posed by legal interpretations.

For a management system to succeed, the SSC recommends a single system for scallop management be devised, either by joint Federal-State activity, or by either the State and Federal government deferring authority to the other. We consider 100% observer coverage, a single data collection and management scheme, and a single approach to establishing harvest and bycatch quotas to be essential.

The approach must assure equity for participants; the Council should immediately begin work toward a longer term solution by moving forward with a limited access system for the North Pacific scallop fishery.

The SSC urges that an expanded State-Federal program of data collection for stock assessment be pursued. There is substantial uncertainty in nearly all knowledge areas needed to manage this fishery. Estimation of population abundance, and size/age structure, scallop biology, life history and stock production parameters; analyses of reproductive potential, population thresholds, recruitment and limiting factors; and investigations of exploitation rates are of paramount importance. All of these issues are important to the determination of harvest limits. At least some of this information must be contributed by an active fishery, as neither ADF&G nor NMFS have the budgetary and human resources to initiate and maintain a comprehensive scallop research program. We recommend that ADF&G, NMFS and industry members begin discussions of strategies to begin collection of this important information.

D-2 GROUND FISH AMENDMENTS

D-2(a) HALIBUT DISCARD RATES

The SSC received a report from Greg Williams and Lauri L. Sadorus of the IPHC which reviewed the 1995 January-May halibut bycatch data from the BSAI Pacific cod hook and line fishery. The authors obtained data from 42 freezer-longliners and after verifying the data reliability, they were able to analyze the observations from 26 vessels. During the course of the fishery, by-catch rates (tons of halibut per ton of groundfish) were fairly stable (0.03 to 0.06) while the cumulative mortality rate showed a steady decline. The overall estimated mortality rate for the sampled catch was 11.5% while the average weekly rate was 11.2%.

The SSC questioned Greg Williams regarding the IPHC screening and selection of the useable subset of observer data. Bycatch rates were similar for sampled vessels during the first 10 weeks of the fishery. In the final seven weeks, the bycatch rate for the useable subset of sampled vessels was higher than that of the total sampled fleet. At the same time, estimated halibut mortality was lowest during these weeks. The SSC wanted to be assured that the screening was not creating a biased subsample, and are satisfied that this is not the case. Nevertheless, we think the IPHC report should include a description of the selection criteria for the useable subset of observer data.

The SSC recommends that the Council adopt the recommended halibut mortality rate of 11.5%. Bycatch rates clearly change seasonally, and it is unclear how the January through May observations predict bycatch rates in the latter part of the year. Therefore, we also recommend that the IPHC continue to collect and examine halibut mortality data for the remainder of the year. Subsequent recommendations for mortality rates should encompass analysis of a full years worth of data.

D-2(c) ELECTRONIC REPORTING

The SSC reviewed the EA/RIR to implement hardware requirements for electronic reporting of observer data. There was no public testimony.

We understand that NMFS is preparing a second amendment to require electronic reporting of catch and production information. The SSC supports electronic reporting of observer data specifically and the general concept of electronic reporting of all catch and production reports. We recognize, however, that catch and processing reporting requirements are complex, costly, and possibly redundant. NMFS and ADF&G staff have agreed to establish a process to evaluate data needs, collection, and uses in order to eliminate redundancies; we expect initial meetings to take place this summer. The SSC recommends that industry participate in efforts to improve reporting. **After a complete review of the data collection process, we encourage the subsequent development of electronic catch and reporting requirements to be merged with the new system for observer reporting.**