North Pacific Fishery Management Council

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Certified:_____ Date:_____

SCIENTIFIC AND STATISTICAL COMMITTEE to the NORTH PACIFIC FISHERY MANAGEMENT COUNCIL February 4th – February 6th, 2013

The SSC met from February 4th through February 6th at the Benson Hotel, Portland OR.

Members present were:

Pat Livingston, Chair NOAA Fisheries—AFSC

Alison Dauble Oregon Dept. of Fish and Wildlife

George Hunt University of Washington

Steve Martell International Pacific Halibut Commission

Lew Queirolo NOAA Fisheries—Alaska Region

Members absent were:

Kate Reedy-Maschner Idaho State University Pocatello

SSC Nominations

The SSC reappointed Pat Livingston as chair and Robert Clark as vice chair. The SSC would also like to thank departing committee members Kathy Kuletz and Henry Cheng for their service and expertise on the SSC.

The SSC wishes to express our sincere appreciation to Dr. Mark Fina for his years of excellent and highly professional contributions to the fishery management process as a member of the Council staff. Mark's dedication to the furtherance of the Nation's, the Council's, and, especially, the SSC's efforts to meet the challenges of managing the living marine resources of the BSAI and GOA, has been invaluable. We wish him great success and happiness in his future endeavors.

Review of SSC procedures

The SSC reviewed its report preparation policy and guidelines regarding review of SAFE documents. These SSC guidelines were last reviewed in June of 2007 and were in need of revision to reflect current practices of the committee. Minor changes were made to reflect new ACL requirements for crab and scallop as well as clarification of the timing and type of reviews conducted by the SSC. The revised report policy and SAFE review guidelines are in Appendices A and B, respectively.

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Jennifer Burns University of Alaska Anchorage

Anne Hollowed NOAA Fisheries—AFSC

Seth Macinko University of Rhode Island

Jim Murphy University of Alaska Anchorage

Farron Wallace NOAA Fisheries—AFSC

Vacant US Fish and Wildlife Service

Robert Clark, Vice Chair Alaska Department of Fish and Game

Sherri Dressel Alaska Department of Fish and Game

Gordon Kruse University of Alaska Fairbanks

Franz Mueter University of Alaska Fairbanks

Terry Quinn University of Alaska Fairbanks

Vacant Wash. Dept. of Fish and Wildlife

B-2 NOAA Report on Deep Sea Coral Strategic Plan

The SSC received a presentation from Chris Rooper (NMFS-AFSC) on the first year of a three-year field research program in the Alaska region to increase understanding of the location, distribution, ecosystem role, and status of deep-sea coral and sponge habitats. These research studies were initiated by the Alaska Coral and Sponge Initiative (AKCSI; 2012-2014), sponsored by the NOAA Deep Sea Coral Research and Technology Program (DSCRTP). This research will provide valuable data that will aid the Council process to better understand the location, distribution, ecosystem role, and status of deep-sea coral and sponge habitats. The objectives are consistent with the Council's Five-Year Research Priorities (Council Priorities).

Among the 10 research projects planned in this initiative, the SSC believes that the highest priority should be given to understanding the relationship between fish productivity and coral-sponge habitat. Although this will be very challenging, there are measures researchers could potentially evaluate including fecundity, recruitment, growth, and biochemical markers of diet. The SSC also encourages researchers to coordinate with projects outside of this research effort in both the BSAI and the GOA (ADF&G Aleutian Islands Golden King Crab pot survey and fishery observations, Bering Sea canyon researchers and ongoing GOA habitat mapping efforts). Researchers should also conduct power analyses to determine adequate sample sizes.

C-1 (b) Discussion paper: Bristol Bay red king crab essential fish habitat and bycatch interactions

Diana Evans (NPFMC) presented an overview of a discussion paper on Bristol Bay red king crab habitat issues. A discussion paper was originally presented to the SSC in April 2011 and a revised version was presented in February 2012. The discussion paper addresses two issues. First, it presents a short progress report on ongoing and planned research to determine the importance of an area southwest of Amak Island to the reproductive success of the Bristol Bay red king crab stock. Second, the paper reflects on the Council's request to re-evaluate the efficacy of existing groundfish fishery closures in Bristol Bay.

With regard to the first issue, research is being conducted to identify the distribution of ovigerous females through the use of pop-up satellite tags and to locate the distribution of juveniles by analyzing tows from industry-agency cooperative nearshore surveys. Additional research has been proposed to assess the connectivity of larval release and settlement sites through individual-based models of larval drift.

With regard to the second issue, staff proceeded with an evaluation of the efficacy of existing trawl closures to protect crab, but this task has proven to be much larger than originally anticipated. Staff have collected fish ticket data and crab PSC data from the groundfish fishery since 1991. Even though data from cold years prior to the 1976/1977 regime shift are important to evaluate the role of changing temperature on crab distributions, limited fisheries data are available. In addition, only a few years of preclosure (1995) data are available to compare crab PSC mortality before and after the closure. NMFS trawl survey data are available since the late 1960s, and changes in summertime distribution can be analyzed with respect to temperature and the distribution of the cold pool, but shifts in distributions between summer and winter confound the analysis. Given the complexity of the needed analyses, staff requested Council feedback on the priority of this analysis of the efficacy of existing trawl closures.

The SSC recommends that research into the importance of the Amak Island area to the stock is a higher priority than the analysis of the efficacy of existing trawl closures. This is recommended because there is concern that current trawl fisheries in the vicinity of Amak Island could be adversely affecting crab habitat and possibly stock productivity, whereas the existing trawl closure areas have not elicited a conservation concern. For the Amak Island analysis, the SSC recommends that a top priority should be to conduct a statistical analysis of performance measures that index potential impacts on red king crab distribution, habitat, growth or recruitment relative to fishing and environmental covariates, in particular temperature. In addition to analyses of PSC in existing

flatfish trawl fisheries, the SSC notes that the area north of Amak Island was historically open to cod trawling; analysis of historical PSC from that fishery may be enlightening. Maps showing both directed fishing effort and crab PSC, provided in earlier discussion papers, should be updated and brought forward in future versions of the discussion paper to assist the Council in deciding whether this research warrants some potential management action.

The SSC also recommends consideration be given to future research to identify nursery areas by sampling newly settled glaucothoe and age-1 crab and their habitats. The SSC supports the analysis of juveniles of size 19-28 mm carapace length (CL) from cooperative surveys, but notes that these crab are mostly age-2 king crab. Nursery areas may be more clearly defined by the location of settling glaucothoe (~1.7 mm CL) and age-1 (~9 mm CL) that depend critically upon structurally complex habitats. As king crab approach age-3, they begin to move out of these areas as they outgrow the hiding spaces afforded by these habitats. Thus, sampling of age-2 crab may not provide a good index of nursery habitats for the early benthic stages. In any case, only two stations yielded high catches of these juveniles in the two years of sampling, thus making it difficult to draw definitive conclusions.

The SSC supports an analysis of the existing trawl closures in place to protect Bristol Bay red king crab and their habitats. In general, analysis of the efficacy of Council actions to achieve their intended purposes is sound practice. However, it is always difficult to analyze the effects of a trawl closure, because, once enacted, trawl-based data are no longer collected within the closed area. To partially address this problem in year-round closure areas, PSC data from fixed gear and pelagic trawls could be analyzed for crab PSC rates inside and outside the closed areas. Also, a portion of area 516 closes seasonally and a portion of the Red King Crab Savings Area is opened in years when there is a directed crab fishery, so catches from those areas could also be examined. The SSC appreciates the difficulty of accessing usable data in cold years prior to 1977, but perhaps observations from more recent warm (through 2005) and cold years (since 2007) could provide some useful contrasts. Finally, an analysis should include a more detailed history of red king crab closures that help to identify the fraction of historical fisheries that occurred in these areas, as well as their crab PSC.

The SSC noted a few minor errors in the discussion paper. In the second paragraph of the introduction, it is indicated that eggs are released, but females carry their fertilized eggs until they hatch as larvae. Also, in the juvenile assessment section, the discussion paper proposes that the distribution of juveniles can be used as an index of larval hatching locations. However, the locations of juveniles are likely to be more indicative of nursery locations subsequent to pelagic larval drift. Rather, the distributions of ovigerous females are more likely to reflect hatching locations.

C-2 (b) Initial review BSAI Flatfish Specifications Flexibility

Diana Evans (NPFMC) presented a report on the Initial Draft RIR and RFAA. Jason Anderson (Alaska Seafood Coop.), Lori Swanson (Groundfish Forum), Jon Warrenchuk (Oceana), John Gauvin (Gauvin and Assoc.), and Simeon Swetzof, Jr. (self) gave public testimony.

This is the Initial Review draft of the RIR and RFAA for an action proposed to facilitate improved efficiency and more complete utilization of three flatfish TACs and ABC surpluses in the BSAI trawl fisheries, conducted by Amendment 80 and CDQ sectors. Yellowfin sole, rock sole, and flathead sole have historically been harvested at levels below, and sometimes far below, available TACs. The factors influencing this outcome include market demand, seasonality considerations, incidental and bycatch composition, Pacific halibut PSC and red king crab PSC constraints, and uncertainty as to availability of sufficient species-specific TAC when needed to support profitable operations. The proposed action would seek to provide greater flexibility to fleets targeting these species, by permitting "substitution" of quota amounts of one species, say flathead sole, for an equivalent quota amount of one of the other of these flatfish species, say yellowfin sole. In this way, the Amendment 80 fleet cooperatives and the CDQ

sector may be better able to deal with the difficulties of these fisheries across the fishing year, and thus more closely achieve respective TAC amounts.

The action appears to be designed to resolve an "accounting" problem, in the sense that quota "accounts" of yellowfin, flathead, and rock sole are occasionally found to be out of balance with sector need. The issue of "balancing accounts" is driven by a desire to utilize more completely the available flatfish resource, while remaining strictly bounded by the 2 million metric ton OY cap and the respective flatfish ABCs. The current draft presents the Council's problem statement and suite of alternatives concisely, and provides empirical data and narrative information with which to compare the action alternative and options with the baseline. As an initial draft, some aspects of the analysis may require supplemental extension and elaboration, but this need is likely best evaluated after receipt of public comment.

The draft does contain one serious error in the RFA section that must be rectified before release for public review. The analyst correctly observed that the action alternative and options under consideration result in only "positive" economic impacts. The analyst also correctly characterizes the RFA criteria with which an agency may seek certification of a proposed action under SBA guidelines. The decision to certify is predicated upon one test, namely, "Does the proposed action have the potential to result in a significant **adverse** economic impact on a substantial number of small entities?" (emphasis added). The answer to this query appears to be 'no', thus justifying certification. However, the analysis does not base the decision to certify on this finding, but instead asserts that "*The fisheries directly regulated through this proposed action are all contractually and operationally affiliated with each other through membership either in the Amendment 80 cooperatives or CDQ groups. Consequently, all impacted entities are considered "large entities" for the purpose of the RFA.*" This is erroneous. The RFA explicitly identified CDQ groups as "small not-for-profit" organizations for analytical purposes.

Had the analysis used the first explanation for the decision to certify, it appears likely a "factual basis" could have been prepared, based upon the absence of any adverse economic impacts. By grounding the certification on there being "no small entities" in the directly regulated universe of entities, the authors have introduced a factual error that should be corrected. **Once corrected, the SSC recommends that the draft document be released for initial public review and comment.**

In the next iteration, the SSC recommends inclusion of: (a) more detailed characterization of PSC performance; (b) consideration of implications of PSC avoidance incentives; and (c) description of PSC patterns on the basis of cold versus warm years, PSC avoidance performance by fishery area. For stock-status tracking, pre- and post-season TACs for each of the three flatfish species should be documented. Inclusion of a more expansive treatment of use of unspecified reserves, and additional discussion of changing fishing patterns should be considered.

The authors should also carefully review use of terminology (e.g., gross revenue, PSC, bycatch) to assure accurate and precise presentation.

C-2 (c) Initial review GOA Pacific cod sideboards for Freezer Longliners

The SSC received a presentation of the initial review draft from Jon McCracken (NPFMC). Public comment was provided by Joe Childers (non-sideboarded, non-member vessels), Chad See (Freezer Longline Coalition), and Kenny Down (Blue North Fisheries).

The document contains useful historical data that provide context for the proposed alternative, but the document would benefit from a more substantive analysis of these data. The SSC recognizes that recent changes in the relevant fisheries, the lack of economic data, and confidentiality restrictions present challenges for such an analysis. Even though there are still areas in which the analysis can be improved, **the SSC recommends that the initial review draft be released to the public after the comments below are addressed, to the extent practical.**

The SSC received public testimony that between 2005 and 2011, FLL-sideboarded vessels voluntarily elected to refrain from extending their operations in the GOA even though their sideboards were not fully utilized. Whether these vessels will continue to operate in the same manner in the future is unclear. The document would benefit from a discussion of the factors that could influence their decisions about operating in the GOA. It is reasonable to expect that FLL vessels might increase their GOA activity if it is in their economic interests to do so, as was demonstrated by the change in their GOA activity beginning in 2001. For example, the Council recently adopted an action that adjusts the MLOA in the Bering Sea to accommodate larger vessels. The improved operational efficiency of the newer vessels could fundamentally alter the opportunity costs of voluntarily standing down. If the improved operational efficiency results in the BS allocation being fully harvested at an earlier date, or the BS fishery closed sooner as a result of PSC limits, then shifting to the GOA may become more economically attractive. Even without newer or more efficient vessels, changes in stock abundance or prohibited species encounter rates may also result in an earlier closure of the BS fishery, leading to a stronger incentive to increase GOA activity.

Table 2-2 shows an increasing trend in GOA catch by the FLL vessels between 2005 and 2011. Whether this is the result of increased effort or increases in TAC is unclear and should be explored. A table showing the percent of GOA catch by the FLL vessels, relative to the GOA TAC, may be one way to shed light on this issue.

Discussion of the "dependency" of FLL vessels on the GOA Pacific cod fishery should be removed, and the analysis should simply focus on the percent of revenue generated from the GOA. Whether the 3% average gross revenue derived from GOA establishes dependency is subjective. For example, if the average were 2% instead of 3%, would these vessels no longer be dependent?

The average gross revenue figures in Table 2-2 only reflect the share of revenue from Pacific cod in the GOA versus the BSAI. To the extent practicable, the document should provide information about the share of revenue from all fisheries (not just BSAI Pacific cod), as compared to revenues from GOA Pacific cod. This will give us a sense for how dependent these vessels are on the GOA Pacific cod fishery.

The SSC received public testimony that at least one vessel derives as much as 25% of its profits from the GOA. The SSC encourages the analyst to review whether this figure is consistent with the estimated 3% average gross revenue (Table 2-2) derived from the GOA by the five vessels combined. Even though this is a comparison of average revenue across three to five vessels with the profits of a single vessel, these figures still appear to be inconsistent. Moreover, this issue highlights the ongoing concern of the SSC about the use of gross revenue, rather than profits, as a measure of the economic impacts.

On page vii, the document states that Table 2-1 shows that four of the six sideboarded vessels have been active in the BSAI snow crab fishery since 2001. As currently worded, this statement incorrectly implies that this activity has been ongoing since 2001, when in fact only one or two vessels have been active since 2005.

At the bottom of page vii, the statement that the relative percentage of GOA Pacific cod catch has "... varied little from year to year" should be revised. In absolute terms, the range of values in Table 2-2 is about one to five percentage points, but this also reflects a five-fold increase. In addition, both the catch and first wholesale gross value have increased by a factor of ten between 2005 and 2011.

On page viii, the document mentions that these vessels could lease some or all of their BSAI Pacific cod and expand activity in the GOA, but have not done so because of the relative abundance of fish in the BSAI compared to the GOA. While this may be a factor, a primary economic driving force behind this decision is a comparison of the profitability of two alternatives: (1) potential price received from leasing BSAI Pacific cod, combined with the potential profits generated from fishing in the GOA, versus (2) continued fishing in the BSAI. This economic trade-off may be influenced by the relative abundance of fish in the BSAI and GOA, as well as other factors, such as operational costs.

In section 2.3, Potential Effects on Net Benefits to the Nation, the document acknowledges that there may be some efficiency advantages if these vessels are more efficient at harvesting than other vessels in the co-op, and also acknowledges that the proposed alternative could exacerbate the "race for fish." What should be added is that any increase in the race for fish imposes economic costs that erode efficiency gains (e.g., changes in fuel consumption or vessel modifications designed specifically as a result of the race for fish). This direct link between the race for fish and efficiency costs should be mentioned.

C-2 (d) Initial review AFA Vessel Replacement GOA Sideboards

The SSC received a presentation of the initial review draft from Jon McCracken (NPFMC). No public comment was provided.

In October of 2012, the SSC received a presentation of a draft analysis of a proposed action to modify the vessel replacement provisions under the AFA. The SSC noted at that time that the document presented a clear identification of the suite of alternatives under consideration by the Council to address the structural change made in the original AFA, by implementation of the Coast Guard Act (CGA). We further observed that the document laid out the elemental components that differ among the 'no action' alternative and the alternative strategies for treating the ambiguities that emerged from the CGA's imprecise or incomplete provisions in AFA modification rules. It was also noted in our review that the draft provided a good overview, statistically documenting the historical participation, catch, gross revenues, product outputs and forms, etc., from the BS and GOA fisheries, prosecuted by AFA vessels. All of these elements and attributes were good preparation for an analysis of expected economic, socioeconomic, and distributional outcomes of each action alternative, as compared to the baseline.

However, it was the SSC's judgment that this last critical step had not been undertaken in the document we received for review in October 2012. The SSC articulated the types of questions that should be considered in the analysis, such as "What purpose did the original AFA have in prohibiting vessel replacement, except in extreme cases of loss?" "What costs have emerged from these constraints?" "Have there been benefits to the fisheries, communities, participants from this limitation?" "What purpose did the CGA have in modifying these restrictive rules?" These suggestions were meant to emphasize the necessity of a thoughtful and thorough inventory of the economic benefits and costs, and any distributive implications that may reasonably be expected to emerge from the actions being considered.

The revisions in the current document reflect a serious effort by the analysts to address our concerns. The document builds upon the foundations present in the original draft, and makes an effort to take that next critical step to apply reasoned assumptions, empirical data, economic theory, and practical knowledge and experience to describe what these proposed changes to AFA vessel replacement rules may yield, if adopted. While still in need of further analytical refinement, and careful application of terminology (e.g., make clear that value estimates are 'gross', not 'net'), the document is a substantial improvement over the first version. After the following comments have been addressed to the extent practical, the draft should be released for public review, comment, and further development.

In the current document it is assumed that a vessel with no historical dependence on the GOA is unlikely to enter the fishery (e.g., page xiv "AFA vessels with little or no GOA groundfish history would likely discount the potential benefits of future GOA groundfish activity relative to the potential benefits gained from a more efficient operation in the BSAI from using a larger vessel"). While this may be true in some circumstances, it is also possible that the improved operating efficiency resulting from vessel replacement may alter the economics, such that operating in both the BS and GOA becomes viable. The extent to which this would occur is difficult to discern, but should be acknowledged as a possible outcome. More

generally, the document should acknowledge that there are economic linkages between the BSAI and GOA that could affect vessel replacement decisions, and the absence of historical dependence could be a function of factors that may change in the future, such as the characteristics of the present vessel (which could be replaced), or the relative abundance of fish in the BSAI and GOA.

Alternative 2, option 2.1 gives vessel owners the opportunity to increase vessel size, provided that they acquire a GOA license with an appropriate MLOA at the time the owner applies to NMFS for authorization to replace or rebuild. Once the vessel owner applies, this option to increase vessel size has been exercised, and no longer exists. Thus, unlike the other alternatives and options, the "option value" built into this alternative could influence the timing decision about when to replace a vessel.

In multiple places, the document uses the term "likelihood" to reflect the analyst's expectations, the term is not meant in a statistical sense. The revised document should either revise these statements to avoid potential confusion or simply provide a footnote at the start of the document making clear what the use of the term "likelihood" implies.

C-3 (a) Discussion paper GOA Trawl Economic Data Collection

The SSC received a presentation of the discussion document from Darrell Brannan (consultant to the NPFMC). Public comment was provided by Julie Bonney (Alaska Groundfish Data Bank).

The SSC is strongly supportive of the Council's efforts to develop an economic data collection program for the Central GOA, and supports consideration of its extension to the Western GOA, as well. Although the immediate policy issue at hand focuses on the Central GOA, it is conceivable that the Western GOA fishery may also be rationalized at some point in the foreseeable future, and these data would provide a solid baseline for evaluating alternatives and impacts. Moreover, even if the Western GOA is not rationalized, it is certainly possible that it may be affected by changes in the Central GOA. The SSC encourages the Council to move quickly with implementation of their EDR program, so that there are sufficient data to establish a pre-rationalization baseline that would be useful for subsequently evaluating impacts. However, expediting this action should not come at the expense of the long-run benefits of a comprehensive data collection program.

The basic framework described in the discussion document is a reasonable starting point for developing alternatives. As the analysis progresses, it would be fruitful to review previous EDR programs for lessons learned that could be incorporated in the GOA program. The CIE review of the crab EDR, for example, provides useful insights in this regard. The SSC supports developing a data collection program that is as broad as possible, without imposing excessive reporting requirements on industry. For each data element, careful attention should be paid to the level of aggregation that will yield reliable data that are reported consistently, across entities. Input should be solicited from industry, AFSC, Region, and Council staff. Whether this is best accomplished through direct communication with relevant parties or a working group should be considered.

If a rationalization program is implemented, the data collection program should include details about quota transactions, including both prices and quantities. Such data are useful for estimating economic benefits and costs, redistribution patterns, and price trend analyses that can also provide insights into the state of the fishery.

When developing the problem statement for the proposed action, the SSC recommends that the Council be clear about the goals and objectives of the data collection program, and encourages the Council to consider the value of these data, not only for evaluating the impacts of rationalization, but also for analyzing possible future Council actions that may impact this fishery.

While this proposed program focuses on economic data, the SSC notes that rationalization programs present the Council with a broad range of social issues that must be considered in addition to strict economic concerns. However, the proposed economic data collection program is not the appropriate mechanism to collect such social information.

C-4 (a) Final action BSAI Crab ROFR

Mark Fina (NPFMC) presented an overview of the revised draft analysis of proposed amendments to the Right of First Refusal (ROFR) provision in the BSAI crab rationalization program. Public testimony was received from Frank Kelty (City of Unalaska).

The SSC has previously commented on earlier versions of the analysis. The new draft contains an addition to the problem statement and a new proposed action. The SSC commends the analyst for addressing SSC concerns with earlier drafts, particularly the language used to portray tradeoffs between benefits to communities and benefits to firms holding processing shares. **The current draft provides the Council with a thorough consideration of the proposed actions and the tradeoffs involved.** The selection of any combination of actions is a policy call resting with the Council.

Appendix A. - Policy Regarding Preparation of the SSC Report - February 2013

Report preparation is one of the most important duties of SSC members. The SSC report should reflect the discussions of the SSC, as a body, during the SSC meeting. The report serves multiple purposes: (1) a record of what transpired at the meeting, (2) scientific advice to the Council and to the public, and (3) the "institutional memory" of the development of SSC guidance regarding various issues. As such, it is important that the SSC report be clearly written, accurate, and transparent. The following guidelines are meant to assist in achieving these goals.

- 1. Before the meeting, the SSC Chair will assign individuals to lead various agenda items.
- 2. Each individual should carefully read the documents pertaining to their assigned agenda item(s), look for the key issues involved, and research previous SSC comments on the item.
- 3. Individuals assigned to agenda items should be prepared to take the lead at the meeting in asking questions and formulating SSC advice on those agenda items. Generally, there is a presentation by staff, followed by SSC questions, public testimony, and finally SSC discussion and formulation of advice.
- 4. At the conclusion of SSC discussion of each agenda item, the Chair will summarize the main points that constitute SSC advice. The lead SSC members should write these points down.
- 5. SSC members assigned to each particular agenda item should decide how to divide the task of writing the report. One person should assume the lead, assemble written submissions from coleads, and give the draft section to the SSC vice-chair.
- 6. The start of each agenda item in the SSC report should contain the agenda number, agenda title, and a list of staff members and the public who spoke before the SSC. After that, authors should provide a summary of any previous consideration(s) of this item, and address the key issues discussed by the SSC. For documents considered to be influential scientific information (ISI), according to the OMB Peer Review Bulletin, the SSC shall also characterize the nature of the public testimony in its report. The written recommendations and discussion should demonstrate the SSC's response to the public testimony. Typically, annual groundfish SAFE reports are the main ISI documents reviewed by the SSC.
- 7. The SSC report should provide an accurate description of the scientific discussion. Therefore, sufficient detail should be provided to reflect the range of opinions that were expressed.
- 8. Bold font should be used to highlight key statements that should be emphasized by the Chair when presenting the oral report to the Council. The report should be written with this aspect in mind. For example, detailed criticisms of methodology or results meant for the analysts should appear in separate paragraphs, so that the Chair can easily navigate through the reading of the report to the Council.
- 9. During the meeting, the SSC vice-chair will compile the draft report sections and print a hard copy for review by SSC members. All SSC members present are encouraged to read the draft sections of <u>all</u> agenda items and provide comments, questions, and clarifications. Comments should be constructive and clear. Ambiguous advice such as "Put something in about ...", "This is not clear to me", "This needs work..." should be avoided.
- 10. The written summary should not include changes of a substantive nature that were not discussed at the meeting.
- 11. In reviewing the report, SSC members may find statements that they think should be reconsidered for further SSC discussion. Such statements should be brought to the attention of the SSC Chair and, if warranted, can be discussed if the SSC is still in public session or, if no longer in public session, reconsideration will be scheduled for discussion at a subsequent SSC meeting.

- 12. The SSC Chair has responsibility for final editing of the SSC report and typically enlists available SSC members to help. The Chair may change or delete parts of the report for clarity, scientific logic, and accuracy of the SSC discussions.
- 13. The SSC Chair will send the draft report out to all members after the meeting, and members are encouraged to recommend final changes.

Appendix B. - Guidelines for SSC Review of Stock Assessment and Fishery Evaluation (SAFE) documents - February 2013

Federal fisheries managers strive to use the best available scientific and commercial data and analyses when making regulatory decisions. Scientific peer review is a necessary process for ensuring the quality and integrity of scientific assessments that are used to determine acceptable biological catches (ABCs) (also called annual catch limits (ACLs)) and overfishing limits (OFLs). By conducting a stock assessment review, the NPFMC SSC helps NMFS and NPFMC fulfill their stewardship mission to manage and conserve our living marine resources in a scientifically sound manner.

The purpose of the review is to assess the scientific validity of the stock assessment, including the assumptions, methods, results and conclusions. Specific aspects of the review will vary, but may include: quality of the data collected or used for the assessment, appropriateness of the analyses, validity of the results and conclusions, and appropriateness of the scope of the assessment (e.g., whether all relevant data and information were considered).

The SSC reviews the stock assessment document, receives a verbal report from the stock assessment authors (if appropriate) and from the NPFMC plan team that reviewed the stock assessment, and takes public testimony (see "Policy Regarding Preparation of the SSC Report" for further details). The SSC shall then make the final determination regarding the Tier level of the assessment and set the ABC (ACL) and OFL for groundfish, crab, and scallops for each assessed stock or complex. Standard formulae exist for maximum permissible ABC and for OFL for each Tier level. Alternative procedures (e.g., stairstep, percentage reduction, or adjustments based on ecosystem considerations, or additional sources of uncertainty) may be used to arrive at final ABC recommendations at the SSC's discretion. Such procedures have been used in the past as precautionary measures. In its report, SSC recommendations regarding future research priorities and direction will also be made.

Typically two or more SSC members will be assigned as the lead reviewers for each stock or stock complex. These lead reviewers will be members that are not directly responsible for the production of the stock assessment or directly supervising the stock assessment author(s). The lead reviewers will lead the discussion on that particular assessment and will draft the portion of the SSC report dealing with that species. Recommendations may be directed to the stock assessment author, plan team, or Council and the report shall clearly explain to whom the SSC's recommendations are directed.

The October SSC meeting is generally when detailed examination of any new stock assessment models for groundfish (benchmark assessments) occur. For crab stocks, this occurs in June. More scrutiny should be given at this stage to methods of model construction, fitting, and new data sources used. Additional workshops or reviews may be recommended to resolve any outstanding technical questions in a proposed new assessment prior to implementation. CIE (Center for Independent Experts) reviews are also conducted on a rotating, or as needed basis, on stock assessments at the request of NMFS. The SSC will typically receive a presentation on the findings of the CIE panel. The groundfish stock assessments are reviewed for setting ABCs and OFLs at the December SSC meeting. For crab stocks, this occurs in June for stocks without surveys and in October for the rest. The SSC reviews the scallop SAFE in April.

The December meeting begins with a review of the Ecosystem Considerations Appendix of the SAFE to place the groundfish stock assessments within an ecosystem context. Also, the Economic SAFE is reviewed. Similar documents for crab and scallop will be reviewed when available.

In general, with respect to peer review panels, the NPFMC SSC has adopted the May 12, 2003 Policy of the National Academies with respect to Committee composition and balance and conflicts of interest for committees used in the development of reports:

(http://www.nationalacademies.org/coi/bi-coi_form-0.pdf).