



New England Fishery Management Council

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John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

**To:** Paul J. Howard, Executive Director  
**From:** Dr. Steve Cadrin, Chairman, Scientific and Statistical Committee  
**Date:** April 7, 2009

**Subject: Methods for economic and social impacts for Scallop Amendment 15**

The SSC was asked to review the methods for economic and social impacts for Scallop Amendment 15, including alternatives to address excess capacity in the limited access scallop fishery and provide more flexibility for efficient utilization of the resource through various stacking and leasing alternatives. Concerns have been raised that if DAS and access area trips are sold or leased from vessels with lower fishing power to vessels with higher fishing power, overall effort will increase. Therefore, Amendment 15 includes several fishing power adjustment alternatives to address this concern.

Technical documents on socio-economic methods for Scallop Amendment 15 were reviewed in preparation for the February 6 2009 SSC meeting, but the agenda item was re-scheduled to the March 17 2009 meeting. The SSC corresponded with the Scallop Plan Development Team to review a bioeconomic model to estimate producer and consumer benefits, a price model to predict prices, the fixed and trip costs used in the analyses, and a production model developed to identify appropriate fishing power adjustment (FPA) alternatives for the leasing and stacking alternatives under consideration.

On March 17 2009, the SSC reviewed the Council request, presentations by the Scallop PDT, and four background documents:

1. Sections of Scallop Amendment 15 DEIS ó Description of stacking and leasing alternatives only
2. Summary of methods used for economic analyses
3. Addendum to Methods used for Economic Analyses
4. Summary of issues that will be considered in the social impact assessment

The SSC recognizes that although much of our agenda and energy is focused on providing acceptable biological catch recommendations associated with National Standard 1, National Standard 8 is no less important: *“Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data, in order to provide for the sustained participation of such communities, and to the extent practicable, minimize adverse economic impacts on such communities.”*

The SSC agrees with the PDT’s general approach of comparing changes in economic surplus between management alternatives and estimating differences in fishing power for evaluating the

effects of consolidation through leasing or stacking permits. However, coefficients for fishing power adjustment were estimated using catch and effort data that were observed in the context of fishery management regulations (e.g., crew size limits, trip limits) that tended to equalize fishing power among vessels. Accordingly, the estimated coefficients may not reflect the differences in fishing power if those regulations are relaxed (i.e., differences among vessels should become greater). Therefore, leasing or stacking from less powerful vessels to more powerful vessels may increase fishing capacity of the fleet if other management measures are changed.

The SSC is concerned that the assumption that fishing power of a vessel increases when allocated more days-at-sea is inconsistent with observations from other fisheries and may not be correct. Although the observed data suggest that catch rates slightly increase when vessels are allocated more days, the result may be an artifact produced by other factors, and the pattern may not continue, particularly if effort consolidation exceeds the observed range of days-at-sea allocations. Other variables that explain differences in productivity between vessels should be explored.

Although the PDT expects that most alternatives under consideration will not have substantial social impacts, the scope of the social impact assessment should be as comprehensive as possible. More detailed technical feedback to the Scallop PDT on the following recommendations is attached.

#### **SSC Recommendations:**

- 1. Differences in fishing power among vessels should be considered in effort consolidation alternatives (e.g., permit stacking or leasing). The proposed fishing power adjustments are conditional on the recent and current suite of regulations that effect fishing power. If a reduction in fishing capacity is desired, fishing power adjustments should be re-estimated under alternative sets of regulations under consideration in Amendment 15.**
- 2. The positive relationship between catch rate and days-at-sea allocation should be further explored before incorporating the proposed ‘increased returns’ adjustment.**
- 3. The scope of the social impact assessment should address several general issues, including preservation of traditional and cultural values, cultural diversity, community stability, and the livelihood of fishermen; equity among user groups; diversity among recreational and commercial users; and the role of the fishing community in American culture and tradition.**