

POINTS SYSTEM MANAGEMENT PROGRAM

AN OUTPUT CONTROL MANAGEMENT PROPOSAL FOR THE
NORTHEAST MULTISPECIES FISHERY

Submitted by the Northeast Seafood Coalition

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TABLE OF CONTENTS

POINTS SYSTEM PROPOSAL

SECTION 1: CORE ELEMENTS OF THE POINTS SYSTEM PROGRAM

A: METHOD OF ALLOCATION

1. Base Line Points
2. Catch History Bonus Factoring
 - a. Vessel Length Classes
 - b. Baseline Period
 - c. Quartile Scoring Categories
 - d. Scoring System
 - e. Catch Bonus Tiers
3. Future Individual Points Allocations & Points Carryover
4. Voluntary Points Contribution Program
5. Transferability
6. Permitted Vessels, Vessel Replacements & Upgrades

B: OPERATIONAL MANAGEMENT OF THE FISHERY

1. Basic Operation Requirements
2. Removal of Input Management Measures
 - a. Reevaluation of Closed Areas
 - b. Removal of Effort Closures & 120 Day Blocks

C: MANAGING WITH POINTS

1. Assigning Biological Point Values (BPVs)
2. In-Season Adjustments to the BVPs

D: ADMINISTRATION OF POINTS SYSTEM PROGRAM

1. Monitoring
2. Observer Coverage
3. Technology / Systems / Hardware
4. Socio-Economics and Demographic Considerations

SECTION 2: ANCILLARY ELEMENTS OF THE PROGRAM

A: HABITAT CONSIDERATIONS

B: MARINE MAMMAL CONSIDERATIONS

C: INTERACTION WITH OTHER FISHERY MANAGEMENT PROGRAMS (FMPs)

D: INTERACTION WITH UNITED STATES / CANADA RESOURCE SHARING UNDERSTANDING

E: INTERACTION WITH SECTORS

F: COMPLIANCE WITH MAGNUSON STEVENS

SECTION 3: POINTS SYSTEM PETITIONS

SECTION 1 CORE ELEMENTS OF THE POINTS SYSTEM PROGRAM

A. METHOD OF ALLOCATION

1. Baseline Points

All vessels that received any A DAS thru A13 would qualify to receive an allocation of Baseline Points.

The baseline characteristics of each permit would be based upon the current NERO files for vessel replacement and expanded to include allowable upgrades. In other words, each permit as if fully upgraded from the baselines as corrected in each vessels individual NERO file. The DAS leasing and DAS transferring baselines should only be used for estimating and preliminary purposes. **Ultimate values would be based upon currently corrected baselines and potential upgrades if not yet taken.**

1. Only Length and Horsepower will be used for vessel baseline calculations.
2. "A" DAS and "B" DAS allocated through A13 will be treated the same. (Note: the ratio of A DAS to B DAS is exactly the same for all permits that received A DAS in A13. Therefore, it makes no difference to include or exclude B DAS from the calculation since the relative differences in allocations between vessels will be exactly the same. The net effect of not including B DAS in the calculation as far as allocation or in management of the Points System is virtually zero.)
3. "C" DAS and "B" minimums that may come from future framework actions will be treated the same.

The formula for calculating BASELINE POINTS would be:

$$[(\text{Length} \times 28) + (\text{HP} \times 2.8)] \times (\text{total effective effort DAS}) = \text{Baseline POINTS}$$

Example: A permit whose NERO file baselines for vessel upgrade / replacement are 70' length and 500 horsepower. This example permit has never been upgraded by a vessel replacement and is therefore eligible to upgrade. The vessel qualified 82 DAS through Amendment 13 effective effort determination (49.2 A days and 32.8 B days after A13 and 45.1 A days / 36.9 B days after FW42) .The following calculation would occur:

Upgraded vessel length	77' (10% length upgrade)
Upgraded Horsepower	600 hp (20% hp upgrade)

$$77 \times 28 = \underline{2,156} \text{ length points}$$

600 X 2.8 = 1,680 horsepower points

3,836 Total vessel / permit length and horsepower value

3,836 X 82 DAS = 314,552 Total Baseline Points

2. Catch History Bonus Factoring

Catch History would be factored in by establishing vessel classes and associated landings and revenue during a baseline period.

a. Vessel Length Classes

In order to minimize the effects on vessels that marginally fall within or outside any particular size range, it is proposed that finer resolution categories be used. The categories would be based upon the upgraded permit length used to calculate base points and would be the following increments:

1. Up to 30'
2. 31' to 35'
3. 36' to 40'
4. 41', to 45'
5. 46' to 50'
6. 51' to 55'
7. 56' to 60'
8. 61' to 65'
9. 66' to 70'
10. 71' to 75'
11. 76' to 80'
12. 81' to 85'
13. 86' to 90'
14. 91' to 95'
15. Greater than 95'

For the purposes of consistency and to avoid misapplication of a bonus multiplier, the length used to determine which vessel length class a vessel must be compared within will be the same upgraded baseline used to calculate the permit Baseline Points. The rationale for this is in theory, if a smaller vessel was fishing during the baseline period using a larger vessel permit, that permit will receive the higher vessel Baseline Points resulting from the larger vessel permit baseline. To avoid application of a Catch History Bonus multiplier attained by comparing the vessel to the smaller size class to a Baseline Points total from the larger permit baseline points it seems appropriate to use the same baseline for Catch History comparison as the baseline used to award Vessel / Permit Baseline Points..

b. Baseline Period

The Baseline Period for determining Catch History Scores are the 8 fishing years from 1996 thru 2003.

Rationale: The reason 2003 was chosen as the terminal year of the baseline is because FY 2003 was the final full fishing year that each permit was restricted to fishing their individual allocation of DAS. Amendment 13 initiated the DAS leasing program which has a profound impact on individual permit catch history. Amendment 13 and the subsequent framework actions have created a tremendous dependence upon DAS transferability as the sole method of mitigating DAS reductions. Most groundfish dependent operations have invested in additional permits for the purpose of leasing the DAS associated with those permits to themselves. By using baseline years for catch history that are post A13, we would be devaluing the permits participating as lessors while using an apples to oranges evaluation of catch histories generated during the consolidated period relative to when all permits had equal opportunity to utilize individual allocations.

Each permit would undergo two separate evaluations:

- 1.** Sum total of Landings in Pounds of NE multispecies regulated groundfish, monkfish and skates for the eight years of the baseline period.
- 2.** Sum total of Gross Revenues from the sale of NE multispecies regulated groundfish, monkfish and skates for the eight years of the baseline period.

c. Quartile Scoring Categories within Vessel Size Ranges

All permits would be distributed into their respective vessel size categories (1 thru 15) with each category being broken down into quartile scoring sectors.

	<u>Score</u>
0 th to 24 th percentile is the lowest rank score of.....	1
25 th to 49 th percentile a score of.....	2
50 th to 74 th percentile a score of	3
75 th to 99 th percentile being the highest score	4

d. Scoring System

1. For the total landings evaluation, each vessel (permit) would receive a score from 1 to 4 relative to other vessels (permits) within the size class, 4 being the highest.

2. For the total revenue evaluation, each vessel (permit) would receive a score from 1 to 4 relative to other vessels (permits) within the size class., 4 being the highest.
3. The two scores would be totaled and the average of the two would be the Catch History Bonus score to determine which tier / bonus the vessel would qualify.

e. Catch History Bonus Tiers

Tier One (Average score of 4) would be a factor of 1.60 (60% bonus)

Tier Two (Average score of 3.5) would be a factor of 1.50 (50% bonus)

Tier Three (Average score of 3) would be a factor of 1.40 (40% bonus)

Tier Four (Average score of 2.5) would be a factor of 1.30 (30% bonus)

Tier Five (Average score of 2) would be a factor of 1.20 (20% bonus)

Tier Six (Average score of 1.5) would be a factor of 1.10 (10% bonus)

Tier Seven (Average score of 1) would be a factor of 1.0 (no bonus)

Example: Using the hypothetical vessel used in the example for calculating Baseline Points. That vessel received **314,552 Total Baseline Points**. During the Catch History baseline period (eight fishing years 96-03) this vessel was in the 56th percentile for total landings of groundfish, monkfish and skates (fisheries requiring the use of a DAS) and in the 79th percentile in gross revenues (from fisheries requiring the use of a DAS). The size class this permit was compared in was # 11 (76'-80'). This vessel would have scored a 3 for landings and a 4 in revenues for an average score of 3.5. An average score of 3.5 is a Tier 2 which qualifies for a bonus factor of 1.50 (50% bonus). The results would be: **314,552 x 1.50= 471,828 Total Points**

3. Future Individual Points Allocations & Points Carryover

Individual points allocations will remain the same each year. Once a permit is allocated points it will receive the same points each year. It will be unnecessary to have reductions in points allocations since the dynamic system for adjusting biological point values (BPVs) will be the management control.

No permanent transfers will occur during the moratorium period.

The only method for a vessel to increase the permanent point allocation for a particular permit is through the Voluntary Points Contribution Program explained below.

A vessel may carryover up to 10% of their points allocation from the current fishing year into the next.

4. Voluntary Points Contribution Program

At any time during the fishing year a permit holder can voluntarily deposit an unlimited number of his / her points allocation into a conservation account that will be associated with each permit in the database. Points transferred into these individual accounts are voluntarily frozen from use indefinitely. The benefit to the permit holder is that his / her annual and permanent points allocation will be increased by a number of points equal to 5% to 10% (policy choice) of the principle balance of points in the conservation account associated with the permit.

The purpose of this concept is to promote conservation by offering an incentive to permit holders not to feel compelled to use all of their points for fear of losing them at the end of the fishing year. This problem exists in the current DAS leasing program that compels permit holders to unload excess DAS before the March 1st deadline since anything beyond 10 DAS carryover is lost with no benefits for voluntarily surrendering the DAS without leasing them.

This program can be utilized as an option to carryover points and points leasing and will provide permanent and recurring benefits to permit holders electing to utilize this program. Effectively, the benefits to the fishery will be that the finite universe of points used to calculate BPVs may be reduced voluntarily resulting in lower BPV costs to permit holders using their points.

5. Transferability

1. For two (2) complete fishing years, allow free exchange through Points Leasing. No vessel size or horsepower constraints between vessels.
2. Place a moratorium on permanent transfers for three (3) complete fishing years.
3. After two years, review the results to understand what desirable or undesirable changes have occurred as a result of an open and flexible leasing market.
4. Extend moratorium on permanent transfers until such time as the council has developed and implemented a comprehensive transferability program that achieves the policy objectives relative to fleet demographics and biological controls.

Rationale: As a result of converting all permit allocations to a common currency and utilizing Multispecies Points allocations as **output units** directly linked to species specific removal and mortality, transferability is theoretically conservation neutral. NSC recognizes and has seriously considered the range of social, economic and biological pros and cons associated with the selected method/s of transferability. At this time, we've concluded that absent a period of open and flexible exchange of points it would be difficult to predict socio-economic costs/benefits. However, it isn't difficult to imagine the negative biological effects that can occur as a result of an unnecessarily rigid policy on transferability. One of the flaws in the current system is that there is no method to reliably shift effort between vessel classes or geographical areas in a timely enough manner to be effective biologically or economically. The Points System offers an opportunity to allow the market (not just the fish prices but the Biological Market resulting from the biological objectives and the management of Biological Point Values) to freely influence (balance) the scale of species specific effort. NSC believes that while placing constraints on temporary (leasing) transferability may or may not have the desired effect on socio-economic policies it will certainly impede, to some degree, the dynamic movement of effort necessary to achieve biological objectives.

6. Permitted Vessels and Vessel Replacements / Upgrades

All vessels actively engaged in the fishery must continue to meet the current size and horsepower requirements of the regulations. Replacements and upgrades of existing vessels and any new vessels activated with an existing limited access permit would be limited to the baselines associated with the permit.

B. OPERATIONAL MANAGEMENT OF THE FISHERY

1. Basic Operation Requirements

- All vessels must have **Vessel Monitoring Systems**. Utility of the VMS program to be expanded.
- **Daily reporting** thru VMS of all catch of species managed under the plan.
- Prior to crossing the Demarcation line to land fish or end a trip, all vessels must **declare a hail** describing estimated quantity of all species to be landed.
- All vessels declaring a hail of fish to be landed must **identify the unloading station** code where fish will be landed.
- No vessel can begin unloading until **receipt of confirmation to unload is obtained** via an unloading station terminal. (see Technological requirements)
- **Full retention** of all legal sized fish managed under the plan.
(Note: monkfish, skates, lobsters and other species managed under separate plans will continue to be managed under those plans.....see discussion under “Ancillary Elements”)
- **No daily or trip possession limits** on groundfish species managed under the plan for the purposes of meeting biological requirements. Higher trip limits to control rate of catch for market, socio / economic or other purposes are policy considerations that could be utilized if a program is developed that does not cause regulatory discarding.

2. Removal of Input Control Measures

a. Reevaluation of Closed Areas

- **Reevaluate all permanent closures used primarily as effort / mortality closures** originally designed to reduce efficiency by lowering CPUE on specific or all stocks. Notwithstanding habitat and spawning protections, reduce, eliminate or modify closures to increase CPUE to increase efficiency and reduce overall effort and gear impacts.

b. Removal of Rolling Closures & 120 Day Blocks

- Eliminate all existing rolling closures.
- Eliminate the requirement for 120 blocks out of the fishery for gillnet vessels.
- Eliminate the 20 day spawning block requirement.
- Implement as soon as practicable, a dynamic spawning closure program that closes designated areas triggered by fleet information transmitted via VMS and incorporating the observer and shore-side landings monitoring programs.

C. MANAGING WITH POINTS

The New England Council will have to make critical policy decisions relative to setting objectives and priorities to meet the National Standards and Magnuson-Stevens mandates.

It must be understood that the Points System concept is intended to serve two distinct purposes.

- The first is a method of allocation by converting the current allocations of vessel baselines, DAS qualified as effective effort in Amendment 13 and catch history factoring.....to a common currency output unit.
- The other distinct purpose of the Points System is a management tool that can be used to accomplish a range of socio-economic and biological objectives.

This submission is intended to set forth an explicit and comprehensive method of allocation. In this section we set forth management features and programs within the management system to compliment the basic elements. Further development of the Points System management concept will involve continued evolution and development of a computer model envisioned for accomplishing the setting and in-season adjustments of BPVs. In order to efficiently complete and accomplish this task there are basic elements of data and policy direction that can only come from the NEFSC, NEFMC, NMFS the PDT and council staff.

The basic elements and associated requirements for policy choices and data needed to develop the computer programs are set forth below:

1. Total points allocated to the fleet as a result of the allocation method specified in Section A must be known. This number is the total fleet capacity units that can be expended as output units on the multispecies complex.
2. The total allowable catch figures for all stocks managed under the plan.
3. A clear list of policy decisions relating to the balance between achieving Optimum Yield (OY), staying within catch limits, handling of overages, dealing with scientific uncertainties and the level of tolerance to volatility in periodic changes in BPVs must be set forth by the council.

Once the information above is available, a computer model can be developed to achieve the objectives of the plan. NSC is committed to development of such a computer model and has received preliminary technical review and sincere intent to continue development from the Massachusetts Marine Fisheries Institute and the University of Massachusetts Dartmouth.

At this time, the NSC wishes to offer a general explanation of the mathematical, output controlled concept of managing by utilizing a dynamic, in-season adjustment

method of TAC management. Guided by a computer model, the setting of initial BPVs and subsequent periodic adjustments to BPVs can be predetermined and objective.

1. Assigning Biological Point Values (BPVs)

Method for Assigning Initial / Starting BPVs for Each Stock

This process will be heavily dependent upon policy decisions and objectives. In setting the initial BPVs, the following issues should be understood and considered carefully.

- Setting the values too low could create a derby dynamic and cause unnecessary volatility and fairness issues later in the fishing year.
- Setting the values too high can create a reverse derby where vessels wait knowing the value is artificially set too high and will certainly drop as the adjustment model attempts to utilize TAC. Setting values unnecessarily high can cause fleet allocations to diminish rapidly even as high BPV stocks are caught as bycatch. This can prove harmful towards the objective of achieving OY.
- The more frequent the intervals for adjustments the less likely the change in BPV will be steep. This serves to smooth any unanticipated changes and would not be much different than many aspects of the fishery. Unlike the current system, the Points System can easily adapt by adjusting starting BPVs the following year if undesirable in-season adjustments occurred the previous year.
- The greater the tolerance to volatility in BPVs for in-season adjustment, the greater the control relative to staying within catch limits and achieving OY.

2. In-Season Adjustments to BPVs

Adjusting the BVPs will also be heavily dependent upon policy decisions and objectives. In setting the initial BPVs, the following issues should be understood and considered carefully.

- Changes in BPVs will affect catch streams in two distinct ways. One affect will be the behavioral changes prompted by the incentives and disincentives resulting in some degree of changed fishing strategies. The other affect on catch is the mathematical reality that individual vessel allocations are diminished at a faster rate when catching stocks with higher BPVs. Vessels that do not choose to either alter their fishing practices or lease their points to vessels capable of utilizing the points at a higher efficiency will cease their fishing operations as their allocations are exhausted.
- The greater the tolerance to volatility in BPVs for in-season adjustment, the greater the control relative to staying within catch limits and achieving OY.

- Adjustment intervals must be selected. NSC would suggest monthly adjustments to strike a balance between BPV stability and finer control of catch to catch trajectory.
- By adjusting BPVs more frequently the relative changes from one period to the next are likely to be more subtle. Monthly adjustments should smooth the BPV changes and serve as a buffer to both derby and reverse derby conditions.

It is this mathematical link between Species Specific Catch and Individual Vessel Allocations that is the foundation of the Points System. We have included an excel spreadsheet that uses a simple method of using historical percentage of fleet catch on a per stock basis and comparing that to relative TAC percentages for a future fishing year. For stocks that could potentially be targeted at high levels based upon historical data and the removal of trip limits, a risk factor can be assigned to multiply the historical percentage a stock contributed to past landings to increase the BPV initially and buffer any derby or increased directed fishing concern. Once the starting BPVs are set, the monitoring and real time landing information will drive the automated BPV adjustments based upon decision rules built around the landings trajectories established for each stock.

D. ADMINISTRATION OF THE POINTS SYSTEM

1. Monitoring

- Daily reporting of all catch of all species managed under the plan.
- Prior to crossing the demarcation line, vessels must declare a haul and identify the offloading facility.
- Each licensed / permitted unloading facility will be required to have a terminal that can accept a magnetic strip card and PIN info from permit holders. No offloading can occur before confirmation from the system. All landings are input to the terminal system similar to checking out at a super market. This effectively debits the appropriate points total from the permit holders account and updates landings trajectories for the fleet and managers.
- Individual stock trajectories and current BPVs will be readily available to vessel operators, dealers, enforcement, managers and other stakeholders on the system.

2. Observer Coverage

Observer coverage should be more easily coordinated as the efficiency of fishing at higher CPUE by removal of trip limits and the elimination of the economic anxiety associated with DAS provides greater confidence in catch data from vessels on unobserved trips.

NSC strongly supports improvements in fisheries data including the reliability of catch data through appropriate levels of observer coverage.

Traditional IFQ or ITQ systems pose a far greater risk of high grading or discarding due to the fact that the consequences of catching non-targeted species and unintended levels are severe and inescapable due to the fact that full retention would require a sophisticated quota balancing system to keep individuals or sectors within their rigid, species specific quotas.

The DAS system allows discarding of all fish beyond a trip limit. There is no legal mechanism to land fish over the trip limit. This presents the greatest concern for reliable fisheries data. It also causes great uncertainty in the estimation of biomass as unreported catch effectively never existed.

NSC has spent considerable time discussing the Points System with fishermen and a recurring theme is “if I’ve got something on deck and I have the legal right to land it, I will land it.” It will be far easier to secure common currency points that species specific quota. NSC envisions there will be greater incentive to seek points and land fish than to discard. We hope managers see the fundamental advantage to offering a system that allows landing the fish over one that mandates discarding.

Relative to Observer program resources, NSC believes this system will result in less fishing time overall due to the increased efficiencies and the consolidated effort likely to result from points leasing. This should provide greater coverage of fleet landings with less resources.

3. Technological / Systems / Hardware

- Increased utility of VMS macros and PC based systems for electronic logbooks, hails and declarations.
- A computer model developed to set starting BPVs and in-season adjustments.
- A secure central server networked similar to a banking / ATM system with terminals at each unloading station and individual accounts for all permit holders.
- Stock trajectory and BPV information available via internet, satellite / VMS.

4. Socio-Economic and Demographics Considerations

- Policy decisions to control the movement of points between vessel classes, gear types, ports, regions etc. can be dealt with by setting caps and floors on leasing or permanent movement of points.
- NSC proposes to allow two years of free exchange thru leasing to see what actually occurs. Setting false constraints may have unintended conservation results by restricting healthy movement of effort.

Section 2: ANCILLARY ELEMENTS OF THE PROPOSAL

A. HABITAT CONSIDERATIONS

Several factors associated with implementation of the Points System should contribute to a positive impact on marine habitat.

1. The increased efficiency of fishing during times and in areas of higher CPUE will require less fixed gear and less tow time for mobile gear sectors.
2. Removal of trip limits and full retention requirements with catch linked directly to allocation will result in higher efficiency and less gear impacts.
3. Transferability of points will likely result in healthy consolidation reducing swept area by mobile gear compared to the current system which requires many vessels to work at low efficiency.

B. MARINE MAMMAL CONSIDERATIONS

Several factors associated with implementation of the Points System should contribute to a positive impact on marine mammal interactions.

1. The increased efficiency of fishing during times and in areas of higher CPUE will require less fixed gear to achieve the desired catch.
2. By removing the use of Days at Sea, day gillnet vessels no longer have to be concerned about not setting enough gear for fear of not catching enough fish to make the loss of the DAS worthwhile. Under the points system, a gillnet vessel would only lose point allocation based upon what is caught.
3. Conversely, a day gillnet vessel will have the proper incentive to set less gear to prevent catching large quantities of high BPV stocks and loss of allocation. The current system provides exactly the opposite incentive.

C. INTERACTION WITH OTHER FISHERY MANAGEMENT PROGRAMS (FMPs)

The Points System does not modify the existing management plans.

- **Monkfish FMP:**
Monkfish vessels would continue to use monkfish DAS and groundfish vessels would continue to abide by the trip limits and DAS requirements of the monkfish plan. However, it is feasible to consider using sliding scale of points system for different categories of monkfish permits by charging higher point values for monkfish to lower category monk permits than higher category permits. This would have to be done under the monkfish plan.
- The Skate, Dogfish and small mesh multi-species plans are unchanged by the Points System.

D. INTERACTION WITH US / CA RESOURCE SHARING UNDERSTANDING

The points system should integrate well with the US / CA management. NSC looks forward to improvements to the current Trans-boundary management scheme.

E. INTERACTION WITH SECTORS

The points system works well with the concept of sectors. In fact, we envision points sectors being a much simpler and realistic approach to accessing the benefits of sector management without the problems associated with rigid quota shares and controversial allocation implications.

The points system is compatible with sectors utilizing full retention and hard TACs on all stocks with no combinations of points or DAS. If the allocation of the hard TAC quota shares is approved, the sector allocations are simply deducted from the overall TACs and the balance is used to calculate BPVs for the points system vessels.

What would not work are sectors that seek a combination of quota and DAS or quota and Points. Sectors of all quota and sectors and individuals working exclusively with points would work well within the same system.

The existing Sectors will not work unless modified to accept hard TACs for all stocks.

F. COMPLIANCE WITH MAGNUSON-STEVENSON 2006

Some have asked the question as to whether the New England provision in the recently approved MSA reauthorization relative to the referendum requirement being applicable to the Points System.

The provision explicitly applies to Individual Fishing Quota Programs. MSA includes a definition for what constitutes an IFQ:

104-297

(21) The term "individual fishing quota" means a Federal permit under a limited access system to **harvest a quantity of fish**, expressed by a unit or units **representing a percentage of the total allowable catch** of a fishery that may be received or held for exclusive use by a person. Such term does not include community development quotas as described in section 305(i).

Under the points system, permit holders are allocated access points that imply no linkage to a percentage share of any single species nor do his allocation points represent a percentage share of the overall TACs for the fishery. A permit holders share of the fishery is entirely dependent upon how he conducts his fishing operation and is free to use his points on any stock at any level his points will allow before exhausted.

We view the Points as being much more analogous to the current DAS allocations in terms of what they represent as far as access shares to the fishery and distinctly contrasting to an IFQ as defined in the MS Act.

SECTION 3: POINTS SYSTEM PETITIONS