



National Marine Fisheries Service



SBRM FMAT Update

Presentation To:

*Mid-Atlantic Fishery Management Council
June 14, 2012*

*New England Fishery Management Council
June 19, 2012*

SBRM FMAT

Meetings:

March 9, May 17, June 4

Membership:

Doug Potts – NERO SFD
Gene Martin – NERO GC
Kimberly Murray – NEFSC
Susan Wigley – NEFSC
Richard Seagraves – MAFMC
Tom Nies – NEFMC
Katie Drew – ASMFC
Toni Kerns – ASMFC

Other Participants:

Paul Rago – NEFSC
Jessica Blaylock – NEFSC
Ellen Keane – NERO PRD
Katie Richardson – NERO NEPA

Outline of Presentation

- Funding Triggers & Prioritization Alternatives
- Framework Adjustments - Refinements
- Analytical Techniques - Refinements
- Annual Reporting Requirements - Refinements

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From SBRM Omnibus Amendment (June 2007)

SBRM Element	Alternatives Under Consideration			
1. Bypass Reporting and Monitoring Mechanisms	Status quo		Implement electronic video monitoring	
2. Analytical Techniques and Allocation of Observers	Status quo	Integrated allocation approach	Integrated allocation approach w/ importance filter	Minimum percent observer coverage
3. SBRM Performance Standard	Status quo		Establish a CV standard	
4. SBRM Review/ Reporting Process	Status quo	Specify an SBRM review process	Require periodic discard reports	
5. Framework Adjustment Provisions	Status quo	Framework adjustment	Frameworks and annual adjustments	
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7. Industry-Funded Observer Programs	Status quo	Observer provider approval	Framework provisions	

Shaded cells indicate the preferred (and accepted) alternatives of the MA and NE Councils

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Funding Trigger Alternatives

1) Status Quo

Uses combination of available sources of funding within established restrictions/limitations/expectations

2) Dedicated NOAA Budget Line Item(s)

Non-discretionary, sets minimum coverage level, additional funding sources could be used to supplement or address other management priorities

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Prioritization Alternatives

1) Ad-hoc

2) Proportional

3) Penultimate

4) Filter Cut-Point

Each approach separates fleets according to funding source:

Agency-funded (AF) or Industry-funded (IF)

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Ad hoc Approach

Within the Agency-funded group

- 1) Identify fleets that correspond to funding restrictions/limitations/expectations
- 2) Adjustments of days to cover unfunded fleets
- 3) A blend of ad-hoc methods including sea day allocation proportional to last year's effort were used to meet funding source/agency/Council needs.
- 4) Within each fleet, add prioritized sea days across funding sources

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Ad-Hoc Approach continued

Applied in 2012...

There are 55 fleets (46 AF and 9 IF)

44 of 46 AF fleets are impacted (96%)

36 of 44 impacted AF fleets had days reduced

8 of 44 impacted AF fleets had days increased

Of the 48 cells with precision estimates,

17 cells (35%) would have a CV greater than 30%

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Ad hoc Approach continued

Summary

Numerous fleets and species groups impacted
some fleets had more days than needed
(due to At-Sea Monitoring)
some fleets had fewer days than needed

Discretionary approach

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Proportional Approach

Within the Agency-funded group

- 1) Derive proportion shortfall:
= (Total Sea Days Funded) / (Total Sea Days Needed)
- 2) For each fleet, calculate prioritized sea days as
= Sea Days Needed * Proportion Shortfall
- 3) Within each fleet, add prioritized sea days across
funding sources

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Proportional Approach continued

If applied in 2012...

Of the 46 agency-funded fleets,

All (100%) fleets would have sea days reduced

Of the 48 cells with precision estimates,

16 cells (33%) would have a CV greater than 30%

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Proportional Approach continued

Summary

- Impacts all fleets: proportional decrease in sea days
- Impact is not equal with respect to precision within and across fleets
- Non-discretionary approach
- Some fleet could have more days than needed if discretionary days are subsequently added

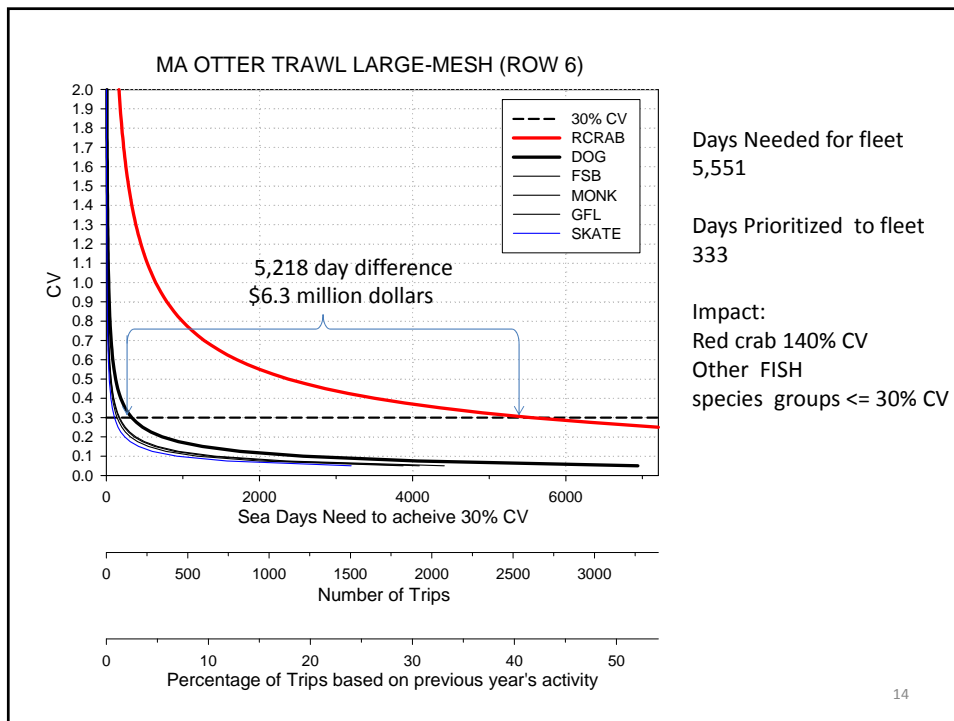
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Penultimate Approach

Within the Agency-funded group

- 1) Identify the fleet with the most sea days needed
- 2) Instead of using the maximum amount of days for that fleet, use the next highest (penultimate) number of sea days for the fleet
- 3) Repeat until the number of sea days are within funding constraint.

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Penultimate Approach continued

If applied in 2012...

Of the 46 agency-funded fleets,

3 (7%) fleets would have sea days reduced

Of the 48 cells with precision estimates,

3 cells (6%) would have a CV greater than 30%

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Penultimate Approach continued

Summary

- Potentially impacts the fewest number of fleets and species groups
- Non-discretionary approach
- Some fleet could have more days than needed if discretionary days are subsequently added

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Filter Cut-Point Approach

Within the Agency-funded group

- 1) Iteratively increase the two filter cut-points until the sea days needed are less than or equal to funded days

Agency-funded Sea days needed (excluding IF fleets)

Total Discard Filter (F3)	Total Mortality Filter (F4)						
	0	0.02	0.04	0.06	0.08	0.09	0.10
0	45,275						
0.05		17,101	11,400	11,030	11,040	11,040	7,265
0.10		11,032	11,032	11,023	11,040	11,040	7,265
0.12		11,032	11,032	11,023	11,040	11,040	7,265
0.15		10,875	10,875	10,866	10,883	10,883	7,265
0.16		7,784	7,564	7,555	7,572	7,572	7,265
0.18		7,775	7,775	7,775	7,548	7,548	7,241
0.20		7,113	6,893	6,855	6,848	6,848	6,541

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Filter Cut-Point Approach continued

If applied in 2012...

Of the 46 agency-funded fleets,
9 (20%) fleets would have sea days reduced

Of the 48 cells with precision estimates,
10 cells (20%) would have a CV greater than 30%

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Filter Cut-Point Approach continued

Explored alternative but not supported by FMAT

- Does not include sea turtles
- Does not build upon existing methodology (i.e. deviates from the standard 5% and 2% cut-points in the Discard and Total Morality Filters).
- Non-pilot fleets change to pilot fleets due to filter.
- Difficult to apply – additional analytical work would be needed.

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Analytical Techniques - Refinements

(Recommendations from the SBRM 3-year Review Report)

- Elimination of the unlikely (grey-cell) filter
 - Total Discard Mortality filter supersedes the Unlikely Filter
 - Lessons learned from previous SBRM analyses
- Revision of discard estimation methods, as part of expected continuous science improvements.

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Framework Adjustments - Refinements

(Recommendations from the SBRM 3-year Review Report)

2007 SBRM Amendment preferred alternative

Components changed through framework adjustment or annual specification: 30% CV, data collection technologies/procedures, fishing modes, SBRM reporting (annual and 3-yr), and industry funded observer programs

17 new fishing modes (fleets) have been added since the initial SBRM

New alternative

Allow addition of fleets as needed to improve the precision of bycatch estimates – with consultation/notice to Councils but no formal Council action. The other frameworkable components are expected to remain the same.

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Annual Reporting Requirements - Refinements

- Replace Annual Report (observed discards) with estimated discards and precision
- Provide graphs of relationship between precision of the discard estimate for species group (CV) and sample size for a fleet

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Proposed Schedule

Update on alternative development	June Council Meetings
Formal list of alternatives for approval	August MA Council/ September NE Council
Draft amendment for Council review	November NE Council/ December MA Council
Final Council approvals	April NE & MA Council
Proposed rule	June 2013
Final rule	September 2013
Final implementation	2014 coverage levels

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Questions ?