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March 2008 ESA  
Section 7 Consultation for  
Continued Authorization of  
the Scallop Fishery

Summary of Scallop Committee motions  
and PDT analyses

# Background

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- NMFS completed BiOp on March 14, 2008
- PDT has met twice on this issue
- Committee has met three times
- Document #5
  - Summary of main findings of BiOp
  - Description of PDT analyses and input
  - Committee motions
- Doc #4 – Nov 3 Cmte meeting summary
- Correspondence (6 out of 7 – all but #6F)

## ESA Section 7 Consultation (BiOp)

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- Section 2.0 – Summary of BiOp
- Under ESA, each federal agency shall insure that any action by that agency is not likely to jeopardize continued existence of endangered or threatened species or habitat
- Fifth BiOp for scallop fishery since 2003 – new info
- Conclusion of recent BiOp
  - scallop fishery may adversely affect but is not likely to jeopardize the continued existence of 4 sea turtle species*
- ESA requires incidental take statement (ITS) and any reasonable and prudent measures (RPMs) necessary to minimize impacts along with implementing terms and conditions

## Incidental Take Statement (ITS)

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- Based on observer reports and the distribution and abundance of turtles in the area, NMFS anticipates the fishery may result in the taking of:
  - Dredge gear: 929 biennial takes of loggerhead (465 annual), 1 leatherback, 1 Kemp's ridley, and 2 green
  - Trawl gear: 154 annual takes of loggerhead, 1 leatherback, 1 Kemp's ridley, and 1 green

# Reasonable and Prudent Measures (RPMs)

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- No jeopardy found, but NMFS identified five RPMs to minimize these takes and generate info necessary in the future to continue to minimize takes
- RPM is non-discretionary, and is necessary and appropriate to minimize impacts (see page 4)
- Five specific terms and conditions included which implement the RPMs
- RPMs and T&Cs cannot alter the basic design, location, scope, duration, or timing of the action and may involve only minor changes when a no jeopardy finding is made

## Council Charge (page 1 of Doc.#5)

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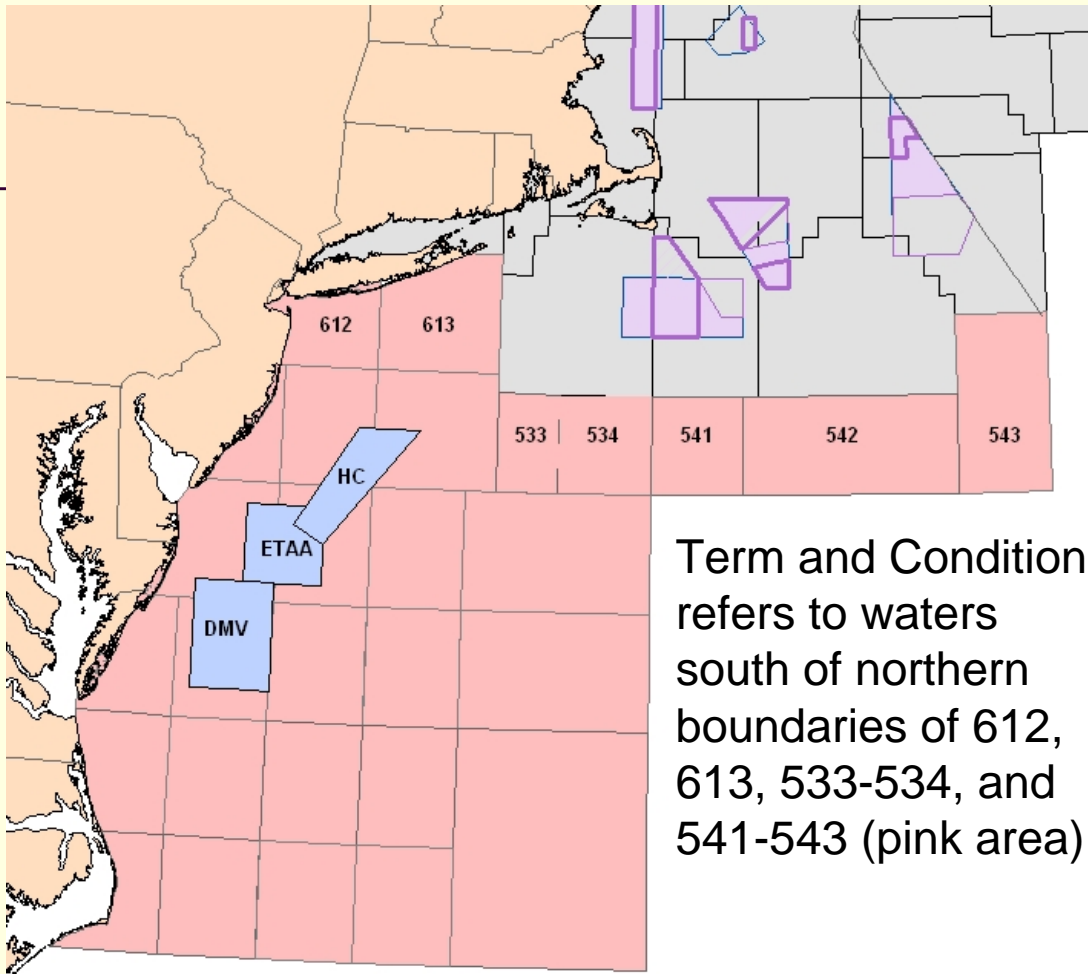
- **NMFS sent Council a letter in April 2008:**

*Council should develop measures to meet RPM#1 through FW21*

- **RPM #1**

*NMFS must limit the number of open area DAS and the number of allocated access area trips that can be used in Mid-Atlantic waters within the action area during the months of Jun-Oct or May-Nov*

- *4 other RPMs identify actions to gather info necessary to inform additional future measures to minimize impacts (research focused)*



# Term and Condition for RPM #1

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- No later than 2010 scallop FY, NMFS must limit:
  - # open area DAS
  - # access area trips
- Two options:
  - 1) June-Oct: total open area DAS and access area trips cannot exceed 50% of avg. # open area DAS and AA trips used from June-Oct of 2004-2007
  - 2) May-Nov: total open area DAS and access area trips cannot exceed 70% of avg. # open area DAS used and AA trips used from May-Nov of 2004-2007



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- PDT first met in June – raised several questions and concerns about BiOp and RPM#1
  - NMFS sent Council letter in August clarifying issues and explained regulatory guidance used in development of RPM#1
  - NMFS requested Council conduct an analysis to:
    - (a) determine whether the RPM and T&C are reasonable and prudent, and if not, then*
    - (b) identify what revisions are necessary or identify why there is no acceptable revision*
  - What is reasonable and prudent?
  - What defines more than a minor change in the fishery?

## PDT input – Section 3.0 (p.10)

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- **Existing RPM analyzed two ways:**

1. Analyzed fishing effort data to evaluate if RPM meets standard provided in letter from NMFS (one AA trip per vessel in window of time when turtles present – Section 3.1.1)
2. PDT presented alternative threshold to evaluate more than minor change in fishery based on change in overall fishing mortality caused by shift of effort imposed by RPM (Section 3.1.2)

# Fishing Effort Analyses

- VMS and VTR data pulled from 2004-2007
- Average DAS and trips used from baseline years compared to 2010 projections – Table 1 page 11
- Currently 325 FT equivalent vessels – so each vessel would not be able to receive 1 trip under either alternative

	<b>June-Oct</b>	<b>May-Nov</b>	<b>Total Year</b>
<b>All MA access areas</b>	<b>586</b>	<b>973</b>	<b>1830</b>
2004-2007 average	147	243	458
% limit	73 (50% less)	160 (30% less)	

## Fishing Effort Analyses (cont.)

- Open Areas – no threshold provided
- For both alternatives, more DAS projected to be used than T&C would allow (Table 2 – page 12)
- If every vessel restricted to one 10-day trip (similar to access area threshold), then 3,250 DAS needed.

That is > J-O limit (1,753 DAS), but < M-N limit (3,747 DAS)

	Average DAS used (2004-2007)	DAS used in FY2010 (projected)	Compared to baseline average	% limit recom- mended in BiOp
Total	8,250	6,825	↓1425	
J-O	3,505 (42% of 8250)	2,867 (42% of 6825)	↓ 638	1,753 (50% of 3,505) (1,114 DAS less than projected use)
M-N	5,353 (63% of 8250)	4,300 (63% of 6825)	↓1053 (18% less baseline)	3,747 (30% of 5,353) (553 DAS less than projected use)

## Fishing Effort Analyses Conclusion

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- Section 3.1.1.3 – page 13
- Based on guidance in NMFS letter that defines a more-than-minor change as less than 1 AA trip available per vessel during either timeframe:
  - ❖ No, the existing Term and Condition for RPM #1 is not reasonable and prudent
- On Sept 10 Cmte reviewed PDT analysis of fishing effort and requested PDT explore alternative ways to define more than minor to further justify if reasonable and prudent

## PDT Analyses of more-than-minor

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- No official guidance on how to define
- Scallop fishery under area rotation and substantial portion allocated into specific areas to maximize yield
- Spatial and/or temporal shifts in effort can increase overall fishing mortality (F)
- Threshold should be based on change in F due to amount of effort shift caused by RPM
- If RPM causes effort shifts that are more than a small amount overall F could increase – having impacts on yield, landings and revenue – thus more than minor change

## Effects of seasonal management on scallop meat weights (Appendix 1)

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- Meat weights in Mid-Atlantic highest in July; decrease rapidly after spawning in Sept
- PDT quantified meat weight variations by comparing observer meat weight data to that collected on the annual survey in July
- Data expanded to annual catch by month from 2001-2006
- Based on meat weight analysis by month – seasonal effects on F – yield expected to vary 5-10% based on changes in meat weights (Figure 1 in Appendix 1)

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- Model developed that estimates changes in fishing mortality, effort shift and impacts on revenue, producer surplus, crew income, and profit
  - Spreadsheet developed that incorporates various assumptions about effort displacement, changes in meat weight, prices and costs
  - Summary in Sec 3.1.2.1 and details provided in Appendix 2



## Assessment of current T&C using PDT model

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- Section 3.1.2.2 page 16
- Focus on June – Oct alternative (May-Nov in App.)
- June-Oct alt (50% reduction from baseline average) would shift 5,163 DAS (19% of total effort) to other season (Table 3)
- Impact overall F by about 0.015
- About 10 million lbs. shift – loss of 784,000 lbs. (1.7%) (Table 4)
- Best case: Fleet revenue decline by \$5.9 M(1.7%) and profits by \$2.7 M (2.7%)
- Scenario 1 (Table 6) – some assumed decline in price. Decline of: \$18 M (5%) in revenue and \$8 M (8%) in profits

Scenarios	Data	June-Oct	Nov-May	Total
<b>Historical Average (1999-2006)</b>	Percent DAS-used	<b>54%</b>	46%	100%
<b>Status quo</b>	DAS-used	13,898	13,587	27,486
	<b>Percent DAS-used</b>	<b>51%</b>	49%	100%
<b>RPM Restrictions: (50% Reduction in effort during June-Oct)</b>	DAS-used	8,736	18,750	27,486
	<b>Percent DAS-used</b>	<b>32%</b>	68%	100%
	Shift in effort (DAS) to Nov-May	5,163 DAS (or 37% of total DAS-used in June-Oct)		
	<b>Shift in effort to Nov-May as % of total effort</b>	<b>19%</b> of the total DAS-used estimated for FY2010		
	<b>Change in F</b>	<b>0.19 x 0.08 = 0.015</b>		

Scenarios	Data	June-Oct	Nov-May	Total
<b>Historical Average</b>	Percent landings	<b>53%</b>	<b>47%</b>	<b>100%</b>
<b>Status quo</b>	Scallop Landings (lbs)	25,235,817	21,722,537	46,925,525
	<b>Percent landings</b>	<b>54%</b>	<b>46%</b>	<b>100%</b>
<b>RPM Restrictions: (50 % Reduction in effort during June-Oct)</b>	Scallop Landings (lbs)	15,042,541	31,131,715	46,141,426
	<b>Percent landings</b>	<b>33%</b>	<b>67%</b>	<b>100%</b>
	Change in landings (lbs) compared to Status quo	<b>-10,193,276</b>	<b>9,409,178</b>	<b>-784,098</b>
	<b>Landings shifted to Nov-May as a % of landings in June-October</b>	<b>40%</b>		
	<b>Shift in landings to Nov-May as % of total landings</b>		<b>22%</b>	

Options	SQ-No turtle closures	June-Oct Turtle closure	% Change from STATUS QUO
<b>Total landings (lb.)</b>	46,925,525	46,141,426	-1.7%
<b>Decline in landings (lb.)</b>		-784,098	
<b>Best Case Scenario – No Change in annual price (Table 5)</b>			
<b>Total Revenue</b>	354,287,710	348,367,769	-1.7%
<b>Decline in Tot. Revenue</b>		-5,919,941	
<b>Fleet Profits</b>	97,802,606	95,138,632	-2.7%
<b>Decline in fleet profits</b>		-2,663,974)	
<b>Impacts with a 3.5% decline in price and 10% increase in costs (Table 6)</b>			
<b>Total Revenue</b>	354,287,710	336,174,897	-5.1%
<b>Decline in Tot. Revenue</b>		-18,112,813	
<b>Fleet Profits</b>	97,802,606	89,651,840	-8.3%
<b>Decline in fleet profits</b>		-8,150,766	

# Overall PDT statements

- Seven statements – page 21-24
- Not consensus statements

1. Use of baseline of years not appropriate
2. Do not restrict effort in May and/or Nov
3. Existing T&C not reasonable and prudent based on more than minor threshold provided in NMFS' letter
4. More than minor threshold should be based on %change of effort shift and impacts on overall F. Other factors should also be considered (ex: safety, bycatch, revenue)
5. RPM #1 and T&C #1 should be replaced
6. Should have full analysis based on projected 2010 measures
7. Specific measures should be in FW21

## Committee Input – page 25

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1. Existing T&C not reasonable and prudent
2. Replace RPM
3. Replace T&C
4. Add a new T&C about identifying new areas with high LPUE and shift effort there from areas and seasons when turtles present
5. Add a new T&C to quantify reduction in F in the Mid-Atlantic that have already occurred from A10 and A11

## Committee-Suggested RPM

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- NMFS must limit the amount of allocated scallop fishing effort and/or its impacts on sea turtles that can be used in the area and during the time of year when sea turtle distribution overlaps with scallop fishing activity

## Committee-Suggested Term and Condition

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- No later than 2010, NMFS must limit the amount of allocated LA scallop fishing effort that can be used in waters south of the northern boundaries of statistical areas 612, 613, 533, 534, 541-543 during the periods in which turtle takes have occurred. Restrictions on fishing effort described above shall be limited to a level that will not result in more than a minor impact on fishing mortality or the fishery



## Additional Terms and Conditions

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- NMFS must review data with respect to scallop distribution and abundance to identify areas of high abundance, and in consultation with NEFMC, identify areas for new alternative access areas to increase the catch-per-unit of effort in the scallop fishery during seasons when the scallop fishery and sea turtles overlap
- NMFS must also investigate and quantify reductions in fishing effort in the Mid-Atlantic during the June-October period, using 2003 as the baseline, that has already resulted from implementation of A10 and A11.