

**Atlantic Large Whale Take Reduction Team  
January 9-13, 2012, Providence, RI**

**KEY OUTCOMES MEMORANDUM**

**I. Overview**

The National Marine Fisheries Service (NMFS) conducted a meeting of the Atlantic Large Whale Take Reduction Team (Team) January 9-13, 2012 in Providence, Rhode Island. (See **Attachment 1** for a copy of the agenda.) The meetings focused on the following primary objectives:

- Provide informational updates on recent ALWTRP activities
- Finalize the ALWTRP Monitoring Strategy
- Discuss NMFS and stakeholder vertical line risk reduction proposals
- Identify promising frameworks for and aspects of vertical line risk management
- Develop gear marking and gear characterization reporting strategies
- Begin developing alternatives to analyze in Environmental Impact Statement

This Key Outcomes Memorandum summarizes the primary results of the full Team meeting. The report is presented in five main sections: Overview, Participants, Meeting Materials, Key Outcomes and Next Steps. The Key Outcomes section is further segmented into the following:

- ***Welcome and Introduction.*** This section provides a brief overview of meeting, purpose, agenda overview and ground rules.
- ***Background Briefings and Presentations.*** This section summarizes the updates and upfront presentations presented at the meeting outset.
- ***Vertical Line Risk Reduction Deliberations.*** This section summarizes the results of the Team's primary deliberations: vertical line risk reduction strategies. The synthesis calls out areas of consensus, as well as divergent views.
- ***Monitoring Strategy.*** This section summarizes the key issues discussed regarding program monitoring.
- ***Gear Marking/Gear Characterization Reporting.*** This section provides a synthesis of the main ideas discussed related to gear marking and gear characterization reporting.
- ***Other.*** This section summarizes other topics discussed during the meetings.

**II. Participants**

Forty-seven of the 60 Team members attended all or part of the meeting. Below is a listing of all Team members (or their alternates) in attendance: Bill Adler, Regina Asmutis-Silvia, Peter Brodeur, Tom Burgess, Julia Byrd, Dwight Carver, David Cupka, Greg DiDomenico, Cindy Driscoll, Jack Finn, Clay George, Colleen Giannini, Caroline Good (for Mason Weinrich), Michael Greco, Sonny Gwin, April Hansgate (for Beth Allgood), Bob Kenney, Raymond King, Scott Kraus, David Laist, Kristy Long, Maggie Lynott (for Mark Swingle), Bill Mackintosh, Stormy Mayo, Patrice McCarron, Dan McKiernan, Red Munden, Jim Nash, Bob Nudd, Scott

Olszewski (for April Valliere), Cheri Patterson, Buddy Powell, Jooke Robbins, Steve Robbins III, Arthur Sawyer (for Bill Adler), Rich Seagraves, Bonnie Spinazzola, Terry Stockwell, Kate Swails, Rachel Sysak, Jim Tripp, Sarah Uhlemann, Sierra Weaver, Steve Welch, David Wiley, Sharon Young and Barb Zoodsma. Alternates in attendance but not seated at the main table included Sarah Cotnoir and Erin Burke.

In addition to NMFS staff who have a seat on the Team, several other NMFS staff were also present to help lead deliberations. These included: Mary Colligan, David Gouveia and Michael Asaro with NMFS Northeast Region (Protected Resources Division), Jessica Powell with NMFS Southeast Region, as well as other staff from NMFS' NERO and Northeast Fisheries Science Center. NOAA Offices of Law Enforcement and General Counsel, the U.S. Coast Guard, Industrial Economics, Inc., and others also attended and supported the deliberations. Scott McCreary and Bennett Brooks from CONCUR, an environmental dispute resolution firm specializing in marine resource and water issues, served as the neutral facilitators.

### **III. Meeting Materials**

A number of meeting materials were provided to support the Team's deliberations. Much of the material was sent out prior to the meeting, but some documents and much of the presentation material was distributed as handouts or provided after the meeting. (A detailed listing of materials is included as **Attachment 2**). Copies of meeting materials can be found online at <http://www.nero.noaa.gov/whaletrp/trt/meetings/2012meeting.html> or by contacting K. Swails by phone at 978-282-8481, or email at [Kate.Swails@noaa.gov](mailto:Kate.Swails@noaa.gov).

### **IV. Key Outcomes**

Below is a summary of the main topics and issues discussed during the meeting. This summary is not intended to be a meeting transcript. Rather, it provides an overview of the main topics covered, the primary points and options raised in the discussions, and areas of full or emerging consensus.

#### **A. Welcome and Introductions**

The meeting kicked off with a brief review of the meeting purpose and self-introductions. These were followed by review of the agenda and ground rules, both of which were accepted without any revisions or comment.

#### **B. Background Briefings and Presentations**

The meeting included focused updates on a number of topics. Below is a quick synopsis of the topics covered and primary feedback from Team members.

- ***ALWTRT Membership Changes.*** K. Swails noted a number of changes to Team composition. These include: Dwight Carver, trap/pot fishery (new seat); Caroline Good, conservationist (serving as an alternate for Mason Weinrich); Charlie Locke, gillnet fishery (replacing David Beresoff); Jim Nash, gillnet fishery (replacing Stuart Tolley); Buddy Powell, academic/ scientific (replacing Cynthia Taylor); Jim Tripp, trap/pot

fishery (new seat); Sarah Uhlemann, conservationist (new seat); Sierra Weaver, conservationist (replacing Janis Searle-Jones); and Steve Welch, gillnet fishery (replacing Peter Inniss).

- ***Enforcement-Related Updates.*** K. Swails provided an update on enforcement-related activities, summarizing joint enforcement activities with seven states (Maine, New Hampshire, Massachusetts, Rhode Island, New Jersey, Georgia and Florida). T. Stockwell noted that morale among State of Maine enforcement officers is low as enforcement cases have been handed back to the state for prosecution as a result of the backlog in NOAA Office of General Counsel. He also voiced concern that the lack of timely federal action is likely to impact compliance as the penalty schedule at the state level is significantly less than that of the Federal level.
- ***Preliminary Entanglement Data.*** Jamison Smith with NMFS's Northeast Region provided preliminary findings from right whale entanglement and mortality cases. The presentation included a case-by-case review of each entanglement from October 2010 to January 2012.
- ***State Updates.*** Several states – Maine, Massachusetts and New York – provided updates on recent ALWTRP-related activities. A brief review of the topics covered is provided below.
  - *Maine.* E. Summers provided a series of updates on the following activities being undertaken by the Maine Department of Marine Resources, including: (1) 2009 gear surveys; (2) 2009 annual gear characterization logs; (3) buoy density surveys; (4) acoustic monitoring; (5) trap/pot trawling-up project; and, (6) studies involving weak top rope.
  - *Massachusetts.* E. Burke and D. McKiernan provided brief overviews on Division of Marine Fisheries recent activities and research, including the following: (1) an increase in right whale sighting in Cape Cod Bay; (2) state efforts to improve collection of buoyline data; and (3) reduction in trap allocations to respond to lobster stock decreases in Southern New England.
  - *New York.* R. Sysak provide the Team with updates on four initiatives within New York State: (1) drafting of an RFP for New York State DEC for large whale monitoring to build upon the data collected in bio-acoustics (Cornell University) and aerial surveys (NMFS, NOAA and RFMPR); (2) efforts by Cornell Cooperative Extension to pursue continued funding of its Derelict Gear Removal Program; (3) updates on lobster management for Southern New England; and (4) status of efforts related to gear reporting requirements and staffing.
- ***TRP-Related Research.*** Several updates focused on TRP-related research. They included the following:
  - *Grappling fixed gear and radio frequency identification (RFID) line marking*

*research.* Glenn Salvador NMFS summarized recent Agency-supported efforts to test: (1) grappling fixed gear versus traditional traps with buoy lines; and (2) RFID line marking research.

- *Research on right whale/fishing gear conflict reduction.* S. Kraus provided updates on a series of research efforts intended to reduce right whale/fishing gear conflict. The presentation included updates on the following activities: (1) findings related to rope type, whale age and entanglement severity; (2) "weak rope" evaluations; (3) experimental test of right whale flipper encounters with high tension rope; and (4) lobster pot gear configurations in the Gulf of Maine.
- *Model to Determine Risk to Whales from Lobster Fishing off the Coast of Maine.* Hauke Kite-Powell (Woods Hole Oceanographic Institution) provided a brief overview of ongoing work being undertaken to model changes in whale entanglement risk that follow from changes in lobster fishing effort and practices in Maine. Next steps include sharpening details on fishing effort and whale activity, incorporating a sensitivity analysis around model parameter assumptions, reviewing data and results with fishermen, and developing and assisting management measures. The work is expected to be completed in winter 2012.
- ***Canadian Update.*** Catherine Merriman with Canada's Division of Fisheries and Oceans DFO provided a brief overview on the following topics: (1) DFO's intention to publish an Action Plan focused on addressing the threat of right whale entanglement in fish gear by spring 2012; (2) DFO's efforts to establish a Protection Order to prohibit the destruction of right whale critical habitat in Canadian waters; and (3) DFO's support for a variety of measures – from support of voluntary lobster gear modifications for Areas 36, 37 and 38 developed by the Canadian fishing industry, to increased survey efforts, to disentanglement training for fishery officers – to reduce to likelihood of right whales encountering and/or becoming seriously injured in incidents involving fishing gear.
- ***Lobster Management Actions.*** Peter Burns with NMFS's Northeast Region provided the Team with an update on federal U.S. lobster management actions. His presentation highlighted the status of the Area 1 lobster trap fishery limited entry program (final rule under development) and the Southern New England lobster trap effort control (proposed rule under development).
- ***Black Sea Bass Fishery.*** Jessica Powell provided a brief update and handout on the South Atlantic Fishery Management Council's development of Amendment 18A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. The amendment contains management measures intended to reduce overcapitalization in the fishery while continuing to rebuild the black sea bass stock by the end of the 2015-2016 fishing year.

All updates that were presented by PowerPoint at the meeting are available on the Team website at (<http://www.nero.noaa.gov/whaletrp/trt/meetings/2012meeting.html>).

### C. Vertical Line Risk Reduction Proposals

The meeting focused primarily on vertical line risk reduction proposals, with Team members discussing the merits, considerations and information needs related to proposals put forward by NMFS and others. Below is a synopsis of the key discussion points. The first two sections summarize themes important to the consideration of vertical line proposals. The third section provides a region-by-region synthesis of the proposals under discussion.

#### **Key Themes Tied to Vertical Line Proposals:**

Discussion of the vertical line proposals put forward by NMFS, various states, industry and others generated a number of themes. Below is a synopsis of the key concepts and considerations raised during the Team's deliberations. This list is not meant to convey consensus, but – rather – capture topics of recurring discussion.

- ***Need to broaden risk reduction analysis.*** Team members strongly recommended that NMFS broaden its analysis of both individual proposals and complete coast-wide packages to incorporate a range of indicators beyond simply the number of vertical lines reduced. (NMFS committed to foster a broader review in its analysis of the proposals.) Specific suggestions put forward included the following:
  - Assess and report the impact of the various proposals on both the reduction of vertical lines *and* decrease in co-occurrence risk by evaluating the co-occurrence indicator scores.
  - Consider humpback and right whales separately and in combination, when assessing co-occurrence risk.
  - When calculating the overall risk reduction, analyze the impact separately for both regulated areas only and the sum of regulated areas plus exempted areas together.
  - Present data on vertical line and co-occurrence risk reduction annually and seasonally, with underlying documentation organized by month (to see whether vertical lines/co-occurrence risk is occurring during times when whales are present).
  - Analyze each proposal's impact on fishermen flexibility, operational considerations, economics and safety-at-sea issues, and consider the sustainability of small coastal communities<sup>1</sup>
  - Assess changes in vertical line by distance to shore (i.e., 0-3 miles, 3-12 miles, 12-plus) within lobster management areas as opposed to throughout an entire Lobster Management Area LMA.
  - Update survey effort map to ensure it is informed by the latest SPUE data.
  
- ***Support for individual proposals tempered by need for coast-wide assessment.*** While the Team considered a number of individual proposals that garnered consensus or near-consensus support (see discussion of individual proposals below), several Team members

---

<sup>1</sup> NMFS staff indicated that this set of considerations are to be considered as part of the environmental impact review process and not in the co-occurrence model analysis.

emphasized that full support for any individual proposal is an interim view until a full coast-wide package can be analyzed to assess its overall impact on vertical line risk reduction. This point was underscored at several junctures during the deliberations and was seen as particularly important to conservationists and scientists on the Team.

- ***Equating vertical line reduction to M&SI decrease.*** Team members found it challenging to identify a credible method for translating vertical line reductions to projected decreases in M&SI as related to comparing it against PBR and evaluating the success of the measures. Lacking either a credible causal model or correlation and absent NMFS guidance on a specific target, several Team members suggested their default option would be to assume a one-to-one ratio (as in a given percentage decrease in vertical lines would be expected to generate a comparable percentage decrease in M&SI). Others expressed reservations with this approach, as entanglement risks from individual lines will vary from location to location depending on whale density.
- ***Reaffirmation of customized approaches.*** A number of Team members emphasized anew the importance of NMFS putting forward a proposed rule that avoids a “one-size-fits-all” approach, suggesting such a strategy would unduly constrain the fisheries while not generating the desired conservation benefits. This approach is considered fundamental by many around the table and, as NMFS staff noted, is consistent with the approach being put forward by NMFS.
- ***Quality of state data.*** At several points in the meeting, Team members posed questions regarding the quality of the state data (both the number of data points and the accuracy of data) underlying vertical line risk reduction calculations. Industrial Economics noted that the quality and source of data varies significantly from state to state, and they characterized the data collected from both Maine (by voluntary recall survey) and Massachusetts (through mandatory reporting requirements) as being particularly useful.
- ***Assign risk to areas with “no” co-occurrence.*** Some Team members reiterated interest in assigning some minimum risk value to those areas currently assigned a “0” in the SPUE data. (The resulting effect on the co-occurrence score is that there would be no automatic zero scores from the product of SPUE and vertical lines.) This approach, these TRT members said, is intended to reflect the reality that whales have potential to show up anywhere, and it is seen as particularly important in areas with dense line concentration. Among the strategies put forward for assigning risk included the following: (1) convene a team of experts to develop a credible strategy for assigning some value greater than zero; and/or, (2) consider varying values in specific “zero co-occurrence” boxes in the co-occurrence model based on the number of surveys conducted in each area. Others on the Team did not support this suggestion for the following reasons: (1) a NMFS-convened subset of the Team tried and failed to develop such a mechanism one year ago; and (2) any effort to back-engineer a value other than zero is at risk of being seen as arbitrary and capricious and, thereby, engendering strong legal and potential exposure.
- ***NMFS proposals as benchmark.*** Team members discussed the extent to which NMFS proposals do or should serve as a benchmark for measuring the acceptability of other

vertical line risk reduction measures put forward, particularly since NMFS strategy for engaging fishermen in the development of proposals focused on practical gear modifications and fishing practices to serve as the basis for solutions to the vertical line entanglement issue rather than focusing on an arbitrary number. This was of particular concern for Team members who suggested the coast-wide suite of actions put forward in the NMFS proposal may not be sufficient to bring M&SI takes below PBR. NMFS staff emphasized that its proposal is not intended to serve as a benchmark for “an acceptable proposal.” Rather, they said, it is one approach for the Team to consider and members are encouraged to develop other proposals that they believe put forward an appropriate level of vertical line risk reduction.

- ***Mixed views on closures.*** A number of fishing industry Team members and some state representatives continued to express strong opposition to closures as a management strategy, suggesting such actions cause severe economic hardship for both individual fishermen and coastal communities. Moreover, they said, the risk reduction benefits of such closures are likely to be undermined by two key factors: (1) displacement of effort effects; and (2) the creation of vertical-line “virtual corrals” around closed areas. Others on the Team suggested such closures, while admittedly stringent, were a necessary tool to consider given the ongoing risk to right whales and the extent to which M&SI is above PBR.
- ***Divergent perspectives on exemptions.*** A number of the proposals put forward exemptions in near-shore areas to account for (1) low perceived risk, (2) previous or anticipated vertical line risk reduction measures; and/or (3) individuals who fish small skiffs and face significant implementation challenges with the proposed trawling up. Other Team members, however, expressed strong general concern with exemptions, suggesting that (1) lines anywhere in the water pose a threat to whales, (2) no area should be exempt from efforts to reduce the risk of vertical line entanglement, and (3) adding new exempted areas would seem to increase risk.
- ***Translating trap reductions into vertical line reductions.*** A number of Northeast state representatives suggested that anticipated trap reductions tied to declining lobster populations will lead to significant reductions in vertical lines. NMFS staff said it has no valid methodology to correlate trap reductions to vertical line reductions and encouraged interested parties to articulate credible strategies for calculating likely vertical line risk reductions associated with lower effort.

### **Regional Proposals:**

A significant portion of the meeting focused on the Team’s review of vertical line risk reduction proposals put forward prior to or developed at the meeting. Discussion of the options ranged from clarifying questions and identification of additional information needs, to comments on the acceptability of various approach. Below is a synopsis of the discussion by region and proposal.

***Southeast.*** Team members broadly supported a hybrid package of management measures that combined aspects of both the NMFS and an industry proposal. Key elements garnering Team consensus support included the following:

- Require 100-pound weak links for the blue crab fishery off Florida.
- Limit Florida blue crab vertical line-breaking strength to 1,500 pounds (pending confirmation of current line breaking strength by NMFS testing).
- Require additional reporting on effort, location, season and gear configuration.
- Implement comprehensive gear-marking scheme in the Southeast (built, to the extent possible, on existing practices) to identify gear by fishery and/or state.<sup>2</sup>

The Team's support for this package of actions in the Southeast Region is contingent on its review as part of a coast-wide package.

Team member perspectives on one additional aspect of the NMFS-only proposal – addressing effort creep by either capping trap/pot fishing effort at existing levels or including a trigger/consequence tied to a single entanglement-caused serious injury or mortality (M&SI) – varied widely and no consensus was reached on this point. Industry members' primary concerns with the trigger/consequence proposal centered around: (1) the limited history of entanglements and low risk in the Southeast region; (2) strong opposition to closures of any kind due to the severe economic impact on fishermen and communities; (3) the lack of parity with proposed actions in other regions; and (4) the potential to shut down fisheries for an entanglement that may have occurred hundreds of miles away. Additionally, caps were seen as unnecessary given that they do not reduce risk and there is little expectation of an increase in effort; others suggested effort was more appropriately managed by the regional fisheries councils which have more explicit jurisdiction over effort. Conversely, a number of other Team members voiced interest in considering the trigger/consequence approach, contending that the exceedingly low PBR for right whales in particular necessitates swift action (particularly if the source of the entanglement can be clearly tied to a specific fishery and geography). There was also support from some Team members for a closure if it were the consequence of a second mortality or serious injury. (The first mortality or serious injury, according to this approach, would trigger instead a Team meeting to consider whether further changes in management measures were needed.)

The discussion of the Southeast proposals generated the following next step:

- Southeast fishing industry representatives on the Team are to work with NMFS to confirm current line breaking line strength.
- Additional analysis by NMFS that draws from the broader set of metrics identified earlier in this meeting summary.

---

<sup>2</sup> The specific gear-marking scheme included the following: (1) for the Atlantic blue crab fishery, mark with state/fishery color every 20 feet or less, with color scheme to be finalized by NMFS; (2) for the black sea bass fishery, increase to three line marks (top, bottom and middle), including a color specific to the fishery; and (3) mark potential new ocean fisheries with a state color. R. King also noted two important considerations for color marking: blue crab currently uses white rope and black sea bass uses black rope. The Team did not discuss the specifics of the gear-marking scheme as members felt it needed to be engaged as part of a coast-wide approach.



**Mid-Atlantic.** Team members broadly supported the NMFS proposal for the mid-Atlantic that incorporates a strict gear-marking scheme and improved data collection, as well as ongoing monitoring and evaluation to assure plan effectiveness. The Team's support for this package is contingent on its review as part of a coast-wide package. Several Team members also underscored the importance of expanded survey efforts in the Mid-Atlantic (though this was not formally included as part of the vertical line risk reduction proposal).

The discussion of the NMFS Mid-Atlantic proposal generated the following next step:

- Additional analysis by NMFS that draws from the broader set of metrics identified earlier in this meeting summary

**Northeast.** Meeting participants discussed a series of vertical line risk reduction proposals put forward by NMFS and Team members (some put forward in advance, others put forward or modified at the meeting itself). While Team members generally agreed they needed more information (both additional details on the proposals themselves and an analysis of anticipated conservation benefit) before they could weigh in conclusively, the discussions did generate important feedback. Below is a synopsis of the Team's discussion of each proposal.

- NMFS Northeast Proposal. While the Team did not have extensive discussion regarding the NMFS Northeast proposal – most comments centered on clarifying questions – Team members did offer the following comments on the vertical line risk reduction proposal.
  - NMFS's requirement for 20 traps per trawl is operationally infeasible for fishermen who use smaller (30- to 40-foot) boats beyond 12 miles. Instead, several Team members suggested NMFS create an exemption tied to boat size.
  - NMFS requirement for 5 traps per trawl with only 1 buoy line in Maine Zone A would increase gear conflicts and pose a danger to fishermen who work alone.
  - Some Team members cautioned that the risk reduction anticipated in NMFS's proposal may not be sufficient enough to bring M&SI below PBR and, therefore, suggested that NMFS consider augmenting its proposal with an overlay of closures of known right whale "hot spots" (areas of high right whale distribution based on SPUE data).
  - State of Massachusetts voiced concern with the trawling up requirements for near-shore waters (due largely to implementation and safety considerations for small skiffs) and called for NMFS to adopt an exemption to allow for the continued use of singles in such areas.
  - Several Team members said they needed to see the number of traps and endlines and co-occurrence scores in each zone – by season and month – to meaningfully gauge the impact of the proposal.

The discussion of the NMFS Northeast proposal generated the following next steps:

- Additional analysis by NMFS that draws from the broader set of metrics identified earlier in this meeting summary.

- Maine Department of Marine Resources Revised Proposal.* Maine Department of Marine Resources (DMR) reviewed their original proposal that was submitted to the Team prior to the meeting and put forward a revised vertical line reduction proposal that drew on aspects of DMR’s original proposal and the NMFS proposal. The revised proposal, which DMR calculates would result in a 26% annual average reduction in vertical lines in Maine’s non-exempt waters, is summarized in the table below (both specific measures and associated rationales).

<b>Maine Department of Marine Resources</b>	
<b>Proposed Management Action</b>	<b>Associated Rationale</b>
<p>Commercial Lobster in LMA1</p> <ul style="list-style-type: none"> <li>• Fish pairs (with one endline) in sliver (non-exempt state waters), for a 16% reduction</li> <li>• Fish minimum of triples (with one endline) in 3-6 miles, for a 19% reduction</li> <li>• Fish minimum of 10 traps per trawl (with 2 endlines) in 6+ miles (Zones A-E) and 20 traps per trawl (with 2 endlines) in 6+ miles (Zones F&amp;G) for a combined 53% reduction. (The right whale hot spot in Zone A would have a 42% reduction in vertical lines; in Zone G, the right whale hotpot would see a 67% decrease in vertical lines.)</li> <li>• Provision for a conservation equivalency endline cap if there are discreet areas that are unable to accommodate the approaches above</li> </ul>	<ul style="list-style-type: none"> <li>• Simple/equitable</li> <li>• Operationally feasible and supported by industry</li> <li>• Addresses vessel size safety issues</li> <li>• Enforceable</li> <li>• Balances vertical line risk reduction and economics</li> <li>• Weights increased risk reduction in co-occurrence and RW hot spots</li> </ul>

Team members voiced initial support for the proposal, but suggested a more complete analysis by Industrial Economics, Inc. – both of the complete proposal itself and in the context of a coast-wide package – would be necessary to more fully consider and assess the proposed vertical line reduction strategy.

The discussion of DMR’s revised proposal generated the following next steps:

- Submit revised proposal in writing, with trawling up requirements, relevant geographic dimension/coordinates and timing (annual/seasonal) considerations stepped out
  - Specifications for drawing the 6-mile line
  - Implementation approach and details related to a possible conservation equivalency endline cap provision
  - Additional analysis by NMFS that draws from the broader set of metrics identified earlier in this meeting summary
- Maine District C-9.* Team members considered the proposal from Maine District C-9 fishermen (submitted prior to the meeting) that includes the following key provision: a seasonal ban (June 15 – September 15) on fishing outside the 3-mile line; monthly reporting; pairs/triples from the 10-fathom curve to the 3-mile line; and, the creation of an exempted area to include traditional fishing areas. (The more detailed Maine District C-9 proposal is available on the Team website.)

Similar to other proposals considered, some members voiced concerns regarding the broadening of any exempted waters. Given (1) Industrial Economic's inability to analyze the proposal due to the limited data provided by proponents and (2) the comprehensiveness of the revised proposal put forward by DMR, the Team recommended NMFS not carry Maine District C-9 proposal forward for further consideration.

The discussion of Maine District C-9 proposal generated the following next steps:

- NMFS is to notify proposal proponents regarding the Team's recommendation related to the Maine District C-9 proposal.
- *State of New Hampshire.* Team members discussed the vertical line risk reduction proposal put forward by the State of New Hampshire prior to the meeting. The proposal calls for exempting New Hampshire state waters due to: (1) prior conservation actions; (2) low risk demonstrated in the co-occurrence model; (3) state water restrictions; and, (4) state plans to address latent effort. (The more detailed proposal is available on the Team website.)

While Team members had few comments specific to the New Hampshire proposal, some members voiced general concerns with extending exemptions (as discussed under cross-cutting themes section above). Team members also noted the need to consider the proposal in the context of a coast-wide proposal.

The discussion of the State of New Hampshire's proposal generated the following next steps:

- Additional analysis by NMFS that draws from the broader set of metrics identified earlier in this meeting summary
- *Southern New England Proposal.* The States of Massachusetts and Rhode Island put forward a proposal for Southern New England that included a mix of NMFS-proposed and new trawling up requirements, as well as exemptions and other management actions. Below is a table summarizing the proposal and associated rationales.

<b>Southern New England Proposal</b>	
<b>Proposed Management Action</b>	<b>Associated Rationale</b>
Commercial Lobster in LMA2 <ul style="list-style-type: none"> <li>Take no action</li> </ul>	<ul style="list-style-type: none"> <li>Past documented attrition and expected future 50% cut in trap allocations</li> </ul>
Other pot/traps in state waters <ul style="list-style-type: none"> <li>Take no action</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries (sea bass/scup/whelk pot) take place in time/areas with minimal endangered whale occurrences</li> </ul>
Jonah Crab Trap in federal waters <ul style="list-style-type: none"> <li>Require some minimum standard (20?) pot trawls</li> <li>Require NMFS to require reporting by these vessels and VTRs</li> <li>Require NMFS to require permit</li> <li>Require NMFS to create a fishery management plan</li> </ul>	<ul style="list-style-type: none"> <li>Currently not managed; could develop into problematic source of vertical line</li> </ul>
Area 1 Gulf of Maine/Massachusetts – Lobster/crab fishery <ul style="list-style-type: none"> <li>Endorse taking the NMFS trawl-up standards to public hearing <ul style="list-style-type: none"> <li>10 traps in 3-12 miles</li> <li>20 traps beyond 12 miles</li> </ul> </li> <li>Options for exemptions: <ul style="list-style-type: none"> <li>In 0-3 miles for all vessels</li> <li>In 0-3 miles for small vessels: skiffs, vessels w/outboards</li> <li>In 0-1 miles for all vessels.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Single traps already banned in CCB Critical Habitat Jan. 1- May 15 when right whales present</li> <li>Safety issue of deck space for small vessels handling strings of traps</li> <li>Safety issue of outboard motor/propeller in handling more complex line configuration</li> <li>Per co-occurrence model, no sightings inshore during summer/fall when most inshore small scale lobstering occurs</li> </ul>
Outer Cape Cod – State Waters <ul style="list-style-type: none"> <li>Consider same exemptions as noted for Area 1: state waters; skiffs.</li> </ul>	<ul style="list-style-type: none"> <li>Change from singles to trawls will increase complexity of entanglements</li> <li>Rely on current successful disentanglement program, especially for humpback whales</li> </ul>
Outer Cape Cod – Federal Waters <ul style="list-style-type: none"> <li>3-12 miles: 10 or 15 trap trawl</li> <li>12+ miles: 10 or 15 trap trawl</li> </ul>	<ul style="list-style-type: none"> <li>Vessels incapable of accommodating 20 pot trawls. Normal configuration is 15.</li> <li>Fishing in OCC beyond 12 miles is minimal</li> </ul>

Team members deferred significant discussion on the Southern New England proposal given the need to first see an analysis of the proposal's impact on vertical line reductions and other metrics. The dialogue did, however, generate a handful of comments. Key points raised include the following:

- Some Team members voiced concerns about extending exemptions given the potential for whales to range widely and to vary their movements depending on ocean conditions and available food supplies, while others said it was unfair to ask fishermen to trawl up based on a history of very few whale sightings.
- One conservationist suggested broadening the Southern New England proposal to incorporate a short seasonal closure for eastern Cape Cod Bay. Other Team members reiterated the point that closures are tough on fishermen and best avoided.
- One Team member cautioned participants to consider the potential for more complex entanglements with longer trawls. Another Team member, however, noted that any entanglement could pick up additional gear and, as a result, become more complex.

The discussion of the Southern New England proposal generated the following next steps:

- Overall proposal in writing, with trawling up requirements, relevant geographic dimension/coordinates and timing (annual/seasonal) considerations stepped out.
  - Definition of 1 and 3-mile lines and seasonality associated with Area 1/Gulf of Maine and Outer Cape Cod proposals.
  - Provide NMFS documentation on how they calculated the relationship between trap reductions and vertical line reductions.
  - Additional analysis by NMFS that draws from the broader set of metrics identified earlier in this meeting summary.
- Hot spot closures. The Team considered several closure possibilities related to right whale hot spots in the Northeast. The hot spots were defined as areas that exhibited high numbers of right whale sightings based on the SPUE data set. One approach, put forward at the meeting by S. Kraus, focused on SPUE-driven seasonal closures (both trap/pot and gillnets) tied to four specific areas: Jeffreys Ledge, Jordan Basin, Great South Channel (spring), and Cape Cod Bay (spring). He also discussed a less defined closure area in the northern Gulf of Maine near the Canadian border. Drawing from research on whale entanglement, he also proposed a maximum line breaking strength of 5,000 pounds as a measure to protect all adult whales. In proposing the closures, S. Kraus suggested that the NMFS proposed actions alone may not be sufficient to bring M&SI below PBR. (In his “back of the envelope calculation,” he assumed the 43% cut in vertical lines anticipated through the NMFS plan would generate a comparable 43% reduction in M&SI – a reduction insufficient, he said, to generate a drop below PBR). Several conservationists also expressed interest in developing a hot spot closure proposal to augment NMFS’s proposed measures, including the addition of a possible area in eastern Cape Cod Bay.

Consistent with the Team’s consideration of closures elsewhere, meeting participants expressed divergent views, with proponents emphasizing the importance of eliminating risk to right whales in critical hot spots and others suggesting the closures simply displace effort (and, therefore, risk) elsewhere while creating a greater concentration of lines (i.e., higher risk) surrounding the closed areas. Some Team members also questioned why the use of hot spots for right whales was under consideration given that in previous meetings the Team had already decided to focus the vertical line strategy on the co-occurrence of right whales and humpback whales rather than just large whale SPUE information.

Based on the deliberations, S. Kraus withdrew his specific suggestions for hot spot closures. Instead, he and conservationists on the Team are to meet and develop a stand-alone or jointly authored proposal tied to right whale hot spot closures. S. Kraus also withdrew his proposal related to the 5,000-pound line breaking strength.

The discussion of a potential hot spot closure generated the following next step:

- Conservationists are to meet with S. Kraus to consider development of a revised hot spot proposal (either stand-alone or jointly authored).

- Submit proposal in writing, with relevant geographic dimension/coordinates, timing (annual/seasonal) and other relevant considerations stepped out.
- New York/Connecticut. No proposals were put forward for either state. R. Sysak did note that past and anticipated future trap reductions driven by documentation of declining lobster population are reducing vertical line risk in state waters.

Based on the full suite of vertical line proposal discussions – and assuming Team members follow-up on their stated interest to submit updated proposals – NMFS anticipates analyzing the following proposals to more fully assess their conservation benefit potential:

- NMFS Southeast proposal
- NMFS/industry Southeast hybrid proposal
- NMFS Mid-Atlantic proposal
- NMFS Northeast proposal
- ME DMR Proposal
- New Hampshire proposal
- Southern New England proposal
- Conservationist/Kraus “hot spot” proposal

#### **D. Monitoring Strategy**

The Team spent a significant amount of time discussing issues related to Plan monitoring. Below is a summary of the key issues discussed.

- **NMFS Monitoring Strategy.** Michael Asaro provided the Team with NMFS’ revised Monitoring Strategy, highlighting a number of changes based on consideration of Team member suggestions provided during the November 2011 Subgroup teleconferences and in subsequent communications. Primary Team member comments based on M. Asaro’s remarks included the following:
  - Underscoring the importance of a monitoring strategy that allows for quick action – i.e., not waiting for the five-year review – if M&SI in early years indicates the five-year average will exceed PBR. (M. Asaro indicated this request was consistent with NMFS intent.)
  - Voicing concern regarding the impact of likely future budget cuts – both within NMFS and at partner organizations – on NMFS’ ability to adequately monitor plan impacts and effectiveness.
  - Expressing interest in evaluating the impact of the already-in-place sinking groundline regulations independent of efforts to track future vertical line risk reduction measures.
  - Seeking to better understand the Team’s role in providing guidance on future changes to the monitoring strategy. (M. Asaro noted that NMFS considers the Monitoring Strategy to be a “living document” able to be updated and revised as needed, and he further encouraged Team members to provide ongoing feedback.)

- Noting the importance of devising models and approaches that give NMFS a reliable method for sifting out the “noise” in the data from genuine trends. In other words, NMFS must be cautious not to over-interpret trends from opportunistic data.
- ***Augmented Monitoring Effort.*** Team members discussed a slate of four recommendations put forward by S. Mayo to foster an effective and comprehensive monitoring process. Specific recommendations proposed by S. Mayo centered on the following:
  1. To advance a coast-wide gear marking program to permit improved assessment of the source and configuration of gear collected from entangled whales
  2. To support necropsy studies and dedicated aircraft and vessel surveys in order to detect entanglement rate and severity and to assess population status
  3. To develop a procedure to give blanket permission to professional whale watching vessels to approach right whales to detect and document entanglements
  4. To support capacity to analyze all of the above, including rapid gear analysis

The proposal failed to garner consensus support as a package of proposed measures, but it did generate important discussion and feedback on the ideas and strong backing for certain elements. Key discussion points include the following:

- Most Team members saw significant merit in supporting capacity to analyze data (#4), suggesting such a stepped up monitoring effort was essential given the uncertainties inherent in any vertical line reduction proposal eventually adopted. Others, however, voiced concerns that rapid analysis without sufficient peer review could result in incorrect or unsubstantiated findings. There were also concerns that a “rapid” gear analysis might be inconsistent with current NMFS protocols, and there were doubts by some as to whether NMFS could generate data much more rapidly than it is already doing.
- Roughly one-quarter of the Team endorsed the concept of giving blanket permission to professional whale watching vessels (#3), with proponents suggesting this action would greatly enhance the potential to detect and document entanglements. Those supporting the proposal further suggested that NMFS would be expected to use its discretion to structure the permission in a way that would foster responsible actions by tour operators. Others, however, were uncomfortable with the idea as presented, suggesting it offered too much latitude to operators. In particular, a number of these Team members took exception to the concept of “blanket permission” and voiced more comfort with an approach that would task NMFS with developing a well-articulated procedure to evaluate and authorize such actions.
- Virtually all Team members endorsed the call for necropsy studies and dedicated aircraft and vessel surveys (#2), suggesting such efforts are essential if NMFS is to adequately track trends and assess Plan effectiveness. One Team member also

suggested that the proposal be broadened to include a recommendation to encourage towing in more whales to support necropsy studies.

- While the Team strongly supports the idea of enhanced gear-marking (as noted in the section summarizing the gear marking discussion), roughly one-third of the participants were unwilling to support the generalized call for a coast-wide gear-marking scheme (#1) as part of S. Mayo's monitoring proposal without first defining the specifics of such a program for particular states, geographies or gear types.
- Several Team members also pointed out the importance of incorporating criteria in any monitoring approach that assess impacts to fishermen and coastal communities, as well as safety-at-sea metrics.

A separate concept advanced earlier in the meeting by S. Mayo – to create a rapid response group comprising a balanced subset of the Team to track early indicators of problems, successes or unintended consequences – also failed to garner broad support, as Team members struggled to define a process that would make a meaningful difference without usurping Team or NMFS authority or circumventing current procedures.

#### **E. Gear Marking/Gear Characterization Reporting**

The Team generated a number of suggestions regarding possible efforts to improve gear marking and gear characterization efforts. Below are key discussion points related to both topics.

- ***Gear Marking.*** Team members discussed a range of strategies for moving forward with a coast-wide gear-marking strategy to improve the ability to distinguish lines found on entangled whales relative to the fishery, fishing area and part of the gear from which it came. No consensus approach was sought or reached (as the deliberations were intended to be exploratory), but below is a synopsis of key themes that emerged during the discussion:
  - Broad agreement among participants to increase the frequency of markings as a strategy to improve identification of entangled gear, but no shared consensus on specific marking strategies. Specific ideas suggested included: marking at fixed intervals (consistent with typical line length recovered); marking by rope sections (i.e., top, middle, bottom); customizing marking distances to mesh with local area line configurations and lengths.
  - Fishermen in the Southeast region recommended gear markings by fishery and state (see footnote on Page 8), while Northeast Team members tended towards markings by fishery (trap versus gillnet) and Maine proposed a unique color to distinguish it from New Hampshire and Massachusetts in LMA1. There was not, however, any emerging consensus on specific zone markings in the Northeast, with suggested geographies ranging from lobster management zones to distance from shore.



- Maine TRT members did not support gear marking in exempted waters. However, if the final rule were to include mandatory gear marking in Maine exempted waters, Maine TRT members suggested it be marked with a unique color.
- Many fishing industry representatives consistently requested that gear marking schemes, wherever possible, build off marking colors/patterns and rope colors already in regular use so as to minimize unnecessary expense and effort. They also called for NMFS to avoid gear-marking schemes that are operationally onerous.
- Gear marking schemes need to anticipate and take account of adjacent geographies where vessels may fish in two or three zones in a single day. In such instances (not uncommon in the Northeast), several Team members said, markings by state are neither sufficiently informative nor operationally infeasible.
- While several Team members underscored the importance of distinguishing sinking ground line from vertical lines in an entanglement, a number of Team members said unique markings for sinking groundline are not necessary since the distinct nature of the rope itself – excepting the 10- to 30-fathom long bridles – makes it readily identifiable.
- Interest in integrating gear marking with evolving Canadian efforts to maximize the ability to differentiate gear in any future entanglements.

Other discussion points included the following: (1) the gillnet fishery in the Northeast should be assigned a unique color; no other distinctions are needed; (2) avoid schemes that require fishermen to shift gear markings as they move across zones or states; (3) avoid requirements to use all-black line, as it makes it tougher to spot gear entangled on dark-colored whales; (4) avoid gear-marking schemes that require the use of same-colored rope, as that makes it more difficult for fishermen to untangle gear from multiple vessels; and (5) consider the caution from fishing industry representatives that compliance will decrease as the number of markings and complexity increases.

- ***Gear Characterization Reporting.*** Industrial Economics initiated a brief conversation with Team members regarding gear characterization, highlighting the data currently collected and soliciting feedback on additional or different information needs. Specific data needs identified by Industrial Economics included the following: number of active vessels by fishery on a monthly basis; number of traps per trawl; number of strings; number of strings per trawl; length of panel; length of groundline; indication of whether gillnets are fished with an anchor line and, if so, anchor line length. Industrial Economics also underscored the importance of getting actual figures – as opposed to averages – from the states, as it allows them to more precisely assess the impacts of possible management measures.

Team discussion yielded the following primary themes and considerations:

- ***Voluntary versus mandatory data reporting.*** Fishing interests strongly supported voluntary data collection (i.e., voluntary log recall surveys), suggesting the information gathered will be more accurate than mandatory reporting requirements that engender industry pushback. Some conservationists continued to press for mandatory reporting, however, suggesting that consistent and comprehensive data is key to monitoring plan effectiveness. One suggestion that appeared to garner initial support called for using mandatory reporting (drawn from a small sample size of fishermen) to ground-truth the quality of voluntary data rather than as primary vehicle to gather information.
- ***Data collection timing.*** A number of fishing interests pressed for collecting survey data annually, suggesting the accuracy of the data would not be compromised in comparison with data collected on a monthly or seasonal basis. Others suggested the key is to ensure the data collected – regardless of whether it is submitted monthly, quarterly or annually – breaks out the information by season or month, as more spatially resolute data is preferred.

Other points related to gear characterization included:

- Concern regarding unfunded mandates associated with any data collection requirements.
- The importance of Industrial Economics working with states to strengthen survey design and execution to improve accuracy.
- The need to address the lack of VTR data for those holding lobster-only permits in LMA1. There were also comments that the VTR form, though improved, is still not “lobsterman-friendly” in the way it seeks data.
- The opportunity to use Maine boat survey data to validate the voluntarily-reported survey data (though a State of Maine representative suggested the boat survey data would not be a reliable source for such a correction).
- A suggestion to use already collected State of Massachusetts data to tease out the difference between voluntary report (2010) and mandatory reporting (2009).

## **F. Other**

The Team’s deliberations generated brief discussion on a number of other topics over the course of the five-day meeting. Below is a quick synopsis of these various topics raised by Team members.

- Current whale survey efforts are vulnerable as external funding sources are increasingly at risk of getting cut. Such cuts would be highly detrimental to the program, as the surveys provide an essential tool to track the success (or limitations) of current management measures. Team members encouraged each other and NMFS to push for continued funding. NMFS also was urged to develop a punch list of data needs – even if the budget is not available to fund them – as other groups can use the list to solicit funding from outside sources.

- Additional research is needed to improve the durability of sinking groundline as some fishermen are reporting the need to replace worn out line much more frequently than anticipated.
- Interest in understanding the likely NMFS response if the current and pending suite of management actions do not result in dropping M&SI below PBR. [Referring to the Monitoring Strategy, NMFS staff noted that the Team would be reconvened to review the most recent data and consider the need for additional or different measures.]

## V. Next Steps

The discussion generated a number of next steps. The most critical next steps are summarized below:

### **Related to Vertical Line Risk Reduction Proposals**

The Team outlined a series of next steps necessary to move forward with consideration of vertical line risk reduction proposals. These included the following:

- ***End of January 2012:*** Team members putting forward vertical line risk reduction proposals submit requested data to NMFS to enable analysis of each proposal's conservation benefit equivalency. (The specific information needed to complete the proposals was highlighted earlier in the summary.) NMFS is to notify Team members once the updated proposals are received and posted on-line.
- ***Mid-March 2012:*** NMFS, in conjunction with Industrial Economics, completes and distributes to Team members the analysis of the various vertical line risk reduction proposals submitted. Specifics of the analysis to be conducted by NMFS are summarized elsewhere in the memo.
- ***Mid- to late-April 2012:*** NMFS anticipates convening separate Northeast and Southeast/Mid-Atlantic teleconferences to review the analyzed proposals and elicit Team feedback. Written comments will also be invited.
- ***Summer 2012 to Spring 2013:*** NMFS completes its analysis of options, builds and analyzes packages of alternatives, and identifies a preferred alternative.
- ***Spring 2013:*** NMFS anticipates publishing its proposed Vertical Line Risk Reduction proposed rule and draft environmental impact statement. Once the proposed rule is published, NMFS will convene public hearings and receive written comments. A Team meeting to discuss the rule will be dependent on funding.
- ***Remainder of 2013/2014:*** NMFS to prepare final rule after accepting comments. Final rule to be published in 2014.

Other next steps identified include the following:

- Team members are to review and provide to M. Asaro any additional comments related to the revised Monitoring Strategy. As the Monitoring Strategy is considered a “living document,” comments from Team members are welcome at any time.
- CONCUR is to prepare a Key Outcomes Memorandum (KOM) summarizing the ALWTRT meeting’s key themes, recommendations and next steps. The KOM will be circulated to Team members in draft form for their review and comment. A draft is expected to be distributed by mid-February.
- NMFS staff is to upload presentations to the Team website so they are accessible to all Team members and interested public

Questions or comments regarding this summary should be directed to Bennett Brooks or Scott McCreary with CONCUR. Bennett can be reached at 212-678-0078 or via email at [bennett@concurinc.net](mailto:bennett@concurinc.net). Scott can be reached at 510-649-8008 or via email at [scott@concurinc.net](mailto:scott@concurinc.net).