

**Atlantic Large Whale Take Reduction Team  
Whale Release Rope and Gear Marking Feasibility Subgroup  
February 26, 2018 Teleconference  
Key Outcomes**

**Overview**

NOAA's National Marine Fisheries Service created two Subgroups of the Atlantic Large Whale Take Reduction Team in 2018 to brainstorm the feasibility of (1) whale release rope and gear marking and (2) ropeless fishing in fixed gear fisheries. The Subgroup's results will inform the Atlantic Large Whale Take Reduction Team's efforts to produce a long-term framework for the further reduction of mortality and serious injury of large whales in US waters below their respective potential biological removal levels.

The purpose of the February 26, 2018 teleconference of the Whale Release Rope and Gear Marking Feasibility Subgroup was twofold: to discuss and clarify the Terms of Reference for this effort and to identify the information that the Subgroup will need for a productive April 3-4 in-person meeting.

**Participants:**

- Subgroup Participants: Terry Alexander, Nick Muto, Cheri Patterson, Megan Ware, Amy Knowlton, Caroline Good, Bill McLellan, Patrice McCarron, Erin Summers, John Haviland, David Borden, Arthur Sawyer, Bob Glenn
- NOAA staff: Colleen Coogan, Mike Asaro, David Morin, Mark Minton, Glenn Salvador, John Higgins, Nick Sisson, Chip Lynch, Christin Khan, Henry Milliken, Kathryn Bisack, Eric Thunberg, Barb Zoodsma, Jessica Powell, Kate Swails, Ellen Keane, Ainsley Smith, Diane Borggaard, Danielle Palmer
- CONCUR: Scott McCreary, Bennett Brooks
- Other: Beth Casoni (TRT Member), Peter Brodeur (TRT Member),

**Meeting Materials**

[Meeting materials](#) were provided in advance to support the group's deliberations. Printed materials can be obtained by contacting [Colleen.Coogan@noaa.gov](mailto:Colleen.Coogan@noaa.gov), or by phone at 978-281-9181.

**Discussion Summary:**

Below is a brief 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 including action items.

Welcome and Introductions

Mike Asaro opened the meeting by thanking participants for participating in this effort. He provided context on the genesis for this subgroup, including: research indicating the right whale

population is declining, a right whale unusual mortality event starting in 2017, a reinitiated Section 7 consultation based on this new information, and related litigation. These new events and initiatives underlie the need for the ALWTRT to move beyond recent efforts and to prepare for the possibility that further management measures will be needed to reduce fixed gear effects on right whales. Mike acknowledged that at this time there is no obvious action teed up for consideration by the Team. Two subgroups were created to further research gear modifications that have been regularly proposed at team meetings but not fully explored.

Therefore the charge for this Whale Release Rope and Gear Marking Subgroup is, through brainstorming and fact finding, to identify obstacles and hurdles to whale release rope and gear marking modifications to investigate the feasibility of associated gear modifications in the Take Reduction Plan. The Subgroup will report on its findings about the feasibility of these measures in fixed commercial gear to the full TRT in the fall. Any future decisions related to short or long term development of new management measures will be conducted with the full team, informed by the efforts of the Subgroups. The Team effectively followed this process in the past when creating the vertical line rule.

Operating protocols and Terms of Reference, included in the [Background Materials](#), were reviewed and the Subgroup was reminded that they are responsible for reporting out to their respective constituent groups and bringing information from their constituents back to the Subgroup. They were also reminded that deliberations will be restricted to investigating feasibility, with no decision-making or conclusive determinations toward rulemaking. Consideration of changes to the take reduction plan will only occur in consultation with the full Take Reduction Team.

Clarification discussed:

- These feasibility investigations should consider both near-term and long-term approaches to modifying gear or other take reduction measures to reduce effects of commercial fixed gear fishing on large whales. This approach recognizes the urgency of the current right whale population decline, but allows for continued consideration, assessment, and development of technology that may not yet be available or affordable.

## **Background Resources**

[Pre-meeting background resources](#) include tables linking to ALWTRT results and reports, mined primarily from the ALWTRT website, related to low breaking strength rope and gear marking. These tables, which can also be found in the [meeting presentation](#), were created to document existing TRT-related resources and will benefit from additions to ensure all appropriate resources are available during our deliberations.

The Subgroup was open to including work beyond the TRT's past efforts and were invited to share additional resources for inclusion with Colleen.Coogan@noaa.gov at any time before the in-person meeting in April. Hard copies of each linked report will be assembled in a binder for the in-person meeting.

The discussion of background resources overlapped considerably with a discussion about information needs to investigate feasibility so the discussion points and associated information gaps, needs, and actions are combined below. As indicated in the [presentation](#), Colleen reviewed some characteristics of feasibility taken from the Terms of Reference and past ALWTRT efforts. Subgroup members were asked for input on the characteristics of feasibility that this group should investigate.

Anticipated additions to the background resources:

- Add paper: Logan, H. Arthur et al., *Estimating maximal force output of cetaceans using axial locomotor muscle morphology*, 31(4) MARINE MAMMAL SCI. 1401 (2015)
- State of Massachusetts is funding NEAq and MA lobster fishery field testing of sleeved ropes this June, that data won't be available for the April meeting but may be available before our feasibility report is completed.
- Add any studies related to strain testing gillnet gear.
- Add any evaluation studies from areas (EU?) with gear marking requirements

Information needs:

- Information on the universe of vertical line in the water column; gear atlas
- Research question: consider marking gear by depth of water it's fished in, or amount of gear on bottom. Feasibility elements?
- Canadian gear marking plans. Tape in rope being considered
- What can be manufactured? Are there new manufacturing techniques or technologies that should be considered?
- Fishermen's input/evaluation on the source of retrieved gear.

Actions:

- Bring one hard copy (reference binder) of background resource papers to in-person meeting
- All: Provide Colleen info on additional research that should be included in the table
- NMFS: Assemble "gear atlas" describing types of vertical line by fisheries along entire coast
- NMFS to draft a strawman matrix of feasibility for weak rope: gear type (line, gillnet), near-term and long-term cost and scale (accounting for gear mods and gear savings), performance during catastrophic ocean events. And for gear marking: depth fished, amount of gear on bottom, likely breaking points
- Amy Knowlton will check with Canadian contact regarding their consideration of including marker tape in ropes. NMFS will check with Canadian about marking plans.
- NMFS Gear Team: Review success rate in identifying gear removed from whales and see if any conclusions can be made regarding what allowed the identification, what kind of marking scheme has worked.

## Feasibility Considerations

The Terms of Reference and past TRT efforts identified some of the feasibility characteristics that may need to be explored, including: functional, technological, cost, seasonal and geographic, and gear types. The Subgroup discussed additional characteristics of feasibility for whale release ropes and gear marking and generated these lists:

### Feasibility characteristics to explore related to both gear marking and whale release rope:

- Portability, related to fishing practices
  - If fishermen move between areas, requiring regional differences in gear markings and whale release rope will require storage and portability
- Costs across scale of changes – coast wide? 365 days a year? Or discrete areas and seasons?
- Scale of changes as related to benefits - will changes relative to existing regulatory requirements be notable and make a difference quickly enough to recover right whales?
- Characteristics of where a whale release rope might break may suggest gear marking options

### Feasibility characteristics specific to gear marking:

- Enforcement - gear marking regulations are already in place yet much retrieved gear is unmarked.
  - Is enforcement effective,
  - is gear from elsewhere,
  - or is additional marking needed to better identify sources of gear?

### Feasibility characteristics to consider that are specific to whale release rope:

- Feasible across gear configurations -
  - Characterize feasibility for gear that is currently fished, where, when (including fixed gear not fished on bottom if that seems appropriate),
  - Water depth and amount of weight hauled through the water column
  - Currents and weather conditions/wave height
  - Weak rope options: sleeves, weak line connecting surface gear to hauling line on bottom, other weak rope configurations
- Costs related to lost gear - characterize current gear loss and potential effects of changes on lost gear, marine debris

### Next Steps:

- Colleen: Prepare strawman feasibility definition or matrix
- All: Send along other feasibility considerations related to whale release/weak breaking strength rope and gear marking.

## **Information/Expertise Needs for in-person meeting:**

### Meeting goal

- Identifying work to be done to prepare a feasibility report
- Develop direction to NOAA: What information do we need to explore and investigate and start pulling together to inform the feasibility report?

### Information requested for the April meeting:

- Feasibility strawman definition and matrix
- Reference binder of background information
- For mobile and fixed gear, need information on the number of federal and state permitted vessels by category.
- Number of recreational fishermen/lines
- Estimate the amount/number of fixed vertical lines to understand the extent of gear in the water
- Data on gear loss under current conditions
- Spatial resolution of fishing/gear if possible (mobile and fixed activity)
- Access for fishermen to review gear in gear warehouse
- Summary report of every right whale interaction in terms of gear size, type, dates, etc.
  - Not confidential data or data limited by enforcement needs
  - Sortable spreadsheet
  - For general use vs. enforcement purposes (allow fishermen to give source “best guess” vs. forensic proof)
  - Length of rope most often recovered
  - Line diameter of recovered rope
- Identification from those case studies of successful cases - no serious injury or mortality
- Current regulatory requirements about reporting gear loss

### Potential guests for the April meeting:

- Canadian representative
- Commercial fishermen that have used sleeves or other weak rope technology in commercial operations.
- Rope manufacturer that can discuss
  - Kinds of rope that can be manufactured at comparable costs to commonly used rope- need to understand cost implications of marking at different lengths intervals and with highly specialized color schemes.
  - New marking technologies
- Enforcement (ME and NH officers possibly) and someone from further south

### **Next Steps:**

- Colleen: with NOAA staff, follow up on suggestions
- All: Send additional ideas within the next week

## **Future Planning**

### Discussion:

- Presentations and background material will be posted on website.
- Agency to produce key outreach and develop materials and expertise for in-person meeting
- All: Provide additional feedback and info needs

### Meeting:

- Colleen proposed the in-person meeting would be in Providence, however given industry interest in seeing the fishing gear, we may hold the meeting in Narragansett.
- Colleen will send information on travel and lodging shortly; Aiming for the bulk of two days: 10 a.m.-6 p.m. start on April 3, 8 a.m.-4 p.m. on April 4.