

Atlantic Large Whale Take Reduction Team Ropeless Fishing 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 Ropeless Fishing 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 March 15, 16 in-person meeting.

Participants

- Subgroup Participants: Cheri Patterson/Josh Carloni, Nick Muto, Charlie Phillips, Bob Glenn, Brian Sharp, Patrice McCarron, John Haviland, Megan Ware, Jooke Robbins, Amy Knowlton, Erin Summers, Mike Lane, Grant Moore, Peter Brodeur, Terry Alexander,
- NOAA staff: Colleen Coogan, Mike Asaro, David Morin, Mark Minton, Glenn Salvador, Allison Rosner, Kristy Long, Nick Sisson, Chip Lynch, Henry Milliken, Kathryn Bisack, Eric Thunberg, Barb Zoodsma, Jessica Powell, Kate Swails, Ellen Keane, Ainsley Smith, Diane Borggaard
- CONCUR: Scott McCreary, Bennett Brooks
- OTHER: David Borden (TRT member), Heidi Henninger (Atlantic Offshore Lobstermen's Association, TRT alternate)

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, 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, related litigation, and recent effort by Woods Hole Oceanographic Institution (WHOI) and New England Aquarium (NEAq) to develop ropeless fishing gear technology. These new events and initiatives underlie the need for the ALWTRT to move beyond recent monitoring 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 of gear modifications that have been regularly proposed at team meetings but not fully explored. Therefore, the charge for this Subgroup is to, through brainstorming and fact finding, identify obstacles and hurdles to ropeless fishing to investigate its feasibility. The Subgroup will report on the feasibility of ropeless fishing 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 constituent groups and bringing information from their constituents back to the Subgroup. They were also reminded that these investigations will be restricted to investigating feasibility, with no decision making or conclusive information toward a rulemaking track. Consideration of changes to the take reduction plan will only occur in consultation with the full Take Reduction Team.

Preliminary feasibility elements identified during this discussion:

- Regulatory consistency: How can ropeless fishing occur given existing state and federal rules regarding surface marking of fishing gear?
- Enforcement challenges and gear conflicts: How will enforcement and fishermen know where gear is set without surface systems?

Resources identified during the discussion:

- Woods Hole Oceanographic and New England Aquarium are pursuing the development of ropeless fishing and presented on current concepts at a [workshop on February 1, 2018](#). Good opportunity to collaborate.

Actions generated by discussion:

- NMFS will summarize regulatory requirements and constraints on removing fishing gear surface systems (federal and state), and assess or identify options for addressing those requirements. Megan Ware will review ASMFC regulatory constraints and provide state contacts.

- We need a definition of ropeless fishing. Definition from the WHOI/NEAq workshop was proposed as “Fishing without vertical lines connecting the bottom gear to the surface.” Ropeless fishing would allow groundline on the bottom. NMFS will refine the Terms of Reference to fold in a definition of “ropeless fishing”.
- NMFS will include WHOI/NEAq ropeless efforts and experts to inform this Subgroup.

Background Resources

Pre-meeting [background resources](#) included a table linking to ALWTRT results and reports, mined primarily from the ALWTRT website, related to ropeless fishing. A link to the presentations from the February 1, 2018 WHOI Ropeless Workshop was included since some TRT supported work was presented at the workshop. This table, which can also be found in [the meeting presentation](#), was created to provide background resources for this Subgroup’s efforts but needs input from Subgroup members to ensure all appropriate resources are available.

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

Anticipated edits to the background resources:

- Mark Baumgartner expects to have a draft summary of the WHOI, NEAq workshop in early March.
- Mark or another Workshop participant should be invited to present at the in-person March meeting.
- Cost-effective column should be changed to a column entitled “costs” and information should be listed providing the elements of cost including how those costs would change over time, how those costs add up across the fishery (scale), include costs that may go down.
- Discussion began to touch on feasibility (is it doable, will it effectively reduce interactions with right (large) whales, are there ancillary consequences such as more (or less) marine debris, impacts of catastrophic events (gear loss, safety, gear conflicts etc.)

Actions

- Incorporate research shared at WHOI/NEAq workshop (contact: Mark Baumgartner)
- Bring one hard copy (reference binder) to in-person meeting
- All: Provide Colleen info on additional research that should be included in the table
- Revise cost-effective heading so that it isn’t binary (Y/N) but instead reflects cost elements and distinguishes between near- and long-term cost-effectiveness
- Compile feasibility list for each technology option or as a matrix of feasibility and perhaps create a feasibility score (1-10) for the full Team’s consideration. In addition to the ones listed include: regulatory conflicts, enforcement, effectiveness to reduce interactions, ancillary consequences, near-term and long-term cost and scale (accounting for gear mods and gear savings), performance during catastrophic ocean events.

Feasibility Considerations

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 what characteristics of feasibility should be investigated.

The discussion generated a list of feasibility characteristics as well as some considerations and information needs:

- Gear conflicts. If solution relies on GPS or other satellite positioning technologies, investigate differential across vessels. Fishermen are increasingly using this technology to locate their gear but suggest it is not sufficiently precise to prevent conflicts where gear is densely set.
- Fishing practices
 - Movements between regulatory areas
 - Area practices (“gentlemen’s agreement) such as setting gear in particular direction, along loran lines, etc currently revealed by surface marking
- Regulatory considerations
- Gear configuration (including fixed gear not fished on bottom if that seems appropriate)
- Scale – area and season
- Gear conflicts
- Effects of environmental conditions on equipment functionality, such as acoustic signals (e.g., ocean churn/sediment impacting signals).
- Fishing density
- Enforcement – consider methods other than hauling

Challenges

- Feasibility by ropeless prototype. If different technologies and prototypes will be considered:
 - Certification process of specific characteristics?
 - Or conceptual, define ropeless, allow room for change.
- Include enforceable performance specifications.
- Characterize scale. Coast wide? 365 days a year? Or discrete areas and seasons?
- Consider characterizing different scenarios.
- Characterize challenges with spatial positioning deviation across boats
- Characterize the costs of studying feasibility: development and testing
- Define and list fixed gear fisheries. Currently we seem to be focusing in on gear that are fishing on bottom and not those in water column. Some might be pertinent depending the gear. Account for viability based on gear configuration

Tasks

- Colleen: Prepare strawman feasibility definition or matrix
- All: Send along other feasibility considerations; format suggestions

Information/Expertise Needs for in-person meeting

March Meeting goal

- Identifying work to be done for feasibility report
- Create 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 March meeting

- Regulatory requirement summary (federal and state) related to fixed gear surface marking systems.
- Feasibility strawman definition and matrix
- Reference binder
- 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.
- Spatial resolution of fishing/gear if possible (mobile and fixed activity)
- Identify potential areas to test ropeless fishing to avoid mobile gear conflicts; areas without mobile gear, low density lobster trawls
- Characterization of the types of fisheries successfully using these ropeless systems- are there characteristics such as fishing density that are needed for success?
- From gear manufacturers: get an overview of acoustic sounders: effectiveness, limitations, how does churn in the water and other ocean conditions affect the system?
 - Jim Partan/Keenan Ball – WHOI engineers – might be helpful if Mark Baumgartner is not available, or Mike Lane suggests Edge Tech.

Potential guests for the March meeting

- Helpful to have gear manufacturers attend meeting. Glenn Salvador and other gear team members can identify candidates.
- Invite researchers/engineers (rather than manufacturers) to demonstrate ropeless prototypes. Need to be clear on their role and attendance (not a sales opportunity)
- Fishermen that have used ropeless prototypes. Unclear whether we have any local participants. Possibilities:
 - Kristan Porter (Maine, been on boat in Australia)
 - Identify videos that demonstrate the prototypes where they exist.
- Invite active/informed researcher (Mark Baumgartner Tim Werner, or Michael Moore)
- Mobile fisherman
- Enforcement (ME and NH officers possibly) and someone from further south
- Acoustic specialist to consider acoustic environment; someone to help understand noise profile and potential impact of scale of acoustic releases (see WHOI/NEAq report)
- Canadian representative
- Other industries – such as salvage operations - that may have engineering solutions that could be applied to fishing.

Next Steps

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

Future Planning

Discussion:

- Agency to produce key outreach and develop materials and expertise for in-person meeting
- All: Provide additional feedback and info needs

Meeting:

- In Providence – location pending
- Aiming for the bulk of two days: 10 a.m.-6 p.m. start on March 15, end at 8 a.m.-4 p.m. on March 16
- Information on travel and lodging to be sent shortly.
- Presentations and background material will be posted on website.