

US Gulf of Maine & Georges Bank Lobster Fishery Gear Adoption Plan

1. Purpose

This plan outlines voluntary steps the lobster industry in Maine is taking to continue improving fishing practices and gear configurations that supports achievable increased measures that address entanglement concerns.

The US Gulf of Maine & Georges Bank Lobster -pot/trap FIP and project partners are working directly with Massachusetts and Maine industry and offshore lobster vessels to demonstrate real, documented progress toward safer, more efficient, and environmentally responsible operations.

This plan is intended for participating lobstermen, dealers, and co-ops as a **simple roadmap** to adopt practical gear improvements that strengthen the industry's leadership toward reduced entanglement and leading regulatory adoption. All testing will be evaluated by NOAA's gear expert and clearly determined as an improvement over and above current regulatory requirements (see Appendix A), and an advancement toward minimizing whale entanglement.

2. Background

Maine lobstermen have a long record of adapting gear responsibly to protect both the fishery and marine wildlife. Recent research and discussions through the Fishery Improvement Project (FIP) have identified **specific voluntary gear adjustments** that can be tested and presented as new standards to work toward.

These include:

- Enhanced **gear marking** for traceability and spatial management.
- **Improved weak links or break-away components** that further reduce tension strength of vertical lines.
- **Longer trawls and reduced endlines** in appropriate offshore zones to decrease vertical line density.
- **Cleaner line management** (no floating line, no knots) to improve safety and reduce risk of entanglement.

This plan builds from the 2023–2026 FIP Workplan for the US Gulf of Maine and Georges Bank Lobster Fishery and offers a reasonable and achievable solution that can be realized in the immediate future. Concerns with feasibility and siting of on demand gear in the Maine region were substantiated by research performed by UMASS Boston. Results of the UMASS research demonstrated limited areas (Jefferies ledge and LMA 1) in Maine that lend itself to on demand gear whereas many areas in waters off Massachusetts were highly suitable. This result corresponds to input from the fisherman from these general areas.

3. Objectives

1. **Encourage voluntary participation** by lobster vessels in gear-improvement testing and documentation over and beyond current regulatory requirements.
 2. **Create measurable change** in fishing practices that can be achieved in the near future.
 3. **Strengthen collaboration** between fishermen, processors, and scientists through transparent field testing and data sharing.
 4. **Position the fishery** for future compliance with minimal disruption by proactively implementing practical improvements now.
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4. Near-Term Focus Areas (2025–2027)

Focus Area	Description	Participants	Expected Outcome
A. Gear Marking Expansion	Fishermen voluntarily apply additional purple or green marks in federal waters or an extra purple in state waters on buoy lines demonstrating improvement beyond current regulatory requirements.	Offshore & inshore vessels	Enhanced visibility and documented line origin data for management and market transparency.
B. Break-Away / Weak Rope Enhancements	Test a second weak contrivance with break strengths $\leq 1,700$ lb, installed 25% to 50% in the line. In zones F and G federal waters 3-12 miles and outside 12 miles if possible	Offshore 3-12 and 12+ (Areas F&G)	Improved safety and verified reduction in line tension strength.
C. Line Management & Trawl Efficiency	Promote knot-free, sinking groundline and trawling-up where operationally feasible to reduce total vertical lines. Promote extra traps to trawl and promote ma trawl length not to exceed 1.5 in Area 1.	All volunteer vessels	Demonstrated reduction in line count per trap and fewer surface lines.
D. Documentation & Feedback	Participants record gear configuration, trip data, and observations via short monthly reports or photo logs.	All volunteer vessels	Verified evidence of gear trials and changes in practice.

5. Participation Process

1. **Sign-Up:** Dealers are working with fisherman for support. Given option to sign up to the *Maine DMR Alternative Gear Program* or participate in the above various gear adaptations
 2. **Orientation:** Participants receive a short briefing and sample gear-marking or weak-link kits as needed.
 3. **Trial & Record:** Crews install modifications during normal fishing operations. Each vessel keeps brief notes or photos showing the configuration used and any issues observed.
 4. **Follow-Up:** FIP team and technical partner Robert Martin conduct dockside visits to collect data and discuss results.
 5. **Recognition:** Participating vessels will be recognized within the FIP report as contributing to measurable improvements in fishing practice.
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6. Support & Resources

- **Gear Materials:** Limited supplies of line-marking kits and break-away components will be provided at no cost to early participants.
 - **Technical Assistance:** Robert Martin and FIP staff will be available to assist with safe installation and field testing.
 - **Data & Confidentiality:** All vessel data will be recorded anonymously and used only for aggregate reporting in FIP progress updates.
 - **Funding:** Costs may be offset through project funds and partner contributions; fishermen will not bear additional financial burden during the testing phase.
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7. Expected Outcomes

- Fishermen agreed to test and report on modified gear.
 - Observed voluntary changes in gear marking, break-away adoption, or trawl length. For example: to start in Maine federal waters our participants will add an additional purple and green marks and in state waters and an extra purple mark. As for breakaway we expect Zones F and G federal waters 3-12 miles add an extra weak contrivance and outside of 12 miles when possible, position 25% and 50% down the vertical line Both these adaptations are over and beyond regulatory requirements in these areas. This will create a clear path to a regulatory change for these adaptations
 - Clear evidence of **supply-chain collaboration** as processors and dealers encourage participation.
 - Continuous improvement foundation enabling future pilot testing of advanced gear where appropriate.
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8. Monitoring & Reporting

- Periodic updates will compile summary results of gear testing and feedback.
 - Progress summaries will be submitted through the FisheryProgress.org portal under the US Gulf of Maine & Georges Bank Lobster Pot/Trap FIP Workplan.
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9. Participation (Will be tracked internal and recorded according to Fishery progress requirements)

- **Option A:** *Maine DMR Alternative Gear Participation Form*
 - **Option B:** *Signed FIP gear adaption participation form*
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The following plan represents East Coast Lobster and its supply chain participants, involvement in gear adaption efforts, directed through the US Gulf of Maine & Georges Bank Lobster -pot/trap FIP.

Greenhead Lobster

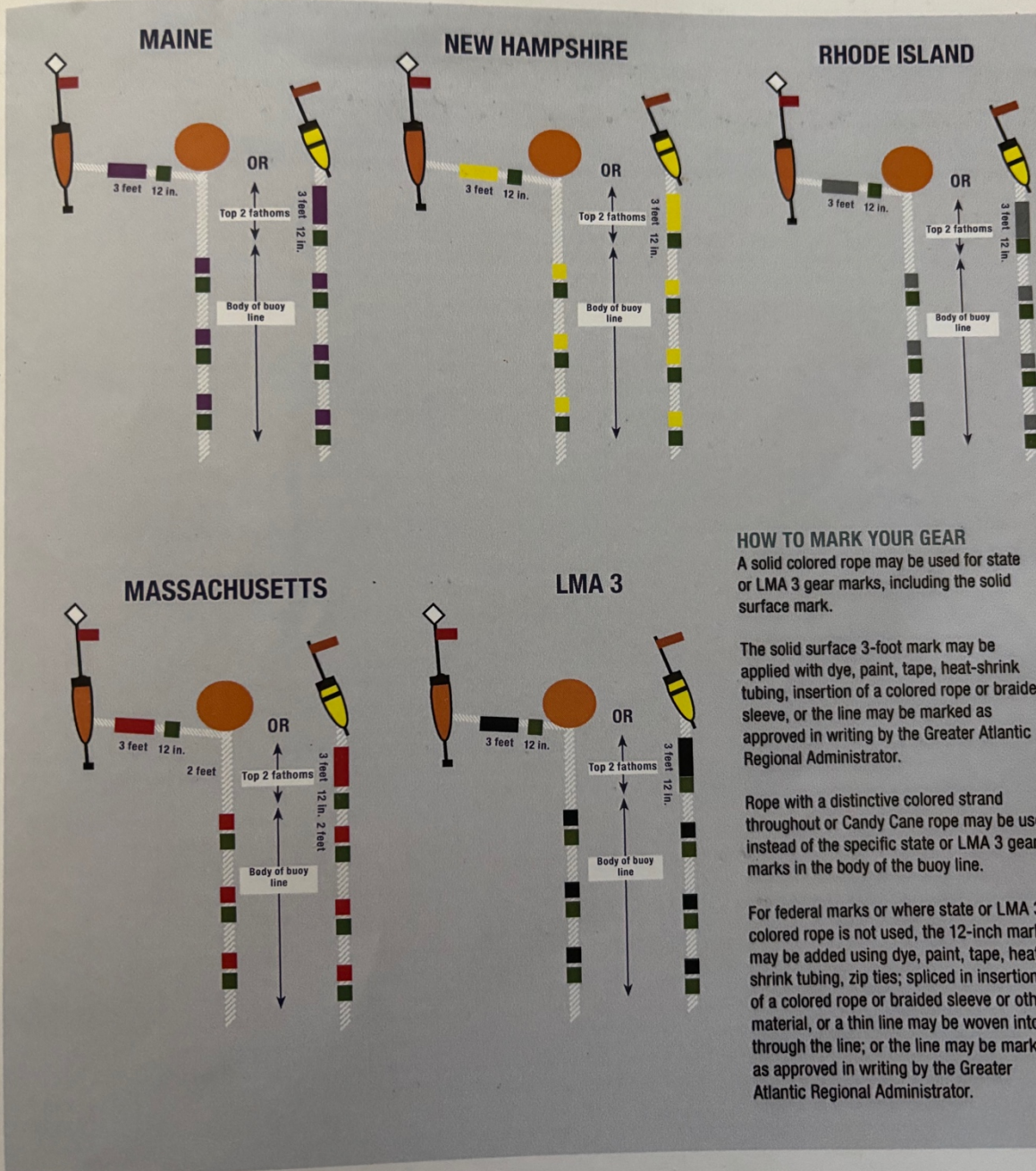
Hugh Rynolds CEO

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APENDIX A: CURRENT GEAR REQUIREMENTS

EXAMPLES OF LOBSTER AND JONAH CRAB GEAR MARKING FOR FEDERAL WATERS

AREA COLOR IS BASED ON PERMIT'S PRINCIPAL PORT (NON-LMA 3) OR LMA 3 PERMIT



HOW TO MARK YOUR GEAR

A solid colored rope may be used for state or LMA 3 gear marks, including the solid surface mark.

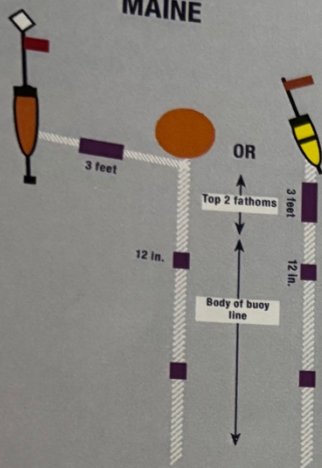
The solid surface 3-foot mark may be applied with dye, paint, tape, heat-shrink tubing, insertion of a colored rope or braided sleeve, or the line may be marked as approved in writing by the Greater Atlantic Regional Administrator.

Rope with a distinctive colored strand throughout or Candy Cane rope may be used instead of the specific state or LMA 3 gear marks in the body of the buoy line.

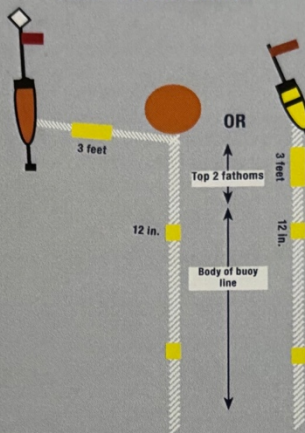
For federal marks or where state or LMA 3 colored rope is not used, the 12-inch marks may be added using dye, paint, tape, heat-shrink tubing, zip ties; spliced in insertion of a colored rope or braided sleeve or other material, or a thin line may be woven into or through the line; or the line may be marked as approved in writing by the Greater Atlantic Regional Administrator.

EXAMPLES OF LOBSTER AND JONAH CRAB GEAR MARKING FOR STATE WATERS

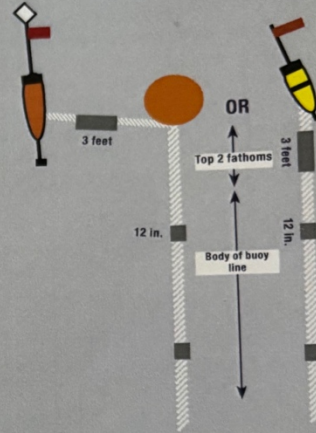
MAINE



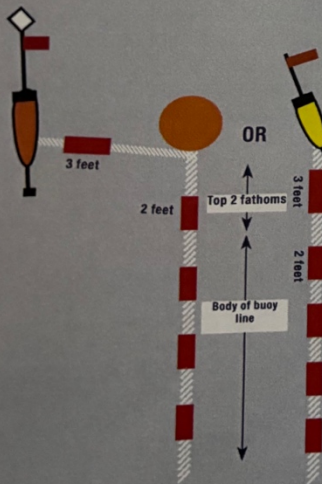
NEW HAMPSHIRE



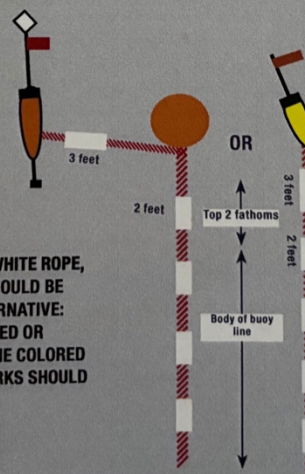
RHODE ISLAND



MASSACHUSETTS



IF USING WHITE ROPE, MARKS SHOULD BE RED. ALTERNATIVE: IF USING RED OR CANDYCANE COLORED ROPE, MARKS SHOULD BE WHITE.



HOW TO MARK YOUR GEAR

A solid colored rope may be used for state gear marks, including the solid surface mark.

The solid surface 3-foot mark may be applied with dye, paint, tape, heat-shrink tubing, insertion of a colored rope or braided sleeve, or the line may be marked as approved in writing by the Greater Atlantic Regional Administrator.

Rope with a distinctive colored strand throughout or Candy Cane rope may be used instead of the specific state gear marks in the body of the buoy line.

The state 12-inch marks may be added using dye, paint, tape, heat-shrink tubing, zip ties; spliced in insertion of a colored rope or braided sleeve or other material, or a thin line may be woven into or through the line; or the line may be marked as approved in writing by the Greater Atlantic Regional Administrator.

NORTHEAST LOBSTER AND JONAH CRAB GEAR MARKING FOR STATE WATERS

The following text describes gear marking requirements for lobster and Jonah crab trap/pot gear in Northeast state waters. Check with your state agency for the latest information on state gear marking requirements, including in Maine Exempt Waters. The information below is subject to change by the states. Please check with your state for the most up-to-date regulations.

For the purpose of this document, the terms "surface system" means any combination of buoys and highfliers connected to each other on the surface and "body of the buoy line" means that portion of the buoy line that connects the trap or groundline to the surface buoy or surface system.

MAINE

You must have at least 3 PURPLE marks: 1 within 2 fathoms of the surface buoy or surface system and 2 more in the body of the buoy line:

- One 3-foot SOLID PURPLE mark within 2 fathoms of the surface buoy or system; and
- One 12-inch PURPLE mark in the top 50% of the body of the buoy line and one 12-inch PURPLE mark in the bottom 50% of the body of the buoy line.

Maine Exempt Waters have different state requirements that are not included here.

NEW HAMPSHIRE

You must have at least 3 YELLOW marks: 1 within 2 fathoms of the surface buoy or system and 2 more inbody of the buoy line:

- One 3-foot SOLID YELLOW mark within 2 fathoms of the surface buoy or surface system; and
- One 12-inch YELLOW mark in the top 50% of buoy line and one 12-inch YELLOW mark in the bottom 50% body of the buoy line.

MASSACHUSETTS

You must have at least 5 RED marks: 1 within 2 fathoms of the surface buoy or surface system, and 4 more in the body of the buoy line:

- One 3-foot SOLID RED mark within the top 2 fathoms of rope, below the surface buoy or surface system; and
- Four 2-foot RED marks; two in the top 50% of the buoy line and two 2-foot RED marks in the bottom 50% of the body of the buoy line.

There must be at least one solid or non-solid RED mark every 60 feet within the body of the buoy line.

If you are using weak inserts that are RED (such as an insert of weak CANDYCANE or RED rope or has a RED tracer in it), then the weak insert may double as a RED mark in the body of the buoy line.

If the buoy line is RED or RED/WHITE (CANDYCANE), WHITE marks must be substituted for RED marks.

RHODE ISLAND

You must have at least 3 SILVER/GRAY marks: 1 within 2 fathoms of the surface buoy or surface system and 2 more in the body of the buoy line:

- One 3-foot SOLID SILVER/GRAY mark within 2 fathoms of surface buoy or surface system; and
- One 12-inch SILVER/GRAY mark in the top 50% of buoy line and one 12-inch SILVER/GRAY mark in the bottom 50% body of the buoy line.



ATLANTIC LARGE WHALE TAKE REDUCTION PLAN NORTHEAST LOBSTER AND JONAH CRAB GEAR MARKING REQUIREMENTS

NORTHEAST LOBSTER AND JONAH CRAB GEAR MARKING FOR FEDERAL WATERS

The following text describes gear marking requirements for lobster and Jonah crab trap/pot gear in Northeast federal waters. Requirements for all other management areas and other fisheries remain the same. These requirements represent the minimum markings. Additional markings are also allowed. Visit www.fisheries.noaa.gov/alwtrp for complete regulations.

For the purpose of this document, the terms "surface system" means any combination of buoys and highfliers connected to each other on the surface and "body of the buoy line" means that portion of the buoy line that connects the trap or groundline to the surface buoy or

AREA COLOR IS BASED ON PERMIT'S PRINCIPAL PORT (NON-LMA 3) OR LMA 3 PERMIT

MAINE

You must have at least 4 sets (PURPLE and GREEN) of marks: 1 set within 2 fathoms of the surface buoy or surface system, and 3 more in the body of the buoy line:

- One 3-foot SOLID PURPLE mark within 6 inches of one 12-inch GREEN mark in the top 2 fathoms of surface buoy or surface system; and
- One 12-inch PURPLE mark within 6 inches of one 12-inch GREEN mark at the top, middle, and bottom of the body of the buoy line.

NEW HAMPSHIRE

You must have at least 4 sets (YELLOW and GREEN) of marks: 1 set within 2 fathoms of the surface buoy or surface system and 3 more in the body of the buoy line:

- One 3-foot SOLID YELLOW mark within 6 inches of one 12-inch GREEN mark in the top 2 fathoms of surface buoy or surface system; and
- One 12-inch YELLOW mark within 6 inches of one 12-inch GREEN mark at the top, middle, and bottom of the body of the buoy line.

MASSACHUSETTS

You must have at least 4 sets (RED and GREEN) of marks: 1 set within 2 fathoms of the surface buoy or surface system, and 3 more in the body of the buoy line:

- One 3-foot SOLID RED mark within 6 inches of one 12-inch SOLID GREEN* mark in the top 2 fathoms of surface buoy or surface system; and
- One 12-inch RED mark (may be longer) within 6 inches of one 12-inch GREEN mark at the top, middle, and bottom of the body of the buoy line.
- If you have line marked at every 60 feet as required by the state, there must be a GREEN mark next to all RED state marks.

*Solid green marks in the surface systems are required by state regulations.

RHODE ISLAND

You must have at least 4 sets (SILVER/GRAY and GREEN) of marks: 1 set within 2 fathoms of the surface buoy or surface system and 3 more in the body of the buoy line:

- One 3-foot SOLID SILVER/GRAY mark within 6 inches of one 12-inch GREEN mark in the top 2 fathoms of surface buoy or surface system; and
- One 12-inch SILVER/GRAY mark within 6 inches of a 12-inch GREEN mark at the top, middle, and bottom of the body of the buoy line.

LMA 3

You must have at least 4 sets (BLACK and GREEN) of marks: 1 set within 2 fathoms of the surface buoy or surface system and 3 more in the body of the buoy line:

- One 3-foot SOLID BLACK mark within 6 inches of one 12-inch GREEN mark in the top 2 fathoms of the surface buoy or surface system; and
- One 12-inch BLACK mark within 6 inches of a 12-inch GREEN mark at the top, middle, and bottom of the body of the buoy line.