



**NOAA
FISHERIES**

Joint Mid-Atlantic & New England Council Omnibus Alternative Gear-Marking Framework Adjustment

September 2025

Caroline Potter, Allison Murphy



Take Home Messages

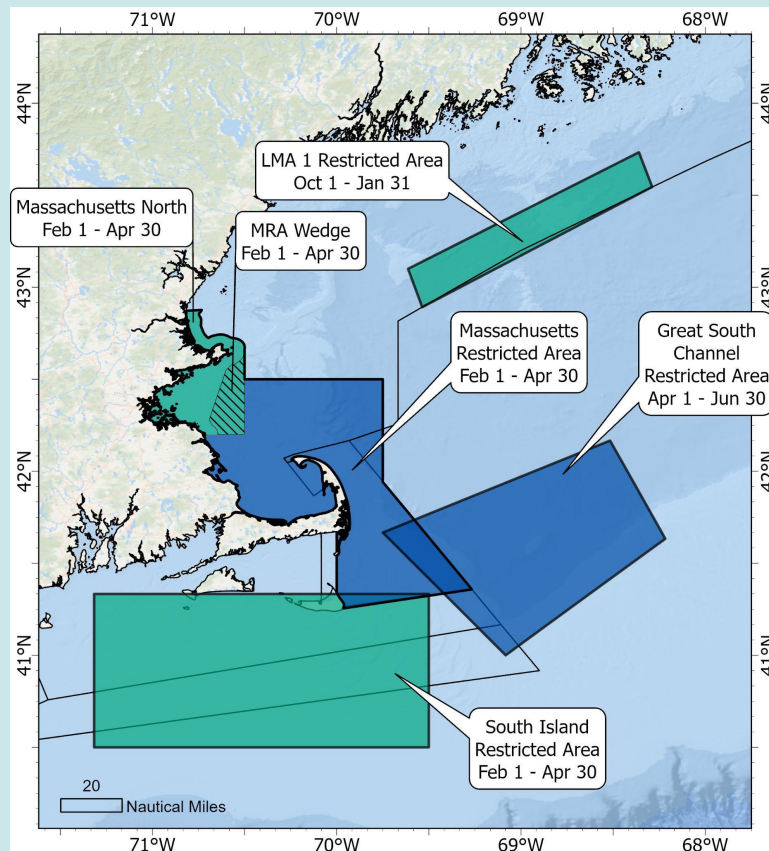
- Objective of this action is to provide additional fishing opportunities for fixed-gear fishermen
- Action focuses on gear marking of on-demand fishing
- This action would **not** allow the immediate use of on-demand fishing until additional steps are taken
 - Additional research is needed and work is ongoing to develop all aspects of an operational on-demand fishery
 - Future approval of gear will be necessary
- Action would **NOT**:
 - limit the use of current gear marking methods
 - require the use of alternatively marked gear
- Intend to provide more opportunities for public input

Action Summary

- Considers allowing alternative (i.e. digital) gear marking as another option to the currently required physical surface markings
 - Current gear-marking regulations require radar reflectors, pennants, highflyers, buoys, etc.
- Could allow (although, not immediately) the use of fixed gear without persistent vertical lines (such as on-demand rigged fishing gear)
- Changes could apply to all fixed-gear fisheries in the Northeastern US
- Would not limit the use of current gear-marking methods
- Would not require the use of gear-marking alternatives or on-demand gear

Take Reduction Plan (TRP): Seasonal Closures to Buoy Lines

Current Northeast Lobster/Jonah crab Trap/Pot Restricted Areas



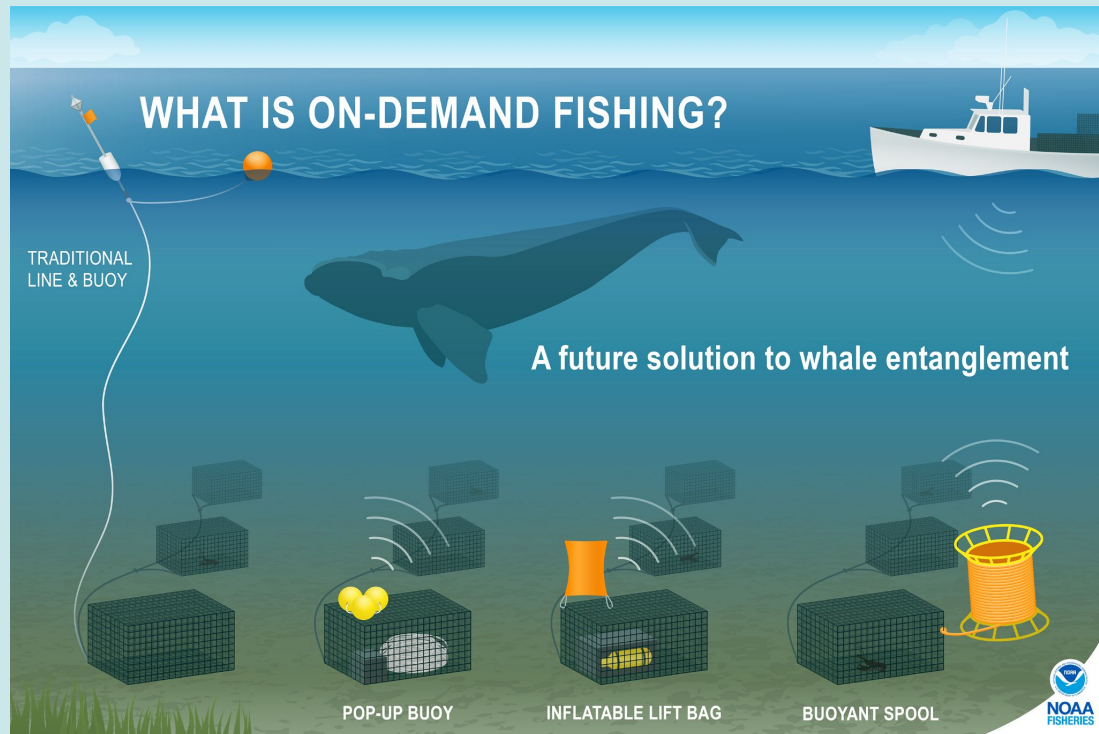
In 2021, TRP closures were expanded and modified from seasonal fishing closures to *persistent buoy line* closures for Northeast lobster and Jonah crab trap/pot gear

Federal fishery regulations in 50 CFR 648 and §697 require surface marking of fixed gear to enable other fishermen to see and avoid gear - preventing access to these areas

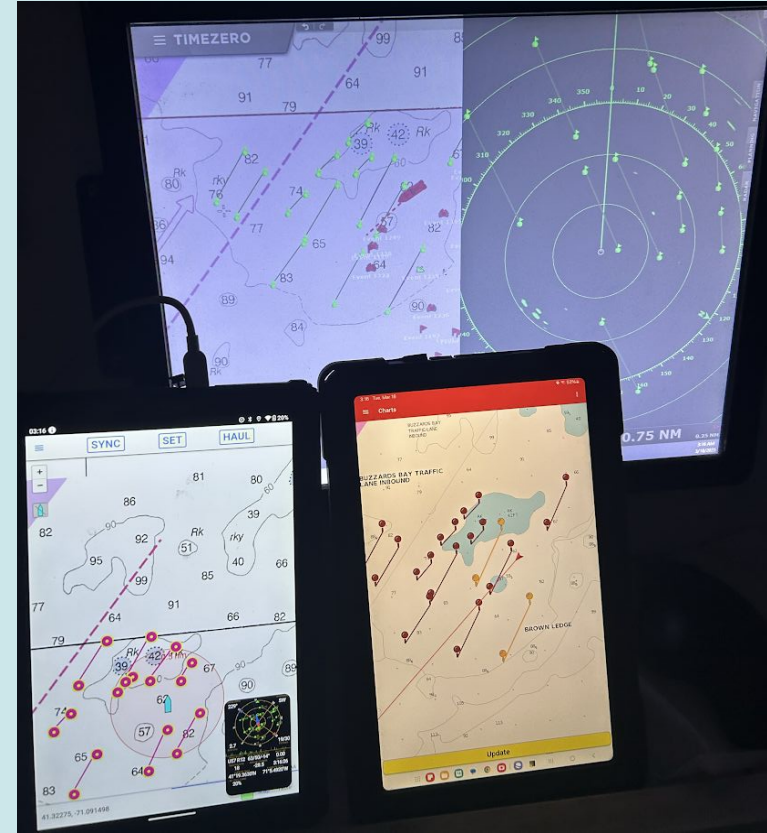
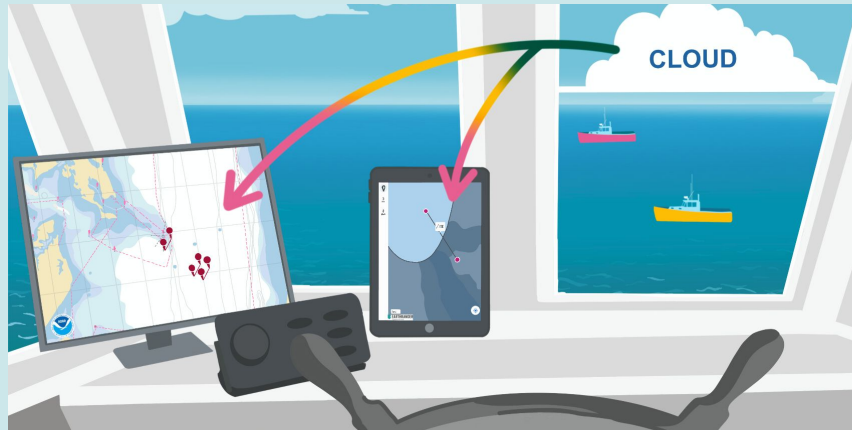
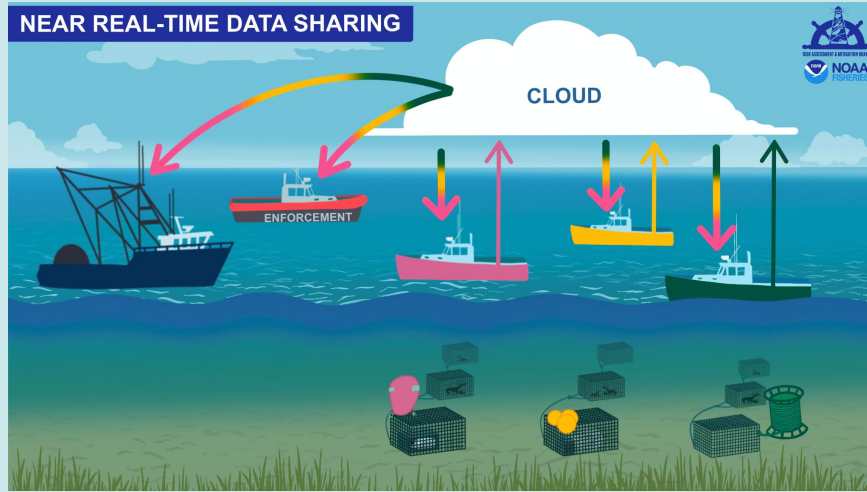
Changing gear-marking regulations could allow for increased fishing access, in the future, for fixed-gear fishermen for all fisheries with TRP restricted areas

Allowing Gear Without Persistent Buoy Lines

- Revise regulations to allow for alternative (i.e., digital) gear marking
- Regulations would require current gear marking requirements OR a functionally equivalent alternative



Potential Future of Gear-Marking Alternatives



Current Alternative Gear-Marking Research

- **NOAA NEFSC EFP on-demand research** ongoing since 2020 with 77 vessels
 - Over 15,500 hauls of traps, pots, and gillnets using on-demand retrieval
 - Gear from 10 manufacturers working as expected 90% of the time
 - Other long-term research ongoing in ME, MA, CA, and Canada
 - CA dungeness and CN snow crab fisheries accessing otherwise closed areas
- **Alt. gear marking, sharing, and visualization research** ongoing since 2021
 - Solutions are interoperable
 - Visualization tools include free mobile app (ER Buoy), TimeZero V5, Olex (coming ASAP), and other brands (Garmen, etc) in the works
 - At sea satellite internet connectivity to receive gear set locations in real time. Broadband and Iridium solutions are being investigated
 - Broadband Satellite - 50 GB Starlink data plan (~\$250/mo)
 - Iridium Satellite - Blue Ocean Gear is developing a device to display gear markers on 7 different chartplotters (~\$25/mo)

Alternative Set 1: Authorization of Approved Gear-Marking Alternatives

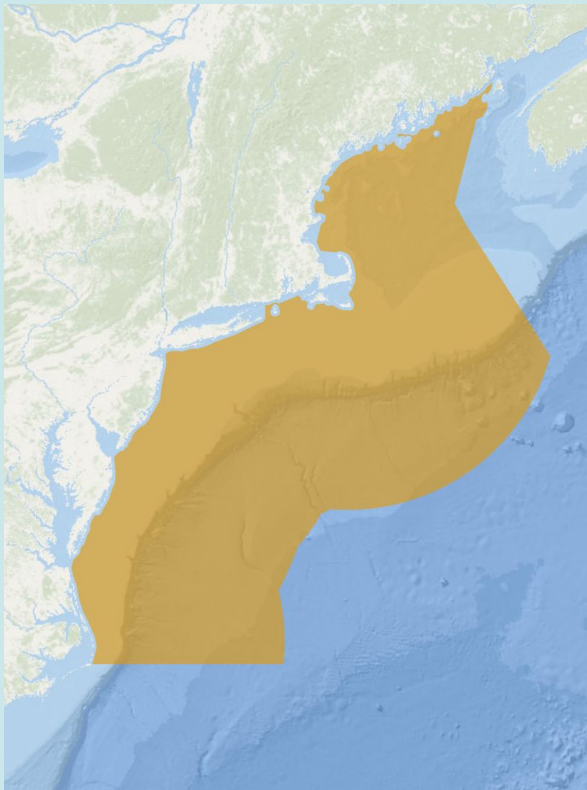
Alternative 1A: No Action. This alternative would not allow for alternative gear marking and would continue to require current surface markings (radar reflectors, highflyers, etc.).

Alternative 1B: Region-wide alternative gear marking. would allow the use of alternative gear marking in all Federal waters within the Greater Atlantic Region (ME thru Cape Hatteras, NC).

Alternative 1C: Spatially and temporally limited alternative gear marking. would allow alternative gear marking during and within persistent buoy line restricted areas established by the Atlantic Large Whale Take Reduction Plan within the Greater Atlantic Region.

Alternative 1D: Spatially limited alternative gear marking. would allow alternative gear marking within persistent buoy line restricted areas established by the Atlantic Large Whale Take Reduction Plan within the Greater Atlantic Region during closures and in the same geographical areas when closures are not in place.

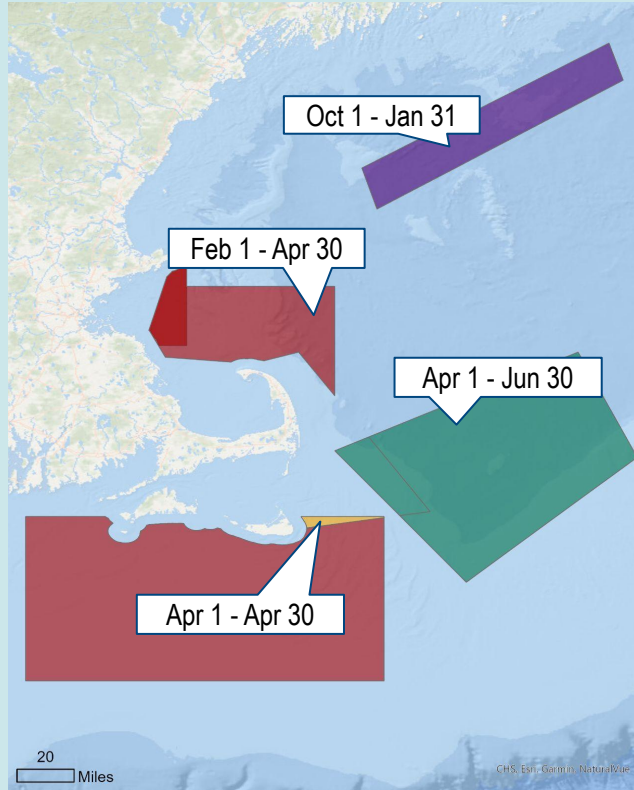
Alternative Set 1: Authorization of Approved Gear-Marking Alternatives



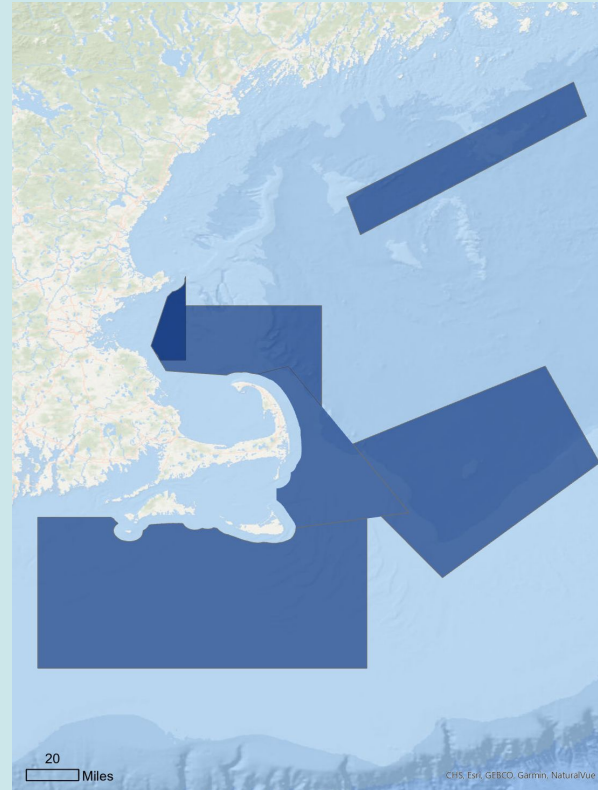
1B: Region-wide



NOAA FISHERIES



1C: Spatially & temporally limited



1D: Spatially limited*

Alternative Set 2: Letter of Authorization and Knowledge Demonstration Requirements to Use Approved Gear-Marking Alternatives

Alternative 2A: No Action. This alternative would not require a person to demonstrate knowledge of how to mark gear with any approved gear-marking alternatives.

Alternative 2B: Letter of Authorization and Demonstration of Knowledge Requirement. would require a person to obtain a Letter of Authorization documenting that they have demonstrated knowledge of how to mark gear with an approved gear-marking alternative.

Alternative 2C: Letter of Authorization Only. would require a person to obtain a Letter of Authorization to use a gear-marking alternative but would not require the demonstration of knowledge to obtain the Letter of Authorization.

Functional Equivalence

Gear-marking alternatives would be approved based on functional equivalence to current gear marking

Essential Elements of a Functional Equivalent

- **Detectability:** ocean users are able to locate gear
- **Retrievability:** gear must have an identified means of retrieval
- **Identification:** gear is marked with identifying information
- **Enforceability:** enforcement can locate, retrieve, and redeploy gear

Beneficial Elements of a Functional Equivalent

- **Viewing distance:** gear can be detected from a similar minimum distance as current surface markings
- **Set direction:** gear's set direction is identifiable
- **Timing:** gear location info is accessible by others at the time of deployment and while it persists in the water



Action Timeline

April 2025	NEFMC & MAFMC initiated action
May 2025	ASMFC received updates
June 2025	NEFMC & MAFMC received updates
August 2025	ASMFC received updates
September 2025	NEFMC takes final action
October 2025	MAFMC takes final action; ASMFC receives updates on final action
2026	Rulemaking

Even after rulemaking, gear-marking alternatives would need to be approved before use

Discussion Questions

- What are your concerns regarding this action?
- What are your thoughts on the alternatives?
- How widely have vessels in your area adopted internet capability (i.e., Starlink)?
- Are there any other aspects of functional equivalence that have not yet been described?
 - Is there a specific minimum viewing distance you would recommend based on your operations? Is there an ideal distance?
- Any other thoughts?