Draft Ropeless Roadmap: A Strategy to Develop On-Demand Fishing

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Overview

1. **Review the goals of the Ropeless Roadmap**
   - **Why is a roadmap needed?**
   - **Purpose of this document**

2. **Describe contents of the Roadmap**
   - **On-demand gear testing and adoption**
   - **Regulatory changes needed**

3. **Discuss next steps and future**
   - **Soliciting feedback from the public**
   - **Plans for engagement with stakeholders**

Technology Development and Testing — Step 1

Resolving Gear Conflict — Step 2

Expanded Experimental Fishing — Step 3

Fishery Management Plan and Other Regulatory Changes — Step 4

Use this QR code or https://bit.ly/3GHOIdE to submit feedback.

U.S. Department of Commerce | National Oceanic and Atmospheric Administration | National Marine Fisheries Service

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Key Points Up Front

1. **The Ropeless Roadmap lays out one possible path forward**

2. **Input and guidance from everyone involved will improve our outlook**

3. **This document does not envision on-demand fishing for everyone, everywhere**
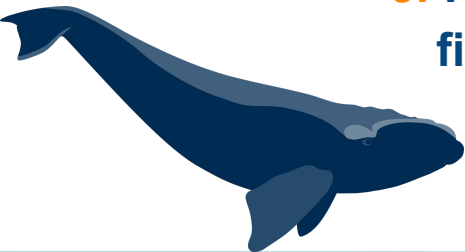
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Why a Ropeless Roadmap?

- To respond to the urgent conservation crisis facing North Atlantic right whales
- To provide a vision of on-demand fishing gear adoption throughout fixed gear fisheries in our region
- To align partners and stakeholders in understanding technological and regulatory changes needed

WHAT IS ON-DEMAND FISHING?

TRADITIONAL ROPE & BUOY

A future solution to whale entanglement

POP-UP BUOY   INFLATABLE LIFT BAG   BUOYANT SPOOL

Purpose of the Ropeless Roadmap

- To begin a conversation on how on-demand gear will be tested and adopted under new and existing regulatory frameworks
- To clarify what roles marine mammal and fisheries management stakeholders play in the development of on-demand fishing
- To collect and incorporate feedback from key partners and from the public on our next steps

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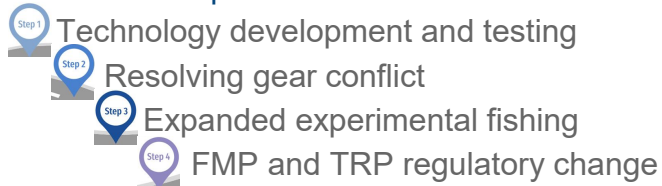
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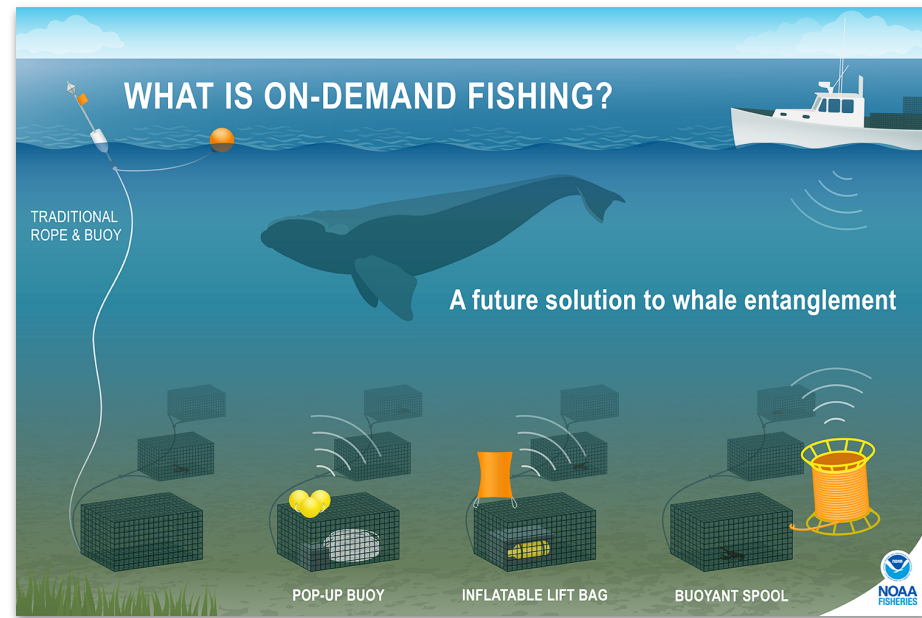
Ropeless Roadmap Outline

- **On-Demand Fishing Gear**
  - What is on-demand fishing gear?
  - Why is on-demand fishing gear needed?
  - Availability of on-demand fishing gear

- **Using On-Demand Fishing Gear**
  - Regulatory requirements
  - Steps of development:
    - Technology development and testing
    - Resolving gear conflict
    - Expanded experimental fishing
    - FMP and TRP regulatory change
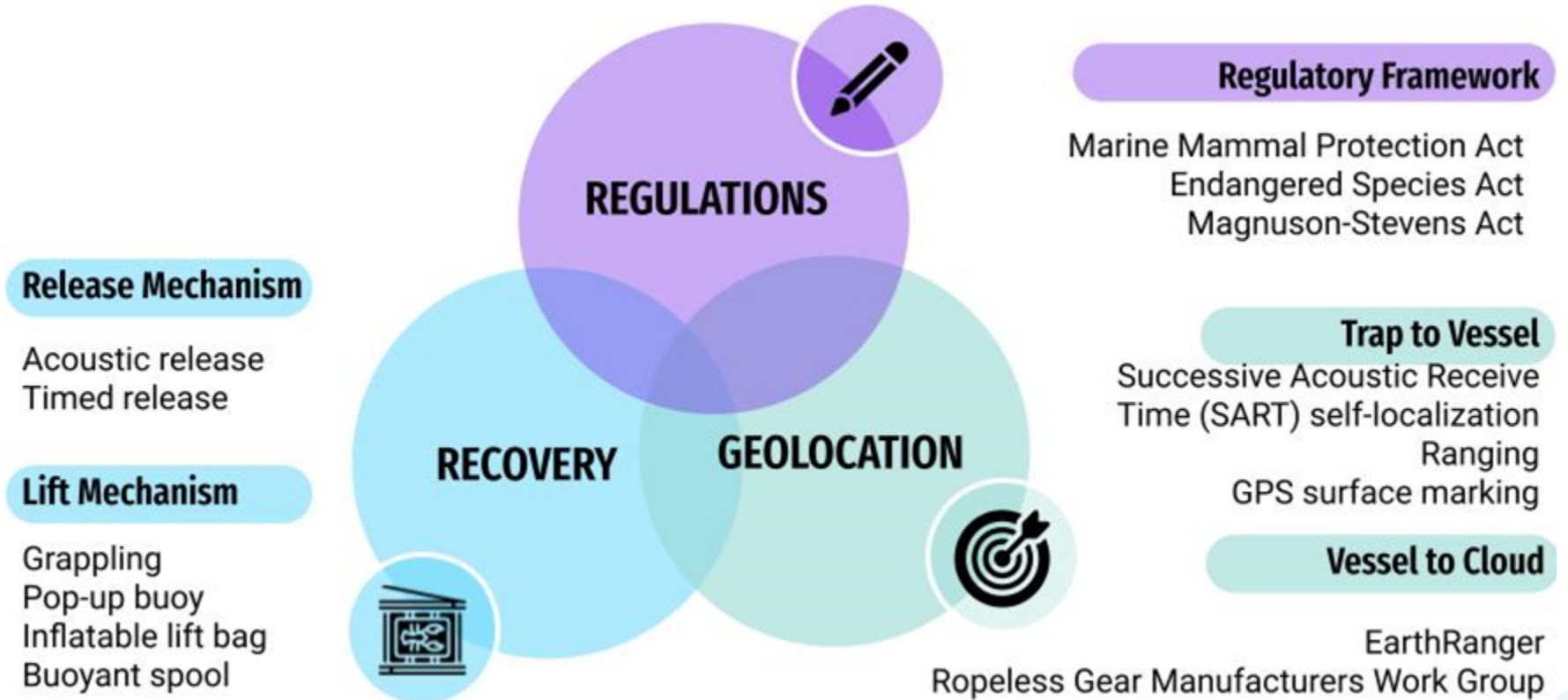
- **Where is On-Demand Fishing Gear Needed?**
  - Areas currently (and potentially proposed to be) restricted under the Atlantic Large Whale Take Reduction Plan

- **Locating Deployed On-Demand Fishing Gear**
  - Current developments in interoperable geolocation technologies
  - NOAA supports open-standard/interoperable geolocation technologies

On-Demand Roadmap

Technology Development and Testing — Operationalize gear designed to be deployed and recovered without a persistent buoy line and use a geolocation system to avoid gear conflict — Step 1

Resolving Gear Conflict — Test the geolocation software to reduce gear conflict in coordination with mobile and fixed gear vessels — Step 2

Expanded Experimental Fishing — EFPs for experimental fisheries to test on-demand fishing at larger scales — Step 3

Fishery Management Plan and Other Regulatory Changes — Regulatory actions developed that take advantage of the full potential of on-demand technology — Step 4

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The Development of On-Demand Fishing

REGULATIONS

RECOVERY

GEOLOCATION

Regulatory Framework

Marine Mammal Protection Act
Endangered Species Act
Magnuson-Stevens Act

Release Mechanism

Acoustic release
Timed release

Lift Mechanism

Grappling
Pop-up buoy
Inflatable lift bag
Buoyant spool

Trap to Vessel

Successive Acoustic Receive
Time (SART) self-localization
Ranging
GPS surface marking

Vessel to Cloud

EarthRanger
Ropeless Gear Manufacturers Work Group

On Demand Roadmap: Four Steps Toward Broader Adoption

Technology Development and Testing — Step 1

Resolving Gear Conflict — Step 2

Expanded Experimental Fishing — Step 3

Fishery Management Plan and Other Regulatory Changes — Step 4

Step 1: Technology Development and Testing

Step 1

Gear Research Development Cycle Partnerships

Working with industry throughout the entire documentation, design, and testing phases
is essential to achieve a working solution and increases industry ownership

fishermen | scientists | managers

1 Identify Problem
All partners help identify gear innovation projects

2 Bycatch Analysis
Scientists determine the spatial and temporal extent of the bycatch interactions

3 Gear Design
Fishermen and scientists collaborate on modified gear design to reduce bycatch

4 Pilot Study
Fishermen and scientists test the feasibility of the proposed gear modifications

5 Test Gear
Fishermen and scientists test the experimental gear, and redesign as needed

6 Experimental Fishery
Observers track gear effectiveness in an experimental fishery

7 Scientific Guidance
Northeast Fisheries Science Center (NEFSC) makes scientific recommendations

8 Decision Making
NMFS/Greater Atlantic Regional Fisheries Office makes policy decisions

Ongoing in 2022:

- Working together with fishermen to trial on-demand systems via EFPs and LOAs

- Continue to accelerate research, development, and refinement of systems

Step 2: Resolving Gear Conflict

Beginning in 2022:

- Testing effectiveness of geolocation software and cloud database systems

- Testing feasibility of surface marked positions and using acoustics to increase precision of gear position on seafloor

- Open source/non-proprietary geolocation technologies

- Potential for allowing marking 1 end of trawl or gillnet

Step 3: Expand Experimental Fishing

2023 and beyond:

- Exempted Fishing Permits to test on-demand fishing technologies and practices at larger scales

- Potential scenarios:
  - Single line trawls
  - Limited access to closures

Step 4: Fishery Management Plan and Other Regulatory Changes

2023 and beyond:

- Engage and coordinate with stakeholders

- Vision for future regulatory action must be adaptable

- Consider stepwise approach to changes supporting on-demand fishing

Step 4

On-demand fishing enables access to restricted areas

- Restricted areas closed to vertical lines are an effective tool to remove entanglement risk

- On-demand fishing provides access to otherwise restricted areas (trap/pot restricted areas at right)

- On-demand gear will increasingly be important for fishing in current (and any proposed future) restricted areas
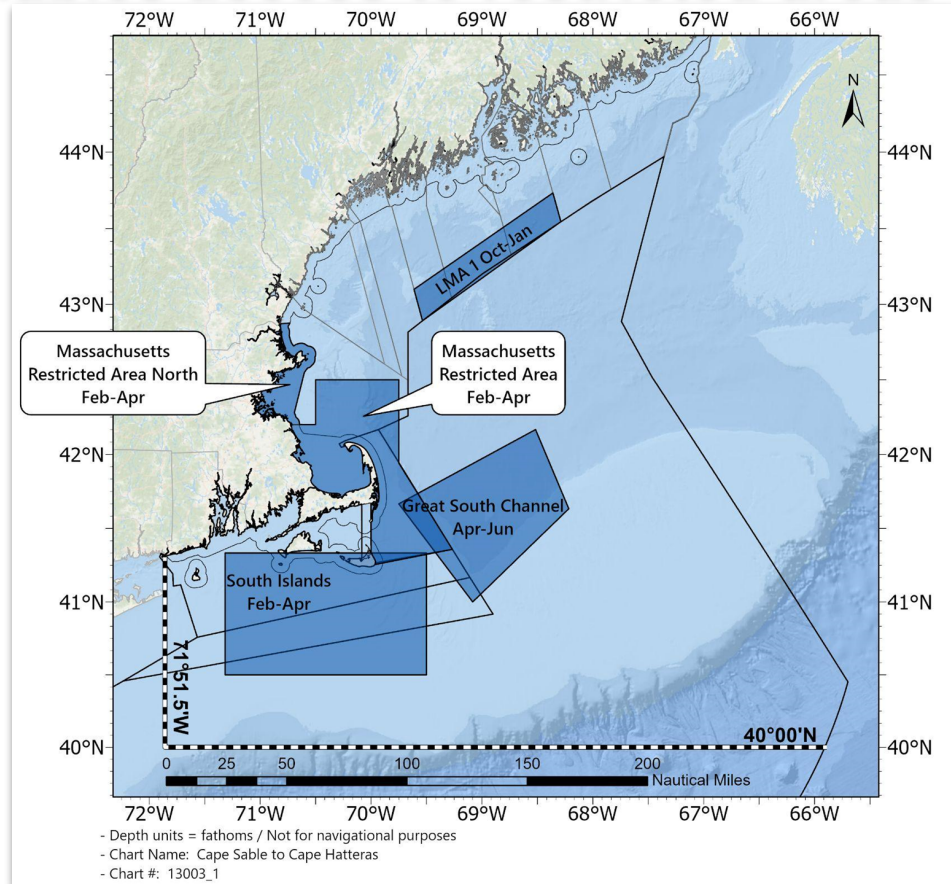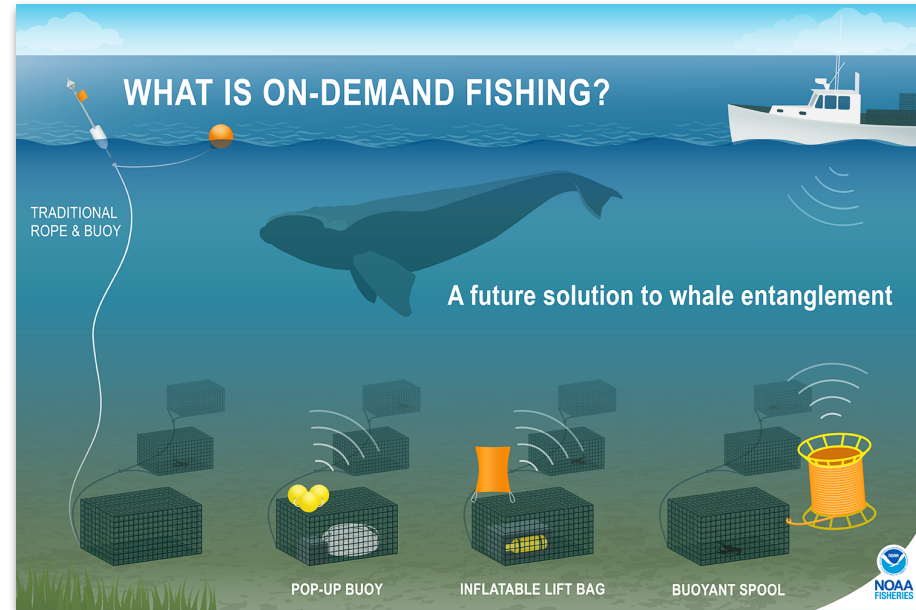
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- **Summary**
  - Roadmap outlines NOAA's goals and intentions to engage with partners
  - On-demand fishing shows promise in allowing fishing in otherwise restricted areas
  - More testing, experimental fishing, and regulatory change is needed
  - Stakeholder support is critical to success

- **Next Steps**
  - Engagement with industry on Roadmap through the ALWTRT and other state partners
  - Continued engagement in fisheries management through ASMFC, NEFMC, MAFMC, and SAFMC
  - Feedback form open through December 31, 2022

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Seeking Feedback from the Public

NOAA's Roadmap to On-Demand Fishing

NOAA's Roadmap to On-Demand Fishing is intended for a broad audience to serve as a plan for future research, engagement, and policy change to enable the continued development of on-demand fishing. We welcome feedback on this document to incorporate the perspectives of all stakeholders involved in these processes and to ensure that all voices are heard to help guide our next steps. We intend to revise the roadmap over time and would like it to serve as a living document to provide our vision for proceeding through this rapidly evolving landscape. Please submit your feedback below.

* Required

Email *

We are collecting feedback from partners and stakeholders through December 31, 2022

Visit us at https://bit.ly/3GHOIdE or use the QR code below to submit feedback.