

On-Demand Interoperability Workshop Final Agenda November 28 to 30, 2023

Hosted by NOAA Fisheries
Hilton Boston/Woburn
2 Forbes Road, Woburn, MA

Zoom Link for Days 1 and 2:

<https://us06web.zoom.us/meeting/register/tZAocuuuqTkvh9FvAHXrJNCo6jZLraHeMhtX>

Workshop purpose and objectives

Collecting, transmitting, and visualizing on-demand gear location information in near real-time is challenging. Fishing vessels have different onboard technology, most lack internet connectivity, and there are many companies offering different approaches for deploying, tracking, and retrieving on-demand fishing gear. This workshop includes on-demand gear manufacturers, underwater acoustics experts, fishing industry leaders, federal and state fishery managers, and other relevant partners to discuss different acoustic communication protocols and data standards that could support the interoperability of on-demand fishing. The purpose of this workshop is to obtain information or viewpoints from individual attendees, not advice, opinions or recommendations from the group acting as a collective. Information collected at the workshop will contribute to the range of information that informs next steps for how on-demand fishing gear can be deployed and the pathways to share and visualize subsurface gear location data among fishermen and other ocean users. The objectives for this workshop include the following:

Provide participants with an understanding of the important fishery management drivers and regulatory requirements of traditional gear-marking systems.

: Develop a shared understanding of the functional needs of fishermen, enforcement, and managers in an operational commercial scale on-demand fishing program.

: Discuss possible technical approaches to implementing acoustic and data interoperability standards of a commercial scale on-demand fishing systems

: Identify future technical and regulatory steps to implement on-demand fishing and establish opportunities for continued communication and collaboration across all stakeholders.

Federal Constraints to Deliberations

- *Federal Advisory Committee Act (FACA):* The purpose of this workshop is obtaining information and viewpoints from individual attendees, not advice, opinions or recommendations from the group acting as a collective given that this is not a formal Federal Advisory Committee under FACA. No collective decisions will be made at the workshop. Rather, the information provided and viewpoints expressed will contribute to the range of data that informs next steps
- *Statement to Manufacturers and Service Providers:* This workshop is not a demonstration or examination of your products or their capabilities. Please limit your commentary to the nature and qualities of various technologies, systems, and standards without specific reference to your products.

Workshop Ground Rules

- Active participation from multiple sectors, focusing on the HOW not the if or the why.
- Pre-competitive conversation given the diverse companies in the workshop.
- Remain open-minded.
- Explore with good questions, deep background knowledge, and a spirit of “can do.”
- Focus on the practical and technical.
- Non-decisional and not seeking consensus from the group.
- Viewpoints should be from individual attendees and not from the collective group.
- Please don't attribute statements by individuals outside the room to encourage open discussion but please do share the content.
- We are not recording audio or video of the workshop. To promote productive discussion we request that all workshop participants also refrain from recording audio or video.

Agenda Day 1: 28 November 2023

Morning: Inform and Educate on Background and Needs

Time	Event, Presenter, Materials, and Discussion
8:00	Registration (coffee provided)
8:30	Welcome <ul style="list-style-type: none">● <i>Sean Hayes, NOAA Fisheries, and Brett Gilchrist, Fisheries & Oceans Canada</i>
8:45	The purpose, goals, and intent of this Workshop <ul style="list-style-type: none">● <i>Brett Alger, NOAA Fisheries, and Patrick Field, CBI</i>● What we hope to accomplish, how we are doing it, expectations for the workshop, and what happens after
9:00	U.S. Management Background <ul style="list-style-type: none">● <i>Jennifer Goebel, ALWTRT Coordinator, NOAA Fisheries</i>● TRT recommendations, regulatory steps and timelines, Congressional Action
9:20	: A strategy for whalesafe gear in Canadian fisheries <ul style="list-style-type: none">● <i>Cathy Merriman, Senior Analyst, National Programs, Fisheries & Oceans Canada</i>● Canadian context for management and current regulations
9:40	Traditional Gear Marking Requirements in the U.S. <ul style="list-style-type: none">● <u>Materials:</u> <i>Buoy Functions Chart</i>● <i>Colleen Coogan, NOAA Fisheries</i>● Replacing the traditional technology with similar or better, potential regulatory processes for doing so; overview of current elements of the buoy system
10:15	BREAK
10:30	: Developing functional needs and requirements <ul style="list-style-type: none">● <u>Materials:</u> <i>Fisheries Information System (FIS) Stakeholder Engagement Workshops Report: Stakeholder input on data fields for an on-demand fishing geolocation cloud database</i>● <i>Brian Galvez, NOAA Fisheries</i>
11:00	: Requirements for a Gear Location Marking System

Time	Event, Presenter, Materials, and Discussion
	<ul style="list-style-type: none"> ● <i>Materials:</i> Workshop on Buoyless Fishing Gear Location Marking Methods, Report on Stakeholder Engagement Meetings ● Elizabeth Vézina, Canadian Wildlife Federation
11:30	The Needs and Perspectives of Fishermen <ul style="list-style-type: none"> ● Panel discussion
12:15	LUNCH
1:30	The Needs and Perspectives of Enforcement <ul style="list-style-type: none"> ● Panel discussion

Afternoon: Deliberation on data specifications and conceptual acoustic approaches

2:15	Developing Draft On-Demand Data Specifications <ul style="list-style-type: none"> ● <i>Materials:</i> Data Specifications 2-pager ● Kevin Staples, Maine Department of Marine Resources ● Technical presentation on draft data specification and an opportunity for discussion
2:30	Roundtable Discussions <ul style="list-style-type: none"> ● Tables discuss, key questions and challenges
3:00	Report outs and Discussion
3:30	BREAK
3:45	Conceptual Systems Approaches brief presentation <ul style="list-style-type: none"> ● <i>Materials:</i> Handout of three concept diagrams ● Brett Alger, NOAA Fisheries
4:00	Break outs evaluating each <ul style="list-style-type: none"> ● <i>Materials:</i> Handout for evaluating concept diagrams ● What are the implications, and for whom, and tradeoffs, for each of these three conceptual approaches (15 minutes each)? ● Break out discussions where each group needs to fill out a considerations sheet for each of three system concepts around cost, implementability, accuracy, innovation, ocean noise, complexity, and coordination/standardization.
4:45	Report Outs and General Discussion
5:10	Close and Preview of Day 2
5:15	Adjourn (Day 2 Presenters quick check-in)

Agenda Day 2: 29 November 2023

Morning and Afternoon: Technologies, Systems, and Standards

Time	Event, Presenter, Materials, and Discussion
8:00	Registration (coffee provided)
8:30	Summary of Day 1 and Overview of Day 2
8:45	Acoustic Standard Considerations <ul style="list-style-type: none"> • <i>Brett Alger, NOAA Fisheries</i> • Key questions to consider when evaluating acoustic technology and standards
8:50	Individual Presentations of Proposed Systems <ul style="list-style-type: none"> • Five presenters who have proposed systems will describe them and how they work and seek to answer key questions posed to them • Each presenter will have no more than 20 minutes with 10 minutes of questions
10:30	BREAK
10:45	Continued: Individual Presentations of Proposed Systems
12:00	LUNCH
1:15	Proposed Systems Strengths and Weaknesses <ul style="list-style-type: none"> • Small tables discuss across the five presentations
2:15	Report out of Morning Breakout Discussions
2:45	Break
3:00	Lessons Learned from NOAA Fisheries Implementing Technology <ul style="list-style-type: none"> • <i>Brett Alger, NOAA Fisheries</i> • The importance of interoperability, program design, and performance standards • Case studies from electronic technologies in U.S. fisheries
3:30	How do we create a shared system across different sectors? <ul style="list-style-type: none"> • What research and testing still needs to take place? • How do you ensure efficient usability at the end of the day? • What are the tradeoffs of federal regulations vs. industry developing standards? • Is there value in creating an on-demand industry standards organization? • Where and how do we encourage investment?
4:45	Summary and Next Steps
5:00	Adjourn

Agenda Day 3: 30 November 2023: State and Federal Agencies Only

Morning and Afternoon: Coordination on supporting innovation and regulatory needs

Time	Event, Presenter, Materials, and Discussion
7:30	<i>NOAA/DFO Brief Check-In</i>

Time	Event, Presenter, Materials, and Discussion
8:00	Registration (coffee provided)
8:30	Overview of the Two-Day Multi-Sector Workshop <ul style="list-style-type: none"> • <i>NOAA and DFO with the Facilitator</i> • What we hope to accomplish on Day 3, how we are doing it, expectations for the day, and what happens after
8:50	Overview of Management Drivers and Current Regulations
9:10	Presentation on data specifications and discussions from Days 1 & 2
9:30	Presentation on acoustic technology and standards feedback Days 1 & 2
10:00	BREAK
10:15	NFWF Funded Projects <ul style="list-style-type: none"> • <i>Gray Redding, National Fish and Wildlife Foundation (NFWF)</i> • Brief Overview: Scope, scale, execution, data consistency and sharing across projects for learning, what collaboration may be needed
10:30	Supporting Innovation: challenges and opportunities <ul style="list-style-type: none"> • Discussion: How to support experimentation and testing to advance technology?
11:15	On-Demand Data Management <ul style="list-style-type: none"> • Discussion: What are some key program design considerations?
12:00	LUNCH
1:15	The Means and Mode of the Regulatory Framework <ul style="list-style-type: none"> • <i>Brett Alger, NOAA Fisheries</i> • Presentation: Lessons learned from implementing technology-based data collection • Discussion: Effective regulatory tools for implementing a program while supporting future innovation
2:00	What discussions are already happening? What opportunities, needs and ideas for further collaboration might there be? <ul style="list-style-type: none"> • International collaboration • Intergovernmental collaboration • Private-Public collaboration: user and manufacturer collaboration with agencies
2:45	Ideas for Next Steps <ul style="list-style-type: none"> • What are the possible short and long-term steps moving forward? • Who might be best positioned to move those elements forward? • <i>Note: On-Demand Working Group, New England Fisheries Management Council: December 18 key next event</i>
3:45	Summary and Next Steps
4:00	Thank You Adjourn