

Draft Addendum XXIX / IV

Electronic vessel tracking in the federal lobster and Jonah crab fisheries



February 22, 2022

Presentation Outline

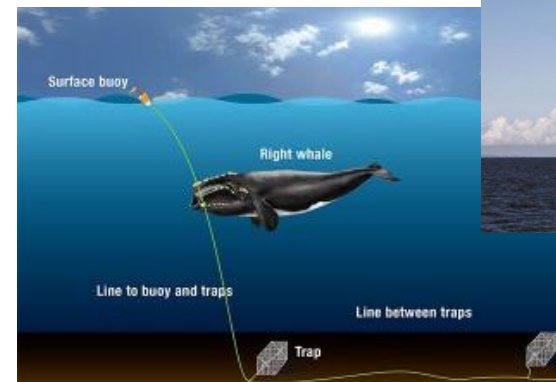


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Background



- August 2021: the Board initiated Addendum XXIX/IV to consider vessel tracking requirements for federally permitted lobster and Jonah crab vessels under ACFCMA
- Critical need for high-resolution spatial and temporal data to characterize effort in the federal American lobster and Jonah crab fisheries for:
 - Stock assessment
 - Protected species issues
 - Marine spatial planning
 - Law enforcement



Objective



- Addendum objective:
 - **Collect high-resolution spatial and temporal data to characterize effort in the federal American lobster and Jonah crab fisheries for management and enforcement needs**
 - **These data will improve stock assessment, inform discussions and management decisions related to protected species and marine spatial planning, and enhance offshore enforcement**

Timeline



Date	Activity/Action
August 2021	Board initiated Draft Addendum XXIX/IV
December 2021	Board approved Draft Addendum Document for public comment
January 2022	Public comment period including virtual public hearings
Feb 2022	Advisory Panel Meeting
TODAY	Board Considers Final Action on Addendum

Management Options



- **Option A: Status quo**
 - No requirements for electronic tracking devices
- **Option B: Implement electronic tracking requirements for federally-permitted lobster and Jonah crab vessels with commercial trap gear area permits**

Management Options



- **Option B: Implement electronic tracking requirements**
 - Federal lobster and Jonah crab vessels w/ commercial trap gear area permits would be required to install approved electronic tracking device to collect and transmit spatial data
 - Federally-permitted vessels **without** an approved electronic tracking device prohibited from landing lobster or Jonah crab taken with trap gear
 - Device must remain on board and powered at all times when vessel is in the water, unless authorized to power down by the principal port state
 - Tampering with devices prohibited

Applicable Permit Categories



Federal Permit Category Name	Permit Category Abbr.	Description
Commercial Trap Gear Area 1	A1	May harvest lobster in Federal LMA 1 using trap gear
Commercial Trap Gear Area 2	A2	May harvest lobster in Federal LMA 2 using trap gear
Commercial Trap Gear Area 3	A3	May harvest lobster in Federal LMA 3 using trap gear
Commercial Trap Gear Area 4	A4	May harvest lobster in Federal LMA 4 using trap gear
Commercial Trap Gear Area 5	A5	May harvest lobster in Federal LMA 5 using trap gear
Commercial Trap Gear Outer Cape Area	AOC	May harvest lobster in Federal Lobster Management Outer Cape Area using trap gear
Commercial Trap Gear Area 5 Waiver	A5W	May harvest lobster in Federal LMA 5 under the black sea pot waiver

*Commercial Trap Gear Area 6 is excluded

Option B



- **Option B would not apply to**
 - State-only permitted vessels
 - Inactive federal permits (confirmation of permit history status)
 - Vessels that will not fish trap gear during the fishing year

Option B: Tracking Requirements



- **Option B specifies:**
 - Requirements for devices to be approved for the fishery
 - Administrative responsibilities of the Commission, States, and NOAA Fisheries
 - How tracking data would be processed, stored, and provided to managers.

Tracking Device Requirements



- Collect location data at one ping per minute for at least 90% of the fishing trip
- Data sent must contain device's current date/time, lat/long, device and vessel identifier
- Accuracy and precision specs
- Ruggedness specs
- Vendor customer service requirements
- Vendor must maintain the confidentiality of personally identifying information and other protected data in accordance with federal law

Administrative Processes



Several levels of administrative processes:

- Commission level
 - Device approval work group
- State level
 - Certifying device installation
 - Permit holder support
 - Data validation and compliance monitoring
- Federal level
 - Federal permit data
 - eVTR data processing

State Administrative Process



States will certify device installation

- States shall certify the installation of approved vessel tracking devices for permit holders before vessel goes on a fishing trip
 - Standard affidavit for certifying an approved device is installed
- Principal port declared on federal permit determines state responsibility
- GARFO will provide states with American lobster trap gear area permit ownership information

State Administrative Process



States will provide permit holder support

- Communicate with permit holders to assist them in properly complying with the vessel tracking requirements
 - States not required to aid with installation or troubleshooting of vessel trackers
- Data validation and compliance monitoring
 - Contact permit holders to resolve data issues
 - Resolve issues of incomplete tracking data and mismatches between vessel trip reports and associated vessel tracking information

Federal Administrative Process



GARFO will provide federal permit data and process eVTR data

- Provide states with American lobster trap gear area permit ownership information
- Incorporate federal lobster eVTR data into quality assurance program
 - Errors identified will be resolved through GARFO outreach efforts
 - Federal eVTR data will be available to ACCSP in near real-time, which can be used by ACCSP and state partners in identifying fishing activity in the vessel tracking data.

Data Processes



ACCSP will house tracking data

- ACCSP will receive location data from tracking vendors, eVTR data from GARFO
- All data must be submitted in accordance with the API specifications
- ACCSP will match vessel tracks with trips
- ACCSP will maintain data confidentiality in accordance with federal law and disseminate data to authorized entities

Federal/state agencies responsible for data reporting compliance

- GARFO is responsible for validation of eVTR data
- State management agencies are responsible for validation of trip location data



Summary of Public Comments

Public Hearings & Total Comments



- **Six Public Hearings**
 - ME x 2
 - NH
 - MA - RI
 - CT - NY
 - NJ – VA
- **Total attendance across hearings = 98**
- **Public comments at hearings = 35**
- **Total written comments = 32**

Public Hearing Comments



	Option A. Status Quo	Option B. Electronic Vessel Tracking Requirements
ME	8	1
NH	7	
MA	4	1
RI	6	
CT		
NY		
NJ	1	
DE	1	
MD		
VA		
Unknown		1
Total	27	3

Written Comments



	Option A. Status Quo	Option B. Electronic Vessel Tracking Requirements
Written Comments		
Individual	13	2
Organization	3	7
Total	16	9

Support for Status Quo



- Concerns that data from vessel tracking would harm the fishery rather than help
- Marine spatial planning efforts seek to define static use areas in the ocean when commercial fisheries are dynamic
- Fishermen should not be financially responsible for the collection of these data
 - ASMFC, states, and/or NOAA should provide funding
 - Costs of devices and data plans too high for small business operators
- Concerns that device malfunctions could force fishermen to lose days at sea

Support for Status Quo



- Opposition to being required to have multiple types of devices for different fisheries on a single vessel
- Lack of information about the devices, vendors, actual costs, and device reliability and accessibility, power
- Concerns about data privacy
- Vessel tracking is an invasion of privacy
- Addendum XXVI and its recommendations should satisfy the objectives of Draft Addendum XXIX
- Existing data from trip reports and logbooks should be fully utilized
- Tracking does not provide information on lobster catch rates

Support for Option B



- Current spatial information is too coarse
 - spatial data from tracking devices could significantly improve the stock assessments, effort and risk models for right whales
- Longstanding concerns about offshore enforcement
- Data would be of enormous value to understanding economic trade-offs for management measures like area closures and marine spatial planning decisions
- Vessel tracking for federally permitted lobster vessels is important for enforcing the management measures required by the Atlantic Large Whale Take Reduction Plan
- Program should be implemented as soon as possible

General Considerations



- Financial support for fishermen could reduce resistance to this proposal
- The Commission should consider allowing the use of existing AIS technology to meet the requirements of this program
- ASMFC should follow this action with an addendum that would improve harvest reporting in state waters
- Area 5 Waiver permits should be exempt from tracking requirements



Advisory Panel Report

AP Meeting



- Lobster and Jonah Crab Advisory Panel Met on February 15, 2022 to review Draft Addendum XXIX
 - 8 Lobster AP members
 - 3 Jonah Crab AP members
- 5 advisors supported Option A
- 3 advisors supported Option B

Support for Status Quo



- Too many unanswered questions about how the program would work, how data would be used
- Tracking program should be funded by agencies benefitting from the data
- Fishing is dynamic and current data will not reflect past or future areas of importance
 - A baseline of fishery footprint needs to be established before releasing/using tracking data
- There needs to be 100% harvester reporting before tracking is required
- Doubt that the data will benefit the fishery/ protect them against wind development
- Addendum is moving too quickly

Support for Option B



- Fishery needs to be able to prove where fishing is occurring with data
- Tracking will help fill huge gap in law enforcement
- Need for data outweighs risks
- Hope data can be used to resolve gear conflicts
- More precise spatial data would have helped with marine monument and coral amendment planning
- Will help improve stock assessment to better manage the resources

Next Steps



- Board action: Consider final action on Addendum
- Begin state processes to implement regulations
- Form Commission Work Group to identify and approve vendors and tracking devices
- Federal rulemaking, potential implementation for fishing year 2023

Questions?



Hearing Questions and Responses



- **Who will pay for the tracking devices?**
 - At this time there are no dedicated funds to pay for trackers
 - Investigations to find dedicated funds to assist in paying for a part of the cost associated with trackers is underway
 - Trackers are eligible for funding under the House and Senate Report Language for the FY 2022 budget
 - If the 2022 budget is approved, it could help subsidize these devices. We will not have further information on this potential funding source until March

Hearing Questions and Responses



- **In the testing of tracking devices, how many vessels were involved?**
 - **Maine:**
 - Tracking devices from 3 vendors were tested on **18 lobster vessels**
 - Also have trackers on **20 urchin vessels** since 2017, as well as several Marine Patrol vessels
 - **Massachusetts:**
 - Tracking devices were deployed on **5 vessels** during pilot testing
 - Also deployed trackers on a research vessel and recreational vessel
 - **Rhode Island:**
 - From 2019 through 2021 multiple cellular tracking devices were tested on **3 state-owned research vessels** (part of ACCSP research project)
 - Additionally, since 2019 over **25** deployed **on commercial vessels** in RI as part of a pilot aggregate landing program (includes lobster vessels)

Hearing Questions and Responses



- **When will the trackers be available for the entire industry so they have plenty of time to obtain ahead of time deadline date?**
 - This answer will depend on the action taken by the Board
 - If this program is approved, the implementation date may be modified to account for any delays in obtaining devices
 - Some indication from some vendors that there is plenty of stock for the numbers involved in this program, so delays are not anticipated

Hearing Questions and Responses



- **How will harvesters choose an appropriate device?**
 - If the Board approves this program, then ASMFC will issue a request for quotes (RFQ) to identify available technology, and will form a work group to review and approve devices that meet the required criteria for use in the fishery
 - Some states may choose to require that all harvesters use the same device, while others may offer harvesters the flexibility to choose from the list of approved devices
 - For multiple option scenario, ASMFC would provide the states with information on each of the approved devices to inform harvesters' decisions

Hearing Questions and Responses



- **Will there be a grace period for adopting trackers to account for the learning curve needed to use the trackers?**
 - Harvesters will not have to operate the devices, the devices would be installed on the vessel following detailed instructions provided by the vendors, and then would operate automatically
 - Support between the vendor and the state will be provided if the tracker is not functioning properly

Hearing Questions and Responses



- **How will states certify that vessels required to install tracking devices have done so?**
 - States shall certify the installation and activation of approved vessel tracking devices for permit holders whose principal port listed on the federal fishery permit is within their state
 - An affidavit with uniform language will be distributed by the states to permit holders which will be used to certify an approved tracking device is installed on each vessel and is activated for transmitting spatial data
 - For initial implementation, states will collaborate to define a deadline by which permit holders will need to have a certified tracker installed
 - ACCSP will be able to confirm that trackers are activated through receipt of vessel location data

Hearing Questions and Responses



- **What will be required of harvesters if their tracking device stops working?**
 - Addendum indicates that upon receiving information that the device is not working (either from their own observation, from the vendor, or from ACCSP), a harvester must contact their state authority to report the device failure
 - Once reported, the intention is that a harvester making a good faith effort to repair the device would be allowed to continue fishing while the device is under repair or being replaced
 - A standard procedure for how states will receive reports from harvesters with device failures (e.g., phone line, email) will be established, however, the intention is to allow flexibility for procedures to vary among the states
 - These procedures will take into account that harvesters may need to report device issues outside of normal business hours

Hearing Questions and Responses



- **How will a harvester know if the tracking device is working?**
 - This will depend of the specifications of each device
 - Most devices will have an indicator light showing that the device is receiving power
 - It will not be the sole responsibility of the harvester to know that the device is properly transmitting data, vendors and/or ACCSP will be able to identify device failures and notify harvesters and/or state staff

Hearing Questions and Responses



- **Will the tracking devices draw power from the vessel battery?**
 - The tracking devices consume very little power even at the required 1 minute ping rate
 - None of the devices tested had a maximum current draw at 12 volts greater than 500mA, and average nominal running current was much lower, with average running current around 150mA
 - Tracking device will not require power from the vessel when the vessel's engine is off (and thus draw from the vessel battery), many include an internal battery
 - Proposed requirements stipulate that only one ping per day is necessary when the vessel is at berth, thus enter a sleep low power mode when not fishing
- **How do the trackers perform in cold weather?**
 - All devices tested were run on lobster vessels throughout the winter months

Hearing Questions and Responses



- **Would VMS devices be accepted as an alternative for a tracking device for this program?**
 - The addendum does not specify that VMS devices may not be used for this program
 - There are some considerations that make VMS devices undesirable for this program, foremost, the data costs for using a VMS device with the one ping per minute data collection rate would be expensive (may be cheaper to have 2 devices)
 - Additionally, data collected from VMS devices is stored with NOAA's Office of Law Enforcement, which would create challenges for data access for the purposes identified in the addendum
 - If a VMS device were approved by the ASMFC work group (i.e., it meets the required criteria for this program) then it would be accepted, but would still be required to use the 1 min ping rate

Hearing Questions and Responses



- **Who will be able to view vessel tracking data?**
 - Vessel tracking data will be protected under state and federal confidentiality laws that prohibit the disclosure of confidential data (data that can lead to the identification of either individuals or individual contributions)
 - Access to confidential data is closely controlled
 - Harvesters will be able to access and distribute their own vessel tracking data, as desired

Hearing Questions and Responses



- **How will these data be used by law enforcement?**
 - Tracking data will not be available to law enforcement in real time, and will not be a primary source for making a case for a violation
 - Law Enforcement may use data to support investigations
 - Access to data by law enforcement personnel is exactly the same as access by any other individual, in that the data are protected by the state and federal confidentiality laws and require relevant non-disclosure agreements for release
- **How will data be presented while still maintaining confidentiality under federal law?**
 - The ACCSP policy for confidentiality requires that any data summary that is publicly disclosed must include information from at least three dealers, three harvesters and three vessels to be considered non-confidential

Hearing Questions and Responses



- **Finally, the following are questions that may need responses from the TC, PDT, or Law Enforcement Committee:**
 - How will the data be used to improve the lobster and Jonah crab assessments, and the right whale risk models?
 - How does a fisherman get access to their data (i.e., what data products will be available)?
 - Who determines if track data meet the requirements once tracks are matched with reported trips?
 - What is the process when an issue with tracking data (e.g. data inconsistent with specifications) is identified?
 - Who enforces regulations (states, feds)?
 - What are the consequences of individuals not adhering to regulations (e.g. not using a tracker)?