Electronic and Portside Monitoring Discussion Document

Industry-Funded Monitoring Omnibus Amendment

New England Fishery Management Council
Observer Policy Committee Meeting
April 16, 2015

Prepared by NOAA's National Marine Fisheries Service

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Current Range of Alternatives

Current Range of Omnibus Alternatives

Omnibus Alternative 1 – No standardized structure for industry-funded monitoring programs (No Action)

- No standard definition of cost responsibilities between industry and NMFS;
- No standardized framework adjustment process to implement future industry-funded monitoring programs in other FMPs;
- No standardized observer service provider requirements; and
- No process for prioritizing available federal funding across industry-funded monitoring programs.

Omnibus Alternative 2 – Standardized structure for industry-funded monitoring programs.

- Standard definition for cost responsibilities between industry and NMFS;
- Standard framework adjustment process to implement future industry-funded monitoring programs in other FMPs;
- Standard observer service provider requirements; and
- Process for prioritizing available federal funding across industry-funded monitoring programs.

Omnibus Alternatives 2.1 – 2.5 are variations on the prioritization process in Omnibus Alternative 2, and consider specific options for what to do when Federal funding is not sufficient to cover NMFS's costs to support the Council's desired coverage level for a given FMP.

1. Omnibus Alternative 2.1– NMFS-led prioritization process. NMFS prepare analysis and prioritization in consultation with the Councils.
2. Omnibus Alternative 2.2 – Council-led prioritization process. Council PDT/FMAT prepares analysis and recommended priorities to NMFS.
3. Omnibus Alternative 2.3 – Proportional prioritization process. Shortfalls in Federal funding to support industry-funded monitoring would be distributed proportionally among all industry-funded monitoring programs.
4. Omnibus Alternatives 2.4 and 2.5 – Coverage ratio-based prioritization processes. The amount of funding would be allocated to each FMP by sequentially eliminating coverage in fleets that have either the highest (2.4) or lowest (2.5) ratio of projected coverage days needed in the coming year to actual days absent from port.

Current Range of Herring Alternatives

Herring Alternative 1: No coverage target specified for industry-funded monitoring programs (No action)

Herring Alternative 2: Coverage target specified for industry-funded monitoring programs. The coverage alternatives below include options to either allow waivers, which would allow vessels to fish if monitoring coverage were not available due to logistics or funding, or to not allow waivers, which would limit effort to match the specified coverage target if monitoring coverage were not available due to logistics or funding.

Permit-based alternatives:

- 100% NEFOP-equivalent coverage target on Herring Category A and B Vessels
- 100% At-sea monitor coverage target on Herring Category A and B Vessels
- 75% At-sea monitor coverage target on Herring Category A and B Vessels
- 50% At-sea monitor coverage target on Herring Category A and B Vessels

Fleet-based alternatives:

- NEFOP-equivalent Percentage Coverage on Midwater Trawl Fleet to achieve a 30% CV on river herring and shad catch (2013 estimate is 51-61% coverage necessary)
- 100% Coverage on Midwater Trawl Fleet Fishing in Groundfish Closed Areas

Other alternatives:

- Allow a wing vessel to be exempt from monitoring coverage. These vessels would be prohibited from carrying fish.

Current Range of Mackerel Alternatives

Mackerel Alternative 1: No coverage target specified for industry-funded monitoring programs (No action)

Mackerel Alternative 2: Coverage target specified for industry-funded monitoring programs. The coverage alternatives below include options to either allow waivers, which would allow vessels to fish if monitoring coverage were not available due to logistics or funding, or to not allow waivers, which would limit effort to match the specified coverage target if monitoring coverage were not available due to logistics or funding.

Permit-based alternatives:

- 100% NEFOP-equivalent coverage on limited access midwater trawl & Tier 1 small-mesh bottom trawl (SMBT); 50% coverage on Tier 2 SMBT; 25% on Tier 3 SMBT
- 100% At-sea monitor (with river herring and shad sampling) coverage target on limited access midwater trawl and Tier 1 SMBT mackerel vessels
- 75% At-sea monitor (with river herring and shad sampling) coverage target on limited access midwater trawl and Tier 1 SMBT mackerel vessels
- 50% At-sea monitor (with river herring and shad sampling) coverage target on limited access midwater trawl and Tier 1 SMBT mackerel vessels

Fleet-based alternatives:

- NEFOP-equivalent Percentage Coverage on Midwater Trawl Fleet to achieve a 30% CV on river herring and shad catch (2013 estimate is 51-61% coverage necessary)

Other alternatives:

- Allow a wing vessel to be exempt from monitoring coverage. These vessels would be prohibited from carrying fish.

Development of an Electronic Monitoring and Portside Sampling Alternative for Herring and Mackerel Fisheries

Background

The New England and Mid-Atlantic Fishery Management Councils and stakeholders strongly support increased monitoring in the Atlantic herring and mackerel fisheries. NMFS disapproved the Councils' recommendations for 100 percent observer coverage in these fisheries due to lack of Federal funding. NMFS is leading development of the Industry-funded Monitoring (IFM) Omnibus Amendment to allow the Councils to use industry funding as a tool to increase monitoring in all Northeast fisheries and, in particular, the herring and mackerel fisheries.

The monitoring goals for the herring and mackerel fisheries are to independently verify total catch of target species (retained and discarded) and track catch of non-target species (e.g., haddock, river herring and shad) against catch caps. Preliminary analysis in the IFM Amendment indicates vessels would be required to pay approximately $800 per day for at-sea observer/monitor coverage in the herring and mackerel fisheries.

Electronic monitoring (EM) and portside sampling have the potential to be a more cost effective way to address monitoring goals in the herring and mackerel fisheries. Initially, the IFM Amendment would have allowed for the development of these types of monitoring programs in a future action. Now, building on recent developments in EM and portside sampling, NMFS is evaluating if it is possible to develop and implement an industry-funded EM and portside sampling program for the herring and mackerel fisheries as part of the IFM Amendment.

Monitoring Program

In April, both Councils will consider adding an EM and portside sampling alternative added to the IFM Amendment for the herring and mackerel fisheries. EM would be used to verify retention of catch on the midwater trawl fleet (fewer than 20 vessels) and portside sampling would be used to verify amount and species composition of landed catch.

The EM alternative would be based on the ongoing EM exempted fishing permit program for the West Coast whiting fishery that is expected to be transitioned into regulation by 2017. The portside sampling alternative would be based on the existing portside sampling program for the midwater trawl fleet operated by the Massachusetts Department of Marine Fisheries and Maine Department of Marine Resources.

The attached outlines include a general description of an EM and portside sampling program. If the Councils decide to add an EM and portside sampling alternative to the IFM Amendment, program details would be developed by the June and September/October Council meetings.

Herring/Mackerel MWT Electronic Monitoring Program

Monitoring Need	Increase monitoring to independently verify total catch in herring and mackerel fisheries.
Why Electronic Monitoring (EM)	May be a cost effective way to: 1) Verify retention of catch for portside sampling, and 2) Evaluate possibility of using EM to verify compliance with discard reporting requirements.
Fleet Characteristics	• The midwater trawl (MWT) fleet consists of ~20 vessels harvesting herring and mackerel from Maine to New Jersey. • The MWT fleet harvests the majority of herring (73%) and and river herring/shad (57%) in the herring and mackerel fisheries. • MWT vessels discard less than 5% of catch at sea.
Sampling Design	• MWT vessels carry an EM system for the duration of the fishing year. • Digital image data are recorded throughout duration of MWT trips. • Digital image data are sampled (either 100% or less than 100%) to verify full retention and/or compliance with discard reporting requirements. • MWT trips are sampled (100% or less than 100%) portside to verify catch and collect species composition data.
Vessel Responsibilities	• MWT vessels are required to obtain and operate an EM system per NMFS specifications. • MWT vessels are responsible for contracting with a service provider to ensure their EM system is operating properly and that data are collected, reviewed, and summarized per NMFS specifications.
Service Provider Responsibilities	• Providers are required to install, troubleshoot, and remove EM systems aboard MWT vessels. • Providers are required to sample/review data and produce summary reports per NMFS specifications.
NMFS Responsibilities	• NMFS required to review and validate/cross-check summary reports submitted by providers. • NMFS required to develop the following: 1) EM type approval, 2) EM provider approval, 3) EM data and summary report standards, and 4) Vessel responsibility standards.

Herring/Mackerel MWT Portside Monitoring Program

Monitoring Need	Increase monitoring to independently verify total catch in herring and mackerel fisheries.
Why Portside Monitoring	May be a cost effective way to: (1) Verify amount/species composition of catch in the herring and mackerel fisheries, and (2) Help track catch against catch caps for river herring/shad and haddock.
Fleet Characteristics	• The midwater trawl (MWT) fleet consists of ~20 vessels harvesting herring and mackerel from Maine to New Jersey. • The MWT fleet harvests the majority of herring (73%) and and river herring/shad (57%) in the herring and mackerel fisheries. • MWT vessels discard less than 5% of catch at sea.
Sampling Design	• Sample midwater trawl trips (100% or less than 100%) at port. • Sampling methodology consistent with Northeast Fisheries Observer Program (NEFOP) protocols. • One basket sub-samples (15-30 kg) systematically obtained from dewatering box at 5-minute intervals during entire offload. • Baskets sorted and weighed by species. • Length frequencies methodology consistent with NEFOP protocols. • Species composition of sub-samples extrapolated to the total catch based on vessel hail weight. • Actual weights verified against VTR.
Ports Sampled	If 100%, all MWT landing ports. For 2013 fishing year, this included: • Maine – ***Portland (11% Her/12% Mac)****, Rockland, Vinalhaven, Prospect Harbor, Jonesport, Milbridge* • New Hampshire - *Newington* • Massachusetts – *Boston,* ***Gloucester (25% Her/56% Mac), New Bedford (25% Her/30% Mac)*** • Rhode Island – *Point Judith, North Kingston* • New Jersey – *Cape May*
Vessel Responsibilities	MWT vessels are responsible for contracting with a service provider for a portside sampler to sample entire offload.
Service Provider Responsibilities	• Managing portside sampling program for herring and mackerel fisheries. • Training/scheduling portside samplers to sample MWT vessels at specified ports. • Data collection/storage/processing/auditing. • Providing data and/or data summary reports to NMFS.
NMFS Responsibilities	• NMFS required to review and validate/cross-check data and/or data summary reports submitted by providers. • NMFS required to develop the following: 1) Portside sampling/data quality standards, 2) Portside service provider approval, and 3) Portside sampling training standards.

List of issues to be resolved regarding Midwater Trawl EM/Portside

By Council selection of preferred alternatives (proposed for September NEFMC Meeting)

- Portside program structure (States as service providers? State/Federal partnership?)
- Better definition of how the prioritization process would apply to programs administered out of GARFO vs Center
- Retention definition (Pacific whiting shoreside fishery model is a strong candidate)
- Percent coverage for EM (percent of trips with image data being collected, and percent of images reviewed)
- Cost estimates for EM and portside coverage and completed economic analysis
- Description of how various components of industry-funded monitoring programs (i.e., observer coverage/ASM, portside sampling, EM) for herring/mackerel fisheries can be combined to create a comprehensive monitoring program for the fisheries (vessel monitoring plan?)

By Council final action (proposed for January NEFMC Meeting)

- Data flow (harddrive transfer, provider submissions to NMFS, etc.)
- Vessel, service provider and NMFS responsibilities (in flux due to national policy and regional coordination)

By Rulemaking/Implementation (expected in 2016)

- Data and training standards
- EM type approval
- Service provider standards (EM/Portside)
- Available NMFS funding

Appendix D: Vessel Monitoring Plan Example

Introduction

The VMP outlines vessel specific catch handling protocols and EM system configurations being used throughout the project. The combination of EM system configurations and catch handling protocols are designed to meet the Project Objectives described in the Project Plan and the Fisher Letter.

The VMP is a communication tool used to ensure that captains, EM field technicians, EM data reviewers and project coordination staff know what their roles are for a successful implementation. Each group has a role to play in ensuring the data collected by the EM system meets the project objectives and will need to provide feedback.

Project Coordination Staff:

- Ensure that the catch handling and EM system configuration requirements are optimal for accomplishing the data collection goals.
- Responsible for addressing feedback from captains, EM field technicians and EM data reviewers in the catch handling and EM system configuration requirements.

Captains:

- Ensure the catch handling requirements are met on each monitored trip.
- Advise the EM Field Technician if the EM system configuration or catch handling described in the VMP will change due to changes in fishing behavior or changed on a recent trip due to rare events (for example gear issues or safety concerns).

EM Field Technicians:

- Ensure that the EM system configuration meet the requirements.
- Work with the captain on optimal configuration-catch handling combinations to meet the project objectives.

EM Data Reviewers:

- Understand the catch handling protocols and EM system configuration to better interpret the EM data.
- Provide feedback to the project coordination staff on whether the catch handling and/or EM system configuration described in the VMP is not being followed or whether the VMP is being followed but it is not resulting in high quality data for meeting the project objectives.

General EM Procedures

EM System operation

EM system performance will be monitored for every trip to maximize EM data collection.

The EM system has been designed to operate with minimum effort by the captain. To ensure successful capture of EM data, the captain should:

- Turn the EM system on when vessel unties or lifts anchor, and
- Leave the EM system on the entire trip until the vessel has tied up in port or set anchor.

These steps will maximize data completeness and quality for the entire trip. For any fish handling activity occurring outside the normal recording of the EM system, captains are requested to use the manual record button on the system screen.

EM System Configuration

EM system components are to be installed on the vessel in a manner that meets the monitoring objectives, is both efficient for the technician and captain, and allows for normal fishing operations with a minimum of interference. Realizing the monitoring objective must be met, the first priority is to configure the EM system to achieve this objective and then complement the process by modifying catch handling protocol as a second priority.

Catch Handling

Catch handling should complement the EM system configuration (sensors and cameras) in achieving the monitoring objective. While every effort is to place and orient deck views with established catch handling procedures, some effort on behalf of the fishermen involved will be required. In this case the main issues are around discarding events.

Observer Conduct

Observers are to familiarize themselves with the EMS Observer Protocols sheet issued to each vessel which is also attached as Appendix B. Complying with discard locations and methods is essential to proper EM data collection. These modifications will ensure that data used as part of the pilot study are high quality. Following these protocols will also contribute to accurate estimates of species important to each vessel's Annual Catch Entitlement (ACE) and sector ACE.

Please note that these protocols are subject to change as EM analysis dictates. All observer protocols are developed by FSB staff. If you have any questions regarding protocol please call either Kelly Neville, (contact information), or Glenn Chamberlain, (contact information).

General Vessel Information

Vessel Name	Example
Gear Type(s)	
Home Port	Scituate
Captain	
Sector	
Vessel Length	
Hull Number	

Home Port – Port Box

Figure A-7: Scituate home port with port box.

Monitoring objective

Trip Type: EM Experiment Trip, Phase III	Date Implemented: MM/DD/YYYY
Rationale: • Collect information on the EM system performance. • Use EM video to verify catch compliance; verify kept catch is stored in hold and dockside discards are stored on deck in large vats. • Use EM video to verify allowable discards such as large pelagics, marine mammals, sea turtles, sea birds, sturgeon, American Lobster, Atlantic Halibut, Atlantic Wolfish, Striped Bass, skates, Summer Flounder, and large debris at accepted discard control points. • Use a fishermen's comment log to record fishing event details for EM reviewer alignment of time and location of fishing, and any allowable or non allowable events captured.	

EM System Configuration

Compliance Approach

Software Setup

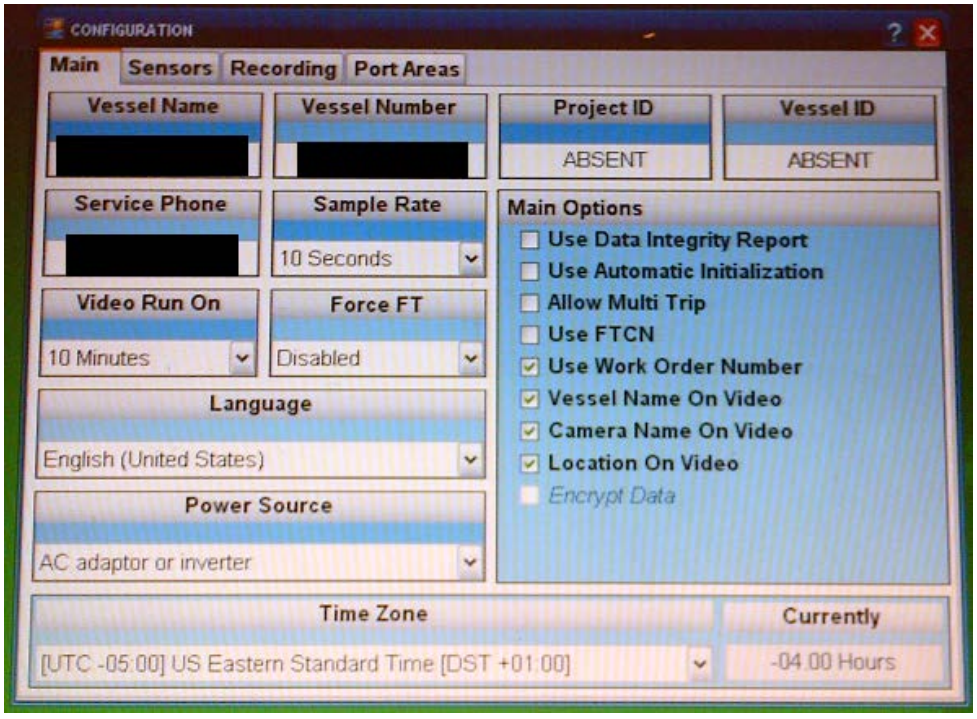

Figure A-8: Screen capture for EM control station.

EM Components Location

Control Center

- In the wheelhouse.
- Controls all the sensors and cameras and stores all the EM data.

User Interface

- In the wheelhouse.
- Allows the captain and the EM technician to interact with the Control Center to ensure the system is performing well, enter comments, etc.

GPS

- On wheelhouse gantry upper crossbar.
- Provides location, time, and speed information.

Hydraulic Pressure Sensor

- On conveyor belt high pressure line in the engine room.
- Detects hydraulic activity on conveyor belt to signal fishing activity.

Drum Rotation Sensor  • Clamped on to starboard winch • Detects winch rotation to signal fishing activity.	
Camera 1 – Starboard View Location • On wheelhouse gantry upper crossbar. • Aimed towards starboard rail, conveyor and checker pen.	**View and objectives** • Verify all catch is retained. • Dockside discards are stored in starboard side vats. • Kept catch is stored in the fish hold. • Also verify if allowable discarding taking place at starboard side rails.
Camera 2 – Port Location • On wheelhouse gantry upper crossbar. • Aimed towards port rail, center deck and stern area.	**View and objectives** • Verify all catch is retained. • Dockside discards are stored in starboard side vats. • Kept catch is stored in the fish hold. • Also verify if allowable discarding taking place at port rails.
Camera 3 – Stern View Location • On wheelhouse gantry, starboard post. • Stern view of port and starboard ramps and rails as well as checker pen view.	**View and objectives** • Verify all catch is retained except allowable discards (large pelagics, marine mammals, sea turtles, sea birds, skates, Atlantic Wolfish, Striped Bass, American Lobster, Atlantic Halibut, sturgeon, and non-living debris).
Camera 4 – Scale view • Located under wheelhouse overhang, starboard side. • View of foredeck under the overhang where skipper will be weighing baskets.	**View and objectives** • Ensure all catch stays in camera view, particularly when observers are on board and when the captain takes baskets to the scale for measurement. • View for verifying summer flounder identification if discarding occurs in camera 1.

Catch Handling Protocols

EM Experiment trips, Phase III

Details of the catch handling protocols were laid out in this section. These are included in the Materials and Methods section of this report. An example of the diagram outlining control points is provided on the next page.

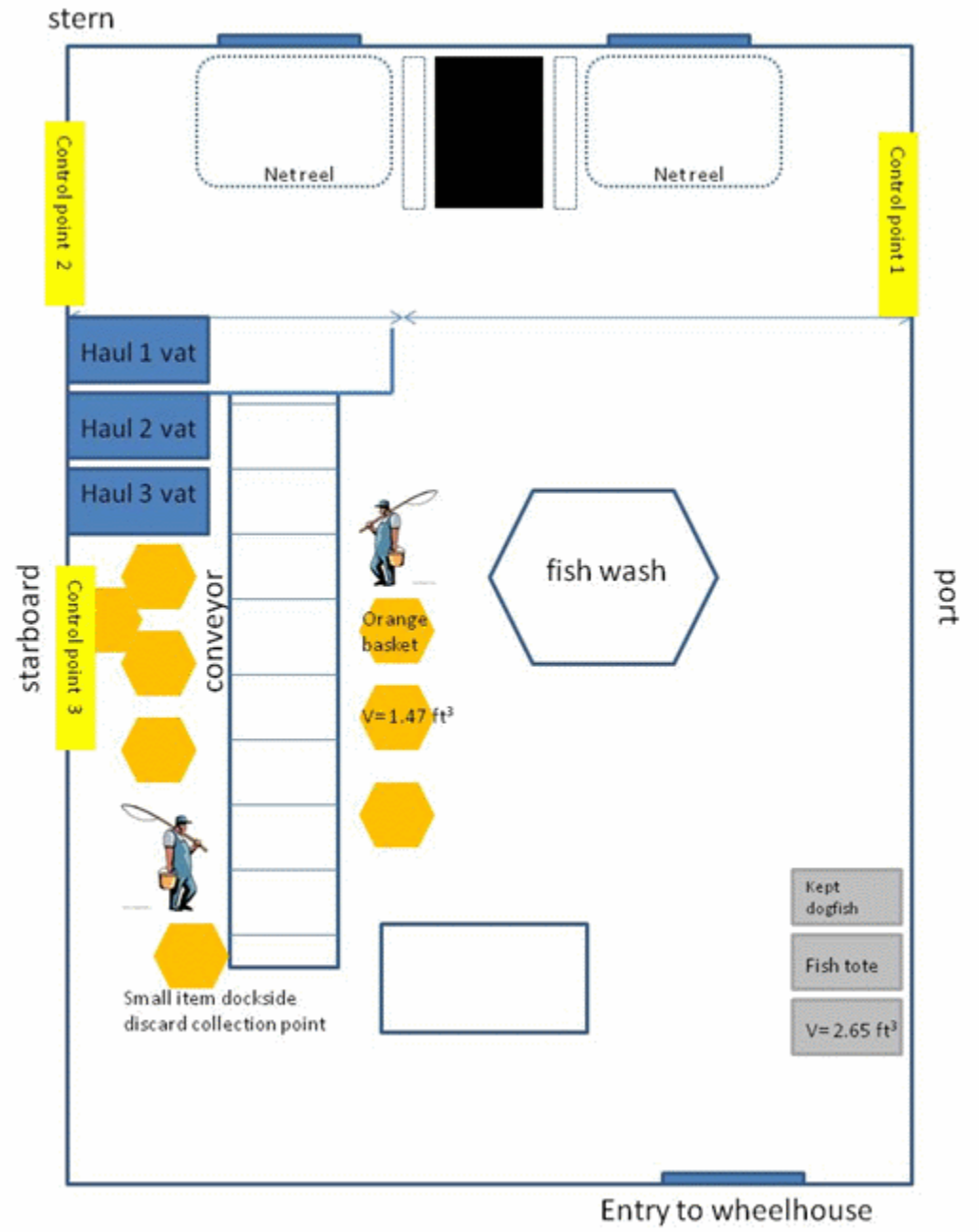

Figure A-9: Example Diagram showing locations of control points.

Notes

This section includes notes and describes changes made to the VMP throughout the project.

MM/DD/YYYY

- New system components and catch handling section added to accommodate for full retention strategy as part of EM experiments trips in Phase III of project. Removal of other sections as they do not pertain to this phase of the project.

EM System Configurations by Date

MM/DD/YYYY to MM/DD/YYYY – Configuration- Non-Observed Groundfish Trips

MM/DD/YYYY to MM/DD/YYYY – Configuration- Observed Groundfish Trips

MM/DD/YYYY – Modified Configuration- 100% Full Retention Catch Monitoring

Vessel Layout

This section contains pictures of the vessel. No pictures have been included in the example to protect the privacy of project participants.

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Part II

Department of Commerce

National Oceanic and Atmospheric Administration

15 CFR Part 902

50 CFR Part 635

Atlantic Highly Migratory Species; 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan; Amendment 7; Final Rule

§ 635.9 Electronic monitoring.

(a) *Applicability.* An owner or operator of a commercial vessel permitted or required to be permitted in the Atlantic Tunas Longline category under § 635.4, and that has pelagic longline gear on board, is required to have installed, operate, and maintain an electronic monitoring (EM) system on the vessel, as specified in this section. Vessel owner or operators can contact NMFS or a NMFS-approved contractor for more details on procuring an EM system.

(b) *EM Installation.* (1) NMFS or a NMFS-approved contractor will assess individual Atlantic Tunas Longline permitted vessels that are currently eligible for IBQ share, install and test all EM systems; provide training to vessel owners or operators or their designees; and develop in consultation with vessel owners or operators or their designees required operational plans (Vessel Monitoring Plan or VMP) for the EM systems, as described in paragraph (e)(2) of this section.

(2) Vessel owners or operators, as instructed by NMFS, will be required to coordinate with NMFS or a NMFS-approved contractor to schedule a date or range of dates for EM installation, and/or may be required to steam to a designated port for EM installation on NMFS-determined dates. NMFS may require vessel owners to make minor modifications to vessel equipment to facilitate installation and operation of the EM system, such as, but not limited to, installation of a fitting for the pressure side of the line of the drum hydraulic system, a power supply for the EM system and power switches/connections, additional lighting, and/or a mounting structure(s) for installation of the camera(s). EM installation must be completed by June 1, 2015 in order to fish with pelagic longline gear after that date.

(i) *Certificate of Installation.* After confirming that an EM system that meets the requirements of this section is properly installed, the system has been tested, and training and a required operational plan (VMP) are completed, NMFS or the NMFS-approved contractor will provide a Certificate of Installation to the vessel owner or operator.

(ii) Vessels described under paragraph (a) of this section may not depart on a fishing trip without having a valid Certificate of Installation and VMP on board.

(c) *EM System Components.* The EM system installed by the NMFS-approved contractor must be comprised of video camera(s), recording equipment, and other related equipment and must have the following components and capabilities:

(1) *Video camera(s).* (i) Video cameras must be mounted and placed so as to provide clear, unobstructed views of the area(s) where the pelagic longline gear is retrieved and of catch being removed from hooks prior to being placed in the hold or discarded. There must be lighting sufficient to illuminate clearly individual fish.

(ii) Video camera(s) must be in sufficient numbers (a minimum of two and up to four), with sufficient resolution (no less than 720p (1280 × 720)) for NMFS, the USCG, and their authorized officers and designees, or any individual authorized by NMFS to determine the number and species of fish harvested. To obtain the views described in paragraph (c)(1)(i), at least one camera must be mounted to record close-up images of fish being retained on the deck at the haulback station, and at least one camera must be mounted to record activity at the waterline along the side of the vessel at the haul back station. NMFS or the NMFS-approved contractor will determine if more cameras are needed.

(iii) The EM system must be capable of initiating video recording at the time gear retrieval starts. It must record all periods of time when the gear is being retrieved and catch is removed from the hooks until it is placed in the hold or discarded.

(2) *GPS receiver.* A GPS receiver is required to produce output, which includes location coordinates, velocity, and heading data, and is directly logged continuously by the control box. The GPS receiver must be installed and remain in a location where it receives a strong signal continuously.

(3) *Hydraulic and drum rotation sensors.* Hydraulic sensors are required to continuously monitor the hydraulic pressure and a drum rotation sensor must continuously monitor drum rotations.

(4) *EM control box.* The system must include a control box that receives and stores the raw data provided by the sensors and cameras. The control box must contain removable hard drives and storage systems adequate for a trip lasting 30 days.

(5) *EM systems monitor.* A wheelhouse monitor must provide a graphical user interface for harvester to monitor the state and performance of the control box and provide information on the current date and time synchronized via GPS, GPS coordinates, current hydraulic pressure reading, presence of a data disk, percentage used of the data disk, and video recording status.

(6) The EM system must have software that enables the system to be tested for functionality and that records the outcome of the tests.

(d) *Data maintenance, storage, and viewing.* The EM system must have the capacity to allow NMFS, the USCG, and their authorized officers and designees, or any NMFS-approved contractor to observe the live video on the EM systems monitor as described in paragraph (c)(5) of this section. Vessel owner or operators must provide access to the system, including the data upon request.

(e) *Operation.* (1) Unless otherwise authorized by NMFS in writing, a vessel described in paragraph (a) of this section must collect video and sensor data in accordance with the requirements in this section, in order to fish with pelagic longline gear.

(2) *Vessel monitoring plan.* The vessel owner or operator must have available onboard a written VMP for its system, which is an operational plan developed by the NMFS-approved contractor containing the standardized procedures relating to the vessel's EM system. VMPs may include, but are not limited to, information on the locations of EM system components; contact information for technical support; instructions on how to conduct a pre-trip system test; instructions on how to verify proper system functions; location(s) on deck where fish retrieval should occur to remain in view of the cameras; procedures for how to manage EM system hard drives; catch handling procedures; a size reference for facilitating determination of fish size; periodic checks of the monitor during the retrieval of gear to verify proper functioning; reporting procedures. The VMP should minimize to the extent practicable any impact on the current operating procedures of the vessel, and should help ensure the safety of the crew.

(3) *Handling of fish and duties of care.* The vessel owner or operator must ensure that all fish that are caught, even those that are released, are handled in a manner that enables the video system to record such fish, and must ensure that all handling and retention of bluefin tuna occurs in accordance with relevant regulations and the operational procedures outlined in the VMP. The vessel owner or operator is responsible for ensuring the proper continuous functioning of the EM system, including that the EM system must remain powered on for the duration of each fishing trip from the time of departure to time of return; cameras must be cleaned routinely; and EM system components must not be tampered with.

(4) *Completion of trip.* Within 48 hours of completing a fishing trip,, the vessel owner or operator must mail the removable EM system hard drive(s) containing all data to NMFS or NMFS-approved contractor, according to instructions provided by NMFS. The vessel owner or operator is responsible for using shipping materials suitable to protect the hard drives (*e.g.,,* bubble wrap), tracking the package, and including a self-addressed mailing label for the next port of call so replacement hard drives can be mailed back to the vessel owner or operator. Prior to departing on a subsequent trip, the vessel owner or operator must install a replacement EM system hard drive(s) to enable data collection and video recording. The vessel owner or operator is responsible for contacting NMFS or NMFS-approved contractor if they have requested but not received a replacement hard drive(s) and for informing NMFS or NMFS-approved contractor of any lapse in the hard drive management procedures described in the VMP.

(f) *Failure to adequately monitor the gear and catch.* The vessel owner or operator must monitor and maintain the EM system in working condition, which includes ensuring the proper continuous functioning of the EM system, cameras provide clear unobstructed views, and video picture quality is clear. Prior to departing on a trip with pelagic longline gear on board, the vessel owner or operator must test the functionality of the system and contact NMFS or the NMFS-approved contractor if the system is not functioning properly. In that case, or if NMFS independently determines that an EM system fails to meet the requirements of this section, the vessel cannot leave port unless and until NMFS provides written authorization. NMFS may grant such authorization after confirming that an EM system is functioning properly or other circumstances as determined by NMFS warrant authorization.

(g) *Repair and replacement.* If the vessel owner or operator becomes aware that the EM system on the vessel is not functioning properly at sea, the vessel owner or operator must contact NMFS and follow the instructions given. Such instructions may include but are not limited to returning to port until the EM system is repaired. Once in port, an EM system must be functioning properly (*e.g.,* repaired, reinstalled, or replaced) consistent with the installation requirements in this section before the vessel can fish with pelagic longline gear.

Subpart B—Individual Vessel Measures

■ 8. Revise the subpart B heading to read as set forth above.

■ 9. Add § 635.14 to subpart B to read as follows:

§ 635.14 Performance metrics.

(a) *General.* For purposes of § 635.21(c)(3), NMFS will determine "qualified" vessels based on the performance metrics in paragraph (b) of this section. Specifically, NMFS will use fishery dependent and fishery independent data to evaluate vessel performance based on avoidance of bluefin tuna interactions while fishing with a pelagic longline gear and history of compliance with the observer and logbook requirements of §§ 635.7 and 635.5, respectively.

(b) *Calculation of performance metrics.* In year one of implementation, NMFS will analyze the relevant data from the period 2006 to 2012 to determine a vessel's score and qualification status. Subsequently, NMFS will analyze available data from the most recent complete three consecutive year period to determine a vessel's score and qualification status. NMFS will communicate the results of the annual determination to individual permit holders in writing. NMFS may revise, through the framework procedures under § 635.34, the scoring system to reflect changes in the fishery or ensure that it provides the desired incentives and meets the goals of this program. The process used to calculate the performance metrics are described fully in Amendment 7 to the 2006 Consolidated HMS FMP. The main metrics are summarized below.

(1) *Bluefin tuna interactions performance metric.* The basis for the bluefin tuna interactions performance metric is the ratio of the number of bluefin tuna interactions (*i.e.,* the number of fish landed, discarded dead, and discarded alive) to the total weight of designated target species landings (in pounds). For the purposes of this section, the designated target species are: Swordfish; yellowfin, bigeye, albacore, and skipjack tunas; dolphin; wahoo; and porbeagle, shortfin mako, and thresher sharks. A relatively low bluefin tuna interaction to designated species ratio ('bluefin tuna ratio') indicates that the vessel has successfully avoided catching bluefin tuna while fishing with pelagic longline gear in the performance metric period.

(2) *Observer compliance performance metric.* NMFS will score vessels based on both the vessel owner's and the operator's compliance with the observer requirements outlined in § 635.7 of this part and § 600.746 of this chapter. In addition, the scoring system will consider the number of trips for which an individual vessel was selected to carry an observer, the number of trips actually observed, the reason why a particular trip was not observed, and other relevant observer information. The scoring system is neutral with respect to valid reasons that a vessel may have been selected by the observer program, but did not take an observer (*e.g.,* no observer was available or the vessel was not fishing with pelagic longline gear). The scoring system is designed to weigh trips that were not observed due to noncompliance with the communication requirements more heavily than those not observed due to noncompliance with the safety and accommodation requirements. The scoring system is also designed to consider evidence of fishing activity that may have occurred without required communication or observer coverage.

(3) *Logbook compliance performance metric.* NMFS will score vessels based on both the vessel owner's and vessel operator's compliance with the logbook reporting requirements outlined in § 635.5. This metric will reflect the timeliness of the submission of the logbooks (for example, the amount of time elapsed between the offloading of the catch and the logbook submission).

(4) *Combining performance metrics.* The performance metrics described under paragraphs (b)(1) through (3) of this section will be combined through the use of a decision formula described in Amendment 7 to the 2006 Consolidated HMS FMP. The decision formula will result in a designation for each vessel of "qualified" or "not qualified."

(c) *Annual notification.* NMFS will notify permitted vessel owners annually of the score of their vessel (*i.e.,* "qualified" or "not qualified") by certified mail. The score applies for only one year. NMFS will make aggregate data regarding access to gear restricted areas available to the general public.

(d) *Appeals.* Permitted vessel owners can appeal their performance score determinations pursuant to the procedures, timing, and other requirements at § 635.15(k)(4)(i), (ii), and (iv). Any initial administrative determination or appeal would be evaluated based upon the following criteria:

(1) The accuracy of NMFS records regarding the relevant information; and

(2) correct assignment of historical data to the vessel owner/permit holder. The current owner of a permitted vessel