



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

June 14, 2016

MEMORANDUM FOR: A.I.S., Inc.,
East West Technical Services (EWTS),
Fathom Research LLC,
MRAG America,
At-Sea Monitors (ASMs),
Northeast Fisheries Observer Program (NEFOP) Observers

FROM: Amy Martins 
Branch Chief, Fisheries Sampling Branch (FSB)

SUBJECT: Electronic Monitoring in the Northeast Multispecies and Atlantic
Herring and Mackerel Mid-Water Trawl Fisheries

Electronic Monitoring (EM) will be used on select vessels in the Northeast multispecies and Atlantic herring and mackerel mid-water trawl fisheries in fishing year 2016. These EM operations will operate separately from one another, each with its own goals and objectives. The National Marine Fisheries Service is acting as a project partner in the multispecies fishery project and will be leading a pilot study in the Atlantic herring and mackerel fishery. NEFOP observers are requested to modify their catch handling on board these vessels to assist in EM program data collection and to facilitate an EM and NEFOP data comparison. Background information and catch handling strategies are provided below.

Northeast Multispecies Fishery:

Beginning in June, approximately 20 vessels within the Georges Bank Fixed Gear Sector, Maine Coast Community Sector, and NEFS Sectors XI and V will begin using EM in lieu of at-sea monitors for sector groundfish trips. These vessels are operating under an Exempted Fishery Permit (EFP) and are partnered with the Maine Coast Fishermen's Association, Cape Cod Commercial Fishermen's Alliance, Gulf of Maine Research Institute, and The Nature Conservancy. Vessels participating in the EFP are exempt from ASM coverage, but are still subject to NEFOP coverage. Fishing year 2016 will be a trial period to test an operational EM monitoring program that can collect data that will be used for quota management on gillnet, longline and trawl vessels. Below is a list of vessels currently participating in the EM EFP. As additional vessels are added to the study, FSB will notify all observers and providers at that time

and provide an updated Observer EM Information Sheet (see attachment).

Vessels Participating in the Electronic Monitoring EFP

<u>Vessel Name</u>	<u>Hull Number</u>	<u>Homeport</u>	<u>Sector</u>
<u>Zachary T</u>	<u>MS4951BD</u>	<u>Harwichport, MA</u>	<u>Fixed Gear Sector</u>
<u>Dawn T</u>	<u>MS9353BE</u>	<u>Chatham, MA</u>	<u>Fixed Gear Sector</u>
<u>Gulf Venture</u>	<u>MS4557N</u>	<u>Provincetown, MA</u>	<u>Sustainable Harvest Sector 3</u>
<u>Bug Catcha</u>	<u>1261523</u>	<u>Port Clyde, ME</u>	<u>Maine Coastal Community Sector</u>
<u>Free Bird</u>	<u>926306</u>	<u>Cundy's Harbor, ME</u>	<u>Maine Coastal Community Sector</u>
<u>Marie Ann</u>	<u>ME4395C</u>	<u>Cundy's Harbor, ME</u>	<u>Maine Coastal Community Sector</u>
<u>Pamela Grace</u>	<u>1164886</u>	<u>Cundy's Harbor, ME</u>	<u>Maine Coastal Community Sector</u>
<u>Safe Haven</u>	<u>1183056</u>	<u>Cundy's Harbor, ME</u>	<u>Maine Coastal Community Sector</u>
<u>Ella Christine</u>	<u>568374</u>	<u>Port Clyde, ME</u>	<u>Maine Coastal Community Sector</u>

EM trips will be selected in a random and representative manner through the Pre-trip notification system (PTNS). The PTNS cannot currently distinguish among monitoring types, we will therefore be working with the participating vessels, sector managers, and ASM and EM providers to help identify and track EM trips.

EM vessels will be selected for coverage at the same rate as ASM trips. When selected for coverage, EM service providers will review 100% of the selected trip to verify area fished and record the 13 regulated groundfish discards by species for the purpose of monitoring annual catch entitlement. Captains will be required to measure and discard any regulated groundfish discards within camera view and record data on a haul level.

When an EM vessel is selected for a NEFOP groundfish trip, they are required to run their EM system with the NEFOP observer onboard. On standard NEFOP trips, observers' catch sampling will therefore need to be modified to produce data the agency can use in EM to NEFOP data comparisons. In order to assist NEFOP observers on EM trips, we have developed vessel specific observer protocols. The vessels are required to keep a copy of the modified observer protocols onboard and will have a copy available for the observers to reference. We were unable to standardized observer protocols among the vessels because sampling will differ by vessel, gear type, deck layout, and EM catch handling protocols and therefore have developed vessel-specific observer protocols. Please reference the Observer EM Information Sheet for specific protocols. Generally speaking, on gill net vessels you may be able to work up catch during the haul either

before or after the captain samples regulated groundfish discards. Please discard species according to the deck diagram on the Information Sheet. On trawl vessels, observers will be measuring regulated groundfish at the end of catch processing. Please be sure the captain has had an opportunity to measure his regulated groundfish discards before discarding. All hake species are required to be landed. Fish species other than regulated groundfish (e.g., skates, dogfish, sculpins, etc.) and prohibited species (mammals, sea turtles, seabirds) may be discarded as normal at the appropriate discard control points. Please note altered observer sampling does NOT apply to limited trips.

To help staff track the trips in-house, observers are required to check the EMS_USED checkbox when uploading their trips in the sector ASM program.

Atlantic Herring and Mackerel Mid-Water Trawl Fisheries:

EM will be deployed on up to 12 vessels actively participating in the Atlantic herring and mackerel mid-water trawl fisheries with the purpose of improving catch accounting over a 16 month period. This project will begin in the summer of 2016 and is consistent with the objectives of the New England and Mid-Atlantic Fishery Management Councils (the Councils) to improve monitoring and to address bycatch in these fisheries. The Atlantic herring and mackerel midwater trawl fisheries have limited discarding because the contents of the net are pumped directly into the hold of the vessel. Therefore, the operation of these fisheries lends itself to using EM to verify that all catch are retained and brought to port where catch is sampled under an existing portside monitoring program. The goal of this study is to determine the utility of EM for use in the Atlantic herring and mackerel midwater trawl fisheries. Information learned through this study will help inform the Councils and NMFS in prospective approval and implementation processes.

Participating vessels will be subject to EM monitoring and may occasionally and simultaneously carry NMFS-approved observers (under existing observer deployment regulatory requirements and procedures). This will allow vessel captains, the service provider, and NMFS to develop and test EM program operations while maintaining the integrity of existing data streams critical for science and management. This information will assist in the development of EM program requirements and EM performance standards to be determined by NMFS and the Councils.

An EM service provider will review 100% of participating vessels' trips for discarding events. These vessels will be operating off the coasts of Maine, Massachusetts, Rhode Island and New Jersey. Through EM footage we will be documenting discarding events and additional information specific to that discard event (discard event type, date and time of event, and discard species). Observer catch handling protocols are not expected to vary from regular observer responsibilities.

Each vessel will have a vessel monitoring plan (VMP) on board and observers are advised to talk with the captain about any catch handling protocols they may require for EM data collection. Please mark off EMS_USED when uploading data into OBPRELIM.

If observers have questions related to sampling methods on EM vessels they are encouraged to contact Kelly Neville at Kelly.Neville@noaa.gov or (508) 495-2151 during business hours, or the editor's after hour line (774) 392-5270 for a pre-brief during non-business hours. If you have any questions concerning the study or would like more information please contact Nichole Rossi at Nichole.Rossi@noaa.gov or (508) 495-2128.

Thank you for your cooperation.

Attachment: Observer EM Information Sheet

Project Summary

The Nature Conservancy has partnered with the Cape Cod Fishermen’s Alliance, the Maine Coast Fishermen’s Association, and the Gulf of Maine Research Institute to implement an experimental electronic monitoring program via an Exempted Fishery Permit (EFP). The Northeast Fisheries Science Center (NEFSC) and the Greater Atlantic Regional Fisheries Office (GARFO) are also collaborative partners in this project in an effort to further investigate the applicability of EM in the multispecies fishery.

Building off of the EM work completed by the Fisheries Sampling Branch (FSB) and more recently the Gulf of Maine Research Institute (GMRI), the project will install EM equipment, and document the first year of an operational EM program that allows groundfish sector vessels to verify area fished and regulated groundfish discards by species, for the purposes of monitoring sector utilization of annual catch entitlement. Participating vessels will use EM instead of an At-Sea Monitor (ASM). Vessels will be required to carry NEFOP observers and NEFOP and EM discard reports may be compared. This project is expected to continue through Fishing Year 2016 and may incorporate additional vessels.

Sampling Instructions

- Make sure you complete your sampling needs *first*
 - Know where EM cameras and sensors are to prevent data loss (do not block them)
 - Set up your sampling station within camera view
 - Species other than regulated groundfish (ex. skates, dogfish) and incidental takes must be discarded in view of a camera at the designated discard control point
- * Do NOT measure any of the 13 ACE species for the captain
 - * Do NOT discard any hake species. The captain will have to retain all hake species

Regulated Groundfish Species List

Atlantic cod	Yellowtail flounder	Witch flounder	White hake	Redfish, NK
Haddock	American plaice flounder	Atlantic halibut	Windowpane flounder	
Pollock	Winter flounder	Atlantic wolffish	Ocean pout	

EM Pre-Briefs

If observers have questions related to sampling methods on these EM vessels they are encouraged to contact

Office hours:
Kelly Neville
(508) 495-2151

After hours editing
phone: (774) 392-5270

Uploading Data

Observers will need to flag these EM trips during their trip upload. The most recent ASM software update includes a field for EMS_used when uploading groundfish sector trips.

Upload Trip

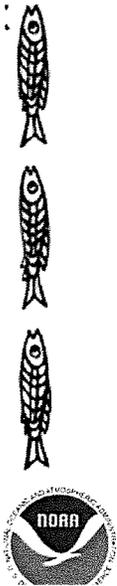
EMS Used?

Vessel Boarded by Enforcement?

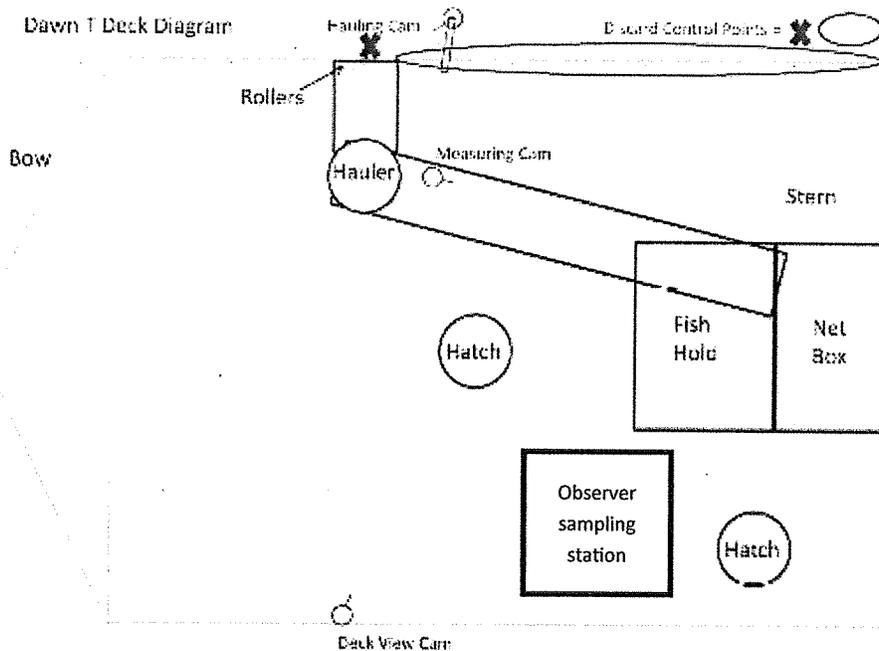
Whole Fish?

A13998

Cancel OK

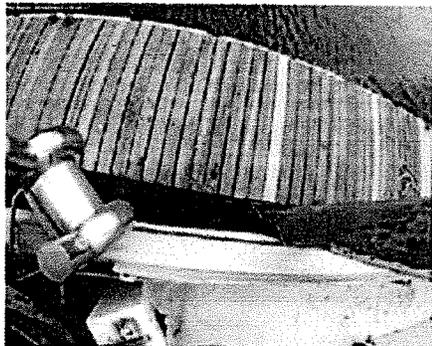


DAWN T

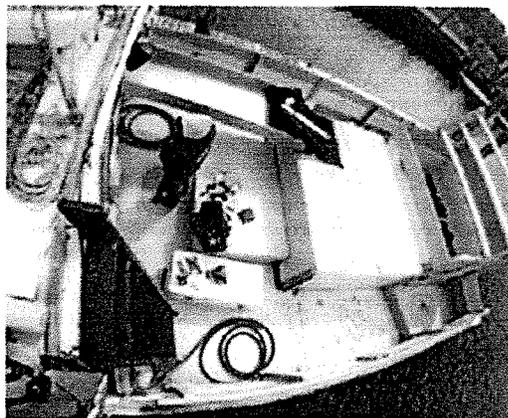


The captain will retain all regulated groundfish discards until after hauling is completed. Fish will be measured by the captain on the sorting table then discarded at the starboard rail.

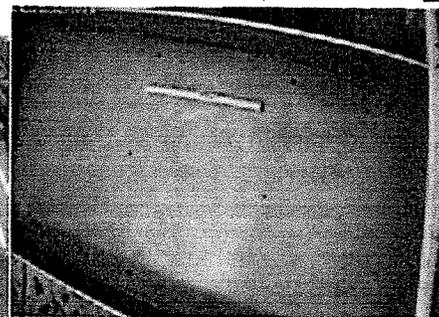
Your sampling station will be located on the port side of the vessel. Work up your catch as you usually would during the haul. Regulated groundfish intended for discard will be disentangled by the crew members and measured then provided to the observer. Once you have finished working up these individuals, please make sure to discard these fish at the starboard rail as depicted in the deck diagram above. Please discard any non-regulated groundfish along the starboard rail.



Starboard rail hauler view. Captain only



Deck view. Shows both rails, captain and crew discarding locations, and observer sampling station location.



Captain's measurement area for regulated groundfish discards.

