



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 26, 2015

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

FROM: Amy Martins
Branch Chief, Fisheries Sampling Branch (FSB) *Sara Welch*
FOR AMY MARTINS
BRANCH CHIEF

SUBJECT: Electronic Monitoring GMRI Study and Observer Protocols

Observers and At-Sea Monitors (ASMs) please be advised that the Gulf of Maine Research Institute (GMRI) is conducting an Electronic Monitoring (EM) study called "Operationalizing Open-Source Electronic Monitoring Systems in New England Groundfish Sectors" on the following groundfish vessels out of Maine and New Hampshire:

Vessel	Homeport	Gear	Sector
Pamela Grace	Portland, ME	Gillnet	Maine Coast Community Sector
Safe Haven	Portland, ME	Gillnet	Maine Coast Community Sector
Jeanne C	Boothbay Harbor, ME	Bottom otter trawl	Maine Coast Community Sector
Ella Christine	Port Clyde, ME	Bottom otter trawl	Maine Coast Community Sector
Lady Victoria	Seabrook, NH	Bottom otter trawl/Gillnet	Northeast Fishery Sector XI

GMRI, in collaboration with the Maine Coast Community Sector, Northeast Fishery Sector XI, and The Nature Conservancy, is managing this EM study and has contracted EM services with Ecotrust Canada from British Columbia. 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), the project aims to develop program design, improve data management, and document the first year of a fully functional EM program. Project objectives include developing a monitoring program that can collect data comparable to the ASM program on gillnet and trawl vessels. This includes comparing EM data to fishermen self-reported data (VTRs) as well as NEFOP and ASM data. The GMRI project is expected to continue through 2016 and may incorporate additional vessels. If additional vessels are added to the study, FSB will notify all providers at that time and provide an updated reference guide.

EM technology utilizes passive data collection systems (video cameras, sensors, automated computers) to collect fishing activity. In order for EM reviewers to be able to adequately identify and obtain an estimated weight from video imagery, specific catch handling protocols must be followed by the crew and observers. The captain and crew are volunteer participants in this study and have modified the manner in which they handle catch in order to accommodate the EM system and video analysis. FSB is requesting that observers also modify their sampling protocols on these vessels in order to maximize the amount of data that can be obtained from these trips.

The rationale for these changes is twofold: 1) to ensure the EM system can adequately account for finfish discards on observed trips and 2) to ensure that finfish are discarded in the same manner on all EM trips. To assist in effective data collection FSB has created an observer reference guide for EM trips. The guide is a reference sheet that includes information on the EM project, lists the participating vessels, and describes observer catch handling sampling and special trip uploading procedures.

Please note if the discard volume does not allow for the outlined sampling methods, observers should utilize standard catch handling methods to estimate the catch. The observer's primary responsibility is to sample the catch effectively according to standard protocols and to the best of their ability implement the "preferred" EM specific-sampling when possible. Observers should communicate with the captain when the "preferred" sampling is not possible and do their best to discard fish within camera view.

The modified sampling only applies to the species listed below:

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

If observers have questions related to sampling methods on EM vessels they are encouraged to contact Glenn Chamberlain at Glenn.Chamberlain@noaa.gov or (508) 495-2153, or Kelly Neville at Kelly.Neville@noaa.gov or (508) 495-2151 for a pre-brief to review protocols. 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.

Attachments:

Observer/Monitor EM Sampling Protocols on GMRI study vessels; 26 June 2015

OBSERVER/MONITOR PROTOCOLS ON EM VESSELS

Gulf of Maine Research Institute (GMRI): Operationalizing Open-Source Electronic Monitoring Systems in New England Groundfish Sectors

Project Summary

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EM targets: large-mesh groundfish species list

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

Preferred Sampling Protocols

- After sampling, observers should return all fin fish discards back to the crew and the crew will be responsible for discarding off the vessel. This does not apply to *Skates* and *Dogfish* and they can be discarded per regular observer protocols.
- Crew can be handed fish during regular sorting or immediately after sorting is done for the haul. Captains and crew are aware of the change in protocols and will work with the observer to comply.
- *Note: If the discard volume does not allow for this method and observers need to utilize other catch handling methods to perform their duties, observers should inform the captain and proceed with their duties while discarding fish within camera view when possible.*
 - An example scenario is as follows: There are numerous Pollock discards on a gillnet string and there is not enough time to coordinate with the crew to have them discard the Pollock once they have been sampled. In addition, the observer cannot store the Pollock discards because their baskets are filled up and they need to make room for other species to be sampled. The observer should inform the captain of the situation, stop returning the Pollock discards to the crew and discard them themselves while attempting to do so within camera view.
- *Note: These are preferred methods, observer's duties take precedence over the modified sampling*

Participating Vessels

Vessel	Homeport	Gear	Sector
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Safe Haven	Portland, ME	Gillnet	Maine Coast Community Sector
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Lady Victoria	Seabrook, NH	Bottom otter trawl/Gillnet	Northeast Fishery Sector XI

EM Pre-Briefs

If observers and ASMs have questions related to sampling methods on these EM vessels they are encourage to contact:

Glenn Chamberlain, (508) 495-2153

Kelly Neville, (508) 495-2151

Uploading Data

Observers and ASMs 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. OBPRELIM also has an EMS_used field to check off