



ELECTRONIC MONITORING STUDY NEWSLETTER

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This Newsletter is a product of the Fisheries Sampling Branch at the NMFS Northeast Fisheries Science Center (NEFSC) in Woods Hole, MA. Questions, comments, or requests for information can be sent to Nichole.Rossi@noaa.gov

Welcome to our new Newsletter!

Welcome to the inaugural issue of the Fisheries Sampling Branch (FSB) Newsletter. The intent of this newsletter is to provide study participants, National Marine Fisheries Service (NMFS) staff, and sector managers with quarterly information on the *Electronic Monitoring (EMS) Pilot Study Project*. We hope the newsletter serves as an effective means of communication between NMFS staff and interested parties. While this issue focuses on information from FSB and Archipelago Marine Research Ltd., future issues will involve study participants. We would love to hear from you what information you think is pertinent to include in the newsletter.

NEW FACES IN THE EMS PROJECT TEAM...

Joining the EMS project team are three new field services technicians; Andrew Ashley, Mark Hager, and Jesse Luberoff. The field technicians will be responsible for conducting installations, field service maintenance and troubleshooting equipment issues, and performing data retrievals.

FUNCTION TESTS: A QUICK WAY TO SAVE THE DAY!

Contributed by Archipelago Marine Research

Function tests only take a couple minutes to complete, but are a quick way to ensure that your EMS system is operating properly before heading out on a fishing trip. This is important for three reasons:

1. Having a complete data set allows for accounting of all fishing activity
2. Having a complete data set allows for proper comparisons between EMS and other catch reporting sources
3. Answering those six questions maximizes the compensation that your boat will receive for participating in the ongoing EMS study



Length Measurements and Discard Chutes

By Archipelago Marine Research

The Fisheries Sampling Branch of the Northeast Fisheries Science Center of NOAA has identified a need for recognizing the size of discarded fish as part of proper sector management. To aid in this, Archipelago Marine Research is in the process of developing robust techniques for calculating and recording the lengths of discarded fish using video technology that is flexible enough to be used on any type of boat. Building on our learning in measuring lengths of Alaskan halibut at sea and recording the minimum allowable size of certain species in longline fisheries, we have built a test discard chute and video camera arrangement that is non intrusive for boats less than 80 feet long and collects quality data on fish species, numbers, and lengths. This system will get further “real world” testing on volunteer boats in the New England area starting this winter.



Red, yellow and green colors are used to verify legal or sublegal catch in longline fisheries. Image provided by Archipelago.

DATA RELEASE; WHAT YOU NEED TO KNOW BEFORE YOU SHOW VIDEO

BY THE FISHERIES SAMPLING BRANCH

FSB is committed to providing fishermen access to the data we collected on their vessels; this includes data obtained from the EM pilot study. Study participants may request a copy of the video data and interpreted data (species composition, tally count of discarded/kept species, etc.) on a tow or trip level basis. It should be noted that upon release of the requested data, the recipient then becomes responsible for the data. Any public viewing of the obtained video footage at a public meeting may be subject to the Freedom of Information Act (FOIA). This act allows for the full or partial disclosure of previously unreleased information controlled by the United States Government. Any image product displayed publicly is considered “releasable” to the public upon request. If you have any concerns or questions about this policy please contact Nichole Rossi at Nichole.Rossi@noaa.gov.

Study Statistics:

- 10 Vessels are participating in the EM study
- Of the 10, 4 are trawlers, 3 are gillnet, and 3 rotate between gillnet and longline gear
- Vessel ports include; Chatham, MA, Scituate, MA, Gloucester, MA, Point Judith, RI, and Portland, ME

An EMS Viewer's Perspective

By Kelly Neville

As an electronic monitoring (EMS) viewer we are tasked with accurately recording kept and discarded catch from the footage obtained on study participant vessels. In July Archipelago traveled to Falmouth, MA and trained Glenn Chamberlain (FSB) and myself how to use "Video Analyzer" software (custom software created by Archipelago). The software enables "viewers" to enumerate and speciate catch. FSB has been diligently working on viewing all the footage obtained as a result of this study.

We have got a good idea of the length of time it typically takes to review footage and also have a good sense of which fisheries are easier to document with EMS data.

Analyzing hauls from either a longline or gillnet vessel takes approximately the same time as the length of the haul. For example, if one haul is 1.5 hours long, the viewing time would be close to 1.3 hours. We can speed up viewing frequency, but only if no more than one crew member is working and there is not a lot of catch. The more people picking fish out of a gillnet at the same time, the more time it takes to accurately account for where each fish goes. By far, longline appears to be the easiest fishery to document. Gillnet is a close second, but becomes more difficult as the number of crew handling catch increases. Trawl (as you may have guessed) is definitely more time consuming, but not impossible. All of our trawl vessels have conveyors and typically have larger catches. Viewing takes longer because we review the video once for discards and then again for kept catch.

Therefore, the time it takes to review catch on trawl vessels is nearly triple the haul duration.

This project incorporates dual processing programs. FSB and Archipelago are cooperatively reviewing all the footage collected from groundfish vessels. Trips that declare out of the groundfish fishery are reviewed for sensor data (general vessel track, GPS coordinates, etc.), but not analyzed for catch data. We are concentrating on groundfish data for sector reporting only.



Imagery from a gillnet vessel's sorting table illustrating the possibilities of species identification via video. Images provided by FSB.



Care and Feeding of your EMS system

By Archipelago Marine Research

For the most part, EMS systems are robust to the tough environment on a fishing boat. Considering that Archipelago Marine Research has about 500 systems experiencing 30-40,000 sea days a year worldwide, they had better be! Four simple tasks before every fishing trip are enough to keep your system running.

1. Turn it on. Many people laugh at this, but its easy to forget when you first get your system installed.
2. Complete a function test. It will only take 2 or 3 minutes and afterwards you will know for sure that your system is operating properly.
3. Keep the cameras clean. If you notice that the view is a bit fuzzy during the function test, a quick wipe with a soft rag and some fresh water will usually clear up the image.
4. Call if there is a problem. It is very rare that these systems fail, but sometimes they do. Issues with hard drives and power fluctuations are the top two reasons and a 24-hour field tech is available (at 1-250-383-3203) for you to report any issues. A field technician will then make an appointment to come troubleshoot the system as soon as possible.



Each picture above represents a type of poor quality video; A) camera has water droplets on the lens, B) salt has dried and blurred the camera view, C) low light levels due to night time video, D) too much glare from off the water. Images provided by Archipelago.

Like the Newsletter? Help make it better! Please submit your ideas, notes, observations, or give us ideas on what you would like to see. Email to Nichole.Rossi@noaa.gov