Electronic Monitoring:
Atlantic Herring and Mackerel Project Information Sheet

The National Marine Fisheries Service (NMFS) is evaluating the utility of Electronic Monitoring (EM) for catch monitoring on midwater trawl vessels in the Atlantic herring and mackerel midwater trawl fisheries. Saltwater Inc. has been contracted by NMFS to provide and install EM units on up to 12 commercial fishing vessels in the Northwest Atlantic. Work from this project will help inform the implementation of the Industry-Funded Monitoring (IFM) Omnibus Amendment and the development of future EM programs. This 16 month project is currently underway and will run through December of 2017.

Goals

- Deploy and test an EM program in an operational setting, allowing analysis and adjustment of EM program requirements, and development of business practices to support an EM program.
- Evaluate the utility of EM for monitoring catch retention and identifying discard events in the Atlantic herring and mackerel midwater trawl fisheries.
- Additional goals include familiarizing the fishing fleet with EM, gaining industry input on EM operations, and refining industry and NMFS EM cost estimates.

How Electronic Monitoring works, what it records, when it records:

- EM consists of multiple cameras, a control box, a user-interface (monitor), a GPS receiver, and two sensors (hydraulic and rotation).
- Cameras begin recording when the sensors are triggered by the drum rotation or hydraulic pressure transducer; cameras target the vessel's deck and waters surrounding the vessel, including where the codend is pulled to the surface and pumping occurs.
- Camera views are focused only on the areas of the deck where catch handling occurs (e.g., net reel, pump, dewatering box, etc.).
- Cameras are set up to turn on when gear is first deployed, remain on for the duration of every trip, and turn off once the vessel returns to port.
- 100% of EM footage collected on every trip would be reviewed by Saltwater.
- The system does **NOT** record audio.

EM Video Camera

How are the data stored and transferred to Saltwater?

Data are stored on a hard drive inside a control box (hard drives can hold up to a month's worth of data) and handled as confidential data. Vessel operators will mail the hard drives to Saltwater. Vessel operators will receive training on how to remove and mail their hard drives before their first fishing trip. Mailing hard drives is easy for the vessel and cost effective for the program.

For more information or questions regarding Electronic Monitoring in the Atlantic herring and mackerel fisheries please contact:
Dan Luers (978) 282-8457
Daniel.Luers@NOAA.gov
or
Nichole Rossi (508) 495-2128
Nichole.Rossi@NOAA.gov


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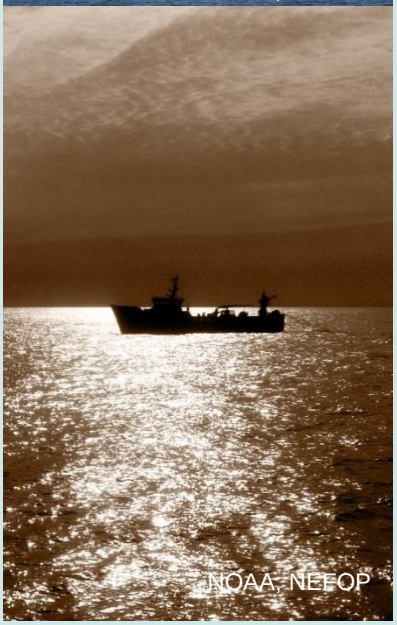
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Who owns the data collected during the project?

The data will be the property of the government. Data collected are subject to the same data confidentiality regulations as observer data. Vessel owners may request copies of video collected aboard their boat.

Would data gathered in this project be used in management of the fishery?

The data will be used to evaluate the utility of EM as a means of monitoring the fishery. Carrying EM equipment does not trigger slippage requirements (only carrying an observer triggers slippage requirements).

Who owns the equipment?

Saltwater will supply all necessary equipment, and will remove all equipment at the end of the project. At the completion of the project, vessel ownership of the equipment or a lease agreement with Saltwater is possible, but should be discussed between Saltwater and vessel representatives.

Will I have to take a NEFOP observer once EM equipment has been installed on my vessel?

There would be no additional NEFOP coverage associated with this project, but if your vessel is selected for NEFOP coverage, you would be required to carry an observer and operate the EM system on the same trip. Data from trips with both NEFOP coverage and EM would be compared to evaluate the effectiveness of EM.

When do I have to turn on the EM System?

The EM system would need to be turned on for every declared Atlantic herring or mackerel trip. The EM system will be on for the duration of a trip, but the cameras will not be triggered to start recording until gear is first deployed and then cameras will stop recording when the vessel returns to port.

Will the vessel incur any EM costs during this project?

NMFS is responsible for equipment, data retrievals, data reviewing, data storage, and EM provider overhead costs. Vessels requiring power upgrades to accommodate the EM system are responsible for those costs.

What happens if the EM equipment is not working properly and I want to leave on a trip?

Participating vessels are acting in a voluntary capacity and, therefore, will not be prevented from fishing if the EM system malfunctions. Vessels will be required to report all system failures to Saltwater and allow Saltwater access to the vessel to fix the issue.

Would vessels be required to modify fishing practices/effort or be subjected to additional regulations during this project?

No, the objectives of this project are to evaluate the utility of EM for catch monitoring, and to educate the fleet in EM technology. It is important for vessels to fish in a normal manner to determine if EM can capture the elements necessary to monitor the fishery (e.g., catch retention, discard events). Carrying EM equipment would not trigger slippage requirements; only carrying an observer triggers slippage requirements.

Atlantic Herring (*Clupea harengus*)

For more information or questions regarding electronic monitoring on Atlantic herring or mackerel vessels visit www.nefsc.noaa.gov/femad/fsb/ems or contact:

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or Nichole Rossi (508) 495-2128 or Nichole.Rossi@NOAA.gov