

Integrating Electronic Monitoring into the North Pacific Groundfish and Halibut Observer Program

Potential components of EM Program for discussion

Alternative 2 EM Program

Goal: Use EM on the fixed gear fleet to achieve the goals of the Council's fishery research plan.

EM Deployment Design

Goal: Use best available information to design the EM deployment methods, including the EM selection pool, that meet policy and data collection goals.

Elements could include:

- Use the **ADP** process to define the
 - EM deployment methods and coverage rates
 - EM selection pool (the universe of vessels that can participate in EM based on, for example, vessels size, gear type, area, and/or port)
 - EM data collection goals and methods (types of data collected by EM vessels, seabirds, depredation)
- Use the **Annual Report** for performance review and analysis of EM coverage and data

Participation/eligibility

Goal: A pool of EM participants that are committed to making EM work on their boats.

Elements could include:

- Opt-in process - NMFS to notify the universe of vessels defined by the selection pool, provide the opportunity for eligible vessels to opt-in, and select vessel that meet eligibility criteria.
- Eligibility to participate contingent on
 - compliance with the *vessel monitoring plan* (VMP)
 - *option*: performance standard (low compliance rate with VMP over time or repeat problems with EM system reliability or video quality)
 - process for reviewing eligibility decisions
- Selection of vessels to carry EM during selection periods

Equipment (wiring/sensors, cameras, monitors, hard drives)

Goal: Provide the appropriate equipment to each vessel carrying EM.

Elements could include:

- Option 1: NMFS/Contractor provides equipment to each vessel
 - Specifications/performance standards for equipment would be in the contract
 - Equipment would be paid for using observer fees or other funding as available
 - Few, if any, regulations would be needed to specify equipment
 - Maintenance/replacement of equipment
- Option 2: Vessel provides its own equipment

- Specifications/performance standards for equipment would be in regulations
- How would equipment be paid for?
- Maintenance/replacement of equipment

Installation

Goal: EM gets properly installed on each vessel, at the appropriate port, and in a timely fashion with the least interruption to the fishing plan.

Elements could include:

- Option 1: Contractor installs EM equipment
 - Contractor works with a vessel operator to write a VMP, which can be amended between trips working with the contractor.
 - Contractor installs EM equipment following VMP
 - Vessel operator's responsibilities to ensure contractor has all needed access and assistance (similar to 2016 pre-implementation plan) prior to and during installation.
 - Cooperation with contractors (schedules, ports, etc.)
 - Recourse if installation is not successful
- Option 2: Vessel installs EM equipment
 - Vessel operator writes a vessel monitoring plan (VMP), which can be amended between trips working with NMFS.
 - Operator installs EM equipment following VMP
 - Compliance monitoring and recourse if installation is not successful
- VPM Process – process for submitting a VMP to NMFS, NMFS approval of the VMP, and process for amending VMP inseason.

Operation

Goal: Each vessel operator maintains a functioning EM system throughout the fishing trip and there is a good process for maintaining quality control and addressing equipment failures.

Elements could include:

- Vessel operator's responsibilities in the operational plan, part of the VMP
- Types of responsibilities include stable power supply, function tests, breakdown, hard drive capacity, video quality, catch handling, effort logbook – all from 2016 EM pre-implementation plan, others depending on information gathered during pre-implementation.
- Flexibility to address non-critical equipment malfunctions while at-sea
- Critical EM system malfunction, vessel must remain in port for up to 48 hours for repairs, vessel released if repairs can't be fixed within 48 hours. Malfunction must be fixed prior to departing on subsequent trips
- First trip quality control
- Dockside observer to verify EM data or other quality control at landing

Data/Equipment Retrieval

Goal: EM equipment with data returned to NMFS timely and in good condition.

Elements could include:

- Transmit hard drives/data to NMFS
- Un-install equipment
- Coordination with contractors (schedules, ports, etc.)

Video review/ Catch Accounting

Goal: Extract data from video equipment and integrate data into the catch accounting system in a timely manner so that data can be used in management.

Elements could include:

- Methods for video review
- Method for integrating EM data into catch accounting
- Methods for certifying video review
- Methods for other types of data (seabirds, depredation)
- Video retention and storage (as Federal records?)

Feedback Mechanisms

Goal: All participants have the opportunity to provide feedback to address problems and improve the EM Program.

Elements could include:

- Feedback from vessel operators on performance of providers
- Feedback on performance of vessel operators (equipment maintenance, data quality)
- Feedback on NMFS management of EM Program

Fees/Funding

Goal: Use Observer Program fees or other sources of funding to pay for the EM equipment, installation, and maintenance.

Elements could include:

- Alternative mechanisms to fund EM equipment purchase
- Alternative mechanisms to fund EM equipment installation and maintenance
- How fees are used?
- How to achieve efficiencies and cost savings?