



**NOAA  
FISHERIES**

# Electronic Monitoring

Toward a Cost-Effective and Regionally-Appropriate  
Strategy for Fishery-Dependent Monitoring

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CCC Meeting  
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# Background

- The demands for more frequent, more precise, and more types of fishery dependent data for the agency's science, compliance and management use continue to rise every year. Program sustainability is at-risk.
- In January 2012 NOAA Fisheries Leadership set goal to achieve a more cost-effective and sustainable approach, and take advantage of the range of current and emerging technologies.
- Commissioned six white papers exploring management, science, policy and enforcement issues impacting adoption of electronic monitoring (EM) and electronic reporting (ER) tools.
- Based on white paper findings, NOAA Fisheries has drafted a strategic approach to consider the challenges and opportunities associated with the adoption of electronic technologies.

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# Proposed Objective

To work collaboratively on a more cost-effective and sustainable approach to fishery-dependent data collection that utilizes electronic technologies where appropriate

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# Presentation Outline

- As context, highlight key findings of EM/ER white papers
- Propose a process and timeline for collaboration, best practices, and applying guidance to regional strategies
- Discuss the process and CCC ideas

# EM/ER White Papers

Provide information to consider when evaluating EM/ER as a possible data collection tool, including the benefits and drawbacks of EM/ER options.

## White Paper Topics:

1. Existing Technologies
2. Enforcement
3. Research & Development
4. Alignment of Objectives
5. Funding Options
6. \*Legal/Confidentiality Concerns

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# Key Findings of White Papers

## 1. Existing Technologies:

Currently narrow EM applications; ER commonplace.

Species ID, lengths/counts, discards, video review > challenges EM for catch accounting operations

Full retention, non-trawl, few species, targeted behaviors are positive EM conditions

E-logbooks relatively mature

# Key Findings of White Papers

## 2. Enforcement:

EM/ER helpful compliance tool for monitoring specific requirements or prohibitions

Early participation necessary in definitions and regulations written for enforceability

- Chain of custody for evidence data, tamper resistance

Monitoring remote areas; useful for full-retention requirements

VMS a proven technology, opportunity for expansion/integration

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# Key Findings of White Papers

## 3. Research and Development:

Several efforts focused on automating video review process

Species ID – pattern recognition underway

Quantification of catch

Speed and cost of data transmission: need more timely and cost-effective options

Publish requirements for ER

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# Key Findings of White Papers

## 4. Alignment of Objectives:

Use structured decision analysis method to evaluate EM/ER options

Meeting a monitoring program's objectives may be mix of EM/ER and other tools.

Emphasis of stakeholder design input

Transition period from current to future regulatory program critical

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# Key Findings of White Papers

## 5. Funding Options:

Appropriations, industry funding and third-party funding sources all need to be evaluated

Need more rigorous benefit-cost data

Unused/underutilized MSA statutory authorities should be explored

Seek new partners: third-party funders and third-party software developers

# Agency Guiding Principles

1. The agency encourages and endorses the use of electronic monitoring technologies, where appropriate
2. Fishery dependent data collection programs need to be fiscally sustainable
3. Regional EM/ER strategies to consider the possible adoption of EM/ER tools should be developed for each federally-managed fishery in collaboration with and to meet the needs of the industry, Councils, and the agency

# Proposed Joint Effort to Develop Strategies

Task 1: Level the knowledge playing field, share case study results, jointly develop best practices

- Over the course of the next four months, NOAA Fisheries proposes working with the Councils (e.g., develop workshops, webinars and Council-NOAA Fisheries meetings) to inform the goals, scope and contents for best practices.
- The agency is seeking help from the CCC and Councils on:
  - Identification of regional goals and objectives for data collection
  - Evaluation/integration of case study and pilot project results
  - Development of guidance/best practices for consideration/possible selection of EM/ER options

Outcome: Technical guidance to decide how and when to consider EM/ER as part of a long term data collection program strategy.

# Process for Developing Strategies

Task 2. From July 2013 and forward, the respective NOAA Fisheries Regional Administrators, Regional Councils and their stakeholders would apply this information and process guidance to determine which, if any, fishery would benefit from the adoption of an EM/ER element.

- Where appropriate, within a year to 18 months the Council and NOAA Fisheries would issue plan amendments and regulations for fisheries in their regions where EM/ER was found to be relevant and helpful.

# Proposed Timeline

- February – March 2013: Develop strawman technical and process guidance.
- February – June 2013: Council/NOAA Fisheries regional workshops.
- March – June 2013: Conduct outreach and solicit input.
- May 2013: Managing Our Nations Fisheries III Poster Session
- June 2013 – August 2013: Finalize guidance. Communications roll-out.
- July 2013 – End of Year: Regional evaluation on the role of EM/ER. Develop regional strategy/plan on consideration of EM/ER.
- September 2013: American Fisheries Society Symposium on EM/ER.
- October 2013: Possible national workshop on EM/ER.
- 2014 and Beyond: Regional implementation of Plan amendments and/or regulatory changes.

# Feedback from CCC

- Does this proposal describe a reasonable way-forward on considering EM/ER options as part of a cost-effective and sustainable data collection program?
- What would you change?
- Are there missing opportunities to engage with the Councils and stakeholders about an EM/ER strategy that are not in the proposed timeline?
- How can the CCC EM Working Group best engage? Are there other groups we need to reach out to with the CCC/Councils to resolve EM/ER issues?