

Department of Commerce · National Oceanic & Atmospheric Administration · National Marine Fisheries Service

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Science and Technology Policy on Electronic Technologies and Fishery-Dependent Data Collection	
COST ALLOCATION IN ELECTRONIC MONITORING PROGRAMS FOR FEDERALLY MANAGED U.S. FISHERIES	
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I. Introduction

The demands for more precise, timely, and comprehensive fishery-dependent data continue to rise every year. As a result, the complexity and cost of fishery-dependent monitoring has increased over time. Constraining budgets and increasing demands for data are driving the need to evaluate and improve existing fishery-dependent data collection programs with respect to cost-effectiveness, economies of scale, and sharing of electronic technology solutions across regions. Electronic monitoring (EM)¹ programs provide a potentially cost-effective solution for the data demand.

Currently, all appropriated funds designated for implementing systems to monitor fishing vessel activity and catch at sea are fully dedicated. As a result, any new monitoring system must either be funded through discretionary spending appropriations or non-appropriated funds, such as industry funding.² Even in situations where federally appropriated funds may cover the initial startup of a monitoring program, such a program must be designed to cease or be adjusted should

¹ For a definition of electronic monitoring and other terms used in this document, please see the Glossary of Terms in [Appendix A](#) of this document.

² Industry participants may partner with non-governmental organizations or other entities to secure funding for its portion of costs.

some or all of those funds expire, and to include a transition plan to cover the costs of non-appropriated funds upon expiration of federal funding.

NOAA Fisheries issued the Policy Directive on Electronic Technologies and Fishery Dependent Data Collection (Policy Directive) in 2013.³ The Policy Directive (updated in 2019) encourages the agency to consider electronic technologies in implementing new and/or improving existing fishery-dependent data collection programs to achieve the most cost-effective and sustainable monitoring approach. The approach should ensure alignment of management goals, data needs, funding sources, and regulations.

The Policy Directive also outlines a number of considerations for fisheries managers when developing electronic technology-based data collection programs, including:

No electronic technology-based fishery-dependent data collection program will be approved by NOAA if its provisions create an unfunded or unsustainable cost of implementation or operation contrary to applicable law or regulation. Funding of fishery dependent data collection programs is expected to consider the entire range of funding authorities available under federal law, including those that allow collection of funds from industry. NOAA Fisheries will work with Councils and stakeholders to develop a plan that transitions certain costs to the fishing industry, when allocation of monitoring costs between the agency and industry is deemed appropriate and approved under applicable law and regulations.

In order to effectively implement the Policy Directive, this procedural directive is being issued to explain the categories of costs associated with EM programs and describe how such program costs should be allocated between NOAA Fisheries and industry participants. NOAA Fisheries will use this procedural directive as a framework to evaluate EM implementation. Further, Regional Fishery Management Councils (Councils)⁴ are expected to use the cost allocation framework set forth in this directive when creating new EM programs and evaluating existing EM programs. NOAA Fisheries believes that allocating costs as described in this directive is consistent with applicable law and will provide a transparent and consistent framework for discussing and identifying the agency's and industry's respective cost responsibilities in new and existing EM programs. Finally, NOAA Fisheries expects that the framework described in this document will allow for the implementation or maintenance of EM programs that could not otherwise be initiated or maintained solely with federal appropriations.

Fishery-dependent data collection programs often include a combination of data collection methods in addition to EM, such as electronic reporting, on-board observers, and dockside monitoring. It may be appropriate to create cost allocation

³ Please see the NOAA Fisheries Office of Science and Technology's website on Electronic Monitoring: <https://www.st.nmfs.noaa.gov/advanced-technology/electronic-monitoring/index>.

⁴ In the context of this procedural directive, "Council" includes NOAA Fisheries for the purposes of preparing Fishery Management Plans or amendments for Atlantic highly migratory species. See 16 U.S.C. § 304(g).

frameworks for these additional methods in the future; however, this procedural directive only applies to EM. Additionally, this procedural directive does not apply to small-scale pilot projects or programs using exempted fishing permits where NOAA Fisheries and industry participants are working collaboratively to test the viability of EM approaches for specific purposes and in limited circumstances.

II. Objective

The intended outcome of this procedure is to establish a framework for allocating costs for EM programs in federally managed U.S. fisheries between NOAA Fisheries and the fishing industry, and a timeline for implementing the framework⁵.

III. Guidance

Cost Responsibilities: Cost allocation for EM programs must be consistent with all applicable appropriations law, the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and other Federal requirements. Typically, NOAA Fisheries' programs and activities are financed by funds appropriated by Congress. A congressional appropriation establishes a maximum authorized program level, which prohibits an agency, absent specific statutory authorization, to operate beyond the level that can be funded by its appropriations.⁶

NOAA Fisheries has identified two categories of costs associated with EM programs: sampling costs and administrative costs (described in the cost categories section). For all EM programs, NOAA Fisheries will be responsible for the administrative costs, including the costs of setting standards for such programs, monitoring program performance, and providing administrative support to address science, enforcement, and management needs, except where the MSA specifically authorizes the collection of fees for these costs. For EM programs that are initiated by a Council, for example, to provide greater operational flexibility to industry participants or an exemption from otherwise applicable requirements, industry will be responsible for the sampling costs of such programs. If NOAA Fisheries determines that EM is necessary and appropriate to meet legal obligations (*e.g.*, requirements of the Endangered Species Act), and sufficient appropriated funds are available, NOAA Fisheries intends, as a matter of policy discretion, to fund the sampling costs of such programs, unless the MSA specifically provides otherwise.

⁵ This policy does not apply to EM programs in federally managed U.S. fisheries where the program is mandated or administered by an authority other than NOAA Fisheries.

⁶ See 72 Comp. Gen. 164, 165 (1993). An agency may not circumvent these limitations by augmenting its appropriations from sources outside the government, unless Congress has so authorized the agency. Although there is no statute that specifically prohibits augmentation, the concept has a statutory basis: 31 U.S.C. § 3302(b), the "miscellaneous receipts" statute; 31 U.S.C. § 1301(a), which restricts the use of appropriated funds to their intended purpose; and 18 U.S.C. § 209, which prohibits the payment of, contribution to, or supplementation of the salary of a government officer or employee as compensation for his or her official duties from any source other than the government of the United States.

NOAA Fisheries expects it will fund the EM program costs for which it is responsible through annual appropriations, and that industry will be directly responsible for paying for the sampling costs of EM programs in the circumstances described above. However, NOAA Fisheries is specifically authorized and required by the MSA to collect fees to cover the actual costs of certain activities, including data collection and analysis, associated with Limited Access Privilege Programs (LAPPs)⁷. In such fisheries, NOAA Fisheries may collect fees from industry to pay for administrative costs, sampling costs, or both, as consistent with statutory and regulatory requirements. In those cases, NOAA Fisheries would not collect fees for costs that industry has paid for directly. NOAA Fisheries is also authorized to assess fees in certain North Pacific fisheries for the purpose of stationing observers and EM systems aboard fishing vessels or at fish processors.⁸ While NOAA Fisheries could pay for sampling or other directly incurred EM costs using fees collected from industry under the North Pacific provision, unlike the LAPP fee authority, the MSA specifies that North Pacific fees cannot be used to pay for certain administrative costs.

Councils should be aware that NOAA Fisheries cannot guarantee the availability of appropriated funds for EM program administrative costs. If NOAA Fisheries at any point determines that it no longer has sufficient authorized appropriated funds to cover the administrative costs of a program, NOAA Fisheries will not approve a new program (if it has yet to be approved) or alternatively would adjust or end an existing program (if it has already been approved). In either case, a Council and NOAA Fisheries will need to consider what, if any, action might be needed to ensure that its fishery management plans are consistent with the MSA or other legal obligations.

For EM programs where costs are allocated between NOAA Fisheries and industry, NOAA Fisheries expects Councils to categorize costs associated with EM programs into sampling costs and administrative costs (described below), and to allocate responsibility for paying these costs consistent with the framework explained in this procedural directive. Councils should coordinate early with NOAA Fisheries when developing a cost allocation or fee collection arrangement for any EM program to ensure consistency with all applicable laws and regulations.

⁷ 16 U.S.C. § 1853a(e). The MSA requires that, when establishing a LAPP, a Council must provide for a program of fees paid by LAPP privilege holders that will cover the costs of management, data collection and analysis, and enforcement activities directly related to and in support of the LAPP (*i.e.*, those costs that would not have been incurred but for the LAPP). The fees are capped at three percent of the ex-vessel value of fish harvested. *Id.* § 1854(d)(2).

⁸ 16 U.S.C. § 1862(a). The MSA contains a North Pacific-specific observer provision that allows the North Pacific Fishery Management Council to prepare a fisheries research plan for any fishery in the Council's jurisdiction (with the exception of salmon), which requires observers to be stationed on fishing vessels, and establish a system of fees to pay for the cost of implementing the plan. The North Pacific Fishery Management Council has prepared a fisheries research plan pursuant to this authority, and NOAA Fisheries has issued a final rule integrating proposed a rule to amend the plan to integrate EM into the North Pacific Observer Program (82 FR 36991).

Cost Categories: NOAA Fisheries has identified the following costs commonly associated with EM programs, based on the pre-implementation and implementation of ongoing EM programs throughout the country.

Sampling costs may include, among others:

- **Equipment purchases, leases, and installation**, including, but not limited to, the cameras, hard drive, video screen, and other materials needed to outfit the vessel to comply with the requirements of the EM program.
- **Equipment maintenance and upkeep**, including, but not limited to, regular software and system upgrades, ensuring that cameras are clean and free of debris, replacing cameras as needed, and periodically checking the system to ensure operation.
- **Training for captain and crew** (as appropriate) to use, troubleshoot, and maintain EM equipment and systems while at sea.
- **Development of vessel monitoring plans (VMPs)**, including identification of camera placement, catch handling protocols, and other requirements to facilitate third party video review.
- **Data transmittal**, *i.e.*, transmitting data collected through the EM system, including raw video, imagery, and associated metadata, to the appropriate review entity (or entities), whether by physical transfer of hard drives or sending data electronically.
- **Video processing and storage**,⁹ including initial review, processing, and storage of data from EM video,¹⁰ imagery, and associated metadata. Processing may include both manual and automated methods to summarize the collected data.
- **Service provider fees and overhead**, including any fees or overhead the service provider charges as part of its EM system service contract with industry.

Administrative costs may include, among others:

- **Program administration support** to address science, enforcement, and management needs, including staff time and equipment to review VMPs, troubleshoot system issues that arise; facilitate communication between industry participants and EM service providers, as needed; and manage vessel selection processes, as needed.
- **Certification of EM service providers**, including staff time to review EM provider contracts and data from EM video and imagery to ensure data quality standards are met.
- **EM program performance monitoring**, including auditing service provider reviewers, reviewing video to determine optimal sampling rates, and analyzing data to ensure quality and effective program performance.

⁹ Review of EM video and imagery by a third party is considered a sampling cost; reviewing the video and summarizing the data that will be submitted to NOAA Fisheries is considered a sampling cost because it is similar to the function of an at-sea monitor collecting commercial fisheries data on the vessel at-sea.

¹⁰ In addition to this procedural directive on cost allocation, NOAA Fisheries will develop a procedural directive on EM video and imagery that a vessel owner stores with a third party contractor. The policy will consider the burden that storage periods for EM video data may have on vessel owners and NOAA Fisheries' interests in having that information available for program management and compliance monitoring. . To reduce storage cost burdens, NOAA Fisheries will consider different types of data storage.

- **Data analysis and storage of Federal records**, including analysis of data that are submitted to NOAA Fisheries and storage of that data consistent with Federal record retention requirements.

Cost Category	Cost Responsibility Options
Sampling costs	<ul style="list-style-type: none"> • Industry; • NOAA Fisheries using fees collected from industry (if applicable and consistent with statutory and regulatory requirements)¹¹; • NOAA Fisheries for specific programs where agency has determined that EM is necessary to comply with legal obligations
Administrative costs	<ul style="list-style-type: none"> • NOAA Fisheries; • NOAA Fisheries using fees collected from industry (if applicable and consistent with statutory and regulatory requirements)¹²

Implementation Timelines: NOAA Fisheries generally expects that both new and existing EM programs will include cost allocation provisions consistent with this procedural directive within two years of its approval. In programs in which industry is responsible for certain costs, but NOAA Fisheries has historically been paying those costs, the costs should transition to industry over time. Depending on the availability of appropriated funds, NOAA Fisheries may cover sampling costs in the initial stages of implementing a program. However, in such cases, transition plans should be developed to transition those costs to industry over time (not to exceed 3 years). The pace of the transition to industry funding will be specific to each fishery and will be determined by NOAA Fisheries and the Councils, taking into account the status of the fisheries and the amount of funding appropriated to NOAA Fisheries for fishery monitoring programs.

Therefore, the provisions of new and existing EM programs should include:

- 1) A list of the costs associated with the EM program, categorized and allocated between NOAA Fisheries and industry participants in a manner consistent with this document.
- 2) Either a statement that the program is discretionary based on available appropriations or a mechanism to ensure third party funding of the appropriate costs.
- 3) In the event that NOAA Fisheries, based on Congressional appropriations, provides limited startup funds for an EM program; a plan to transition to industry funding of the cost categories that are allocated to industry. The transition plan should include a

¹¹ For example, 16 U.S.C. § 1862(a) and (b) of the MSA authorize NOAA Fisheries to collect fees under the North Pacific Observer Program to pay for the cost of implementing an EM program for any fishery in the Council’s jurisdiction (with the exception of salmon). In the North Pacific, NOAA Fisheries may use fees to pay for sampling costs, but not administrative costs, of an EM program.

¹² For example, 16 U.S.C. § 1853a(e) and § 1854(d) of the MSA authorize NOAA Fisheries to collect a fee to recover the actual costs, including administrative costs for an EM program, that are directly related to management, data collection and analysis, and enforcement of any LAPP (with the exception of North Pacific fisheries).

timetable for the transition, including step-wise transitions to industry funding per year, where appropriate.

Measuring Effectiveness: The status of cost allocation provisions and cost allocation transition plans should be included in updates on Regional Electronic Technology Implementation Plans regularly provided to the Regulatory and Science Boards. NOAA Fisheries will track the number of EM programs that include cost allocation strategies and cost allocation transition provisions as a metric of overall program efficacy.

Attachment 1 – Glossary

Electronic Monitoring (EM) – The use of technologies – such as video cameras, gear sensors, and reporting systems – to monitor fishing operations, effort, and/or catch.

Electronic Reporting (ER) – The use of technologies – such as smart phones, computers and tablets – to record, transmit, receive, and store fishery data.

Electronic Technology(ies) – Any electronic tool used to support fisheries monitoring both on shore and at sea, including electronic reporting (e.g., e-logbooks, tablets, and other input devices), electronic monitoring (e.g., electronic cameras and gear sensors on-board fishing vessels), and vessel monitoring systems.

Fishery-dependent Data Collection Program - Data collected in association with commercial, recreational or subsistence/customary fish harvesting or subsequent processing activities or operations, as opposed to data collected via means independent of fishing operations, such as from research vessel survey cruises or remote sensing devices.