

<b><i>NATIONAL MARINE FISHERIES SERVICE POLICY 04-115</i></b> Effective on: May 7, 2019	
Review on: May 1, 2024	
Science and Technology	
POLICY ON ELECTRONIC TECHNOLOGIES AND FISHERY-DEPENDENT DATA COLLECTION	
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<b>Author name:</b> Brett Alger <b>Office:</b> Science and Technology	<b>Certified by:</b> Ned Cyr <b>Office:</b> Science and Technology
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<b><i>SUMMARY OF REVISIONS:</i></b> Revised to reflect progress on implementation of electronic technologies for fisheries data collection and new processes for regional implementation plans. This initial directive became effective on May 3, 2013. (B. Alger, April 2019) Renumbered from 30-133 to 04-115 in May 2019. (C. Nachman, May 1, 2019)	

## I. Introduction

This policy provides guidance on the implementation of electronic technology (ET) solutions in fishery-dependent data collection programs. ETs include the use of vessel monitoring systems (VMS), electronic reporting (ER), video cameras, gear sensors, and automated image processing for electronic monitoring (EM), data collection technologies for human observers, and other technologies that can improve the timeliness, quality, integration, cost effectiveness, and accessibility of fishery-dependent data. The policy also includes guidance on the funding for electronic technology use in fishery-dependent data collection programs.

Constraining budgets and increasing demands for data are driving the need to evaluate and improve existing fishery-dependent data collection programs, in particular with respect to cost-effectiveness, economies of scale and sharing of ET solutions across regions. The demands for more precise, timelier, and more comprehensive fishery-dependent data continue to rise every year.

The implementation of fisheries regulations that require near real-time monitoring of catch by species at the vessel level have challenged the methodological and budgetary limits of data collection methods such as self-reporting, at-sea observers and monitors, and dockside monitoring. A policy and process to consider the implementation of ET options can ensure fishery-dependent data collection programs are modernized efficiently and sustainably.

## II. Objective

It is the policy of the National Oceanic & Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NOAA Fisheries) to encourage the consideration of ET to complement and/or improve existing fishery-dependent data collection programs to achieve the most cost-effective and sustainable approach that ensures alignment of management goals, data needs, funding sources and regulations. To achieve this:

1. NOAA Fisheries encourages all fishery stakeholders, including ourselves, to consider implementing ET options, where appropriate, to meet science, management, and compliance data needs.
2. Fishery-dependent data collection programs will be designed and periodically reviewed by NOAA Fisheries regions to ensure effective, efficient monitoring programs that meet industry and government needs, increase coordination between regions and Councils, and promote sharing of research, development and operational outcomes.
3. Fishery-dependent data collection programs may be comprised of a combination of methods and techniques including but not limited to, self-reporting, at-sea observers, and dockside monitoring, as well as the use of ER and EM.
4. NOAA Fisheries supports and encourages the evaluation/implementation of EM to meet monitoring and compliance needs in federally managed fisheries, including full retention fisheries that have an associated dockside program for catch accounting.
5. NOAA Fisheries encourages the use of ETs that utilize open source coding and data standards, where appropriate, to facilitate data integration, software and hardware flexibility, and long-term cost savings.
6. NOAA Fisheries, in consultation with the Councils and subject matter experts, will assemble guidance and best practices for use by Regional Offices, Science Centers, Councils, Commissions, and stakeholders when they consider ET options. Implementation of ETs in a fishery-dependent data collection program is subject to the Magnuson-Stevens Act and Council regulatory process, other relevant state and federal regulations, and the availability of funds.
7. No ET-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.
8. 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.

### III. Authorities and Responsibilities

This policy directive establishes the following authorities and responsibilities:

(1) The Deputy Assistant Administrator for Regulatory Programs and the Director of Scientific Programs and Chief Science Advisor are the Executive-level sponsors of the execution of this policy, including oversight of the development of guidance and best practices. The sponsors will be supported by the ET Coordinator (a Science and Technology staff member), the NOAA Fisheries Electronic Technologies Working Group, NOAA Fisheries Headquarters (HQ), Region and Science Center subject matter experts, and other agency or contract resources as requested. Approval of guidance and best practices may be subject to Leadership Council concurrence and Assistant Administrator approval.

(2) This policy will be implemented by Regional Administrators and the Office of Sustainable Fisheries (with respect to Atlantic Highly Migratory Species), in close coordination with the ET Coordinator, with their respective Science Centers, Councils, States, Commissions, industry, and other stakeholders on the consideration and design, as appropriate, of fishery-dependent data collection programs that utilize ETs for each Federal fishery.

### IV. Measuring Effectiveness

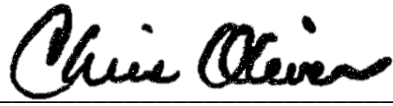
Consultations were originally initiated in 2013 by the Regional Administrators and the Office of Sustainable Fisheries, with each Region and the Highly Migratory Species program completing initial Regional Electronic Technology Implementation Plans (Plans) in January 2015. The Plans were subsequently updated bi-annually through 2017. Consultations were reinitiated in calendar year 2019 with the goal of completing new Plans by early 2020.

Each new Plan will forecast five years (through the end of 2024) and establish a Regional vision for developing, integrating, and implementing ETs. The Plans will include Regional priorities, Council actions, and research and development across all forms of ETs including VMS, ER, EM, and human observer technologies. These Plans will be used to prioritize funding from internal and external funding sources. Each Plan will highlight efforts to integrate these technologies through coordination and standardization of fishery-dependent programs within and across Regions. Each plan should identify challenges with implementing ETs, cost information on ET programs, and a funding transition plan that includes sampling and administrative costs for EM programs.

Status reviews of the Plans will take place once a year by NOAA Fisheries Leadership.

V. References

Procedural directives will be issued to implement this policy as needed.

Signed  5/7/2019  
Chris Oliver Date  
Assistant Administrator for Fisheries

**Attachment 1  
GLOSSARY**

**Terms**

***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 .

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

***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.

***Full Retention*** – A type of fishery where total catch is retained and brought to shore, without discards. This is a generic definition, used in the Policy Directive for illustrative purposes only. There are multiple stages in the fishing process where intentional and unintentional discards can occur. Such variations (e.g., maximum retention, operational discards, prohibited species catch, etc.) require specific definition in each fishery for regulatory compliance and/or enforcement purposes.

***Open Source Code*** – Refers to a type of computer software and/or source code that is developed in a collaborative manner in public. It allows for multiple contributors and diverse perspectives, and offers transparency to the contributors and end-users