

(Insert Regional Office or HMS)  
Electronic Technology Implementation Plan

Month, Day, Year

## Table of Contents

1.	Executive Summary	x
2.	Introduction	x
3.	Regional Vision 2020 – 2024	x
4.	Regional ET Priorities	x
5.	Council Actions	x
6.	Fisheries using Electronic Technologies	x
6.1.	Fisheries using EM	x
6.2.	Commercial Fisheries using ER	x
6.3.	Recreational Fisheries using ER	x
6.4.	Federal Dealers/Processors/Tenders using ER	x
6.5.	Observer / Study fleets using ER	x
6.6.	Fisheries using VMS	x
7.	Implementation Challenges of ET Programs	x
8.	Research and Development	x
9.	Data integration and Modernization	x
10.	Data Standards and Interoperability	x
11.	Costs of EM programs	x
12.	EM Cost Transition Plans	x
13.	Communications and Outreach	x
14.	Tables	x
14.1.	Fisheries using EM	x
14.2.	Commercial Fisheries using ER	x
14.3.	For-Hire and Recreational Fisheries using ER	x
14.4.	Federal Dealers/Processors/Tenders) using ER	x

14.5. Observer / Study fleets) using Electronic Data Collection	x
14.6. Fisheries using VMS	x
14.7. Costs for EM Programs	x

**Acronyms (if necessary)**

## **1. Executive Summary**

*Provide high level highlights of the entire plan*

## **2. Introduction**

*Recap the last 5 years e.g. What went right, what didn't, lessons learned, etc. (1-2 pgs)*

## **3. Vision for 2020 – 2024**

*What is the vision for the region for implementing ETs? (1-2 pgs)*

## **4. Regional ET priorities**

*What are the top 5 - 7 ET priorities for the region?*

## **5. Council Actions**

*Summary of ET-related Council actions (Past, Current and Pending)*

## **6. Electronic Technologies used in the Region**

*In sections 6.1 through 6.6 provide a brief overview of how ET is being utilized by category in the region. Additional and brief data will be put into tables in the appendix for quick reference.*

### **6.1 Summary of Fisheries using Electronic Monitoring**

*Provide an overview of any/all fisheries using electronic monitoring. Include any pilot projects and future initiatives, suggest any fisheries that may be suitable for EM in the future.*

### **6.2 Summary of Commercial Fisheries using Electronic Reporting**

*Provide an overview of any commercial fisheries using ER. Include any pilot projects and future initiatives, suggest any fisheries that may be suitable for ER in the future.*

### **6.3 Summary of For-Hire and Recreational Fisheries using Electronic Reporting**

*Provide an overview of for-hire and private recreational fisheries using ER. Include any pilot projects and future initiatives, suggest any fisheries that may be suitable for ER in the future.*

### **6.4 Summary of Federal Dealers / Processors / Tenders using Electronic Reporting**

*Provide an overview of dealers, processors, tenders using ER. Include any pilot projects and future initiatives, suggest any fisheries that may be suitable for ER in the future.*

### **6.5 Summary of Observer Programs / Study fleet(s) Electronic Reporting Programs**

*Provide an overview of observer programs and cooperative research programs using technology for data collection. Include any pilot projects and future initiatives, suggest any fisheries/programs that may be suitable for technology in the future.*

### **6.6 Summary of VMS Programs**

*Provide an overview the VMS programs in the region and what their purpose is in each fishery. (For the VMS table, if a VMS program is also using the platform for ER, enter it in the VMS table and note the dual purpose in the comments). Include any pilot projects and future initiatives that are considering systems that collect positional data in real-time or otherwise.*

## **7. Challenges impeding implementation of ET programs**

*What are the challenges with implementing ET? Costs, industry buy-in, technological needs, data infrastructure, etc.*

## **8. Research and Development**

*Provide a summary of any research and development of ET systems, what are the objectives of the work, how are they being considered and integrated for implementation? What work is being conducted in artificial intelligence and machine learning applications?*

## **9. Data Integration and Modernization**

*Provide an overview on how systems are being integrated at the point of collection (e.g., EM, ER, VMS), how is data being integrated across systems? How is data infrastructure being modernized to support ET? Reduced reporting systems? Unique trip ID?*

## **10. Data Standards and Interoperability of ET Systems**

*Describe the data standards that are published or being developed for ET providers? If there are none developed, what is the region doing to promote flexibility and innovation yet still meet data requirements of programs?*

## **11. Costs of EM programs**

*We have been examining total costs of EM programs for several years, and recently published a final EM cost allocation procedural directive. In order to continue tracking NMFS costs of EM projects and programs, provide a summary of the Administrative costs as detailed in the directive, including program support, certification of EM providers, program performance monitoring, and video and data storage. Detailed information should be in the table in the appendix. Where appropriate, each fishery/program should have their own table(s).*

*Additionally, in some situations, NMFS*

## **12. EM Cost Transition Plans**

*The EM Cost Allocation procedural directive requires that existing EM programs establish the monitoring functions and associated costs for a program within two years, and implement any needed transition in a step-wise fashion over an additional three years, five years in total.*

*Provide the applicable transition plans here per the directive's requirements.*

## **13. Regional Communications and Outreach Plan**

*Provide an overview of how you will communicate your ET programs in the region to the industry and the public? Are you hosting webinars, workshops, and meetings? Are there opportunities for additional engagement? What are the types of media you are using?*

## **14. List of Tables**

### **Table 14.1 Summary of Fisheries Participation in Electronic Monitoring Programs**

<b>Fishery</b>	<b># of EM Vessels</b>	<b># of Vessels in Fishery</b>	<b>Observer Coverage</b>	<b>EM Coverage</b>	<b>% video Reviewed</b>	<b>Implementation type / date</b>	<b>Funds</b>	<b>Purpose of EM</b>	<b>Comments</b>

**Table 14.2 Summary of Participation in Electronic Reporting Programs for Commercial fisheries**

<b>Fishery / Survey Name</b>	<b># of ER Vessels</b>	<b># of Vessels in Fishery</b>	<b>Data Submitted to /Managed by</b>	<b>Required/ Volunteer</b>	<b>Reporting Frequency (Haul, trip, week, month)</b>	<b>Purpose of EM</b>	<b>Comments</b>

**Table 14.3 Summary of Participation in Electronic Reporting Programs for For-Hire and Recreational Fisheries**

<b>Fishery /survey name</b>	<b>Mode</b>	<b># ER Vessels</b>	<b># Vessels in Fishery</b>	<b>Data Submitted to /Managed by</b>	<b>Validation Method</b>	<b>Required / Volunteer</b>	<b>Reporting Frequency (Haul, trip, week, month)</b>	<b>Purpose of EM</b>	<b>Comments</b>

**Table 14.4 Summary of Participation in Electronic Reporting Programs for Federal Dealers/Processors/Tenders**

<b>Dealer or Processor or Tender</b>	<b># of Federal Permit</b>	<b>Data Submitted to/ Managed By</b>	<b>Required/ Volunteer</b>	<b>Reporting Frequency (day, week, month)</b>	<b>Purpose of ER</b>	<b>Comments</b>

**Table 14.5 Summary of Participation in Electronic Data Collection for Observer Programs / Study Fleets**





**Table 14.7 Cost template for XXXXXX Fishery**

**Sampling Costs**

<b>EM System and Monitoring Plan</b>	<b>Current Funding</b>	<b>Funding Sources</b>	<b>Total Funding</b>	<b>Comments</b>
Equipment purchase, leasing, and installation				
Maintenance, system upgrades, and repairs				
Training for captain and crew				
Development of Vessel Monitoring Plans				
Other (please describe)				
Sub-Totals				
<b>EM Data and Provider Services</b>	<b>Current Funding</b>	<b>Funding Sources</b>	<b>Total Funding</b>	<b>Comments</b>
Video and Data Transmission				
Video Review and Processing				
Storage of Imagery and Data				
Service Provider Fees and Contract				

Other (please describe)				
Sub-Totals				

## Administrative Costs

<b>Program Support</b>	<b>Current Funding</b>	<b>Funding Sources</b>	<b>Total Funding</b>	<b>Comments</b>
Council support, rulemakings, and permitting				
Staff time to review equipment on vessels and VMPs				
Facilitate communications participants and EM providers				
Manage vessel/video review selection				
Other (please describe)				
Sub-Totals				

<b>Certification of EM Providers</b>	<b>Current Funding</b>	<b>Funding Sources</b>	<b>Total Funding</b>	<b>Comments</b>
Review provider contracts				
Examine software, hardware, and data reports				
Other (please describe)				
Sub-Totals				

<b>EM Program Performance Monitoring</b>	<b>Current Funding</b>	<b>Funding Sources</b>	<b>Total Funding</b>	<b>Comments</b>
Auditing EM service provider				
Reviewing video and data to optimize sampling rates				
Analyzing data and integrating into monitoring program				
Other (please describe)				
Sub-Totals				
<b>Video and Data Storage</b>	<b>Current Funding</b>	<b>Funding Sources</b>	<b>Total Funding</b>	<b>Comments</b>
Video storage and access				
EM database maintenance				
Other (please describe)				
Sub-Totals				