

Spring 2016 Progress Reports for Regional Electronic Technology Implementation Plans: NMFS West Coast Region (WCR)

Electronic Monitoring (EM) Implementation: The Pacific Fishery Management Council (Council) approved final alternatives and deemed the regulations for whiting and fixed gear fisheries at its April 2016 meeting. The Council agreed with NMFS to continue to use Pacific States Marine Fisheries Commission (PSMFC) for video-review and to transition the costs via third-party reviews to the industry in 2020 (NMFS will still maintain PSMFC as video auditor). One major issue concerns record retention. The Council recommended maintaining the proposed 3-year record retention requirement but specified that the Council will revisit this decision before transitioning to third-party video reviewers.

EM Implementation Schedule:

January 1, 2017: Whiting and fixed gear (proposed rule – summer 2016, final rule – fall 2016)

January 1, 2018: Bottom trawl (November 2016, Council selects preliminary-preferred alternative, proposed rule – spring 2017, final rule – fall 2017)

Cost Analysis: Cost estimates on fixed gear and whiting show industry cost savings. Cost analysis shows cost savings, but we are not confident about these estimates. Few bottom trawl vessels participated in the 2015 EM exempted fishing permit (EFP), and cost estimates are sensitive to assumptions about the number of participants, the number of trips, and various fixed costs categories, such as storage and service fees. It is not clear why there is a lack of interest by bottom trawlers in participating in EFPs but we expect increased participation in 2016. *A summary cost analysis is attached.*

Vessel Movement Monitoring (VMM): The Council adopted increased ping rates for vessels currently under regulation (groundfish, salmon troll, California halibut, ridgeback prawn, and cucumber trawl). The Council will consider the use of VMM in the Highly Migratory Species (HMS) Drift Gillnet fishery when it reviews HMS regulations for 100% monitoring (through EM or observers) for 2018.

VMM Implementation Schedule:

January 1, 2017: (proposed rule – summer 2016, final rule – fall 2016)

WCR Electronic Technology Implementation Plan Update: At its April 2016 meeting, the Council reviewed the Plan. The Council requested that NMFS provide the PSMFC access to the vessel monitoring system (VMS) database contained within NMFS Office of Law Enforcement. The Council also recommended that the Pacific Fisheries Information Network (PacFIN) Committee review the current list of logbooks that are collected to explore the potential for creating electronic logbooks and their usefulness in fisheries management. The Council added one item to the Plan: to explore electronic technology solutions, such as fish recognition software, to monitor landings in the shore based individual fishing quota program instead of shoreside monitors.

Other:

Sablefish E-tickets: Sablefish Rule includes expanding individual fishing quota (IFQ) trawl electronic fish tickets to the fixed gear sablefish fishery. Proposed rule – spring 2016; Final rule – late summer 2016; Effective January 1, 2017, for Limited Entry (LE) trawl (IFQ), LE fixed gear, Open Access.

2016 Groundfish EM EFPs: The WCR will likely issue EFPs to 45 vessels, including 24 whiting, 13 bottom trawl, 7 fixed gear, and 1 Scottish seine vessels. The research priority will be to see if revised retention policies can allow for IFQ species to be discarded.

WCR/GARFO EM Study Group: The WCR has just received the funding to support this Group and its travel for an August workshop in Seattle. The purpose of this group is to share information, ideas, and approaches to overcoming roadblocks to successful implementation of EM in each Region. The Group has extended invitations to representatives of other NMFS Offices, including General Counsel, AKR, AKFSC, and HQs. This project is in support of each Region's Electronic Technologies Implementation Plans.

Swordfish Management and Monitoring Plan: This plan, which the Council is developing, could include EM and may be discussed at the November Council meeting. A recent drift gillnet EM research project was cancelled due to lack of industry participation.

Individual Transferable Quotas (ITQ) Electronic Reporting: The NMFS Northwest Fisheries Science Center is working on adapting an ITQ accounting system for use with smartphones and tablets.

Table 1. EM Program Cost Template for reporting program costs and cost share. Include FTE and contractor costs.^{1%}

Camera-based Electronic Monitoring WCR-2016 Groundfish EFP EM Cost Estimates for whiting, fixed gear, and bottom trawl fleets combined. Regs are still under development.	Total Cost	% Government cost share?	% Industry cost share?	NMFS budget line (e.g., FRM, catch shares, NOP, etc)
Planning (technical system design, vessel monitoring plans, support system design) ¹	\$150,000	100%		Catch Shares
Specifications setting				
Technical software system design QA/QC, metadata, integration				
Commercial off- the shelf/ ^{3rd} party developer option				
Regulation development and implementation	\$150,000	100%		Catch Shares
Hardware ²	0			
Camera(s)				
Sensors				
Media/storage				
Government IT infrastructure				
Software, database dev., software licenses				
Field Support ³	\$200,000		100%	Industry
Installation				
---Labor				
---Wiring, connections, etc				
Training (labor, materials, travel)				
Maintenance/Repair/Replacement				
Help Desk				
Data Communications & Reporting ⁴				
At sea				
Shoreside				
Government IT infrastructure				
Data Retrieval	\$10,000		100%	Industry
Data Validation				
Data Analysis ⁵	\$200,000			Catch Shares
Software				
---development				
---license				
Labor	\$200,000			Catch Shares
System maintenance				
Data Storage/Archiving	\$200,000	100%		Catch Shares

¹ Provide reference for the program, including brief description and a citation to the implementing rule

On board					
On shore					
Government IT infrastructure	\$200,000				Catch Shares
Other (specify)		Total	%	%	NMFS
E-logbook Monitoring		Cost	Government cost share?	Industry cost share?	budget line (e.g., FRM, catch shares, NOP, etc)
No E-Log book, paper discard logbook, where data submitted by snapshot via smartphone. ds					
System Development & Maintenance					
Specifications setting					
Technical software system design QA/QC, metadata, integration					
System maintenance					
Commercial off- the shelf/3 rd party developer option					
Data storage / archiving					
Hardware and Infrastructure					
CPU, GPS, etc.					
Telecommunications Satellite, cellular, (specify)					
Government IT infrastructure					
Field Support					
Installation					
---labor					
---Wiring, backup power, connections, etc.					
Training (labor, materials, travel)					
Data validation					
Maintenance/Repair					
Help Desk					
Data Communications & Reporting					
At sea					
Shoreside					
Government IT infrastructure					
Data Retrieval					
Data Validation					
Data Storage					

Table 2. ER Program Cost Template for reporting program costs and cost share. Include FTE and contractor costs.²

1. Estimated by cost of WCR FTE \$150,000
2. Unit costs for cameras are about 10-13K including sensors, . Hard drives are \$75 each, boats have 4 hard drive units -two come with the purchase of equipment, two other purchased separately. There may be a few additional vessels entering into the 2016 EFP, they will have to pay for this equipment. During 2015, no new equipment purchased.

² Provide reference for the program, including brief description and a citation to the implementing rule

3. Industry currently in negotiations with one company, this is an estimate-most likely paid out NFWF Grant. May not be able to report actual number because of confidentiality.
4. This is an estimate based on the cost to submit a hard drive is \$15 per trip. Depending on fleet, hard drive can hold 1 to 5 trips
5. Based on two reviewers and includes data validation and associated software.