

# ALASKA REGION EM PROGRAM SUMMARY

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## CURRENT/ONGOING EM PROGRAMS

Alaska EM programs are divided into two categories: 1) Programs that are already in regulation and are designed for compliance monitoring purposes and 2) ongoing EM development in the small boat fixed gear and pot fisheries primarily for catch accounting purposes with some compliance monitoring aspects.

The ongoing EM programs were implemented from 2008 to 2013 in the following fisheries:

- (1) Amendment 80 to the Bering Sea / Aleutian Islands non-pollock trawl fishery requires video recording of sorting activity in bins (or an alternative measure) to prevent pre-sorting of the catch before the observer has an opportunity to sample the catch (also referred to as bin monitoring, implemented in 2008);
- (2) Amendment 91 to the Bering Sea / Aleutian Islands pollock trawl fishery requires video monitoring of all locations where salmon bycatch is sorted by the crew and the location where the salmon are stored until sampling by an observer (implemented in 2011);
- (3) Gulf of Alaska Rockfish Program requires bin monitoring requirements similar to Amendment 80 (implemented in 2012);
- (4) Bering Sea / Aleutian Islands Pacific cod freezer / longline vessels using flow scales are required to monitor sorting and flow of fish over the scale (implemented in 2013).

## NEW EM PROGRAMS UNDER DEVELOPMENT

The developing EM program is in the small boat fixed gear (longline and pot) fisheries to collect data for catch accounting purposes. Program development has been guided by the EM Work Group of the North Pacific Fishery Management Council. This EM program is scheduled for implementation through regulations in 2018.

## PROGRAM OBJECTIVES:

The overall goal of the 2017 EM Pre-Implementation Plan and the cooperative research is to develop the use of EM, in combination with other tools, for catch accounting of retained and discarded catch, and to identify key decision points related to operationalizing and integrating EM systems into the Observer Program for fixed gear vessels in a strategic manner. The experience and results from the data collected during this pre-

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implementation and research phase will inform the implementation of EM as an integrated part of the Observer Program.

### VESSELS IN FLEET:

Small boat fixed gear: 523 vessels in fishery. Up to 90 vessels  $\geq 40$  feet will be allowed to participate in the EM selection pool; 70 have opted in to the 2017 EM program. Average vessels takes 3-5 trips/year

Pot cod fishery: 109 vessels in the fishery. Up to 30 pot vessels  $\geq 40$  feet will be allowed to participate in the EM selection pool; 18 have opted in to the 2017 EM program. Average vessel takes 10-15 trips/yr.

### TYPE OF PROGRAM—Partial coverage

### PERCENT COVERAGE OF EM PROGRAM:

#### Small boat, fixed gear fishery

30% of trips will be randomly selected for EM coverage through the Observer Declare and Deploy System (ODDS) - the same system used to select vessels for observer coverage. The current approach as described in the 2017 EM Pre-Implementation Plan, is for all participating vessels to be pre-wired with EM systems prior to their first fishing trip, with systems to be turned on whenever a vessel is selected for an EM coverage trip (currently set at 30% for 2016-2017). A total of 60 control boxes will be moved among vessels.

#### Pot cod fishery

30% of trips will be randomly selected for EM coverage using ODDS. The current approach is identical to the small boat, fixed gear fishery. Vessels in the EM selection pool will not be required to carry an observer for the duration of the fishing season, i.e. all of 2017, unless they opt-out of the EM pool.

### EM PROGRAM FINANCIAL INFORMATION:

Compliance monitoring cameras in the groundfish fishery (A80, A91, Rockfish, and freezer longline vessels) are 100% funded by individual vessels. Video is stored on board the vessel for 120 days and retrieved when necessary for compliance monitoring

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purposes.

Start-up costs for the small boat / fixed gear EM catch estimation program have been funded by NMFS and NFWF grants. EM has an estimated cost in 2017 of \$1,007,000 of which \$750,000 is NMFS funds, and \$257,000 is from NFWF funds. Hardware costs are \$480,700 of which 83% is government funded and the remainder is funded through a NFWF grant to industry. Field support and data analysis costs are \$523,309 of which 67% is government funded and the remainder is funded through a NFWF grant to industry.

The pot cod fishery EM program has an estimated cost in 2017 of \$1,132,047; of which \$537,000 is NMFS funds and \$595,047 is NFWF funds. NFWF funds will support up to 15 pot vessels and NMFS funds will be used to support an additional 15 vessels.

Upon implementation by regulations, the small boat / fixed gear EM program will be primarily funded by 1.25% fee on partial coverage boats. The fee will be divided between EM and human observed boats on an annual basis.

### EM EQUIPMENT AND FIELD SERVICE LOGISTICS

- Longline vessels have rail cameras for species identification, deck cameras for catch dispositions, and a rear facing sea bird camera to validate deployment of seabird streamer lines when setting.
- Pot gear vessels have deck cameras to monitor sorting table for species identification and disposition.
- AMR and SWI provide separate field services through contract staff in Alaska.
- NMFS provides field services in support of R&D work
- No special dockside monitoring currently envisioned

### EM VIDEO REVIEW SERVICES

- PSMFC provides video review and data storage services.
- 100% of Longline hauls reviewed
- TBD% of pot lifts reviewed
- PSMFC transmits data to NMFS for management purposes

### ENFORCEMENT CONSIDERATIONS

- Under development

### SUCCESS FACTORS OF EM PROGRAM:

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- Establishment of a Council EM Workgroup—transition to a “bottom-up” approach.
- Funding support from NMFS and NFWF
- Growing list of EM participants
- Good cooperation between NMFS, industry, EM service providers, PSMFC
- PSMFC involvement from the start
- Process of pre-implementation leading to implementation
- Light at the end of the tunnel – implemented program and observer fees

### CHALLENGES OF EM PROGRAM:

- Making EM cost effective in a partial coverage environment
- Developing incentives within a single fee based program
- Developing appropriate enforcement filters
- Developing tools to evaluate sampling design trade-offs and cost models
- Integration/acceptance of new technologies
- Using data for catch accounting
- Incorporating different data streams (from multiple reviewers, and/or technologies)
- Continued support for EM with decreasing observer coverage
- Reducing EM bias – i.e. 100% EM coverage with random selection of trips for review post deployment