

Council's EM analysis 7/29/2015

Timeline

EM development is expected to be an ongoing process, with a sustained Council commitment to building EM capacity. EM integration may be implemented in phases upon recommendation by the Council, as results warrant, with ongoing refinement of EM technology, field services, and data review elements, as circumstances warrant. The timeline described below is subject to change.

| Year | Fieldwork / Pre-implementation (Pre-Imp) | Council process, Regulations | Observer Program/ Annual Deployment Plan (ADP) |
|----------------------------|--|---|--|
| 2014 | <i>Fieldwork</i> | EMWG developing purpose & need, alternatives, 2015 Cooperative Research Plan (CRP) | <u>October</u> – 2015 ADP places 10 vessels that are participating in EM research into the no selection pool |
| 2015 | <u>Jan-Feb</u> – stereo camera field research on pot vessel (RFP) | | |
| | <u>Feb</u> – SSC reviews CRP | <u>Feb</u> – SSC reviews CRP | |
| | <u>Mar-Apr</u> – stereo camera field research on longline (RFP and NPRB) <u>Mar-Sep</u> – operational research | EMWG evaluates field data | |
| | (other fieldwork too) | <u>October</u> – present a refined 2016 Pre-Imp concept to Council | <u>October</u> – 2016 ADP proposes all EM Pre-Imp vessels in no selection pool |
| 2016 (Pre-imp 1) | Pre-implementation will likely focus on longline vessels <57.5'. Size of fleet will be dependent on available funding (<i>independently sourced</i>) and Council requirements. | | |
| | Fieldwork as necessary/ possible for other elements (e.g., pot vessels, >57.5') (<i>requires independent funding</i>) | <u>October</u> – initial review for EM analysis. Focus on what type of EM program should go forward, and what regulatory changes are needed to allow it | <u>October</u> – 2017 ADP proposes all EM Pre-Imp vessels in no selection pool |
| | | <u>December</u> – final action on EM analysis | |
| 2017 (Pre-Imp 2) | Pre-Imp 2, potentially expanded to include other fixed gear vessels (<i>requires independent funding</i>) | Develop regs for integrating EM | <u>June</u> – 2016 Observer Annual Report provides preliminary analysis to support how to allocate observer fee between observer and EM deployment |
| | | | <u>October</u> – 2018 ADP allocates funding between observers and EM deployment |
| 2018 | Integrated observer/EM monitoring program | | |

Council decision junctures

- **February 2015** – SSC review and Council approval of the utility of each of the 2015 Cooperative Research Plan to inform decisions points related to 2016 pre-implementation.
- **October 2015** – Council approves proposal for 2016 pre-implementation year. Involves approving design of 2016 program, and allowing an exemption from human observer coverage for those vessels that are participating.
 - Scale of pre-implementation will largely be determined by funding and number of boats that are life raft or bunk space limited. Both factors remain to be determined, but the scale is anticipated to be considerably larger than the 14 vessels participating in 2015 research.
 - In considering the scope of pre-imp, the Council will also need to weigh the higher risk that monitoring data from pre-imp may not be usable in catch accounting system in 2016, as kinks of integration are worked out.
 - While the constraints of the 2016 pre-imp program will be reconsidered in the final analysis, significant changes in the pre-implementation design could potentially delay implementation.
- **October/December 2016** – Council decides on regulations to integrate EM into the monitoring plan, including decision points about how the EM option will look
- **October 2017**, and subsequent years – Council decides how to allocate the available observer fee funding between human observer days and EM deployment

Draft elements of the Purpose and Need

- Affirm Council's goal is to improve discard estimation of fish (including halibut PSC). Also management goal to monitor mortality of seabirds.
- Affirm that EM is one of the suite of tools available for effective fisheries monitoring, and that there is also a continuing need for human observers as part of that suite. There will be human observer coverage at some level at some times in all portions of the fishery, to provide data that cannot be collected via EM (e.g., biological samples).
- In restructuring the Observer Program, the Council assumed that an electronic monitoring option would be integrated into the program for vessels that have trouble accommodating a human observer.
- There are varying degrees of economic, operational and social hardship experienced by vessel operators and crew, on vessels that have insufficient space to carry an observer.
- Initial priority is a monitoring tool on vessels that are not taking human observers. Effectively this means <40 ft vessels, and vessels 40-57.5 ft where taking an observer is problematic.
- Goal is to develop EM for longline and pot vessels (sampling is conceptually similar for both gear types, and there are established pilot programs for both).
- Next priority is EM as an alternative to carrying an observer for any fixed gear vessel (including >57.5 ft), to reduce monitoring costs and/or improve quality of fishery-dependent data at sea.
- Affirm that we want to retain as much flexibility as possible for deciding who will be able to take EM, based on the annual monitoring needs for the fisheries. We recognize that we do need regulatory change to specify the vessel's responsibilities for using monitoring tools in the long term, including cameras and other tools. But we also understand that the structure of the annual deployment plan could provide flexibility to deploy combinations of tools for different categories.

Draft alternatives

Alternative 1: Status quo observer sampling of trips, with some vessels either in the zero selection pool, or receiving conditional releases from the requirement to carry an observer

Alternative 2: EM stand-alone for catch estimation of discards

Alternative 3: EM integrated with operator responsibilities for catch estimation of discards

Option: with dockside monitoring

Alternative 4: EM integrated with operator responsibilities for catch estimation of discards, and requirements for discard measurement

Alternative 5: Logbook used for catch estimation, with EM audit

- a) Census of vessels
- b) Sample of vessels

Components

Vessel pool:

- Criteria
 - Gear – longline, or longline and pot
 - Vessel size – all, or <57.5
 - limit to those without the ability to carry an observer?
 - Minimum threshold of trips?
- Opt-in process
 - Notify NMFS between May and July for following year
- Maximum pool size
 - Unlimited; random selection of opt-in vessels for pool of limited size
 - Limit determined by budget and/or data quality needs from observer pool

Deployment model

- Coverage levels
 - Sampling target: hauls or trips
- Equipment deployment
 - Preset duration or annual deployment
 - Random selection by period, or optimized deployment (requires fishing plans)

Service ports

- Restrict installation and maintenance to specified ports

Operator responsibilities

- EM system installation and maintenance in set ports
- EM system operation
 - Vessel power requirements, hard drive capacity, maintaining video quality
 - Required response to system malfunction
- Catch handling
 - Discard control points
 - Species-specific (rockfish, seabirds)
- Effort logbooks
- Data turnaround

Dockside monitoring

- If required, which ports

Data review procedures

- What level of review is necessary for all vs subset of trips/hauls

Cost structure

- What costs are the responsibility of the vessel vs paid out of the observer fee

Enforcement

- How do you revoke participation in the EM pool if data is consistently bad quality