



## FMAC SUBGROUP REPORT

May 15, 2019 Teleconference

### Subgroup Members in attendance:

Elizabeth Figus (NPFMC  
Staff, Acting Chair)  
Bob Alverson (FVOA)

Julie Bonney (AGDB)  
Dan Falvey (ALFA)  
Nicole Kimball (PSPA)

Abigail Turner-Franke  
(NPFA)

Members absent: Bill Tweit (Chair)

### Others in attendance:

Jennifer Ferdinand (NMFS)  
Alicia Miller (NMFS)  
Caitlin Yeager (UFC/DC)  
Michael Lake (AOI)

Tom Meyer (NMFS)  
Craig Faunce (NMFS)  
Jim Johnson (FVOA)  
Luke Szymanski (AIS)

Jennifer Cahalan (PSMFC)  
Geoff Mayhew (PSMFC)  
Lisa Thompson (NMFS)  
Ernie Weiss (AEB)

## Introductions

The FMAC Subgroup convened via teleconference to discuss their latest task from the Council, to: *continue to flesh out ideas related to how to best integrate the different monitoring tools, such as dockside monitoring, EM, and monitoring cooperatives to meet overall monitoring objectives as recommended by the FMAC in their April 2019 report.*

During the meeting, Subgroup members, agency staff, and members of the public discussed a scoping document prepared prior to the meeting (by Subgroup members). The scoping document outlines a conceptual framework for integrating different monitoring tools that might make the partial coverage category of the Observer Program more effective and efficient. The edited scoping document in full is attached as Appendix 1 of this report and constitutes the subgroup's proposed approach to the Council's objective of improving coverage rates in partial coverage.

## Conceptual Framework

**The Subgroup noted that the purpose of a conceptual framework is to provide an opportunity for the Council to give direction, prioritize future work, and provide context for current and future recommendations by the Subgroup.** The framework proposed by the Subgroup is intended to leverage current investments in EM to the extent practicable in order to achieve a cost-effective approach to partial coverage that meets data needs and can be supported by fees:

- Fixed Gear
  - An EM and zero selection optimized program supported by port sampling and some minimum level of observer coverage necessary to meet CAS and stock assessment needs
- Trawl Gear
  - Near Term: EM coverage on pelagic trawl with maximized retention and dockside monitoring; increased human observer coverage on non-pelagic trawl.
  - Potential Long Term (important to track): A regulated GOA trawl bycatch management program - removes all GOA trawl vessels from the partial coverage sector

**Part 1: Optimizing Fixed Gear EM**—Optimizing fixed gear EM is an ongoing process some of which can be incorporated into existing Council and NP Observer program processes, and some of which would require new tasking.

Elements currently tasked or incorporated into existing processes:

- **EM pool size**--The EM pool can continue to grow by setting annual targets and using the ADP process to determine EM pool size based on industry interest, available funding, and the gap analysis presented in Appendix C of the 2019 Final ADP.
- **Biological sampling needs**—The Plan Team has been tasked with evaluating biological sampling needs to support stock assessments.
- **EM/Observer fee sharing**--Developing annual cost estimates for sharing fee revenues between EM and observers using the Annual ADP process.
- **EM program coordination**--Coordinating development of common elements in the trawl and fixed gear EM programs, such as port sampling, cost metrics, data review options etc., to the extent possible using the existing FMAC Subgroup or Trawl EM Committee.

Elements toward EM optimization which would require new tasking include:

- **EM cost model**--Development of a cost model to evaluate optimal size of the fixed gear EM pool; or further discussions with providers to determine efficiencies gained by scaling up EM.
- **Port sampling**--Evaluation of port sampling as a lower cost means of providing biological samples and proxy weights for piece counts.
- **EM deployment cost efficiencies**--Improving the cost effectiveness of EM deployment within the current EM pool and by reevaluating the zero selection criteria.
- **Fixed gear EM workgroup**--Reconstituting the Fixed Gear EM workgroup or identifying another forum (existing FMAC subgroup?) to provide detailed guidance on optimization.

**Part 2: EM Coverage on Pelagic Trawl** - This action is likely to have a significant near-term impact on the number of observer days needed in partial coverage. The Council has prioritized EM on pelagic trawl vessels in partial coverage and the trawl sectors are planning to test such a program through an Exempted Fishing Permit followed by regulations. The intent of the program is to use EM for compliance with maximized retention requirements and dockside monitoring/PSC sampling.

Elements currently tasked or incorporated into existing processes:

- **Trawl EM committee**-- The Council has established a Trawl EM committee to provide detailed guidance on program development, including dockside monitoring.
- **Trawl EFP**--Industry and NMFS are currently working on the EFP for 2020 and 2021 and are proposing the annual ADP process be used to exempt these vessels from carrying observers for the project for the partial coverage sector when fishing with pelagic gear for pollock.
- **Trawl EM/Observer fee sharing**--Fee revenues needed to support EM on pelagic trawl vessels in partial coverage will need to be evaluated in the annual ADP process.

- **EM program coordination** --Coordinating development of common elements in the trawl and fixed gear EM programs, such as port sampling, cost metrics, data review options etc., to the extent possible using the existing FMAC Subgroup or Trawl EM Committee.

Elements which may require new tasking include:

- Funding for the EFP from grant sources.
- Port sampling program to support an EM pelagic trawl compliance monitoring program (i.e. stock assessment and PSC sampling needs).
- ODDS programming to incorporate EFP and non-EFP trawl trip selections

**Part 3: Increased observer coverage on non-pelagic trawl.** This is the expected outcome if EM coverage for fixed gear and pelagic trawl prove successful in meeting data quality and lowering cost per day of monitoring. This may facilitate or necessitate a separate coverage category for non-pelagic trawl.

## Other Issues

**New Gap analysis:** The October 2018 Council Motion noted “*subgroup should also continue to provide input on differential deployment base levels by gear type.*” The new gap analysis completed for the fee analysis Initial Review Draft document provides the opportunity to generate new G1 and G3 metrics to evaluate the 15% hurdles, and optimizing days above the base hurdle to meet Council objectives of discards of groundfish, halibut PSC and Chinook salmon PSC.

Key information needs:

- Evaluate utility of new gap analysis in determining the base hurdle coverage rates (partially tasked by October 2018 Council motion to subgroup to “continue to provide input on differential deployment base levels by gear type”)
- Articulate data quality cost/benefit implications on PSC closures (SSC recommendation April 2019)
- Status of Plan Team review of at sea observer biological data needed to support stock assessment needs. (Tasked in 2018)

Next Steps: Subgroup recommends FMAC formulate suggestions about whether and how to integrate the new gap analysis into the 2020 ADP for the Council.

**Improving the 6 bias metrics used in the annual report:** Used to identify whether observed vessels are representative of unobserved vessels and identify bias in each coverage stratum. This has already been tasked but will not be available for the 2020 ADP. FMA staff will provide an update to the FMAC.

**Odds inherited trips and programming issues:** This has already been tasked and FMA will provide an update for the FMAC. This includes addressing temporal bias that occurs when trips are cancelled and the next trip is automatically selected (pushes higher coverage rates later in the year).

## Scheduling

The Subgroup can further flesh out the conceptual framework, pending such a recommendation by the FMAC and subsequent direction from the Council to move the partial coverage program toward this approach. Aside from the multiple EM issues, including new pelagic trawl implementation and existing fixed gear data review issues/protocols, the new emphasis on port sampling is the most significant new component that will require Council and NMFS staff resources to develop.

## Appendix. Issues related to integrating multiple monitoring tools

### PART 1. Conceptual framework for an integrated, cost effective approach to partial coverage that can be supported by fees

A conceptual framework would provide context for current and future recommendations by the Subgroup and FMAC and provide something for the Council to formally approve and work toward. Having the Council review and comment on a conceptual framework would help coordinate and prioritize tasks and inform funding requests.

Priority: HIGH

Tasking: Completed by Subgroup

Key information needed: Core elements of such a framework will likely include:

- Fixed Gear
  - An EM and zero selection optimized program supported by port sampling and some minimum level of observer coverage necessary to meet CAS and stock assessment needs
- Trawl Gear
  - Near Term: EM coverage on pelagic trawl with maximized retention and dockside monitoring; increased human observer coverage on non-pelagic trawl.
  - Potential Long Term (important to track): A regulated GOA trawl bycatch management program - removes all GOA trawl vessels from the partial coverage sector

Next Steps: Subgroup defines conceptual framework and scope of document needed, and then makes recommendation to FMAC for referral to Council.

### PART 2. Details

#### Optimizing fixed gear EM

There are 5 parts to this issue:

1. **2020 Fixed gear EM pool size:** This is likely the final year for fixed gear equipment start-up funding. After 2020, there will be an EM contract that likely incorporates equipment amortization. Industry is proposing a 2020 target of outfitting 200 fixed gear vessels for the EM pool with priority on HAL boats. This would be 30 more boats or a 17% increase.

**Priority:** HIGH

**Tasking:** Funding proposal submitted by industry and analysis of EM pool ongoing part of Draft ADP process

**Key information needed:** Need input from agency to determine if this would work for 2020 ADP or should be put off until 2021

**Next Steps:** Subgroup recommends 2020 fixed gear target EM pool size to FMAC for referral to Council.

2. **EM cost analysis:** Fixed gear EM will be paid for by fees in 2020.

**Priority:** HIGH

**Tasking:** NEW

**Key information needed:**

- Estimate recurring cost to maintain current EM pool (may not include SWI in 2020 but will by 2021)

- Estimate cost scaling as EM pool increases (the number of vessels is one key metric, but the number of days/trips fished by those vessels is just as important)
- Estimate data review and storage costs—need separate HAL and POT data review costs

**Next Steps:** NMFS provide update on EM contract process in June. Have subgroup review the cost methodology?

3. **Port sampling:** A preliminary evaluation will be important to understand limiting factors on EM pool size and future observer sea day demand for the fee analysis in October. Long-term, the feasibility and cost of port sampling will influence whether an EM optimized program for fixed and pelagic trawl gear will be feasible.

**Priority:** HIGH (if the Council directs to support this overall approach)

**Tasking:** NEW

**Key Information needed:**

- Feasibility of using port sampling data to provide proxy weights for EM discard piece counts. Currently CAS uses annual proxy weights by area from observer data.
- Biological sampling needs that can be supported by port sampling.
- Gaps that would still require some level of at-sea sampling (and options for meeting these data gaps; such as viabilities for halibut and potentially sablefish DMR)
- Scope of port sampling program to meet catch accounting vs. biological samples needs. (# ports, amount of sampling by port, staffing, integration with trawl port sampling program)
- Contracting options for port sampling program, preliminary cost estimates and ability to cross train trawl port samplers.
- Pilot program needs prior to operational testing.

**Next Steps:** Subgroup considers recommendation to develop a discussion paper on port sampling that is paired with the appropriate amount of at sea human coverage to FMAC for referral to Council.

4. **EM cost effectiveness:** Is there a better way to structure the existing EM fixed gear sector to create cost efficiencies and meet monitoring objectives?

Present Fixed Gear EM Pool: Vessels are equipped with systems but these systems are only used when the vessel's trips are selected by ODDS. Is this system cost effective or is there a better system to utilize sunk capital for equipment and infrastructure to support the EM fixed gear sector?

**Priority:** \_\_\_\_\_

**Tasking:** NEW

**Key information needed:**

- Number of trips selected by ODDs for each vessel in the EM pool
- Capital costs for installation, support and maintenance of each EM system
- Evaluation of the present EM fixed gear mechanics versus a restructured system that creates efficiencies resulting in cost saving and increased coverage rates
- Potential to pass some EM costs on to vessel in addition to fee. (i.e. fee covers annual license, data review, 24-hour support line, annual VMP update, and one site visit/year. Additional services are paid for by vessel)

**Next Steps:** Subgroup consider priority, timing, and next steps.

Present Zero Selection Pool: Zero selection has significant effect on # of vessels in EM pool, seaday, and equipment costs but minimal impact on # of trips in sample frame. Preliminary work has been done based on 2013-2016 data. Implementation of new zero selection criteria is non-regulatory, so could be done through 2021 or 2022 ADP.

**Priority:** \_\_\_\_\_

**Tasking:** NEW

**Key information needed:**

- Update preliminary work to include 2017 and 2018 data.
- Feasibility and logistics of using previous year effort to establish selection pool.
- Evaluate data quality and management impacts.
- Estimate cost efficiency gains from revised zero selection.
- Scope out periodic supplemental program for remaining zero selection vessels.

**Next Steps:** Subgroup consider priority, timing and recommendation to FMAC for a discussion paper.

5. **Fixed gear EM optimization forum:** No forum currently exists for refinement of pot gear data review protocols, detailed development of fixed gear EM optimization options, or revision of zero selection. There is also no forum to align EM innovation research with operational program needs of trawl or fixed gear EM programs.

**Priority:** \_\_\_\_\_

**Tasking:** NEW

**Key information needed:**

- Time estimate for fixed gear EM optimization meetings.
- Feasibility of integrating with Trawl EM workgroup, or overlap existing meeting schedules to minimize impact on staff and stakeholders.
- Evaluation of POT EM review protocols, costs, and options
- EM innovation current project status, budget, and proposal development timing.

**Next Steps:** The subgroup needs direction from the FMAC chair or Council on whether the subgroup is the appropriate forum for this task. If so, consider whether need to selectively add more members to the subgroup in order to adequately address EM optimization.

### **EM Coverage on Pelagic Trawl with Maximized Retention and Dockside Monitoring**

This action is likely to have a significant near-term impact on the number of observer days needed in partial coverage.

**Priority:** HIGH

**Tasking:** Tasked via Trawl EFP (Council expected to review EFP in October 2019)

**Key information needed:**

- Feasibility of a maximized retention program for pelagic trawl.
- Feasibility of dockside sampling to support pelagic trawl EM program.
- Pelagic trawl EM vessels assigned to zero selection pool. # Trips/days removed from observer pool for pelagic trawl EM & likely number remaining in observer pool in 2020 and 2021?
- Costs estimates for pelagic trawl EM that will be paid by fees after transitioning to regulated program

**Next Steps:** Discuss EFP timing and how to incorporate this information in 2020 DRAFT ADP. Need NMFS to consider timing between NFWF funding and ADP; also need NMFS to consider how non-EFP trips will be handled under 2020 ADP; information tracking by FMAC but no direct role at this time.

### **Optimizing Human Observer Coverage on Non-Pelagic Trawl**

The Council has requested subgroup evaluate ways to increase and improve coverage rates on PSC limited fisheries. Low coverage in GOA non-pelagic trawl fisheries was identified by FMAC and Council as a focus subject for 2017 and 2018 Annual reports, in light of potential for separate coverage category for non-pelagic trawl.

**Priority:** \_\_\_\_\_

**Tasking:** Annual ADP process

**Key information needed:**

- Evaluate observer effects at finer resolution than gear-level strata, so that observer effects in pelagic and non-pelagic trawl can be investigated (tasked in June 2018 Council Motion).
- Evaluate PSC impact of gear/targets with low quality data using new gap analysis.
- Evaluate feasibility of separating pelagic trawl vs. non-pelagic trawl strata for at sea observer days versus the de facto stratification for the Pelagic EM strata versus the number of at sea observer days in general available for trawl gear in 2020 or 2021. This could affect the number of observer days (and costs) needed to achieve higher coverage rates on halibut PSC limited fisheries.

**Next Steps:** Further discussion by FMAC at June meeting and develop recommendation to Council for 2020 draft ADP.