



North Pacific Fishery Management Council

Simon Kinneen, Chair | David Witherell, Executive Director
605 W. 4th Avenue, Suite 306, Anchorage, AK 99501
Phone 907-271-2809 | www.npfmc.org

Partial Coverage Fishery Monitoring Advisory Committee

REPORT

September 12, 2022: 8:30am-4:30pm AKDT

Committee members present: Nicole Kimball (Chair), Bob Alverson, Julie Bonney, Dan Falvey, Luke Szymanski, Kathy Hansen, Stacey Hansen, Abigail Turner Franke

Members Absent: Tom Evich, Caitlin Yaeger, Julie Kavanaugh

Agency Staff: Sara Cleaver (NPFMC), Anna Henry (NPFMC), Shannon Gleason (NPFMC), Jennifer Mondragon (NMFS AKR), Geoff Mayhew (PSMFC), Jennifer Ferdinand (NMFS AFSC), Craig Faunce (NMFS AFSC), Phil Ganz (NMFS AKR), Jennifer Cahalan (PSMFC), Melanie Rickett (NMFS AKR), Karla Bush (ADF&G), Alex Perry (NMFS OLE), Lisa Thompson (NMFS AFSC) Gwynne Schnaittacher (NMFS AFSC), Mike Vechter (NMFS AFSC), Jason Gasper (NMFS AKR), Rochelle Barainca (NMFS AFSC)

Other Attendees: Charlotte Levy

1. Introduction

The chair of the Partial Coverage Fishery Monitoring Advisory Committee (PCFMAC) opened the meeting and gave an overview of the agenda, and attendees introduced themselves. This meeting was hybrid - it was hosted and available to join remotely and there was also an in-person option at the Alaska Fisheries Science Center (AFSC) in Seattle. Per Council direction in June, the purpose of this meeting was for the committee to receive an update on the Partial Observer Coverage Cost Efficiencies Integrated Analysis (referred to throughout this report as the Partial Coverage Integrated Analysis) for the Draft 2024 Annual Deployment Plan (ADP). The purpose of the analysis is to evaluate deployment designs to more efficiently spend observer fee revenues (fixed as a percentage of ex-vessel revenue) such that greater coverage and/or improved monitoring is achieved using both observers and electronic monitoring (EM). This analysis is being conducted in 2022, released for public and Council review in 2023, and incorporated into the 2024 ADP. The Council would review the draft 2024 ADP at its October 2023 meeting.

This meeting was scheduled to allow the PCFMAC to review the suite of draft sampling designs, evaluation criteria, and analytical assumptions under a timeline that allows sufficient time to make subsequent changes during the drafting process. The Council has also requested the committee meet again (see Section 5) when the cost efficiencies analysis is further along. The Council and AFSC have also supported additional informal check-ins during the sampling design development process, where analytical staff can provide more detail on the analytical approach and committee members could provide feedback to analytical staff. These check-ins occurred from May through August via email.

The committee was reminded that in June 2022, the Council supported maintaining the stratification and allocation strategy from the 2022 ADP in 2023, to allow time for the cost efficiencies analysis to be completed. For reference, the 2022 target coverage rates for vessels in partial coverage are:

- Hook-and-line – 19%
- Pot – 17%
- Trawl catcher vessels – 30%

- Fixed-gear EM – 30%
- Trawl EM EFP–100% at-sea EM; plus 30% shoreside monitoring in GOA and 100% shoreside monitoring in BS

The Final 2023 ADP with the final budget and resulting coverage rates will be provided to the Council under B reports in December 2022 as usual. An updated version of NMFS' Analytical Timeline & Major Milestones is attached to the eAgenda under this agenda item.

2. NMFS 2023 Budget Update

Ms. Jennifer Ferdinand provided a preliminary 2023 budget update. The committee appreciated receiving the update and was encouraged to hear that the Observer Program is expected to have a similar budget for those fisheries in partial coverage in 2023 as it did in 2022. While NMFS has not yet projected effort for the 2023 fishing year, committee members are optimistic that similar coverage rates can be achieved assuming a comparable level of fishing effort (see 2022 rates above).

Total funds available for observer and EM days in any given year are comprised of the prior year's fee revenue, federal appropriations, and any funds remaining on the prior year's contracts. Committee members expressed that identification of each of these sources is important to understand the impact to observer and EM coverage if funding was reduced to only fee revenue. Several budget scenarios (high/med/low) will be evaluated in the analysis, to allow the public and Council to see how various deployment strategies perform under revenue variability. The preliminary budget for 2023 estimates \$5,928,430 in available funds on the partial coverage observer contract with AIS, Inc. In addition, there are \$1,579,769 in available funds with Pacific States Marine Fisheries Commission (PSFMC) for recurring costs in the fixed-gear EM Program, and an additional \$2,000,000 awarded as a new 5-year grant to PSMFC to install new EM systems, support vessels which have end-of-life EM systems, and pay for other one-time costs. For comparison, the 2022 budget was approximately \$5.2 million for the Observer Program and EM. Neither the 2022 nor the 2023 budgets described here include the cost of the Trawl EM EFP, which is currently funded by the National Fish and Wildlife Foundation (NFWF) and industry.

The committee also acknowledged the efforts of industry members in the region who have advocated for appropriations towards EM and the Observer Program in general and would like to express its appreciation for those efforts.

3. Status Update on Partial Coverage Integrated Analysis

Ms. Jennifer Ferdinand, Mr. Geoff Mayhew, Mr. Phil Ganz, Dr. Craig Faunce, Ms. Jennifer Cahalan, and Ms. Jennifer Mondragon provided an update on the Partial Coverage Integrated Analysis for the Draft 2024 ADP. Agency staff aim to produce an analytical document that better integrates EM, evaluates sampling designs, and recommends one design for use in future years, while identifying trade-offs between different monitoring deployment designs. NMFS has emphasized that while it is unlikely to achieve a 50% reduction in costs while maintaining similar coverage levels as were achieved in 2022 and expected in 2023, the Agency's goal is to develop a scientifically robust sampling plan that will enable collection of the most and best data for a given (and variable) budget. The committee highlighted the importance of receiving a comparison of the different proposed designs based on a past example fishery year under several budget scenarios, which would be based on historical fees collected. This would provide a way for the committee to see the data coming out of the 2021 fisheries (for example) and what would be captured under each proposed design using low, medium, and high budget scenarios. The analytical team hopes to have a finalized set of comprehensive monitoring designs by October, a final list of any needed regulatory changes by January 2023, and the analyses for the evaluation/comparison of monitoring designs completed by April 2023. This is scheduled for Council review in October 2023.

Analytical staff described the components of the six proposed designs, included on slide 22 of the presentation. The presentation also described the analytical team's comparative design evaluation ideas

thus far (ways to compare data quality, utility, and cost). Note that ‘strata’ defer to the groupings for sampling. In past deployment plans, strata have equated to gear type (pot gear, hook-and-line gear, trawl gear).

- ***Equal rates design:*** In this design, all strata would have the same coverage rate. In other words, all trips and/or offloads have an equal chance of being included in the sample. The fixed-gear EM strata and shoreside observer component of the trawl EM strata would be sampled at the same rate as partial coverage trips in the observer pool.
- ***Status quo design:*** Sampling rates for partial coverage observer strata are able to differ from one another and rates are set according to methods most recently described in the [2022 ADP](#).
- ***The Supplement to Environmental Assessment (SEA) Design:*** Selection rates for all strata - inclusive of fixed-gear EM and the shoreside component of trawl EM - are such that each stratum has the same minimum proportion of trips in the stratum that occur within domains that are likely to have monitoring. This design is fully described the SEA for Restructuring the Program for Observer Procurement and Deployment in the North Pacific (Gasper et al. 2019). Under this design, the probability of having monitored trips within a domain is weighted by the number of trips within the domain. As a result, domains with few trips are less likely to have monitoring.
- ***Cost-Weighted Design:*** Selection rates are such that each stratum has the same # of domains that are likely to have monitoring, while accounting for the unique costs of monitoring each domain. This design specifically aims to balance the need to have monitoring across the range of diverse fishing activities in Alaska with the costs of achieving that monitoring. For a given budget, the design preferentially allocates sample units to strata by minimizing the probability of having no data within a predefined portion of the fisheries (e.g., area, time) while balancing the costs of deployment into those strata.
- ***Shoreside Fixed-Gear EM Design:*** In this design, all fixed-gear EM trips are monitored for compliance with maximum retention requirements and a subset of those trips are randomly selected to have fish lengths, weights, and biological specimens collected by shoreside observers. For these same deliveries, the at-sea video will be reviewed and data such as hook release method being used for halibut, counts of species that are not landed, fishing locations, set size, etc. could be recorded.
- ***Paired EM with At-sea Observers Design:*** In this design, a subset of trips in the fixed-gear EM stratum would also be sampled by observers at-sea (excluding those vessels unable to accommodate an observer due to safety or space constraints). These observers would have sampling duties focused on length and weight measurements, Pacific halibut condition assessments, tissue collections, and protected species data collections while EM would be relied upon to collect catch data.

The PCFMAC appreciates the work to-date. The major themes of committee discussion and recommendations are captured below, in no order of priority. The committee noted that until more detail is known on key elements that drive each of the proposed sampling designs, it is challenging to determine whether the designs will achieve Council's objectives. **For the next committee meeting, the PCFMAC recommends NMFS analytical staff bring back:**

- **Further description of the level of observer coverage that would be expected under the Paired EM-observers design.** The committee noted that participation in the EM pool is voluntary, and if vessels are going to be required to carry EM and have a probability of also being selected for observer coverage it could be challenging to ensure continued participation in the EM pool. Therefore, it is necessary to understand the differential coverage rates between the observer-only strata and those that would carry both an observer and EM in order to determine whether this is a feasible design.
- **A detailed description of the domains in the SEA design and the Cost-Weighted Box design.**

- **An update on which proposed allocation strategies would include ‘optimization days’ after meeting an established baseline coverage under the sample budget scenarios.** The PCFMAC noted that one of the Council’s intentions with initially restructuring the partial coverage Observer Program was to be able to put higher levels of coverage in fisheries that are Council priorities (such as PSC-limited fisheries) or in areas that need higher coverage to answer a specific question. The committee recommended that designs that include a baseline coverage rate also allow for allocating additional “optimization” coverage to address Council priorities.
- The committee brought up how previous ADPs (e.g. Draft 2022 ADP) only looked at observed days (and not EM days) when evaluating the 15% baseline coverage rate and comparing gaps in data across sampling designs. Committee members reiterated interest in understanding how the fixed-gear baseline analysis could be re-evaluated when EM data are considered and **recommended the analytical team bring back more information on how baseline coverage rates for both observers and EM will be evaluated under the different sampling designs.**
- **Reevaluation of zero coverage:** NMFS stated that zero coverage (who will be included in the zero-coverage pool) is going to be a factor in all six proposed designs. The committee would like detail on the criteria being considered to put vessels/trips in zero coverage (currently zero coverage is for jig CVs and fixed-gear vessels under 40 feet LOA).

The committee had a robust discussion of the shoreside fixed-gear EM design. Overall, there wasn’t strong support for this design and the committee was concerned with the logistics of implementing a maximum retention scenario in fixed-gear fisheries. Specifically, the committee would like to understand which species would need to be retained and how discards would be quantified under a maximum retention scenario. The PCFMAC noted that if full retention is required on all trips this is likely not a feasible alternative for evaluation. It would represent a significant and new operational burden for industry, and some species cannot be mixed in the hold. However, if full retention were not required on every trip, there could be a substantial monitoring effect, for example, monitored trips may be shorter. Consideration of mixed-gear trips is another complicating factor that should be addressed. One committee member suggested starting from the current retention requirements on fixed-gear fisheries, i.e., rockfish and sablefish, and determining what other key species would need to be retained to obtain necessary data (rather than requiring retention of all species) in further evaluation of this design.

The committee also recommends the Agency provide a list of some of the known data gaps raised by stock assessment authors (such as a lack of biological samples for BSAI sablefish) and how each of the proposed designs may address these issues.

The committee has previously recommended receiving further detail on the analytical assumptions on key metrics that impact the outcomes of the sampling designs and reiterated the importance of the following:

- **What goes into the cost of an EM sea day.** One committee member highlighted how EM is cost-effective at a certain scale and ineffective at a certain scale and that should be taken into consideration in developing cost estimates for EM.
- **What options are available to secure average weights from fixed-gear, and the associated cost and data quality tradeoffs**
- **How bias metrics are going to be evaluated/modified.**

The committee would like to make sure these pieces are understood across the six proposed designs.

The agency also presented on a few projects that are outside of the Partial Coverage Integrated Analysis but could affect the budget or how observers/EM would be deployed in the future. The committee identified the following three projects as potentially impacting costs:

- **Ways to reduce the time it takes to review EM data (for fixed-gear and trawl)**
- **Increased hiring of observers in particular Alaska ports**
- **Allowing observers to review EM video.**
- **Using survey data for average weights in catch accounting and eliminating fishery-dependent biological samples for fixed-gear.**

The committee also discussed that it would be helpful to have a projected timeline for ongoing EM projects to determine whether and how these projects feed into the proposed designs, and whether staff can quantify how much these projects would impact the cost of each proposed design. One example brought up at the meeting was whether the pot catch handling project could significantly decrease the amount of time for EM data review and whether that would allow for cost savings under each of the proposed designs.

Lastly, the committee noted the importance of the analytical team highlighting any regulatory or contract changes at the next meeting, as these changes may be potential options moving forward.

4. Public Comment

No public comment was given at this meeting.

5. Future scheduling

The Council has already approved a committee meeting in late winter/early spring 2023 for a second update and review of this work. Staff will work with the analytical team and committee chair to schedule.