Adjusting the Partial Coverage Observer Fee – Analysis Update

Review Draft: August 31, 2018[1]

Introduction

The goal of this document is to provide an update to the FMAC (formerly known as the OAC) Subgroup about the ongoing Fee Analysis work prior to the October Council meeting. This document does not present any quantitative information, as much of that information will be forthcoming with the release of the 2019 Draft ADP. This document aims to thread together recommendations from the FMAC with work Council staff has completed relating to analytic approaches and assumptions for the Fee Analysis.

Please refer to the "Monitoring Objectives" Discussion Paper from May 2018 for background information.

Revisiting monitoring objectives

The FMAC Subgroup last met May 11th, 2018 to discuss fee analysis work. Outcomes from that meeting were discussed at the May FMAC meeting and resulting FMAC recommendations were prioritized for presentation to the Council at their June meeting. Excerpts from the May discussion paper on monitoring objectives, FMAC recommendations, and the Council motion from June 2018 relating to Observer Program issues are presented below.

Policy Objectives identified in the May 2018 Discussion paper:

Conservation interests

- Minimizing a 'monitoring effect' so that observed vessels are representative of unobserved vessels
- Improving discard estimates for fishery species, including minimizing variability and reducing gaps in coverage in all strata/reporting areas
- Priority for monitoring PSC
- Detecting species decline or rare events
- Design the program with flexibility to respond to evolving data and management needs in individual fisheries

Stakeholder interests

- Provide for equitable distribution of the burdens of monitoring among fishery participants
- Design the program, to the extent practical, so that the requirement for monitoring still allows the vessel operator to make the same operational choices
- Foster and maintain positive public perception/stakeholder support for the Observer Program

Reference Scenarios Recommended by the FMAC in May 2018:

S1: a baseline gear-specific hurdle approach (e.g., the updated 15:15:15 plus optimization across TRW:HAL:POT) based on NMFS work in draft ADP.

[1] Prepared by: Elizabeth Figus and Sam Cunningham, Council staff, with input from NMFS AFSC, AKRO, and FMA.

S2 (PRIORITY): a policy-weighted gear-specific hurdle approach derived from a weighted gap analysis (based on effort, in trips) that prioritizes among spatial areas rather than treating all spatial areas equally.

S3: an approach that examines biological sampling needs for stock assessment, and the sensitivity of these needs to integration of tools such as EM and dockside sampling. (noting that some needs are already addressed in the baseline approach)

S4: a descriptive [qualitative] approach on the variability of PSC estimates (salmon, halibut, crab)

S5: a descriptive [qualitative] approach that decreases the expected "observer effect"

S6: a qualitative estimate of the number of days/amount of the observer fee that might be needed for additional optimization goals, and a description of what they might be (e.g., dockside compliance, periodic additional coverage on <40, trawl, or vessels delivering to tenders)

Relevant language from June 2018 Council Motion for Agenda item C1:

"In the draft 2019 ADP, include an evaluation of a gear-specific hurdle that reduces the impact of NMFS regulatory areas with low fishing effort in determining the observer coverage rates for the hurdle." This recommendation relates to and further defines the reference scenario S2 recommendation from the OAC [FMAC] (above).

"The Council supports the continued participation of the OAC [FMAC] Subgroup in the development of the fee analysis, including the opportunity for OAC [FMAC] review of the analysis before Initial Review at the Council."

Proposed analytic methods [updated from the May 2018 Discussion paper]:

To the extent possible this analysis will examine changes to the observer fee, holding all else equal to the 2018 ADP (and the 2019 ADP to the extent that information becomes available prior to Initial Review of this analysis in December 2018). This means that analysts will only examine items that impact the fee directly, including how sensitive revenues resulting from a suite of fee levels might be to:

- changes to total Allowable Catch (TAC) levels for groundfish and halibut species in the partial coverage category of the Observer Program (since these affect revenue to the program);
- market fluctuations that may result in changes to the ex-vessel value of groundfish and halibut, including how those prices might affect a) standard prices for the observer fee; and, b) the proportion of all fee revenue that each fishery sector contributes to the overall Observer Program;
- fluctuations in the total cost of an observer-day/EM-day supplied by the contracted provider for the partial coverage category;

The outcomes [and impacts] associated with different fee levels will be assessed based on their:

- *performance in relation to sampling needs and policy objectives*; and,
- relative impacts on stakeholders and communities in the BSAI and GOA partial coverage fisheries.

Matching Reference Scenarios with Needs and Objectives

As stated above, this analysis will assist the Council in considering whether or how to raise the observer fee is through identifying outcomes and impacts associated with different fee levels. Outcomes and

impacts associated with different fee levels will be assessed based on the performance of fee levels presented in Alternatives 1, 2, and 3 in relation to sampling needs and policy objectives for observer and EM data, and whether/how those needs/objectives are met with resulting fee revenues. Analysts will assess the amount of funds collected each year across different fee levels, and the resulting coverage rates as those coverage rates relate to sampling needs and policy objectives. The resulting analysis may look like, for example, "at x fee percentage, the resulting coverage rates are y, and here's an evaluation of how well this scenario addressed sampling needs and policy objectives 1-x as described in the next section."

This section proposes one approach to matching the eight needs and objectives listed in the May discussion paper to the layers of the proverbial cake of six reference scenarios recommended for consideration in the analysis by the OAC [FMAC] Subgroup in May 2018. The list of policy objectives has been shortened, with two previous objectives currently used to categorize "conservation interests" and "stakeholder interests."

Matching needs and objectives with reference scenarios is necessary to compare outcomes associated with different fee levels, through measuring the performance of different fee levels in relation to sampling needs and policy objectives across varied reference scenarios for monitoring coverage.

Sampling Needs

Sampling needs are split into two categories below:

- Stock assessment data needs are related to proposed references scenario S3: an approach that examines biological sampling needs for stock assessment, and the sensitivity of these needs to integration of tools such as EM and dockside sampling (noting that some needs are already addressed in the baseline 15:15:15 plus optimization hurdle approach).
- Hurdle approach (as it is addressed in the 2018 ADP) is related to proposed reference scenario S1: a baseline gear-specific hurdle approach (e.g., the updated 15:15:15 plus optimization across TRW:HAL:POT) based on NMFS work in draft ADP.

Policy Objectives

Size policy objectives are split into two categories below:

Conservation interests ***(****Design the program with flexibility to respond to evolving data and management needs in individual fisheries)*

- Minimizing a "monitoring effect" so data from observed vessels are representative of unobserved vessels is related to proposed reference scenario S5: a descriptive approach that decreases the expected "observer effect"
- Improving discard estimates for fishery species, including minimizing variability and reducing gaps in coverage in all strata/reporting areas is related to proposed reference scenario S2 (the ***priority*** for the FMAC): a policy-weighted gear-specific hurdle approach derived from a weighted gap analysis (based on effort, in trips) that prioritizes among spatial areas rather than treating all spatial areas equally.
- Priority for monitoring PSC is related to proposed reference scenario S4: a descriptive approach on the variability of PSC estimates (salmon, halibut, crab)
- Detecting species decline or rare events is related to proposed reference scenario S6: a qualitative estimate of the number of days/amount of the observer fee that might be needed for additional optimization goals, and a description of what they might be (e.g., dockside compliance, periodic additional coverage on <40, trawl, or vessels delivering to tenders)

Stakeholder interests ***(****Foster and maintain positive public perception/stakeholder support for the Observer Program)*

- Provide for equitable distribution of the burdens of monitoring among fishery participants is related to proposed reference scenario S2 (the ***priority*** for the FMAC): a policy-weighted gear-specific hurdle approach derived from a weighted gap analysis (based on effort, in trips) that prioritizes among spatial areas rather than treating all spatial areas equally. (From motion: "evaluation of a gear-specific hurdle that reduces the impact of NMFS regulatory areas with low fishing effort in determining the observer coverage rates for the hurdle."
- Design the program, to the extent practical, so that the requirement for monitoring still allows the vessel operator to make the same operational choices is related to proposed reference scenario S5: a descriptive approach that decreases the expected "observer effect"

The above combination of needs and objectives with reference scenarios will be used to measure the performance of different fee levels across proposed decision Alternatives 1, 2, and 3.

Working list of analytical assumptions

Assumptions are meant to provide realistic, conservative approaches to guide this analysis.

1. Human observer costs per day will be assumed to amount to $1100 * 2% inflation adjustment each year over the next five years.
2. Program expansion in partial coverage trawl will not play a measurable role in this analysis.
3. Potential impacts from the EM Cost Allocation Procedural Directive will not be addressed in this analysis because they cannot be predicted at this time.

Next Steps

Approach to EM cost:
Understanding the cost of the fixed-gear EM program in a given future year, and thus the proportion of total partial coverage observer funds required, is a foundational step in analyzing how changing the fee percentage might impact programmatic monitoring objectives. Even if the maximum number of EM vessels remains capped (currently 165), the program's cost will vary annually. The analysis that supported EM Integration identified EM cost-drivers and how each is expected to behave over time or with more/fewer vessels in the EM fleet due to attrition or changes to the ADP. However, once the EM program is fully transitioned to observer fee funding, analysis of annual program demands and apportionment of the total funding pool between EM and human coverage will be determine through the ADP process. A model will be developed specific to the ADP process in the future but will not be available on the timeline of the fee analysis at hand. The eventual cost modeling approach for the ADP will have the benefit of additional observation of the EM stratum at its current operational scale in terms of maturity, providers, vessels, and service locations. Moreover, modeling approaches associated the ADP allocation of observer resources are also likely to change over time with changes in information needs and analytical improvements.

To satisfy the needs of this fee analysis, **staff intend to rely on a simplified approach to near-term EM cost estimation based on current and past years of program spending relative to the number of vessels served and the nature of the spending (e.g., start-up costs vs. ongoing operational costs).** Staff will make informed adjustments that reflect the maturation of the program (e.g., physical capital already acquired). This approach should result in a coarse estimate – expressed as a range – that reasonably gauges the program's true revenue-demand. Offering a more detailed model at this time would be speculative given the rapid development of the EM stratum and uncertainties surrounding the future of Federal contracts, data storage, and video review. More importantly, a detailed model developed by staff would be front-running the approach yet to be developed for the ADP, which is ultimately the model that matters from an operational standpoint over the medium- to long-term with regard to annual apportionment and deployment decisions. Attempting to preconceive that model without FMA

involvement at this time would also result in two similar but different models in the public sphere at the time when the fee analysis is in the public/secretarial review stage and while FMA is fully incorporating EM costs into its Draft 2020 ADP. Finally, a coarse estimate for a semi-mature EM fleet of ~165 fixed gear vessels – again, expressed as a range – befits the Council's decision-making scale where the body is attempting to address particular monitoring objectives with a fairly blunt tool (%fee increase), and doing so in the context of an ever-changing landscape of observer sea-day costs, EM fleet enrollment, et cetera.