

Observer Program Annual Report¹

Summary of Requests and Draft Outline for the 2013 Annual Report

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Alaska Region and Alaska Fisheries Science Center
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Introduction

The North Pacific Groundfish and Halibut Observer Program (Observer Program) has had a vital role in the management of North Pacific groundfish fisheries since the program started over 20 years ago. The information collected by observers provides scientific information for managing the groundfish fisheries and minimizing bycatch. High caliber observer information is the cornerstone of Alaska groundfish fisheries management. However, prior to 2013 the quality and utility of the information was deficient because some boats were not being observed and the structure for deploying observers was flawed.

In October of 2010, the North Pacific Fishery Management Council (Council) took final action to recommend Amendment 86 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area and Amendment 76 to the Fishery Management Plan for Groundfish of the Gulf of Alaska (Amendments 86/76 or “Observer Restructuring”). The new Observer Program went into effect on January 1, 2013 and made important changes to how observers are deployed, how observer coverage is funded, and the vessels and processors that must have some or all of their operations observed. These changes will increase the statistical reliability of data collected by the program, address cost inequality among fishery participants, and expand observer coverage to previously unobserved fisheries.

Under the restructured Observer Program, the sampling plan for deploying observers and analysis and evaluation of the data collected by observers is an on-going process. Each September, NMFS will develop an Annual Deployment Plan (ADP) to describe how observers will be deployed for the upcoming calendar year. Each June, NMFS will prepare an annual report that evaluates the performance of the prior year’s ADP implementation. This process ensures that the best available information is used to evaluate deployment, including scientific review and Council input to annually determine deployment methods.

In June, 2013, NMFS released the first report on the performance of the new Observer Program. However, because the restructured program was only a few months old, the report only evaluated data from the first 16 weeks of 2013 and was therefore a Preliminary 2013 Annual Performance Review. In June 2014, NMFS will present an Observer Program Annual Report that will provide information and analysis of the program for the entire year of 2013.

¹ The Observer Program Annual Report also has been called the “Annual Performance Review.” NMFS distinguishes between the “annual report” which will contain all of the descriptive and analytical information about the Observer Program and observer coverage in the prior year and the “annual deployment performance review,” which will be a component of the annual report.

Since its final motion on Observer Program restructuring at the October 2010 meeting, the Council has made numerous requests and recommendations about the information and analyses that should be included in the Observer Program annual report. NMFS and Council staff reviewed Council motions, Council minutes, Council discussions, SSC minutes, OAC discussions and minutes, the proposed and final rules, public comment on the proposed rule, and public comment to the Council to identify requests for information and analyses in the Observer Program annual report. NMFS considered all of these requests and recommendations in developing the proposed outline for the first Observer Program Annual Report that will provide information and analysis about the first year of the restructured program.

Purpose & Content of the Observer Program Annual Report

The understanding of the specific information and analyses that would be contained in the Annual Deployment Plan (ADP) versus the annual report has evolved over time.

Council motion

The Council passed its final motion for Amendment 86 to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (BSAI) and Amendment 76 to the FMP for Groundfish of the Gulf of Alaska (GOA) in October 2010. The motion contained the following direction about the annual report (highlighted text shows items that are within the topics that will be addressed in the annual report):

*NMFS will release an observer report by September 1 of each year. The report will contain the proposed stratum and coverage rates for the deployment of observers in the following calendar year, **as well as a detailed financial spreadsheet by budget category on the financial aspects of the program.** The Council may request its Observer Advisory Committee, Groundfish Plan Teams and/or the SSC to review and comment on this draft plan. NMFS will consult with the Council each year on the draft plan for the upcoming year, at a meeting of the Council's choosing that provides sufficient time for Council review and input to NMFS.*

*NMFS also would prepare an **annual report on the observer program for presentation to the Council each year, including information on how industry participants have adapted to and been able to accommodate the new program.** As part of this annual report, the 1.25% fee percentage would be reviewed by the Council after completion of the second year of observer deployment in the restructured program. The Council could revise the fee assessment percentage in the future through rulemaking after it had an opportunity to evaluate program revenues and costs, observer coverage levels, fishery management objectives, and future sampling and observer deployment plans. This report would be provided to the Council at the same time the annual deployment plan is being provided.*

The proposed and final rules for Amendments 86/76 also provided information about what NMFS expected to be in the annual report, based on the Council's motion and an evolving understanding of how information and analyses would be distributed between the annual report and the ADP.

Annual Deployment Plan

The most recent description of the annual report (here called the "annual performance review") is in the final 2014 ADP:

June 2014: NMFS will present an annual performance review that provides a comprehensive evaluation of observer activities, costs, sampling levels, issues in 2013, and potential changes for 2015. NMFS will evaluate data collected in prior years to identify areas where improvements are

needed to (1) collect the data necessary to manage the groundfish and halibut fisheries, (2) maintain the scientific goals of unbiased data collection, and (3) accomplish the most effective and efficient use of the funds collected through the observer fees. This review is intended to inform the Council and the public of how well various aspects of the program are working, and consequently lead to recommendations that may adjust sampling methods and priorities for the upcoming year.

SSC Requests and Recommendations

In October 2013, the SSC provided comments and recommendations on the draft 2014 ADP and included recommendations for items to be included in the annual report:

- *The SSC looks forward to a complete performance review of the 2013 season along with an evaluation of the efficiency of the current sample design with respect to coverage of catch and bycatch.*
- *A standard set of performance measures should be developed for the purpose of evaluating how well the observer program is meeting its objectives (precision and accuracy of estimating catch, bycatch, and catch of prohibited species, collection of biological information, and ability to fulfill assigned tasks, including special projects).*
- *The review should also highlight any changes in the magnitude of sampling rates of harvests and other harvesting characteristics (such as discard rates) that deviate significantly from years prior to implementing the revised program.*
- *The trip selection process appears to be working well with respect to the implementation of a random sample of trips. The SSC recommends addressing the potential problem associated with self-selecting the order of trips in a future ADP. There was also a potential bias detected in 2013 as it appears that trips delivering to tenders are not being observed. This omission needs to be addressed with a regulatory change as soon as possible.*
- *Problems with the vessel selection process need to be addressed in the next ADP. The registry of vessels to be potentially selected is based on prior year fishing activity, leading to potential bias in the selection of vessels to be observed. Perhaps a pre-registration system for vessels that will be fishing in the coming year could be implemented to resolve this sampling issue.*
- *Further research is needed on the use of EM technology as an auditing tool to reduce the “observer effect” (the alteration of harvesting behavior when an observer is onboard).*
- *Now that small vessels are being observed, an analysis should be conducted to compare the spatial distribution of catch and bycatch with that of larger boats.*
- *A list of vessels that opt out of observer coverage and their reasons for opting out could be maintained and published to determine representativeness of sampling.*

Finally, in June 2013 under high priorities for the 5-year research priorities, the SSC listed “effects of changes to the Observer Program,” and noted the need to:

- *evaluate the effects on biological parameter estimates and on estimated catch, bycatch, and PSC from changes to data collection protocols that occur because of observer restructuring,*
- *ensure that data can be compared easily to the previous data collection methods and time series remain intact,*
- *improve biological data collection including representative length and age samples from all sectors of the fleet, and*
- *attempt to separate temporal changes from sampling design effects.*

OAC and Council Requests & Recommendations

NMFS has also received a variety of requests from the OAC and Council for information to be provided in the Annual Report. In addition, in response to comments, NMFS noted several things that it anticipated would be included in the annual report. NMFS and Council staff generated a list of items that have been requested or described as being part of the annual reports. Many of the

items, however, are duplicative since similar ideas that have been articulated at different times by different groups. For example, listed below are several requests and/or descriptions pertaining to analysis of observer sampling and deployment, along with the source of the request and when it was requested:

- *Review of the sampling method resulting in a difference between observer coverage in the vessel and trip selection pools* – Council motion, December 2012
- *Evaluate performance in the vessel versus trip selection pools* - Council letter, 10/17/13
- *How significant are departures from the intended sampling design (bias) and how best to proceed in addressing them* – OAC minutes, June 2013
- *Annual report that analyzes the prior year's ADP* - Final rule (NMFS response to comment 21)
- *Evaluate the difference between coverage in the vessel and trip selection pools* – Council motion, October 2012

These requests and questions and others like them will be addressed in the “annual performance review,” chapter in the Annual Report. The goal of that chapter will be to **evaluate observer deployment and sampling levels in 2013 relative to the 2013 ADP. If there are departures from the sampling design described in the 2013 ADP and potential issues with deployment evaluate how big these issues are and areas where improvements are needed to improve data collection & reduce bias.**

As another example, there have been a number of requests for information about the characteristics of trip and vessel selection:

- *In trip selection, how many vessels were picked for sequential trips and how many trips they took* – OAC minutes, June 2013
- *Include available information that shows, with the vessel selection pool in 2013: (1) the average number of trips taken with each 2 mo deployment period; and (2) the average length of trips within the 2 month period.* – Council motion, June 2013
- *Number of vessels that were repeat selected in vessel selection* – OAC minutes, June 2013
- *Further information on the average # and length of trips in the 2-month deployment periods in 2013* – OAC minutes, June 2013

NMFS has summarized these as request to provide information on: **coverage rates & characteristics of coverage in trip and vessel selection including: the probability of being selected by time period; actual coverage rates; number of boats that have been selected multiple times; number of observed trips; length of trips.**

NMFS compiled the list of requests, consolidated them, and compared those to various descriptions of the annual report. From this process, NMFS has developed a draft outline for the Annual Report.

Draft Outline and Schedule for 2013 Annual Report

Among the most important goals for restructuring the Observer Program were to reduce bias and expand observer coverage to a broader range of participants in the groundfish and halibut fisheries. Therefore, the Annual Report for the first year of the restructured program will focus primarily on evaluating how the actual deployment of observers in 2013 compared with planned deployment as described in the 2013 ADP. In addition, the Annual Report will provide information about other aspects of the program in 2013 including the fee collection program, program costs, contract issues, catch and bycatch estimates, coverage rates, outreach, and enforcement.

With respect to the deployment performance review, NMFS will evaluate if there are departures from the 2013 deployment plan and, if so, how large those departures were, and how they may affect the quality of

the observer data. The deployment performance review also will identify proposed approaches to reduce as many potential sources of bias as possible and to identify areas where sampling can be improved. For example, last June NMFS identified tender activity as a potential source of bias in the trip selection pool. Identification of this problem generated a recommendation from Council for NMFS to identify changes that could be made to improve observer sampling for vessels delivering to tenders. That analysis is on-going now on a track separate from the Annual Report. It is impossible to evaluate all aspects of observer deployment in 2013. Therefore, NMFS is using previous input from the Council, OAC, and SSC to prioritize the analyses we will prepare for the first Annual Report. From the process of reviewing previous requests and recommendations, NMFS has identified that evaluation of the selection process and observer deployment in the vessel selection pool as a high priority for the Annual Report.

NMFS will include in the Annual Report a general description of the process of developing performance metrics for further evaluating the sampling plan and impacts on estimates generated from observer data. Performance metrics for the sampling plan will be a set of “measures” by which to further evaluate our ability to achieve the deployment methods described in the ADP. These metrics will measure the realized (actual) outcome of our sampling fishing trips in the full and partial coverage categories against the sampling and deployment goals described in the sampling plan. For example, random sampling is one important assumption inherent in the deployment plan and a key to high quality catch and bycatch estimates. Evaluating the degree to which we are achieving random sampling may require several performance metrics to determine whether we achieved our goal and, if not, to more specifically identify situations where we departed from the anticipated design.

Restructuring of the Observer Program also was designed to improve our estimates of catch and bycatch the biological data we collect to manage the groundfish and halibut fisheries. The Annual Report will present information about catch and bycatch estimates based on the observer data collected in 2013. NMFS will discuss various metrics that would be used to evaluate how changes in deployment impact estimation options.

The Annual Report and the ADP process will continue to build as the restructured observer program matures. The 2013 Annual Report will evaluate what occurred in 2013 and provide the foundation for NMFS and the Council to make decisions about observer deployment to improve data collection. The proposed outline for the 2013 Observer Program Annual Report is on the following page.

Schedule for 2013 Annual Report

The 2013 Annual Report will be released prior to the June 2014 Council meeting, which begins on June 2, 2014, in Nome, Alaska. NMFS anticipates that the Council’s OAC will meet the week prior to the Council meeting. The Annual Report will be released to the public in mid- to late-May 2014 prior to that OAC meeting.

Draft Outline for 2013 Observer Program Annual Report

1) Introduction

- A) Description of the North Pacific Groundfish and Halibut Observer Program
- B) Summary of the 2013 Annual Deployment Plan
- C) Description of the Annual Report and Annual Deployment Plan process

2) Fees and Budget Information

- A) Fees collected from 2013, summarized by species, gear, and area
- B) Details on programmatic costs, including: total number of billable days and what is included in costs per observer day (travel, training, etc.)
- C) Contract process
 - i) Explanation of the contracting process and milestones for the next contract
 - ii) Identification of any contracting issues with the current contractor
- D) Cost Efficiencies (recommendations for how to reduce costs or more efficiently deploy observers)

3) Descriptive Statistics

- A) Information (either in tables or spatially or both) about catch and discard, and observer coverage by area, gear, and target fishery. (update the catch tables that were presented in October, 2013 and present any additional informative data)
- B) Report any issues related to observer availability (especially lead level 2 observers) as a result of the program

4) Deployment Performance Review

Evaluate observer deployment and sampling levels relative to the 2013 ADP. If there are departures from the sampling design and potential issues with deployment evaluate how big these issues are and areas where improvements are needed to improve data collection and reduce bias.

- A) Evaluation of both full and partial coverage dockside sampling (focus of partial coverage in 2013 was Chinook salmon sampling)
- B) Full Coverage – evaluate whether we achieved full coverage where it was required
- C) Partial Coverage
 - i) Evaluation of trip selection including coverage rates and characteristics of coverage including the probability of being selected by time period; actual coverage rates; number of boats that have been selected multiple times; number of observed trips; length of trips.
 - ii) Evaluation of vessel selection
 - (1) Coverage rates and characteristics of coverage including the probability of being selected by time period; actual coverage rates; number of boats that have been selected multiple times; number of observed trips; length of trips.
 - (2) Description of conditional releases, conditions that warranted release from coverage; number of releases
 - (3) Evaluate other deployment strategies for vessel selection
- D) Performance metrics: Establish a set of metrics by which to evaluate our ability to meet the deployment methods outlined in the ADP.

5) Compliance and Enforcement

Number and nature of violations being pursued by OLE; any documented incidents of vessel operators taking actions to avoid coverage.

6) Outreach

Description of outreach information and events conducted in winter 2013/spring 2014 and issues that arose in these meetings.