

The Restructured North Pacific Groundfish and Halibut Observer Program

Craig H. Faunce, FMA Division

New regulations governing how observers are deployed into the fisheries of Alaska became effective on 1 January 2013. Amendment 86 to the Fisheries Management Plan (FMP) of the Bering Sea and Aleutian Islands and Amendment 76 to the FMP of the Gulf of Alaska establish the new North Pacific Groundfish and Halibut Observer Program (Observer Program). The new regulations change how observer coverage is funded and the observer coverage requirements for vessels and processors. 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. These changes are necessary to successfully manage Alaska's billion dollar fisheries industry.

The new Observer Program restructures and replaces what was originally considered an "interim program," which lasted for 23 years. Broadly speaking, under the interim program, vessels and plants paid for observers by the day at coverage rates specified in law based on *days in a calendar quarter* at-sea (not fishery as is often assumed) and on *tons processed* for shoreside processors. Under the interim program, catcher vessels between 60 and 125 ft in overall length were allowed to self-select which trips were to be observed. Because vessels less than 60 ft or those targeting Pacific halibut were not observed, the former static regulatory structure of observer coverage created not only an incentive for owners to change the length of their vessels (indeed a disproportionately high number of 124 ft and 58 ft vessels exist in the fleet), but also created a mechanism for owners, because of self-selected trips, to skew observer coverage towards trips with lower bycatch rates (e.g. pollock) and away from those with higher bycatch rates (e.g. most flatfish fisheries).

The 2013 Observer Program is the result of the third attempt by the National Marine Fisheries Service (NMFS) to restructure the interim program since 1990. This recent effort began with a 2008 Council problem statement, involved more than 53 individuals from five agencies, and took 5 years to accomplish. The new program places *all* vessels and processors in the groundfish *and halibut* fisheries off Alaska into either full or partial coverage categories. No operations are exempt from the new program. Vessels and processors in the full coverage category will continue to obtain observers by contracting directly with observer providers. Vessels and processors in the partial coverage category will obtain observers through NMFS, paying a fee on landings to cover costs.



Vessels less than sixty feet in length and those that fish for Pacific halibut are included in the new Observer Program.

The full-coverage category now includes:

- catcher/processors (CPs) (with two exceptions),
- motherships,
- catcher vessels while participating in American Fisheries Act (AFA) or Community Development Quota (CDQ) pollock fisheries,
- catcher vessels while participating in CDQ groundfish fisheries (except sablefish and pot or jig gear catcher vessels),
- catcher vessels while participating in the Central Gulf of Alaska Rockfish Program (RP), and
- inshore processors when receiving or processing Bering Sea pollock.

Vessels and processors now in the partial coverage category include:

- catcher vessels designated on a Federal Fisheries Permit (FFP) when directed fishing for groundfish in federally managed or parallel fisheries, except those in the full coverage category,
- catcher vessels when fishing for halibut IFQ or CDQ,
- catcher vessels when fishing for sablefish IFQ or fixed gear sablefish CDQ, and
- shoreside or stationary floating processors, except those in the full coverage category.



Halibut vessels such as this one will be subject to observer coverage in 2013.

The new Observer Program establishes greater coverage requirements for those vessels with the potential to take long trips (catcher/processors), compared to catcher vessels that cannot take long trips because of the potential for catch spoilage. Regulatory changes bring new catcher/processors less than 60 ft into the Observer Program because the full coverage requirement for catcher/processors and motherships is based on specific operating endorsements issued by NMFS on a vessel's FFP (and not its length). The full coverage requirements that remain for some catcher vessel operations represent those inherited from existing catch-share programs or required for detailed quota accounting (e.g. AFA, A80, RP, and CDQ). Catcher vessels greater than 125 ft that were previously fully observed can move to partial coverage under the new program if they participate in certain target fisheries such as pollock in the Gulf of Alaska.

How vessels in partial coverage attain their observers in the new program represents a major change from the previous program. Under the new Observer Program, coverage requirements for the partial coverage category are specified in an Annual Deployment Plan (ADP). The intent of the ADP is not to adjust policy, but rather to focus on science-driven deployment to reduce potential bias and meet NMFS's data needs. The allocation strategy used to deploy observers in the partial coverage category is the principal aspect of observer deployment that can be adjusted through the ADP. The ADP process is

initiated as a science-based recommendation through committee that is vetted into an initial draft document by the Alaska Fisheries Science Center's [Fisheries Monitoring and Analysis \(FMA\) Division](#) and the [Sustainable Fisheries Division](#) of the NMFS Alaska Regional Office. The initial draft ADP is then presented to the North Pacific Fishery Management Council at its June meeting. NMFS will subsequently analyze Council recommendations and release a final draft ADP by 1 September. The final draft ADP is then presented to the Council's plan teams in September, the Council's Scientific and Statistical Committee (SSC), and the Council itself in October. Based on accepted minor Council recommendations to be made in October, a NMFS final ADP is then issued for the following year. Under a compressed implementation schedule, the 2013 ADP was first presented as a draft to the Council's observer advisory committee, plan teams, and SSC during September-October 2012, was updated following Council recommendations in November, was presented to the Council in December, and was [finalized and released in January 2013](#).

The 2013 ADP defines three pools of vessels within the partial-coverage category by the way that observers are deployed. In the first, termed the *zero coverage pool*, NMFS has placed jig vessels and vessels less than 40 ft under the rationale that these vessels do not harvest large amounts of fish, and small vessels may be challenging to observe. In addition, state guideline harvest level (GHL) fisheries are outside of the jurisdiction of NMFS and the Observer Program. In the second partial coverage pool, termed the *vessel selection pool*, vessels greater than or equal to 40 ft and less than 57.5 ft are selected at random by the FMA Division every 2 months based on prior activity. This means that vessels with a history of fishing in multiple 2-month periods have the chance of being selected for observer coverage more than once during the year. Selected vessels are required to carry observers for all their trips during their selected 2-month period. The observer data from selected vessels should be representative of fishing by unobserved vessels because for the observed vessel, there is nothing to be gained by taking unrepresentative or shorter trips since observer coverage cannot be avoided for up to 8 weeks. Following

Council recommendations, NMFS is targeting a sample size (number of vessels to be observed) in this pool for 2013 that is equivalent to 11% of the number of vessels that fished in the most recent full year at the time the draft ADP was written (i.e., 2011). Between 9 and 25 vessels are expected to be observed for each 2-month period in 2013. For the first 2 months of 2013, nine vessels were selected. Of these nine, two did not have FFPs, one vessel surrendered its FFP to avoid observer coverage, two vessels had not made landings, one vessel decided to fish in violation of its coverage requirements, and three vessels carried observers. The first observer in the vessel selection pool was deployed onto a 53-ft vessel on 3 January 2013. With better data and continued cooperation between the FMA Division and Alaska Regional Office's SF Division, the FFP issue has been corrected and the second draw of 29 vessels for the period of March-April 2013 has been made.

Vessels greater than 57.5 ft constitute the *trip selection pool* of partially covered vessels. These vessels must log each intended trip into an [Observer Declare and Deploy System](#) (ODDS, available online and by phone) to determine if they require an observer. Trips are randomly selected at a rate determined from simulations of past effort and anticipated funds in the Annual Deployment Plan. Following Council recommendations, NMFS is targeting a number of observed trips that is equivalent to 14%-15% of the number of trips logged into ODDS. Because trips are logged 72 hours in advance, the observer provider has time to deploy an observer to the vessel, but the vessel does not have a great deal of notice to manipulate trip coverage. Cancelling a trip that has been selected for observer coverage triggers the vessels' next logged trip to be selected for coverage. If a vessel cancels only "to be observed" trips and continues to log additional trips, it will quickly end up having only "to be observed trips" logged. To reduce the amount of uncertainty in the system, ODDS has a three open trip limit, meaning that after three trips logged, a vessel must update their logged trip with landing information.

On 4 January 2013, the first observer was deployed in the trip selection pool onto a 58-ft vessel. In the first 12 weeks of this year, more than 1,200 trips had been logged into the ODDS, and more than 230 trips were selected for observer coverage.

Although both trawl and non-trawl trips are selected at the same rate, observer coverage rates of trips that have been realized (not cancelled or released from coverage) after the first 12 weeks of 2013 was near 17% for trawl compared to approximately 14% for non-trawl trips. This discrepancy was because early in the year some selected trips could not be observed and only non-trawl fisheries were open at the time. In the 3 months of operation, the combined rate among gear types for realized trips is near 16%.

FMA analysts are checking the performance of the new Observer Program. This effort enhances collaborative efforts among the FMA Division, the Alaska Regional Office, and NOAA's Office of Law Enforcement. The first check compares vessel landings in the vessel-selection pool made under federal authority with observer data. Any unobserved landings are referred to the Office of Law Enforcement. Another check is to verify that the ODDS system is working properly and that the random number generator is performing as expected for each trip. While these checks ensure that the scale of potential biases with respect to observer coverage are known, additional comparisons of actual vs. predicted coverage amounts are also carried out. These additional comparisons are conducted to inform NMFS about potential financial shortfalls that may occur if effort by the fleet or the selection rate is particularly high relative to years past. Plots of daily and cumulative selection rates help in these evaluations (Fig. 1).

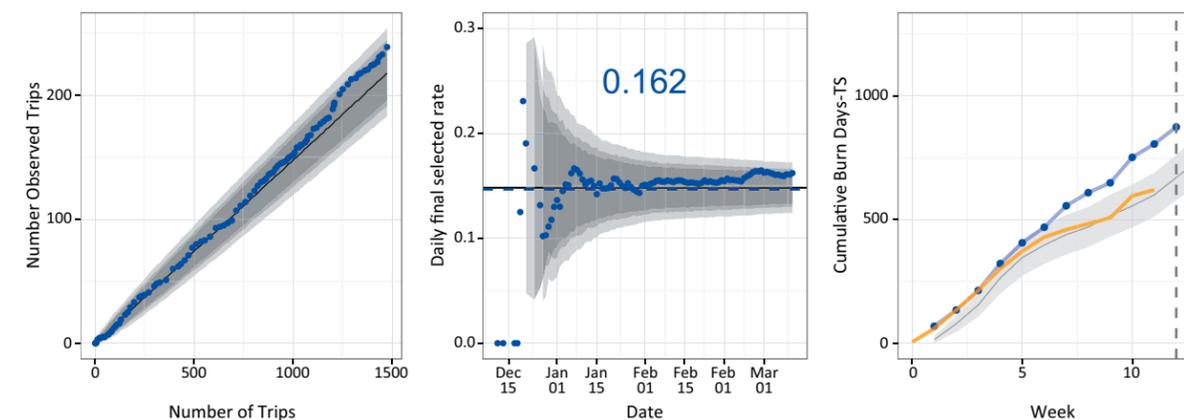


Figure 1. These plots are examples of how FMA analysts are tracking the new Observer Program. These plots are for the trip-selection pool of vessels. Panels depict the cumulative number (left panel) and rate (center panel) of selected trips logged in ODDS after cancelled and release-from-coverage trips are considered. Black lines depict expected values under perfect selection (selection = programmed rate) and shadows depict expected 90th, 95th, and 99th percentile bounds. The right panel depicts the cumulative number of days expected to be invoiced by calendar week in the trip-selection pool compared to projections made in the 2013 ADP (black line with gray 95th percentile bounds). Blue points in the right panel denote days in ODDS, whereas those in orange indicate days from observer data in the FMA database, which lags those in ODDS. As of week ten of 2013, the combination of a higher than expected selection rate and fleet effort has resulted in greater anticipated expenditures than was anticipated.



Observers work in a variety of conditions in close quarters with the crew. It is important that there is a good working relationship among people onboard.

Square peg, round hole

As the interim Observer Program’s 23-year history will attest, it has been difficult for NMFS to gain control over where observers are deployed and to enact a new method for funding the Observer Program. An historic Council vote in October 2010 to restructure the Observer Program was unanimous, and the Council’s support of the restructured program has continued through implementation. However, the Council did make some exceptions to the new program’s general requirements in order to address constituent issues.

In the first exception, processing vessels that meet specific criteria may choose whether they wish to belong to the full or partial coverage category. The criteria for this exception is defined by the Council as “catcher/processors less than 60 ft. LOA with a history of catcher/processor and catcher vessel activity in a single year from January 1, 2003, through January 1, 2010 or any catcher/processor with an average daily groundfish production of less than 5,000 pounds round weight equivalent in the most recent full calendar year of operation from January 1, 2003, to January 1, 2010.” Two vessels appear to meet the criteria under this exception. This exception creates unique challenges for NMFS in implementing the program. For example, both of these vessels have decided to be in partial coverage, meaning that special trip definitions are required for these vessels since the new regulations define a trip as ending when all harvested fish onboard have been delivered (Clearly, this regulatory definition does not fit well with vessels that process fish on-board).

Important dates of Restructure

1990	First year of fully domestic fishing operations in Alaska. NMFS and Council establish an “interim” observer program. First attempt to restructure the program is initiated (Research Plan). This plan proposed to collect ex-vessel revenue and deploy observers once enough funds had been collected.
1992	Council adopts the Research Plan
1994	NMFS implements Research Plan
1995	Council repeals the Research Plan and directs NMFS to refund collected fees (\$5.5 million)
1996	Council adopts interim observer program requiring coverage through 1997
1997	NMFS begins to develop a joint partnership agreement (JPA) with the Pacific States Marine Fisheries Commission to procure observers. Council supports JPA (to be effective in 1999) and votes to extend the interim observer program through 1998.
1998	JPA approach is abandoned. Council extends the interim program through 2000.
2000	Council extends interim program through 2002. NMFS works with Councils Observer Advisory Committee (OAC) to develop an alternative program during that time.
2002	Council extends interim observer program through 2007.
2006	Second attempt to restructure the program is initiated. NMFS presents a regulatory amendment package with alternatives to the interim program. Council removes the sunset date of the interim observer program due to the cost and statutory issues raised by the 2006 proposed program.
2008	Third attempt to restructure the program is initiated. Council tasks NMFS to develop a discussion paper to reevaluate the issues that were raised in the 2006 observer restructuring analysis. Council approves a problem statement for the restructuring of the observer program and adopts moving forward with the effort.
2009	OAC and Council review the NMFS implementation plan and ask for further revisions.
2010	OAC and Council review the NMFS revised implementation plan and initial review draft analysis. The analysis outlines various phases of any observer program development based on available funding and data. Council unanimously adopts its preferred motion to restructure the observer program. Motion specifies a full and partial coverage category, what fishing operations belong in each, a 1.25% fee to fund the future program, outlines how prices will be established, and how NMFS will report on the progress of the new program. Council requests NMFS for start-up funding for the first year of the new observer program. NMFS begins outreach efforts in Seattle, Kodiak, Homer, Sitka, Petersburg, Juneau, and Sand Point.
2011	NMFS presents white paper on Electronic Monitoring to Council. NMFS presents the proposed rule and regulations to restructure the observer program to the Council. Council deems proposed final regulations to be necessary and appropriate. Council again requests NMFS for start-up funding for the first year of the new observer program.

2012	NMFS presents its 2013 Annual Deployment Plan (ADP) and development plan for EM to the Council and their Plan Teams and Committees. The ADP specifies that observers will be deployed by NMFS among trips or vessels. Industry members petition the Council to delay full implementation of human observers on previously unobserved boats. Council reiterates its support for the new observer program and the 2013 ADP, but recommends NMFS prioritize coverage to vessels in trip-selection that are managed by Prohibited Species Caps (PSC), reduces the time required for vessels in vessel-selection to carry an observer by a third, and asks that voluntary coverage requirements be considered. Council requests further clarification of EM in proposed rule. After analysis, NMFS provides letter to Council specifying how coverage probabilities and durations have been altered between the trip- (>57.5 feet catcher vessels; CVs) and vessel-selection (40-57.5 feet CVs) pools in the partial-coverage category. NMFS obtains approximately \$4M to fund the new observer program for the first year. NMFS selects an observer provider for the partial coverage category vessels from competitive bid. NMFS makes first selection for which vessels in the vessel-selection pool will carry an observer during January-February 2013. NMFS launches the web-based Observer Declare and Deploy System (ODDS) and initiates a contract to a phone bank to log trips and randomly assign observers within the trip-selection pool. NMFS solicits volunteers for an EM pilot study to be conducted on boats in the vessel-selection pool. NMFS initiates contract to deploy EM on voluntary vessels in 2013. Proposed and Final rules are published in the Federal Register as BSAI Amendment 86/GOA Amendment 76. The observer program is restructured. NMFS conducts outreach events in Seattle, Anchorage, Petersburg, Homer, Kodiak, and Newport (OR). Fourteen fishing groups voice their lack of support for full implementation of the restructured program to the Alaska Congressional Delegation. Alaska Congressional Delegation petitions Acting Secretary of Commerce to not place observers on vessels in the vessel-selection pool until an EM alternative is available. A lawsuit is filed on the new observer program.
2013	The 2013 (restructured) Observer Program is launched. For the first time, observers are required on vessels less than 60 feet in length, including those that fish for Pacific halibut. Deployment under the NMFS contract is determined by random sampling vessels and trips. Over 450 trips are logged into ODDS in the first two weeks. NMFS conducts outreach events in Ketchikan, Sitka and Juneau. NMFS makes second selection for which vessels in the vessel-selection pool will carry an observer during March-April 2013. A fishing association asks Council to have NMFS base the 2014 ADP on poundage, not effort.

In the second exception, catcher/processors that processed no more than 1 metric ton (t) round weight of groundfish on any day (up to a maximum of 365 t per year) in the previous calendar year are not required to carry full observer coverage. This exception was made by NMFS to facilitate small levels of processing which is a current practice on some boats.

A third exception was requested in October 2012—just prior to implementation of the new program. The Council requested and NMFS developed a mechanism to allow 100% observer coverage for the Bering Sea-Aleutian Islands Pacific cod catcher vessel trawl fleet during the 2013 season, with the additional costs to be borne by the vessel owners. This exception was designed to avoid the vessels’ uncertainty of potentially having to wait for an observer to be deployed, as well as to improve the fleet’s own bycatch management efforts. While many vessels participated in this exception, some did not.

New opportunities and new challenges

One of the greatest benefits of the new Observer Program is that NMFS now has the ability to provide reliable estimates of catch of all species (including discards) from vessels less than 60 ft in length including vessels participating in the Pacific halibut fishery. However, some members of the fleet remain strongly opposed to implementing the new regulations despite the exceptions listed above. This opposition has posed the greatest challenge to implementing the new program. Before the close of the year 2012, 14 fishing groups petitioned the Alaska Congressional Delegation to urge NMFS to delay implementation of the new program on small boats until NMFS resolves outstanding deployment issues and implements electronic monitoring, specified as cameras. At the same time, The Boat Company (a charitable education foundation and Alaska non-profit corporation that engages in recreational fishing for salmon and halibut for their clients) filed suit against NMFS, citing that the new program fails to achieve minimum levels of coverage needed to generate statistically reliable estimates of bycatch in the Gulf of Alaska. A new group called the Fixed Gear Alliance filed a motion to intervene in the lawsuit and represent the interests of commercial longline, pot, and jig fishermen. Yet despite these pressures, the Council reiterated its support for the restructured Observer Program and the 2013 Annual Deployment Plan at its December 2012 meeting.

The direct contract between NMFS and an observer provider also brings new opportunities and challenges for the program. NMFS has awarded a competitive contract to A.I.S., Inc. to recruit, hire, and deploy observers onto partial-coverage vessels. Fortunately, A.I.S., Inc. has past experience deploying observers on smaller vessels and its staff is familiar with the process. However, the development and management of such a large-scale contract required that FMA provide additional contract training to staff. In addition, effectively managing the multiple components of the new Observer Program has proved to be challenging. For example, while the ADP provides a mechanism for the Agency and the Council to continuously update the Observer Program, changes to the plans or deployment rates that can impact the observer provider may require contract modifications, which in turn can incur additional costs in both time and dollars. The initial contract with A.I.S. Inc. will likely be rebid and refined in 2014. NMFS may consider a longer-term contract for observer providers in the partial-coverage category in the future.



Observers collect information on species that would otherwise not show up in catch reports.

Is it worth it?

Given the extensive time and resources required to restructure the Observer Program, it is reasonable to ask the question “is all of this worth it?” To address this question we need only to revisit the five issues listed in the Council’s 2008 problem statement that was the basis for restructure of the Observer Program.

First, the Observer Program was restructured to reduce bias in observer data introduced through self-selection of coverage. Excluding behavior that cannot be legislated in a sampling design once an entity is observed, a reduction in observer data bias is enabled through new random-selection processes. In theory, observer data should be proportional to fishery effort, ensuring a representative sample, and in practice, this seems to be taking place. According to Mary Furuness, in-season manager at the Alaska Regional Office “Observer data this year seems to be spread more evenly among gear types and areas compared to last year, which helps to ensure that each gear type is getting their appropriate bycatch rate.”

Second, the new program provides collection of observer data from sectors that previously had no observer coverage requirements, such as the Pacific halibut fishery. The Councils’ joint plan teams have been advising stock assessment scientists for several years to include an independent estimate of the bycatch of groundfish in the Pacific halibut fishery. This estimate is partially derived from International Pacific

Halibut Commission survey data and is provided to stock assessments in order to comply with Annual Catch Limit reporting requirements. New NMFS catch estimates derived from the 2013 Observer Program should replace the Halibut Fishery Incidental Catch Estimate.

Third, the structure of the new program allows fishery managers to provide observer coverage in response to the management needs and circumstances of individual fisheries. Such a process already was put in place when the Council asked NMFS between October and December 2012 to focus the at-sea sampling originating from the trip-selection pool within fisheries that have Prohibited Species Caps. Fourth, cost-inequities associated with the old program are now addressed by a broad-based fee (currently at 1.25% of ex-vessel value) for all partial-coverage participants which will fund observer coverage in future years.

Finally, the new program will continue to provide scientists with data critical for the conservation and management of fisheries and ecosystems in the North Pacific- none of which are currently experiencing overfishing or are overfished.

Alaskan groundfish have been considered among the most successfully managed fisheries in the world, and the new Observer Program represents an important, necessary, and long-overdue improvement to the quality of the data used to earn that distinction. Considering that Alaskan groundfish account for nearly

half of the weight of total U.S. domestic landings and is valued at over \$2 billion, it seems that all the effort to restructure the Observer Program was, and will continue to be- worth it. More information on the new Observer Program is provided on the [Alaska Regional Office’s website](#) and within this [summary poster](#).

