UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

September 3, 2013

Eric Olson, Chairman
North Pacific Fishery Management Council
605 W. 4th Avenue, Suite 306
Anchorage, AK 99501-2252

Dear Chairman Olson:

At its June 2013 meeting, the North Pacific Fishery Management Council (Council) received a report presented by the National Marine Fisheries Service (NMFS) on observer deployment for the first 16 weeks of the year under the 2013 Annual Deployment Plan (ADP). The Council then provided recommendations and requests related to (1) the 2014 ADP, (2) additional information for review in October 2013, (3) the final 2013 annual performance review, (4) electronic monitoring, and (5) future regulatory amendments. This letter addresses the Council's recommendations and requests in development of the draft 2014 ADP.

In evaluating the Council's six requests and recommendations for the 2014 ADP, we considered whether an issue was appropriate for inclusion in the draft 2014 ADP or should be addressed separately. Our responses are summarized below and detailed in the enclosure.

- The draft 2014 ADP continues to reflect a priority on vessels managed under PSC limits by setting the anticipated selection rate for vessels managed under trip selection higher than vessels managed under vessel selection in the same relative weighting as was used in the 2013 ADP.

- The draft 2014 ADP continues to reflect the Council's policy of conditional releases from observer coverage for vessel operators who provide reasonable information that accommodating an observer would displace crew members or additional Individual Fishing Quota (IFQ) permit holders. Please note, however, that NMFS only intends to issue releases to vessels in the vessel selection stratum in 2014 for reasons explained in more detail in section 1.4.6 of the draft 2014 ADP.

- Further consideration of a proposal to release vessels from observer coverage if the IFQ permit holders on board have a "de minimus" or small amount of halibut or sablefish IFQ remaining in their accounts requires discussion and analysis beyond what could be accomplished between June and August of this year. In addition, depending on the specific proposal developed, it may require regulatory amendments to effectively implement and enforce. NMFS anticipates that

further analysis of this proposal would be complicated and implementation would involve significant costs. More information about this recommendation is provided in the enclosure.

- As noted in the preliminary 2013 Annual Performance Review, tender activity could be a potential source of bias in observer data. Not only can vessel operators who engage in this activity stay at sea longer unobserved than vessels not delivering to tenders, but accounting for salmon on a trip-specific basis (the standard in shoreside pollock deliveries) by vessels delivering to tenders is not possible. Unfortunately, the complexity of the issue requires additional evaluation to identify effective solutions and likely will require regulatory amendments. Thus, NMFS is not recommending changes in observer deployment for catcher vessels delivering to tenders through the 2014 ADP. However, we recommend that this issue is a high priority for continued evaluation due to the potential impacts on data quality.

- NMFS does not recommend reducing the deployment period in the vessel selection pool from 60 days (2 months) to 30 days. The enclosure includes a detailed analysis responding to this information request. This analysis provides the requested background information on trip lengths and average number of trips taken during a selection period. In addition, the analysis discusses the potential data and logistical issues associated with moving to a 30-day selection period or requiring auto-selection for vessels choosing not to fish. The major issues and recommendations in the analysis are summarized below:

  - Changing the selection period would double the administrative and analytical workload on NMFS staff, and increase the likelihood that a vessel is selected multiple times during the fishing year.
  - Reducing the selection period would also increase the likelihood that a vessel would alter behavior to avoid coverage.
  - Changing the selection period from 60 to 30 days would require a check-in/check-out system be developed and used by operators of vessels in the vessel selection pool in order to conduct the work efficiently.
  - A check-in/check-out system would require developing supporting infrastructure and providing outreach about those procedures prior to the 2014 deployment.
  - Moving the selection period to 30 days would create increased process and procedure for vessel operators, and is believed by staff to degrade the ability of the agency to deploy observers at the desired rate and track deployment performance.
  - Providing automatic selection for the next period for vessels not fishing would cause a "feast or famine" effect over time and space with respect to observer data. Consequently observer data would not accurately reflecting fleet-wide fishing characteristics
  - Reducing the observation period below 60 days would in effect reduce the vessel selection to trip selection and result in a "one size fits all" approach to

observer deployment that was to be avoided as specified by the Observer Advisory Committee in the development of the restructured observer program (Sept. 2009 OAC minutes).

For these reasons, we do not recommend changing the selection period or methods for selecting vessels in the vessel selection pool from those specified in the draft 2014 ADP.

In conclusion, we appreciate the input from the Council on the preliminary 2013 Annual Performance Review. The comments we receive from the Council are critical to the success of the restructured observer program. In the short time since implementation of the restructured program in 2013, the ADP process has become an integral part of the Council process, which has facilitated considerable opportunity for comments and review by industry, the public, and the Council. As the restructured observer program matures, we are committed to implementing important improvements and maintaining this transparent process to improve data collection.

Sincerely,

Robert D. Mecum

for James W. Balsiger, Ph.D.
Administrator, Alaska Region

Enclosure

NMFS Response to Council Recommendations and Requests in Development of the 2014 ADP

(Text from the Council's motion is in *italics*)

1. *The 2014 ADP should continue to reflect a priority for monitoring vessels managed under prohibited species catch (PSC) limits in the trip selection pool. The Council recognizes that this necessarily modifies an equal probability sampling design such that higher observer coverage rates are provided in the trip selection pool, and lower rates in the vessel selection pool, consistent with the 2013 ADP.*

The draft 2014 ADP reflects a priority on vessels managed under PSC limits. NMFS is setting the anticipated selection rate for vessels managed under trip selection higher than vessels managed under vessel selection in the same relative weighting as was used in the 2013 ADP (see section 1.4.2 of the draft 2014 ADP). That ratio was recommended by the Council and deemed by NMFS to provide inseason managers with additional information to monitor PSC on vessels in the trip selection pool without severely compromising sampling rates in the vessel selection pool.

2. *Maintain the policy that observers should not displace crew members or IFQ holders, nor should vessel modifications be required to accommodate an observer.*

As described in the preliminary 2013 Annual Performance Report, conditional releases from observer coverage were granted to vessel operators who provided reasonable information that accommodating an observer would displace crew members or additional IFQ permit holders. NMFS will continue to implement this Council policy in 2014. NMFS also will continue to review accommodation issues on a case-by-case basis, recognizing that in some situations reasonable accommodations for an observer can be made with minor modifications to vessel operators (e.g., removing stored equipment from an existing bunk or augmenting existing sleeping areas similar to crew's). Please note, however, that NMFS only intends to issue releases to vessels in the vessel selection pool in 2014 for reasons explained in more detail in section 1.4.6 of the draft 2014 ADP.

3. *Request NMFS provide information that would help inform a decision as to whether to create a new criterion for receiving a conditional release from observer coverage in 2014 based a de-minimus amount of halibut or sablefish IFQ in an IFQ holder's account.*

NMFS relieves vessels in the partial coverage category from observer coverage through (1) placement of vessels meeting a certain criterion into the "no selection pool" (i.e., vessels less than 40 ft length overall (LOA), catcher vessels using jig gear), or (2) conditional releases from coverage based either on Council policy recommendations to exclude vessels that cannot accommodate an observer, or on logistical factors as determined by NMFS (i.e., observer could not get to the selected vessel in time). Placing vessels in the no selection category or conditionally releasing vessels from observer coverage have the potential to bias NMFS's estimates of catch and bycatch in the fishery

as a whole if the fishing activity by vessels with observer coverage does not represent the fishing activity by vessels without observer coverage. Information about the catch and bycatch by small vessels or on trips with small amounts of catch is important to include in observer data because these trips and catch may have characteristics that differ from those of larger vessels or larger deliveries.

Notwithstanding NMFS's concern about data quality, it also is appropriate to consider other factors such as safety, logistics, and cost efficiencies in deciding whether to place observers on vessels. These factors were considered when NMFS recommended that vessels less than 40 ft LOA or catcher vessels using jig gear initially be placed in the no selection pool. This recommendation was based on the analysis in the Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis for observer restructuring (section 3.2.7.2 (pages 160-161) and Appendix 10 of the EA/RIR/IRFA). NMFS was seeking a vessel LOA threshold below which observers would not initially be placed on the vessel. The analysis showed that a 40 ft LOA threshold was appropriate because it represented a break point in sampling efficiency where the relative gain in amount of fish harvested per trip differed above and below the vessel length threshold. A similar analysis of the proportion of catch represented by catcher vessels using jig gear relative to other gear types was used to justify not initially placing observers on these vessels.

In public comment on the proposed rule for observer restructuring (77 FR 23326; April 18, 2012), NMFS received a request to exempt vessels landing 3,000 pounds of fish or less on a trip from observer coverage. NMFS declined to add such an exemption to the final rule because it was not part of the Council's final action on observer restructuring and had not been adequately analyzed (see response to Comment 53, 77 FR 70076; November 21, 2012). In this response, NMFS stated that we "can consider additional options for exclusions from observer coverage under future annual deployment plans. However, any such exclusions would be made after analysis of the impacts of specific exclusions from observer coverage on the data necessary to conserve and manage the groundfish and halibut fisheries."

The proposal to consider releasing vessels from observer coverage if they are used to harvest small amounts of halibut or sablefish IFQ is more complicated to analyze than a threshold based on a vessel characteristic such as LOA or gear type because (1) observers are deployed on a vessel while IFQ is tied to a permit holder and not to a specific vessel, (2) the data set needed to analyze the impacts of the proposal requires linking historical landings data to IFQ account balances for all IFQ holders on board a vessel during a particular trip, and (3) small amounts of IFQ harvest can be associated with varying amounts of groundfish harvest on the same trip. In addition, adequate monitoring of conditional releases based on the amount of IFQ remaining in a permit holder's account may require regulatory amendments.

The halibut and sablefish IFQ program authorizes a person specified on an IFQ permit to harvest an annual allotted amount of IFQ. The annual IFQ permit is not associated with a specific vessel. This program design allows the IFQ fishermen the flexibility to use

multiple vessels during a fishing season or to stack multiple permits on a single vessel for greater operational efficiency. The only exception is when an IFQ permit holder hires a master to harvest the annual IFQ. When a hired master is used the IFQ permit holder is required, in most cases, to provide the name of the vessel on which the IFQ will be harvested by the hired master. However, the use of hired masters within the IFQ Program is limited to initial issuees and corporate permit holders; therefore, a majority of the IFQ halibut or IFQ sablefish harvested is harvested by individual IFQ permit holders who do not hire a master and are not required to identify the vessel on which the IFQ is being harvested until they initiate a Prior Notice of Landing (PNOL).

Creating a conditional release based on a de minimus amount of IFQ remaining in a permit holder's account would require identification of the specific pounds of IFQ halibut or IFQ sablefish below which a vessel carrying an IFQ permit holder would be released from observer coverage. The Council would need to address whether this threshold applied to each single permit holder, all permits held by a single permit holder on a vessel, or the cumulative amount of IFQ pounds remaining for all permit holders onboard a vessel during a particular fishing trip. Selection of the appropriate threshold would require consideration and comparison of the impacts of alternative thresholds (e.g., 500 lbs, 1,000 lbs). The analysis would examine the number of vessels or trips that would be released from observer coverage under the alternative thresholds. Creation of the data set to conduct this analysis would require combining information from a prior year or years for landings data for each trip in which IFQ was harvested with information about the amount of IFQ remaining in the accounts of all of the IFQ permit holders onboard the vessel during that trip.

The greatest challenge to implementing a proposal such as this would be creating a tracking system that would allow NMFS to track a specific IFQ permit with a specific vessel. That system would require new reporting requirements for both IFQ holders and vessel operators. To be effective, this would require a "real-time" tracking mechanism to ensure effective dockside enforcement and monitoring.

The application for a release would have to be submitted before the fishing trip started and would be required to include the names and permit numbers of the IFQ permit holders that would be on board the vessel. NMFS would then need to verify that the cumulative amount of IFQ remaining in the specified accounts was below the specified threshold and if it were, release the vessel from observer coverage. After a trip was completed by the released vessel, NMFS also would have to check the landing or delivery information to verify that the vessel maintained compliance with the conditions of the release from observer coverage (e.g., no additional permit holders were onboard the vessel, no IFQ from additional permit holders was landed). The analysis would need to consider whether effective enforcement would require revisions to the PNOL regulations to track IFQ landings and link all permit holders onboard to a vessel prior to a landing. Regulations governing PNOLs only require the IFQ permit associated with the landing of halibut to be reported. Thus, enforcement has no method of verifying that a vessel complied with the conditions of a release from observer coverage, noting that an IFQ holder can transfer IFQ while at-sea. In addition, an IFQ holder's account balance

would need to be associated with a date such that any halibut transferred into the IFQ account after that date could be considered against the de minimus criteria and the conditions of a release.

The analysis also would need to look at the other groundfish species harvested on the same trips in which IFQ species are harvested. These trips could involve any range of other species and catch amounts and could involve releases from coverage for trips in groundfish target fisheries.

For these reasons, further consideration of a proposal to release vessels from observer coverage based on a threshold related to remaining IFQ requires discussion, analysis, and likely regulatory changes that could not be accomplished in the draft 2014 ADP. Therefore, if the Council wishes to consider additional releases from observer coverage based on IFQ account balances, that should be done based on analysis under a separate process, and not the ADP. However, NMFS anticipates that this would be a complicated analysis and implementation would involve significant costs.

4. *Request NMFS assess whether the 2014 ADP can address the observer effect associated with tender deliveries (disproportionately high numbers of deliveries to tenders when vessels unobserved, or long trips when unobserved and delivering to tenders), or whether a regulatory change is necessary.*

The preliminary 2013 Annual Performance Review indicated that observed trips for catcher vessels delivering to tenders were typically shorter than unobserved trips for catcher vessels delivering to tenders. The report acknowledges that data to evaluate whether this trend is statistically important is limited. However, assuming the trend holds, differences in behavior between unobserved and observed vessels can introduce bias in estimation. Vessels that engage in this activity stay at sea longer unobserved than vessels not delivering to tenders. In addition, accounting for salmon on a trip-specific basis (the standard in shoreside pollock deliveries) by vessels delivering to a tender is not possible because the catch from different vessels is combined on the tender before it is available for sampling at a shoreside processing plant.

NMFS considered whether to recommend placing all catcher vessels delivering to a tender in the vessel selection pool to reduce the opportunity to manipulate trip length. However, NMFS does not recommend this approach in the draft 2014 ADP due both to the preliminary nature of the information available to evaluate the potential data quality concerns and the complexity of the issue. From a sampling perspective, defining strata for deploying observers that account for catcher vessels delivering to a tender is complex due to the flexibility and unpredictability of the operation type. Throughout the course of a year, catcher vessels may deliver to tenders, shoreside processors, or even both during a single trip (split delivery) and the vessels that engage in these activities change from year to year. Vessels currently are assigned to the vessel or trip selection pools based on fixed characteristics of the vessel. Placing vessels in the vessel selection pool based on vessel activity that can change from trip to trip is logistically difficult and may require

regulatory amendments (prior notice or pre-registration to deliver to a tender) to effectively monitor and enforce.

Another option would be to deploy observers on or from tenders. However, this approach will require regulatory amendments in two areas. First, tenders are not part of the full or partial coverage category so certain regulations governing observer activities are not extended to tender vessels. These include prohibitions protecting observers at § 679.7(g), vessel operator responsibilities at § 679.51(e), and general requirements at § 600.746. Second, for a catcher vessel delivering to a tender, a trip is currently defined as the period of time that begins when a catcher vessel departs a port to harvest fish until the vessel returns to a port in which a shoreside processor or stationary floating processor with a valid Federal Processing Permit is located. This definition would need to be revised to allow a fishing trip to end upon delivery to a tender.

In summary, tender activity could be a potential source of data bias in observer data. Unfortunately, the complexity of the issue requires additional evaluation to identify effective solutions and likely will require regulatory amendments. Thus, NMFS is not recommending changes in observer deployment for catcher vessels delivering to tenders through the 2014 ADP. However, we recommend that this issue is a high priority for continued evaluation due to the potential impacts on data quality.

5. *Include available information that shows, within the vessel selection pool in 2013: 1) the average number of trips taken within each 2-month deployment period; and 2) the average length of trips within the 2-month period.*

6. *Include information as to the tradeoffs and considerations that should be taken into account in evaluating whether the 2-month deployment period for those in the vessel selection pool should remain, or be reduced (e.g., one month). Include consideration of a provision that if a vessel is selected for a coverage period and chooses not to fish during that period, the vessel is automatically selected for the next coverage period.*

The Observer Database NORPAC and the multiagency database eLandings were used to identify observed trips and to assign them either to the frame of activities that would have fallen under the authority of the 2013 ADP (if in place at the time) or to those that would not have. Only those activities that would have fallen under the 2013 ADP were included in this analysis. Data from the first six months of 2013, or the first three vessel selection deployments, are included in the analysis.

Duration of coverage

Summaries of the mean and 95% range number of trips and days of observed and unobserved fishing activities (rounded to the nearest whole number) are provided in the table below (Table 1).

Table 1. Mean (and 95% range) number of days and trips for unobserved and observed vessels in the vessel selection pool in the first 3 selection draws of 2013.

Days (rounded to nearest whole)					
Selection Period	Observed?	Lower 95%	Mean	Upper 95%	Number of Vessels
1: Jan – Feb	NO	2	**15**	33	72
	YES	14	**24**	39	3
2: Mar - Apr	NO	2	**12**	33	142
	YES	6	**12**	19	14
3: May – Jun	NO	2	**11**	29	207
	YES	3	**9**	19	10

Trips (rounded to nearest whole)					
Selection Period	Observed?	Lower 95%	Mean	Upper 95%	Number of Vessels
1: Jan – Feb	NO	1	**5**	14	72
	YES	4	**7**	13	3
2: Mar - Apr	NO	1	**3**	8	142
	YES	1	**3**	5	14
3: May – Jun	NO	1	**2**	6	207
	YES	1	**2**	5	10

With the possible exception of the first time period, there is little discernible difference in the mean number of days and trips between observed and unobserved activities in each time period. The difference in trip length between observed and unobserved vessels during the first time period could be due to the fact that only three vessels carried observers during this time period, and one of these three vessels took a trip lasting almost 40 days. Taken together, **during a 2-month selection period the average vessel took three trips totaling 12 days regardless of whether it was observed or not. Over the entire period, 307 vessels fished; 22 were observed.**

The number of observed vessels as a proportion of the total is important, because when the number of observations is small, resulting data may not be a good representation of

the total population. For example consider the distribution of observed days and trips summarized in the table above, but this time with each data point depicted (Figure 1).

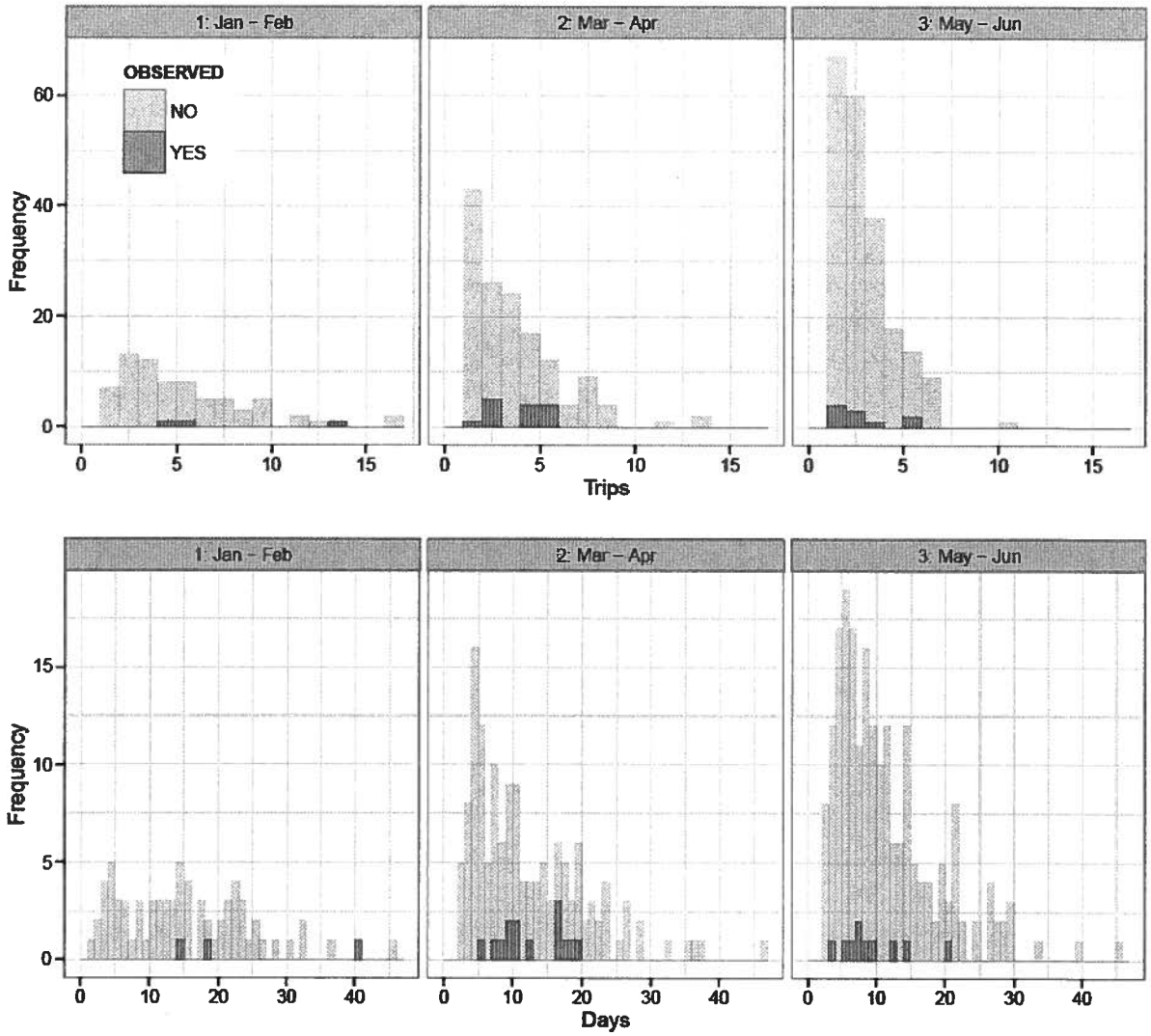

Figure 1. Frequency histograms depicting the number of observed and unobserved trips (top panels) and days (bottom panels) during the first three vessel selection periods of 2013.

While the mean trip and day count means in Table 1 were nearly identical, the **distribution** of observed trips compared to the unobserved trips in Figure 1 are not identical (the shapes are different), and this difference is increasingly obvious as more short-duration trips were unobserved between selection period 1 and period 3 (the peaks grow for unobserved trips over time, however for observed trips this is not evident).

A preliminary assessment of the anticipated coverage rates (Sampling Fractions) vs. actual in the vessel selection pool is provided in the table below (Table 2).

Table 2. Anticipated versus actual numbers of vessels and sampling fraction in the vessel-selection pool for the first 3 selection draws in 2013. Anticipated values were based on 2011 data projections.

Selection Period	Anticipated total vessels (A)	Anticipated observed vessels (B)	Actual total vessels (C)	Anticipated Sampling Fraction (B/C)	Vessels selected for coverage (E)	Actual observed vessels (F)	Actual Sampling Fraction (F/C)
1: Jan – Feb	65	7	75	9.3%	9	3	4%
2: Mar-Apr	153	17	147	11.5%	29	14	9.5%
3: May-Jun	231	25	214	11.6%	39	10	4.6%

While a 11% sampling fraction was anticipated, a lower sampling fraction (4 to 9.5%) was actually achieved. **Changes to the Annual Deployment Plan that reduce sampling fractions should be avoided because they reduce confidence in the resulting data.**

Should the 2-month deployment period for those in the vessel selection pool remain or be reduced (e.g., one month)?

Here we consider the trip as the unit of measure and evaluate this question in terms of the infrastructure required to achieve an observer sample and the likelihood of achieving that sample. The process whereby vessels are placed into the vessel selection pool is conducted by NMFS and is costless to the vessel; there is no requirement for a check-in/check-out system as there is for some quota cooperative systems (e.g., The Central Gulf of Alaska Rockfish Program). However, this process does impose additional costs on NMFS. NMFS must review past vessel activity, decide whether that activity would fall under the current ADP, and determine the number of vessels to select. The number of vessels NMFS selects each time period is influenced by the results of past selections, meaning that if past vessel selections have not met expectations, the number of vessels selected in the next draw is inflated and vice versa. Yet despite these adjustments, NMFS has seen little improvement in the sampling fractions in this pool of vessels during the timeframe examined here.

It is important that NMFS use the best available information to inform its decisions of how many vessels to observe. Currently NMFS has a 60-day notification period for vessel selection. This means that draws of selected vessels and letters are sent to vessel operators 60 days in advance of the start of their selected observation period, which also lasts 60 days. Consequently, this means that selection draws are informed only by the results of the draw that was conducted and completed two periods prior (e.g., the results of the first draw influence the third draw while the results of the second draw influence the fourth draw and so on). Unless the response rate (the rate at which selected vessels actually carry an observer) is constant among time periods, there exists the chance that NMFS is selecting too many or not enough vessels. Reducing the selection duration from two months to one month would actually exacerbate this situation. If a 60-day notification period remained but the observation period were reduced to 30 days, selection draws would be informed by the results of the draws three periods prior (e.g.,

results of the first draw would inform results of the fourth draw, the second draw would inform the fifth draw and so on).

Once a vessel selection is made, a letter of notification is auto-generated and mailed to the vessel owner. Like the selection process, these activities are also costless to the vessel. Vessel owners who receive the letter, they may choose to notify the NMFS that they do not intend to fish or may request a conditional release from observer coverage. Both require that they call NMFS or enter their supplied username and password into an online application called the Vessel Assessment Logging System (VALS). If a release is requested, once a record is generated in VALS, NMFS must assign a staff member to inspect the vessel to verify or refute the physical conditions listed in the waiver request (releases due to crew size or IFQ holder onboard are done without an inspection). NMFS staff time and travel costs are realized for each vessel inspected. Therefore, the selection of more vessels in each draw than are anticipated to fish represents an inefficiency on the part of the Federal Government (expenses that do not involve observer fees). Rectifying this inefficiency would require a check-in/check-out system for vessels each time period. This time cost would be borne by the vessel owners or operators.

If the selection duration were reduced from 60 days to 30 days, the number of selections would double. Since NMFS uses past performance to evaluate future sampling frames, vessels that have a history of fishing in multiple time periods could be selected for multiple time periods. A halving of the selection period would double this likelihood of being selected during multiple time periods. In addition, the number of vessels selected in the fleet would likely increase, since not all vessels fish during the same time periods, NMFS staff time and cost to inspect the vessels would increase with the extra selections and vessels.

The above considerations do not take into account data quality. The less observer data that are available, the more important the quality of the obtained data becomes. One of the factors that affect observer data quality is related to human behavior. The "observer-effect" is an alteration of fishing activities when observed compared to when unobserved. Some members of the fleet oppose human observation and may alter their fishing schedule to avoid observer coverage. Controlling for this effect was one of the factors considered in creating a vessel selection duration of three months. This duration was changed to two months in the 2013 ADP. A reduction in the selection period from 60 to 30 days would increase the inefficiencies of the vessel selection draws since it would increase the likelihood that a selected vessel can alter its fishing plans to avoid coverage.

In conclusion, a reduction in the duration a selected vessel is required to carry an observer in the vessel selection pool has the following logistical effects:

- **Increases the number of vessels selected for coverage during the year,**
- **Increases the likelihood that a vessel is selected during multiple times of the year,**
- **Increases the likelihood that a vessel can alter fishing activities to avoid observer coverage,**

- **Increases the workload of NMFS analytic staff, field staff, and programming staff.**

All of these effects have the potential to reduce data quality.

If a vessel is selected for a coverage period and chooses not to fish during that period, the vessel is automatically selected for the next coverage period.

In recognition that a reduction in the duration of coverage for selected vessels would likely decrease the proportion of vessels selected that actually carried observers, it has been suggested that if a vessel is selected for a coverage period and chooses not to fish during that period, the vessel would be automatically selected for the next coverage period. **This would cause a "feast or famine" effect over time and space with respect to observer data.** During times of the year and in areas when observer coverage is least desired (e.g., when bycatch rates are high) there would be a high incidence of observer avoidance. Selected vessels would opt not to fish and there would be no observer data to base bycatch rates on for that fishery. This would be the famine for observer data. For the purposes of example, let's propose that the next selection period does not have a high incidence of observer avoidance (there is a low incidence of opting not to fish if selected). During this second time period, there would be observer data from newly selected vessels **in addition to** that from the vessels that had been selected for the prior time period and opted not to fish on their vessels (since the selected vessels would be automatically selected for the next coverage period). This would be the feast of observer data. In the first time period, there is not enough observer data; in the second there is too much.

In conclusion, since a vessel under a 2-month time period is on average observed for three trips averaging twelve days, a halving of this duration would be expected to result in the average vessel being observed for one to two trips in a month. NMFS currently employs a randomization procedure for the selection of trips to be observed called the Observer Declare and Deploy System (ODDS). ODDS has the built in feature that if an operator cancels a "to be observed" trip, the operator's next logged trip is selected for coverage. **A reduction in the observation period below 60 days would in effect reduce the vessel selection to trip selection and result in a "one size fits all" approach to observer deployment that was to be avoided as specified by the Observer Advisory Committee in the development of the restructured observer program (Sept. 2009 OAC minutes). This approach is not recommended.**