



**NOAA**  
**FISHERIES**

Alaska Fisheries  
Science Center

# 2014 *Draft* Annual Deployment Plan for observers in the Groundfish and Halibut fisheries off Alaska

AFSC and AKR Staff

Observer Advisory Committee (OAC) *briefing*  
*Seattle, WA*

September 17, 2013

# A look back

- Council asked for change in coverage rate that would weight trips with PSC more heavily than other activities.
- NMFS finalized the 2013 ADP with a weighting of 15% in trip-selection and 11% in vessel selection.
- New program launched on Jan 1.
- June 2013 Observer program (through group effort) reviewed performance in first 16 weeks of program-presented in June Council meeting
- Council responded with:
  - 6 analytical requests for this 2014 ADP
  - Other analyses requested to Annual Review (June 2014) see Appendix A

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# Council October 2013 Agenda

## C-1 Observer Program (8 hrs)

- (a) Report from NMFS on information requests.
- (b) Observer Program: 2014 year deployment plan.
- (c) Receive OAC report and take action as necessary.
- (d) EM discussion and possible review of EFP (T).

# Council request 1

- Reflect a priority on vessels managed under PSC limits by setting trip selection rates higher than those in vessel selection
- *The draft 2014 ADP Retains weighting of observer coverage at vessel selection = 0.75 of trip-selection.*

## Council request 2

- Continue policy of conditional releases for operators who provide information where accommodating an observer would displace crew members or additional IFQ holders
- *The draft 2014 ADP currently retains this policy, but restricts it to trip-selection operations*

## Council request 3

- Consider a proposal to release vessels from coverage based on a “de minimus” amount of IFQ quota remaining in their accounts
- *NMFS anticipates that further analyses of this proposal would be complicated, implementation costly and is beyond what can be incorporated in this ADP.*

# Council request 3

## Summary



- Observers are deployed by Vessel characteristics while IFQ is tied to a permit holder not to a particular vessel
- Impacts would require linking historical landings to IFQ account balances for all IFQ holders on a vessel during a trip
- Small amounts of IFQ harvest can be associated with large amounts of groundfish harvest and discard
- Require a real-time complex tracking system that allows NMFS to track a specific IFQ permit with a specific vessel for effective dockside enforcement and monitoring
- Potentially bias NMFS estimates of catch and discard in the fishery as a whole since observer coverage would not represent fishing activity by the fleet as a whole

## Council request 4

- Assess whether the observer effect associated with tender deliveries can be addressed in the 2014 ADP or whether a regulatory change is necessary



- Addressing this issue will require regulatory amendment







# Council request 5

- Show the amount of trips, length of trip of a vessel (in Vessel Selection) during a two-month deployment in 2013

Comparison between un-observed and observed vessels in the Vessel Selection pool

Table 1: Day and Trip Summary for Vessel Selection January – June 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
1: Jan – Feb	YES	14	24	39	3
2: Mar - Apr	NO	2	12	33	142
2: Mar - Apr	YES	6	12	19	14
3: May – Jun	NO	2	11	29	207
3: May – Jun	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
1: Jan – Feb	YES	4	7	13	3
2: Mar – Apr	NO	1	3	8	142
2: Mar – Apr	YES	1	3	5	14
3: May – Jun	NO	1	2	6	207
3: May – Jun	YES	1	2	5	10

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## Council request 6


- Tradeoffs and considerations in evaluating whether 2-month or 1-month durations should be used in vessel-selection
- Reducing coverage durations is not recommended.

# 1 Month versus 2 Month Deployment Strategy.



## Summary



- Increases the likelihood of a vessel altering fishing activity to avoid Observer coverage
- Increases workload on analytic, field and programming staff 
- Require a check-in check out system prior to 2014
- Increases the probability a vessel will be observed multiple times during a year
- Decrease data quality and may not accurately reflect fleet-wide fishing characteristics

# Every NMFS Observer ADP is vetted through the Council Process

*The ADP is meant to provide the Council with the best available scientific information, including scientifically based recommendations regarding appropriate measures for observer deployment to promote the conservation and management of the BS/AI and GOA groundfish fisheries."*

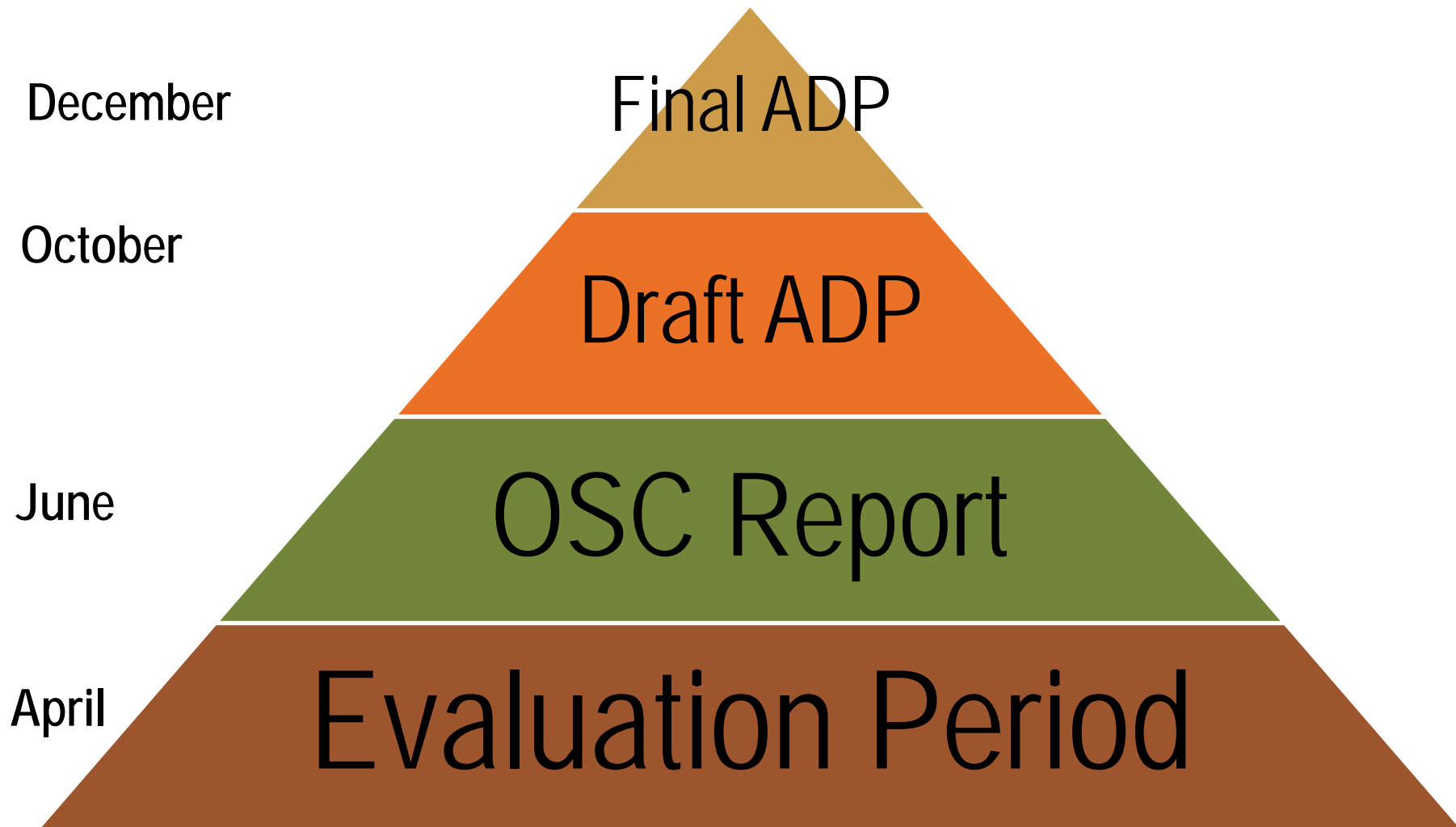


# The Annual Deployment Plan

Documents how the NMFS intends to assign at-sea and shoreside observers to operations fishing in the North Pacific.

- Chapter 1 2014 Annual Deployment Plan
- Chapter 2 Preliminary 2013 Annual Performance Review
  - Appendix A. June 2013 Council motion on Annual Performance Review and ADP
  - Appendix B. An evaluation of current and alternative methods to sample Chinook salmon bycatch in the Gulf of Alaska (Walleye pollock fishery)
  - Appendix C. Full Coverage Compliance Agreement Letter for the BSAI Pacific Cod Fleet

# Development Cycle for ADP



# The Annual Deployment Plan

Element	2012	2013
Cooperatives:		
AFA pollock	100%	100%
A80 BSAI flatfish	100%	100%
Rockfish Program	100%	100%
CP Atka BSAI	100%	100%
CP*	100%	100%
CV > 125'	100%	
CV 60-125'	Self-selection: 30% days or gear /quarter + 1 trip/fishery	
CV > 57.5'		Random: Trips at rates afforded.
CV 40-57.5'		Random: Vessels at rates afforded / 2 month period
Halibut fishery	no	yes
Dockside	Days / month by tons processed to collect delivery information and tissues	Kodiak and AFA for salmon bycatch genetics

\* Most CP vessels and trips



# The Annual Deployment Plan

Coverage Stratum	2012		2012 as 2013	
	Vessels	Trips	Vessels	Trips
Full	163	4,594	191	3,596
Partial	182	2,404	775	9,120
Zero	1,220	6,446	807	3,887



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# The draft 2014 Annual Deployment Plan

Projected sample sizes and anticipated rates of coverage for 2014 were generated through simulation using the identical approach for the 2013 ADP

- Same strata
- Same weighting between strata (Council Priority)
- Same methods for producing estimates of observer days (day budget)

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# The draft 2014 Annual Deployment Plan

## What are the Assumptions?

Amount of fishing effort projected for 2014 based on 2012 fishing activities (effort days) the partial coverage fleet will expend.

Using 2012 data, the estimate effort in the partial coverage fleet increased from 31,803 to 37,097 days. The difference in days is largely due to the way we identify which trips/days are in the Partial Coverage Fleet not in a dramatic change in effort.

# The draft 2014 Annual Deployment Plan

What are the Assumptions?

Cost estimates are based on the costs of an observer day and a “not to-exceed” budget for 2014

At the time of releasing this draft 2014 ADP, the fisheries were ongoing and therefore NMFS does not know the actual budget available for deploying observers in 2014. Instead of projecting fee revenue for mid-July through December 2013, NMFS identified a target budget of \$4.8 million to use for the simulations. This target budget aims to ensure that the coverage rate and number of days observed between 2013 and 2014 are comparable.

The actual budget available for 2014 will be based on revenue generated from an ex-vessel value-based fee, plus any additional Federal funding allocated to deploying observers in 2014.

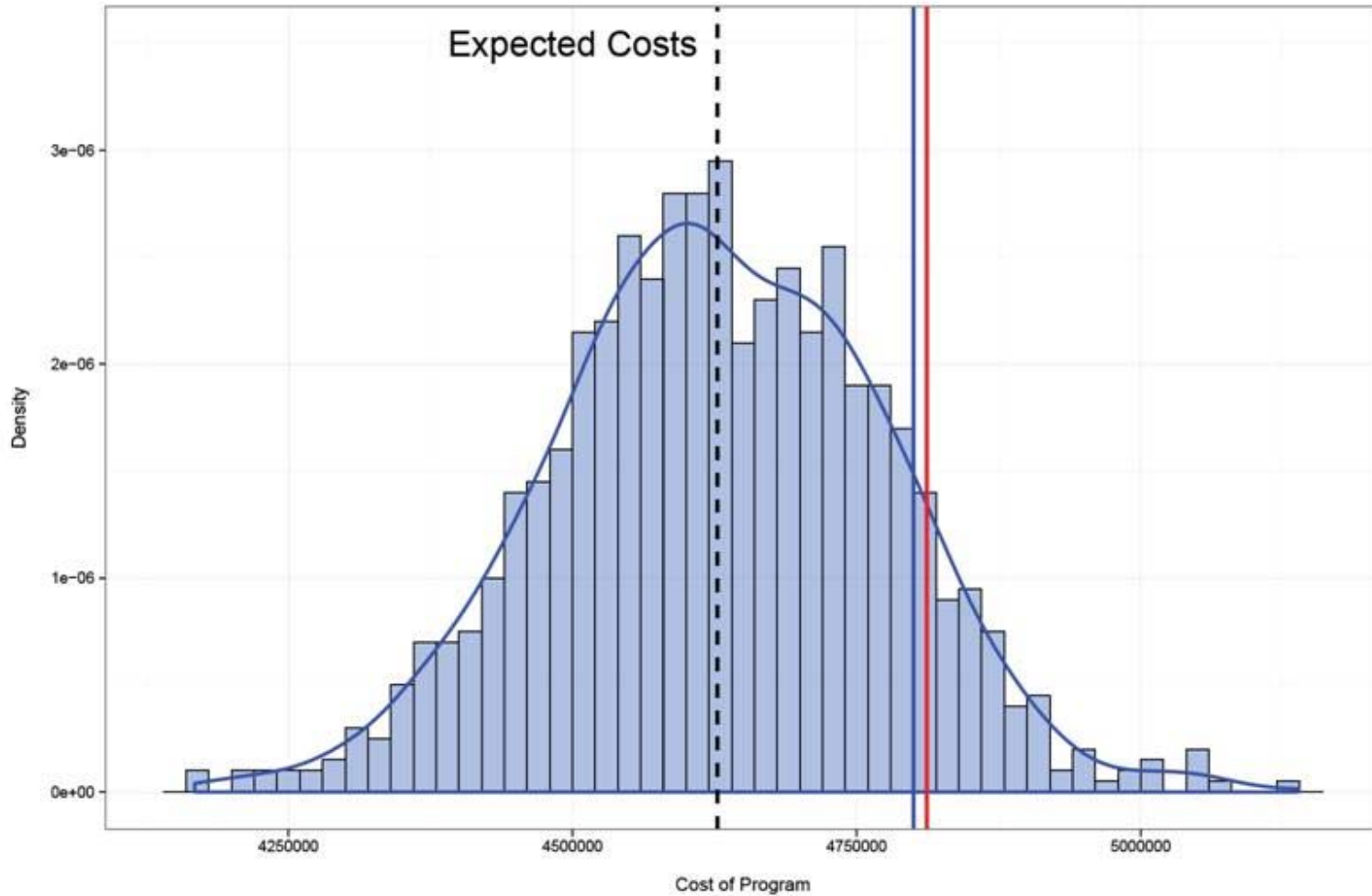
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# The draft 2014 Annual Deployment Plan

## What are the Assumptions?

- NMFS assumed that the entire amount of travel in the observer provider contract would be expended in 2014.
- Target budget available to deploy observers is set where 90% of the expected costs are below the total budget.

# Draft 2014 ADP



# The draft 2014 Annual Deployment Plan

- Based on the simulation trials (and budget assumptions)
  - 4,718 observer days in 2014 (increase of 596 days)
  - Projected deployment rate for Trip Selection =13.7%
  - Projected deployment rate for Vessel Selection =10.2%

Trip Selection	Vessel Selection
3,662 days	1,056 days
999 trips	284 trips
292 vessels	83 vessels

# The draft 2014 Annual Deployment Plan

Comparison of the expected number of vessels to be observed in 2013 and 2014 for vessels in the Vessel Selection stratum

<b>Time Period</b>	<b>Total vessels 2014</b>	<b>Vessels observed 2014</b>	<b>Vessels selected in 2013</b>
<b>January February</b>	85	9	7
<b>March April</b>	154	16	17
<b>May June</b>	233	24	25
<b>July August</b>	177	18	19
<b>September October</b>	200	20	21
<b>November December</b>	48	5	7

# The draft 2014 Annual Deployment Plan

- BSAI Full Coverage Compliance Agreement
  - In 2013 NMFS implemented an Industry proposal for trawl vessels fishing Pacific cod to carry an observer at all times when fishing
  - This opportunity will be extended to 2014, recognizing this activity may best be addressed in the long term with regulatory change
    - Fleet actively participated per agreement
    - It was necessary to modify stratification methods in Catch Accounting
    - Without 100% voluntary participation; Deployment based on voluntary coverage undermines NMFS ability to obtain unbiased estimates



# The draft 2014 Annual Deployment Plan

- One new analysis Appendix B: salmon sampling for genetic tissues for determining stock of origin in the Gulf of Alaska
  - Systematic sample of every  $n^{\text{th}}$  salmon not possible in entire fishery therefore unable to obtain a true unbiased sample
  - Extrapolations to sampled data only
  - Costly to implement Pella and Geiger (2009) method
  - Alternative is proposed to use randomized observer deployment for sampling effort from which to obtain genetic tissues.

# The draft 2014 Annual Deployment Plan

**Table C-2. Comparative results of dockside sampling for Chinook salmon bycatch in the Gulf of Alaska pollock fishery. For clarity the median value from simulations is given for the Alternative method.**

	JANUARY-JUNE 2012		JULY-DEC. 2012		JANUARY-JUNE 2013	
Port Code	<i>Actual</i>	<i>Alternative</i>	<i>Actual</i>	<i>Alternative</i>	<i>Actual</i>	<i>Alternative</i>
Sampled Chinook salmon (g)	324	1,079	625	2,244	458	913
Observer days	318	148	304	107	127	92
Cost per sample (\$)	763	107	378	37	216	78

# The draft 2014 Annual Deployment Plan

- Conditional Release Policy Through April
  - 32 release requests (28 Vessel Selection)
  - 21 or 66% were granted
    - 14 for crew members
    - 6 for IFQ
    - 1 for Life Raft

# The draft 2014 Annual Deployment Plan

- Chapter 2 OSC Performance review
  - Interpretation of heat maps Figure 2.6



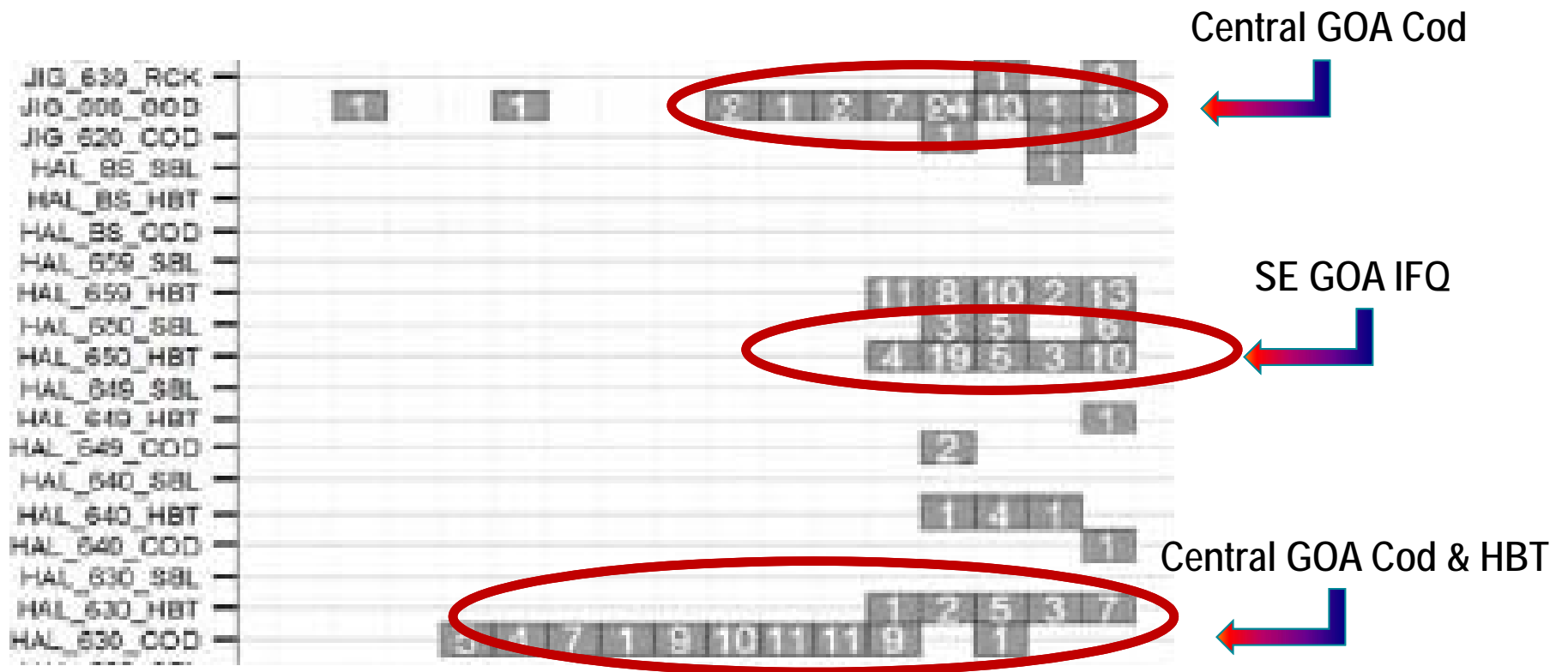
# The draft 2014 Annual Deployment Plan

Based on the first 16 weeks of 2013



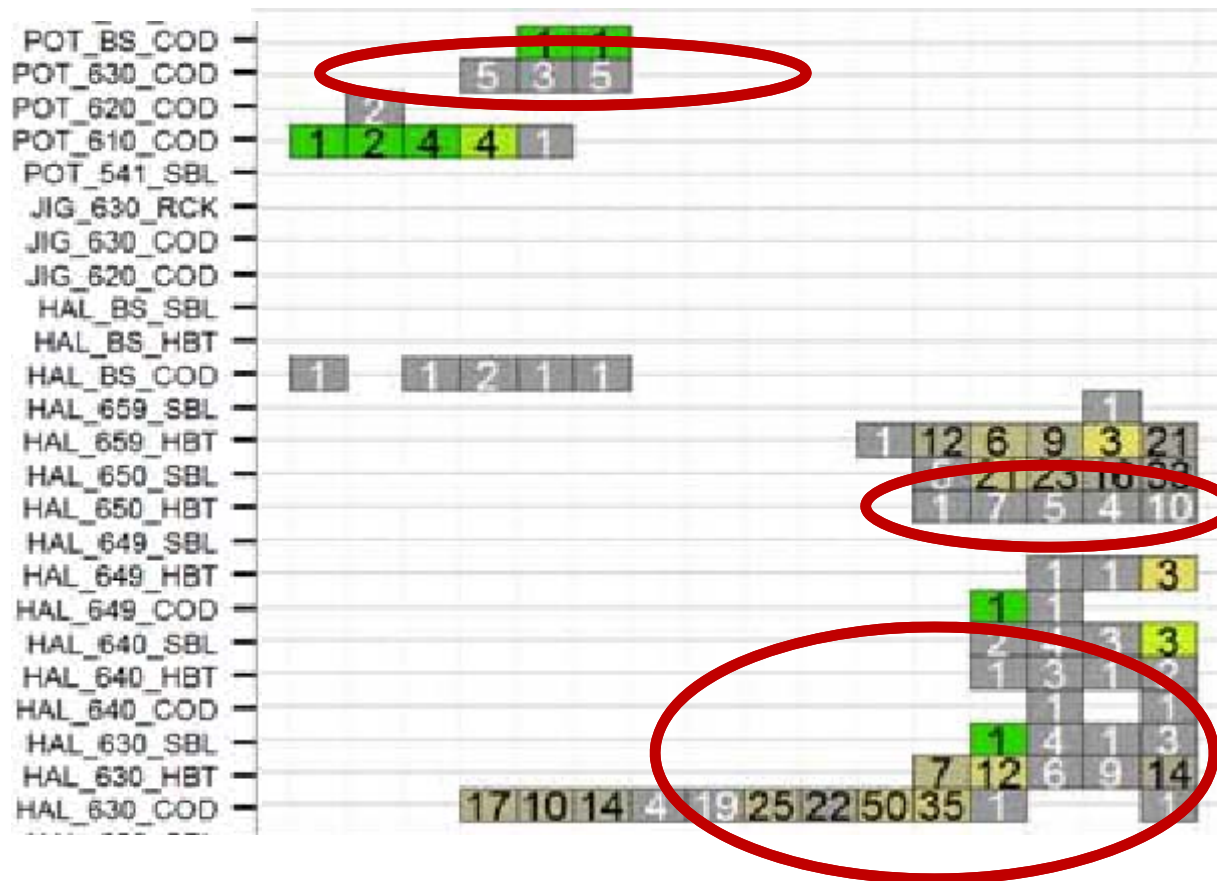
# The draft 2014 Annual Deployment Plan

- Zero Coverage Fleet



# The draft 2014 Annual Deployment Plan

- Vessel Selection Fleet



Central GOA Cod



SE GOA Halibut

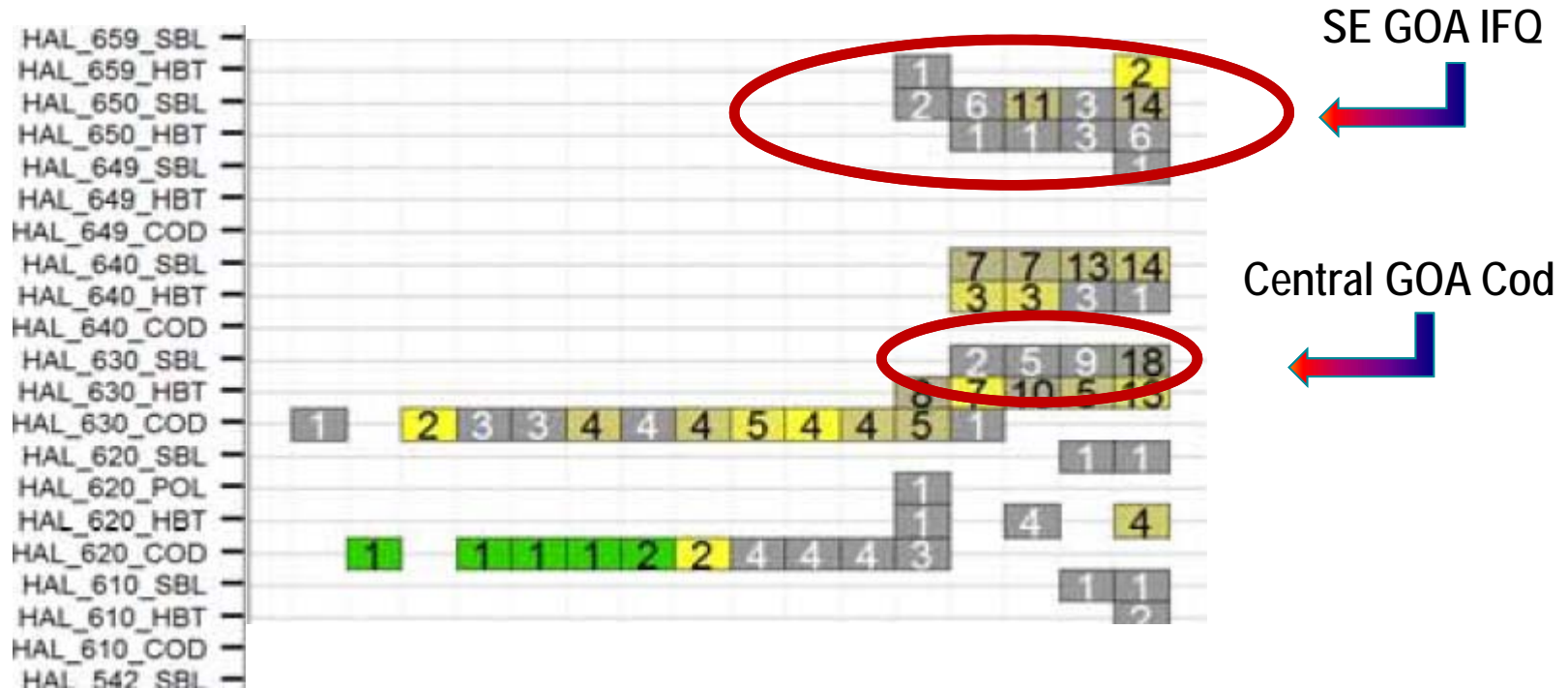


Central GOA Cod & HBT



# The draft 2014 Annual Deployment Plan







- Trip Selection Fleet



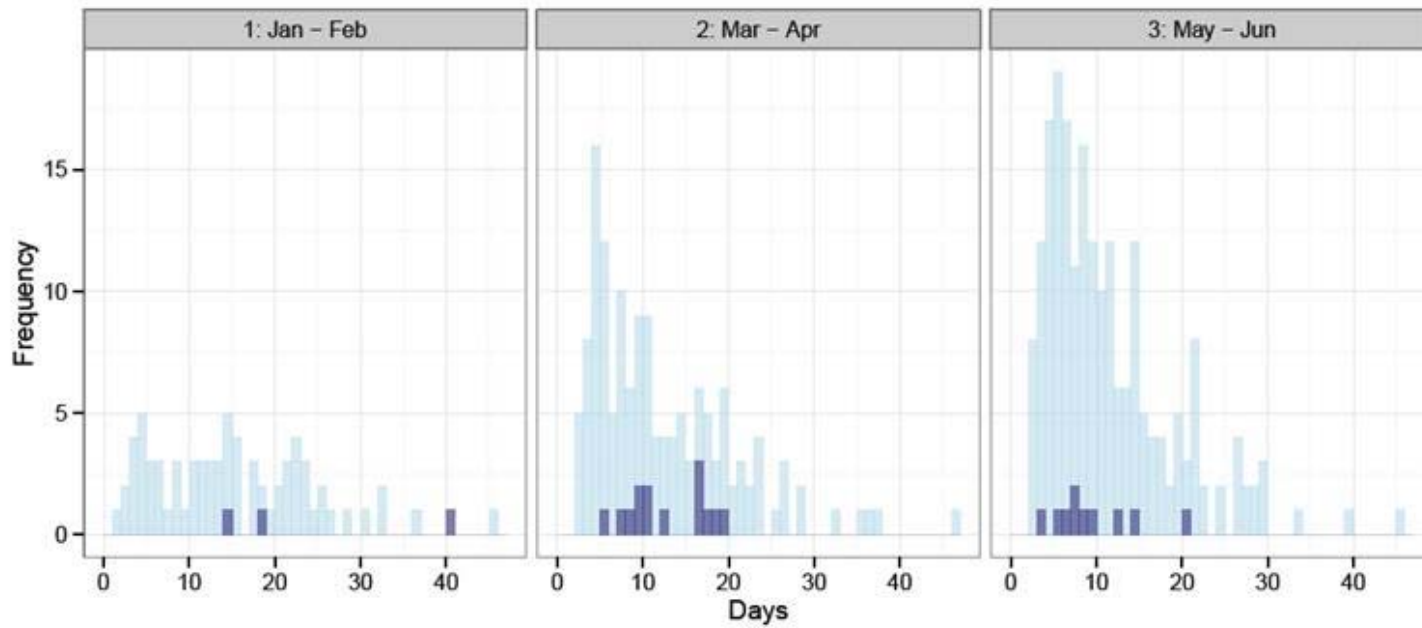
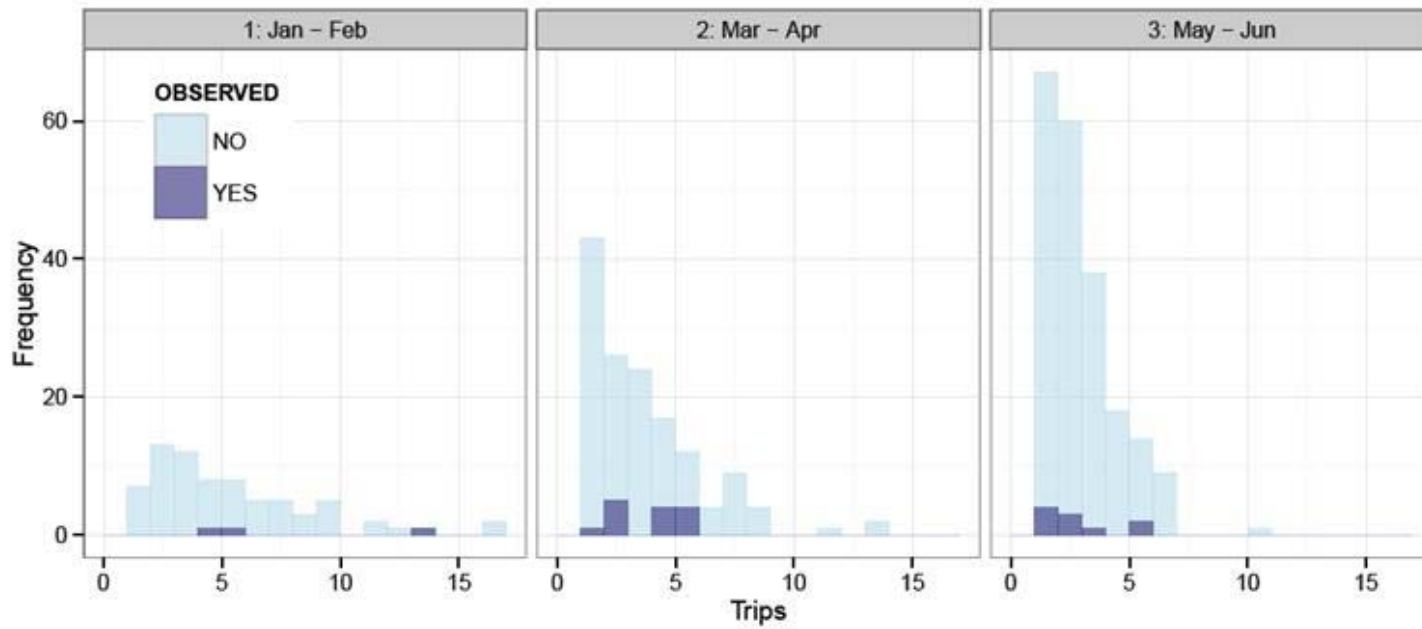


# The draft 2014 Annual Deployment Plan

**Table 2: Anticipated vs. Actual Sampling Fractions (Vessels)**

<b>Selection Period</b>	<b>Observed?</b>	<b>Number of Vessels Anticipated (2011 Data Projections)*</b>	<b>Number of Vessels Selected (not yet observed=YES)</b>	<b>Number of Vessels Actual</b>	<b>Sampling Fraction Anticipated (2011 Data Projections vs. 2013 Actual)**</b>	<b>Sampling Fraction Actual (2013 Data)***</b>
<b>1: Jan – Feb</b>	YES and NO	65		75 		
<b>1: Jan – Feb</b>	YES	7	9	 3	9.3%	4%
<b>2: Mar - Apr</b>	YES and NO	153 		147 		
<b>2: Mar - Apr</b>	YES	17	29	14	11.5%	9.5%
<b>3: May – Jun</b>	YES and NO	231		214 		
<b>3: May – Jun</b>	YES	25	39	10	11.6% 	4.6%

\*\* Calculated by dividing the Number of Vessels Anticipated (Observed = YES) by the Number of Vessels Actual (OBSERVED=YES and NO); \*\*\*Calculated by dividing the Number of Vessels Actual (Observed=YES) by the Number of Vessels Actual (Observed YES and NO).



# The draft 2014 Annual Deployment Plan

## 2.6 Departures from Sampling Design

- Contrary to the belief that all Pollock offloads were monitored dockside, only 88% of Pollock deliveries outside of the AFA actually were observed.



- Conditional releases issued by NMFS have the potential to cause biased estimates of catch and discard if these vessels behave in a different manner (locations, catch, discard rates and species) than those vessels that are not released.

# The draft 2014 Annual Deployment Plan

## 2.6 Departures from Sampling Design

- The lack of a definitive list of vessels from which to make selections for observer coverage in the vessel-selection portion of the partial coverage stratum makes for inefficient and potentially biased selection draws.

Reasons for this include:

- Many vessels that were identified as potential vessels for observer coverage from 2012 data did not fish in the following year.
- Vessels that did not fish in the previous year are not included in the selection process (new vessels are not subject to being observed).
- Since each vessel-selection draw is conducted 60 days in advance of the first day of the scheduled period to carry an observer, those draws are not as efficient as possible since they cannot be informed from the results of the draw immediately prior

# The Annual Deployment Plan-First six Months

