

National Marine Fisheries Service
Alaska Fisheries Science Center

AFSC PROCESSED REPORT 2019-07

North Pacific Observer Program 2018 Annual Report

MAY 2019



Fisheries
Monitoring
Advisory
Committee
Meeting

May 20 - 21, 2019



**NOAA
FISHERIES**

2018 Annual Report Overview

- Retrospective look at 2018 and recommendations for the coming year
- Will inform the 2020 Annual Deployment Plan presented to the Council in October
- Provides information, analyses, and recommendations on the methods used for deploying and funding partial coverage observers in the North Pacific Observer Program
- Includes information on Fees and Budget, Deployment Performance Review, Descriptive Information, Compliance and Enforcement, Outreach, and Recommendations for future ADP



2018 Program Summary

- 4,423 trips (41.6%) and 492 vessels (45.4%) were monitored by either an observer or EM
- 413 individual observers were trained, briefed, and equipped for deployment
 - 40,512 observer days:
 - 36,729 full coverage days;
 - 3,783 partial coverage days
 - 408 vessels and 7 processing facilities
- EM was integrated into the Observer Program under regulations
 - 141 vessels in the EM selection pool
 - 134 Vessel Monitoring Plans (VMP)



2018 Program Summary

- 27 Fisheries Monitoring and Analysis Division (FMA) staff completed a total of 688 debriefings in Seattle, Anchorage; and Dutch Harbor
- The Observer Declare and Deploy System (ODDS) performed as expected with no service interruptions for 5,734 trips logged by vessels >40 feet
- NMFS held 13 outreach events in 2018 in Seattle, and Kodiak, Dutch Harbor to inform industry about changes to the program, vessel responsibilities, EM, and observer sampling



Annual Deployment Plan (ADP) Hierarchical Sampling

Random selection of trips

Selection determined by
Observer Program (ADP)

Random sample of hauls

Fishing Effort and Location
Protected Species Data

Random sample of the catch of each
haul

Species Composition Data
Inclusive of protected species in catch
Ecosystem components
Higher Resolution Species Identification (subsamples)

Random sample of individual
fish

Length and Age distributions
Maturity data
Data for ecosystem modeling (diet)
Other Biological Specimens

Research Projects
Special Data
Collections



2018 ADP Selection Rates

- Programmed into the Observer Declare and Deploy System (ODDS) application were as follows:
 - No selection (*zero coverage*) - 0%
 - Electronic Monitoring (*EM*) - 30%
 - Trawl (*TRW - No Tender*) - 20%
 - Hook-and-line (*HAL*) - 17%
 - Pot (*POT - No Tender*) - 16%.
 - Tender trawl (*TRW - Tender*) - 17%
 - Tender pot (*POT - Tender*) - 17%



Fees, Budgets, and Costs

- Expenditures for partial coverage observer deployment was \$4,425,144 for 3,207 days
 - \$3,742,511 in fee funding received in 2018 (from 2017 landings)
 - \$682,633 carryover of funds already on the contract
- 2017 observer fees by species landed: 39% Pacific Halibut, 35% Sablefish, 10% Pacific Cod, 13% Pollock, and 2% all other groundfish species
- Fee billing statements for 2018 were mailed to 102 processors and registered buyers in January 2019 for a total of \$3,407,658 in observer fees



Partial Coverage Contract Schedule

FISHING/ CALENDAR YEAR	2017												2018												
FEDERAL FISCAL YEAR													FFY 2018												FFY 2019
CONTRACT YEAR						CONTRACT YEAR 4												CONTRACT YEAR 5 ----->							
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	



Fees, Budgets, and Costs

- Average cost per partial coverage observer sea day was \$1,380 (based on the cost of \$4,425,144 to procure 3,207 observer days)
- Average cost per EM sea day was between \$956 and \$1,527 per day depending on amortization schedules for hardware



Calendar year	Funding category	Funds sequestered (% of fees received)	Observer fees received	Observer fee collections received late	Prior year sequester funds received	Funds obligated to contract	Observer sea days at the start of the year	Observer sea days purchased during the year	Total observer sea days used during the year
2013	Fees						4,535	1,913	3,533
	Federal Funds					\$1,885,166			
2014	Fees	\$306,047 (7.2%)	\$4,251,451			\$3,044,606	2,915	4,368	4,573
	Federal Funds					\$1,892,808			
2015	Fees	\$350,400 (10.2%)	\$3,456,458		\$306,047	\$3,058,036	2,710	5,330	5,318
	Federal Funds					\$2,700,000			
2016	Fees	\$231,200 (6.8%)	\$3,897,938	\$370,915	\$350,400	\$5,144,983	2,722	5,277	4,749
	Federal Funds					\$ 390,800			
2017	Fees	\$273,930 (7.9%)	\$3,592,750	\$151,606	\$231,200	\$3,542,196	3,322	5,285	2,591
	Federal Funds					\$1,398,531			
2018	Fees	\$304,356 (7.9%)	\$3,468,580		\$273,930	\$2,396,040	5,858	2,350	3,207
	Federal Funds								
2019	Fees					\$997,845	5,001		
	Federal Funds					\$412,307			



Average annual observer coverage sea day costs from 2014 to 2018

Year	Funds expended	Number of observer sea days realized	Average sea day cost
2014	\$4,937,414	4,573	\$1,080
2015	\$5,758,268	5,318	\$1,083
2016	\$4,186,303	4,677	\$895
2017	\$3,146,111	2,749	\$1,144
2018	\$4,425,144	3,207	\$1,380



Electronic Monitoring Costs

- Simplified fully-loaded daily rate was calculated for the EM program, including amortized equipment costs, recurring operational costs, and video review
- Total cost was \$1,535,130 (for 1,005 days or \$1,527/day)
 - Amortized, total was \$961,131 (for 1,005 days or \$956.35 per day)

Cost Category	One time	Recurring	Amortized	2018 Total	Prior years amortized	Adjusted annual cost
Project Coordination	\$70,483	\$246,439		\$316,922		\$ 246,440
Data Review, Processing, and Analysis	\$294	\$191,961		\$192,255		\$192,255
EM Equipment Services		\$36,019	\$684,853	\$720,872	\$171,553	\$344,542
Field Technical Services		\$118,690	\$186,391	\$305,081	\$21,926	\$177,894
Project Totals	\$70,777	\$593,109	\$871,244	\$1,535,130	\$193,479	\$961,131



Update to Previous Recommendations

TOPIC	NMFS Recommendation	Status
EM Selection Pool	Final 2018 ADP - On August 8, 2017, NMFS published a final rule to integrate EM into the Observer Program.	<p>Starting in 2018, NMFS integrated EM into the Observer Program and starting to incorporate the EM selection pool into the 2018 ADP, rather than using an EM Pre-implementation Plan process.</p> <p>Under the regulated program, NMFS incorporated EM data from hook-and-line vessels into CAS in 2018 so the information was be used for inseason management.</p> <p>Pot vessels remain in “pre-implementation” status.</p>



Update to Previous Recommendations

TOPIC	NMFS Recommendation	Status
EM Selection Pool	Draft 2018 ADP – NMFS communicated that the agency intended to implement post-selection process for EM trips in 2019 where 100% of trips would have video recording, and trips would be post-selected for review. This approach would provide a mechanism to avoid monitoring bias.	NMFS received feedback from the Council regarding logistical and cost considerations of a post-selection process. In the final 2018 ADP and the 2019 ADP, NMFS implemented trip-selection in the EM pool where trips were selected prior to departure. However, NMFS recommended continuing to evaluate the monitoring effect in the EM selection pool and, in the future, may recommend post-selection of trips.



Update to Previous Recommendations

TOPIC	NMFS Recommendation	Status
Observer Trip Selection – strata definitions	2018 and 2019 ADP: NMFS recommended sampling strata based on gear and tender.	In the 2018 and 2019 ADPs, hook-and-line vessels delivering to tenders were combined with the hook-and-line vessels delivering shoreside for a single hook-and-line stratum. This was due to the small number of tender deliveries for this gear type.



Update to Previous Recommendations

TOPIC	NMFS Recommendation	Status
Observer Trip Selection – allocation strategy	<p>2017 Annual Report: Within budget constraints, NMFS recommended allocating observer deployment beyond the minimum “hurdle” using the using optimization based on discarded groundfish, Pacific Halibut, and Chinook Salmon. NMFS will also consider other PSC species (crab and herring).</p>	<p>Starting in 2018 ADP, NMFS implemented observer deployment allocation strategy of 15% plus optimization based on discarded groundfish and Halibut and Chinook.</p> <p>In the 2019 Draft ADP, NMFS provided an evaluation of hurdle thresholds to evaluate if the 15% threshold is warranted for all gear-specific strata.</p>



Update to Previous Recommendations

TOPIC	NMFS Recommendation	Status
Dockside Monitoring and Tendering	<p>2017 Annual Report: NMFS recommended maintaining status quo for dockside monitoring. To address concerns around obtaining unbiased samples of salmon bycatch from the GOA Pollock trawl fleet, NMFS recommended the Council and NMFS consider longer-term solutions.</p>	<p>In the 2018 ADP, NMFS clarified the agency's objectives for collecting genetic samples from salmon PSC to identify stock of origin.</p> <p>In addition, the Council has recognized evaluation of alternative sampling methods for salmon on GOA Pollock trawl CVs as one of its EM priorities. This may provide longer-term solutions to the dockside monitoring and tendering issues.</p>



NMFS Recommendations for 2020 Annual Deployment Plan

Trip-selection Pool

- Observer trip selection strata based on gear (trawl, hook-and-line, and pot) should be the same for 2020
 - Follows the Observer Science Committee and the NPFMC Scientific and Statistical Committee recommendation to stabilize the sampling design across years
- Include a re-examination of tendering strata (tender pot and tender trawl)
- Maintain a single trawl gear stratum (i.e., non-pelagic trawl (NPT) and pelagic trawl (PTR) in a single stratum)



NMFS Recommendations for 2020 Annual Deployment Plan

Trip-selection Pool Continued

- Supports the focus of the Council's Electronic Monitoring Committee to expand EM applications to monitor pelagic trawl vessels and tenders, complemented by shoreside observers
- Continue to allocate observer deployment using a 15% hurdle plus optimization based on discarded groundfish, Pacific Halibut PSC, and Chinook Salmon PSC
 - Balance among minimizing the variability of discard estimates, prioritization of PSC-limited fisheries, and the need to reduce gaps in observer coverage in the partial coverage category



NMFS Recommendations for 2020 Annual Deployment Plan

ODDS

- Modify ODDS to reduce the impact of inherited trips while allowing flexibility to the fleet and accommodate changes to fishing plans
- Continue to automatically release vessels 40-57.5 ft in length from observer coverage if the two previous trips were observed trips



NMFS Recommendations for 2020 Annual Deployment Plan

Performance Metrics

- Add an item to ‘Explore alternative approaches to evaluate observer effects’ to the list of analytical priorities related to the Observer Program that is reviewed by the Council during staff tasking.



NMFS Recommendations for 2020 Annual Deployment Plan

EM Selection Pool

- Continuing trip-selection in the EM pool where trips will be selected prior to departure
- Number of vessels allocated to the EM selection pool based on analysis of EM costs and available funding available
 - Priority should be given to 1) vessels that are already equipped with EM systems and 2) vessels 40-57.5 ft length overall (LOA) where carrying an observer has been problematic due to bunk space or life raft limitations
- EM review rates should be set to sample the entire year timely enough for EM data to be used for catch accounting and fisheries monitoring



NMFS Recommendations for 2020 Annual Deployment Plan

Dockside Monitoring and Tendering

- Supports the EM Committee's priority to test and evaluate longer-term solutions for monitoring salmon bycatch in the trawl fisheries, including using EM on tender vessels to enable shoreside data collection from these deliveries
- Maintain the status quo for dockside monitoring
 - an Exempted Fishing Permit for EM-approaches in the pelagic trawl catcher vessel Pollock fishery may require NMFS to re-assess this recommendation and increase shoreside monitoring to complement expanded EM tests in 2020



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