2024 Annual Report on the North Pacific Observer Program

for the North Pacific Fishery Management Council

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Chapters 1 & 2

Introduction and
Fees and Budget
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Overview - Observer Effort

- **304** individual observers were trained, briefed, and equipped for deployment to vessels and processing facilities operating in the Bering Sea and Gulf of Alaska groundfish fisheries
  - 99 new observers; 205 experienced observers
- Observers collected data onboard **281** vessels and at **11** processing facilities for a total of **29,655** observer days
  - 26,918 full coverage; 2,737 partial coverage

Overview - EM Effort

- **178** vessels approved for the 2024 fixed-gear EM pool
  - 124 of these vessels fished at least one trip
- **296** selected fixed-gear trips for EM coverage
  - As of March 31, 2025 reviewed **248** fixed-gear EM trips
  - 183 longline and 65 pot trips reviewed
  - Temporary staffing shortage resulted in 48 trips that were not reviewed by the end of the year
- **104** trawl vessels using pelagic gear participated in the EM exempted fishing permit (full and partial coverage)

Amount of Catch Monitored – Pelagic Trawl

For the BSAI and GOA combined, **91.2%** of pelagic trawl catch was on trips in the full coverage category and **8.8%** was on trips in partial coverage

- All partial coverage trips were in the GOA and 34% of their catch was monitored either by an at-sea or shoreside observer
- Total monitoring of GOA pelagic trawl is higher if at-sea compliance EM is considered

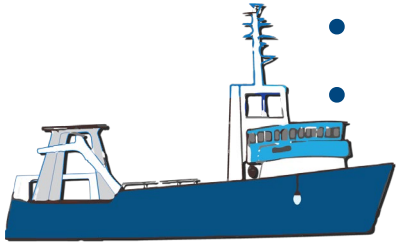
Amount of Catch Monitored – Non-Pelagic Trawl

For the BSAI and GOA combined, **95.6%** of non-pelagic trawl catch was on trips in the full coverage category and **4.4%** was on trips in partial coverage

- Partial coverage trips occurred in both the BSAI and GOA with 79% and 16.4% of their catch monitored, respectively
- The Pacific cod trawl CV cooperative program (PCTC) moved more partial coverage trips into full coverage in 2024

Observer Cost - Full Coverage

- The total invoiced amount for full coverage observer days in 2024 was $10,908,834 for 26,953 invoiced days
  - Invoiced days differ from deployment days – the latter includes days for which the observer provider did not charge yet the observer was deployed
  - Average cost per invoiced day was $405
  - Average invoiced cost includes daily rate per observer day, transportation, and all other billed expenses
  - Total invoiced costs decreased in 2024 from 2023
    - Invoiced cost decreased by 7.1%
    - Invoiced days decreased by 7.4%



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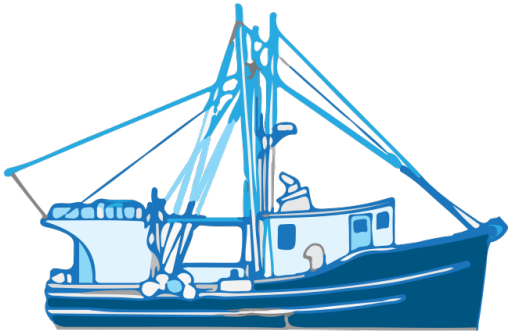
Electronic Monitoring - Full Coverage

- EM is used to supplement observer coverage in the following full coverage fisheries:
  - Bering Sea and Aleutian Islands non-pollock trawl catcher/processors
    - Additional EM required on these vessels if they are participating in deck sorting of Pacific halibut
  - Bering Sea pollock catcher/processors and motherships
  - Central Gulf of Alaska rockfish trawl catcher/processors
  - BSAI Pacific cod longline catcher/processors
- Vessels act as their own EM providers or arrange this service with a private company
- NMFS does not collect any cost information associated with these EM programs and costs incurred by the industry are not included in full coverage cost reports
- Pelagic Pollock Trawl EM Exempted Fishing Permit costs are also not included in full coverage cost reports

NOAA FISHERIES

Observer Cost – Partial Coverage

- Total expenditures for partial coverage observer deployments was $3,809,373 for 2,325 invoiced days
  - Average cost of $1,638 per invoiced day
  - Cost is inclusive of daily rate; reimbursable travel costs; non-deployed day costs (training, debriefing, and running the ODDS Help Desk for both observer and EM deployments)



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Electronic Monitoring - Partial Coverage

- Preliminary expenditures for **fixed gear** EM deployments was $1,185,149
- EM operational costs include project coordination by EM vendors and image reviewers; data review, processing and analysis; equipment services; and field technical services
- Cost reflects only imagery review through March 19,2025
- Costs do not include funds drawn from the $2M Community Directed Spending to replace aging hardware and to outfit new EM vessels

Chapter 3

Deployment Performance Review

Geoff Mayhew

Changes Since 2023 ADP

- New stratification method (monitoring method, FMP, gear type)
- Proximity allocation method
  - Spreads samples across space and time to minimize gaps
  - Protects against small sample sizes and oversampling
  - Applied to all strata except zero-selection and trawl EM EFP

2024 Deployment Strata

Full coverage:

1. *FULL* - Trips taken by vessels required to have, or opted into, full observer coverage;
2. *EM TRW BSAI (EFP)* - Trips in the trawl EM stratum harvesting pollock with pelagic gear in the BSAI

Partial observer coverage:

1. *OB FIXED BSAI* - Trips using hook-and-line and/or pot gear fishing in the BSAI
2. *OB FIXED GOA* - Trips using hook-and-line and/or pot gear fishing in the GOA
3. *OB TRW BSAI* - Trips using trawl gear fishing in the BSAI
4. *OB TRW GOA* - Trips using trawl gear fishing in the GOA

Partial coverage EM:

1. *EM FIXED BSAI* - Trips by vessels in the EM pool and fished with hook-and-line gear
2. *EM FIXED GOA* - Trips by vessels in the EM pool and fished with pot gear
3. *EM TRW GOA (EFP)* - Trips in the trawl EM stratum harvesting pollock with pelagic gear in the GOA

Zero coverage:

1. *ZERO* - Trips by jig vessels and vessels under 40 ft LOA

Excerpt from **Table 3-5.** -- Number of total vessels, total trips, and sampled trips for full coverage strata in 2023

				Coverage		
Strata	Vessels	Trips	Sampled Trips	Expected	Realized	Meets expected?
Full	104	1,110	1,109	100.0	99.91	No - lower than expected*
EM TRW BSAI (EFP)	65	1,725	1,725	100.0	100.00	Yes

* One full-coverage trip was not monitored, an open access non-pelagic trawl trip targeting Pacific cod. See Appendix C

Excerpt from **Table 3-5**. -- Number of total vessels, total trips, and sampled trips for partial coverage strata in 2024

				Coverage		
Strata	Vessels	Trips	Sampled Trips	Expected	Realized	Meets expected?
OB FIXED BSAI	45	288	137	43.97	47.57	Yes
OB FIXED GOA	292	1,938	241	13.17	12.44	Yes
OB TRW BSAI	3	25	20	72.28	80.00	Yes
OB TRW GOA	46	387	85	20.58	21.96	Yes
EM FIXED BSAI	8	69	34	74.29	49.28	No - Lower
EM FIXED GOA	118	996	224	24.20	22.49	Yes
*EM TRW GOA (EFP)**	47	806	288	33.33	35.73	Yes

*Evaluation of shoreside sampling by observers

Excerpt from **Table 3-4**. – ODDS Logged trips in each partial coverage stratum in 2024

Strata	Trip Disposition	Selected Trips	Total Trips	Actual (%)	Programmed (%)	p-value
OB FIXED BSAI	Initial selection	156	325	48.00	43.97	0.147
	Final	141	286	49.30	43.97	0.074
OB FIXED GOA	Initial selection	261	2,074	12.58	13.17	0.455
	Final	229	1,826	12.54	13.17	0.447
OB TRW BSAI	Initial selection	25	32	78.12	72.28	0.557
	Final	20	25	80.00	72.28	0.505
OB TRW GOA	Initial selection	91	456	19.96	20.58	0.772
	Final	87	387	22.48	20.58	0.346
EM FIXED BSAI	Initial selection	65	93	69.89	74.29	0.343
	Final	64	91	70.33	74.29	0.401
EM FIXED GOA	Initial selection	242	999	24.22	24.20	1.000
	Final	219	918	23.86	24.20	0.847

Combination of **Tables 3-2** and **3-3**: ODDS Trip cancellations, waivers, and inherits

Strata	Selection	Logged	Canceled by system	Canceled by user		Completed Selected Trips	Waived		% inherits
OB FIXED BSAI	Not selected	169	8	19	11.8%				
	Random	156	0	21	13.5%	135	3	2.1%	6.4%
	Inherited	17	0	8	47.1%	9	0		
OB FIXED GOA	Not selected	1,813	141	77	**4.6%**				
	Random	261	0	61	**23.4%**	200	1	0.9%	**13.1%**
	Inherited	36	0	5	**13.9%**	31	1		
OB TRW BSAI	Not selected	7	0	2	28.6%				
	Random	25	0	6	24.0%	19	0	0.0%	5.0%
	Inherited	1	0	0	0.00%	1	0		
OB TRW GOA	Not selected	365	16	49	**14.0%**				
	Random	91	0	14	**15.4%**	77	0	0.0%	**11.5%**
	Inherited	12	0	2	**16.7%**	10	0		
EM FIXED BSAI	Not selected	28	1	0	0.0%				
	Random	65	1	1	1.6%	63	0	0.0%	1.6%
	Inherited	1	0	0	0.0%	1	0		
EM FIXED GOA	Not selected	757	25	34	4.6%				
	Random	242	16	13	5.8%	213	0	0.5%	2.7%
	Inherited	13	0	6	46.2%	7	1		

Figures 3-3 and 3-4. – Distributions of data timeliness and review timeliness

Data timeliness: Time between the end of a delivery and the availability of monitoring data for catch accounting.

- Due to a NMFS database coding error, there was a delay in the receipt of reviewed data by PSMFC, so data timeliness for the fixed-gear EM strata was inflated (Figure 3-3).
- Figure 3-4 was added this year to additionally provide the **review timeliness (end of delivery to completion of review)**

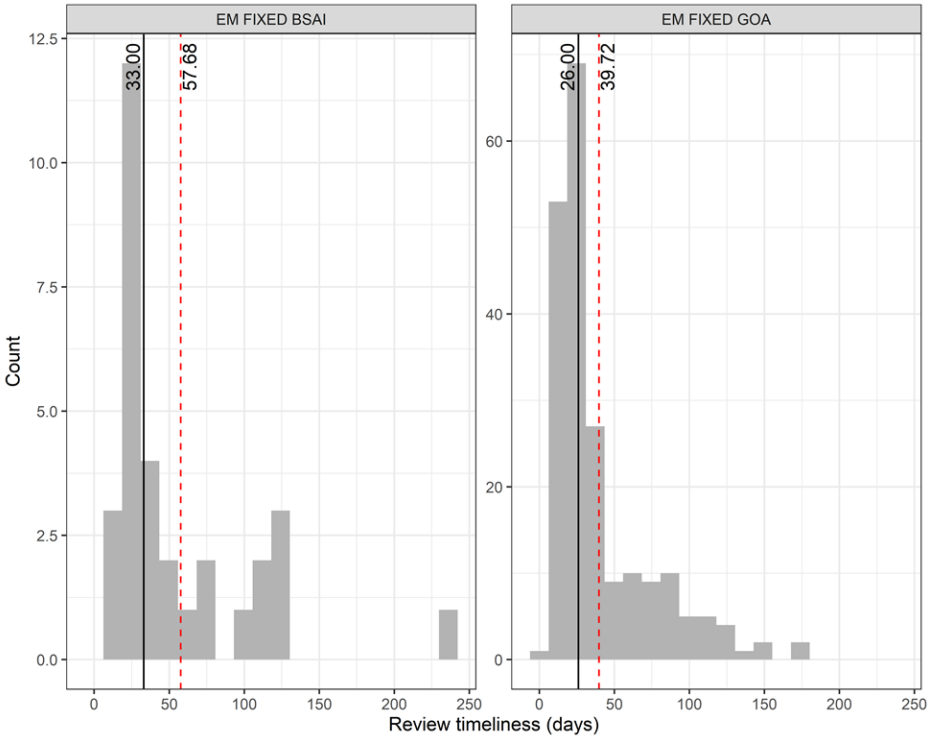


Figure 3-4. – Distributions of **review timeliness** in the *EM FIXED* strata

Figures 3-5: Temporal patterns in sampling

- In all evaluations of sample quality, we considered **when and where** samples were collected
  - **Observed OR**
  - **EM with review completed**
- For most strata, monitoring occurred throughout the year at the expected rates except for in the *EM FIXED BSAI* stratum, which fell below the expected rates mid-year.
  - Temporarily reduced reviewer capacity

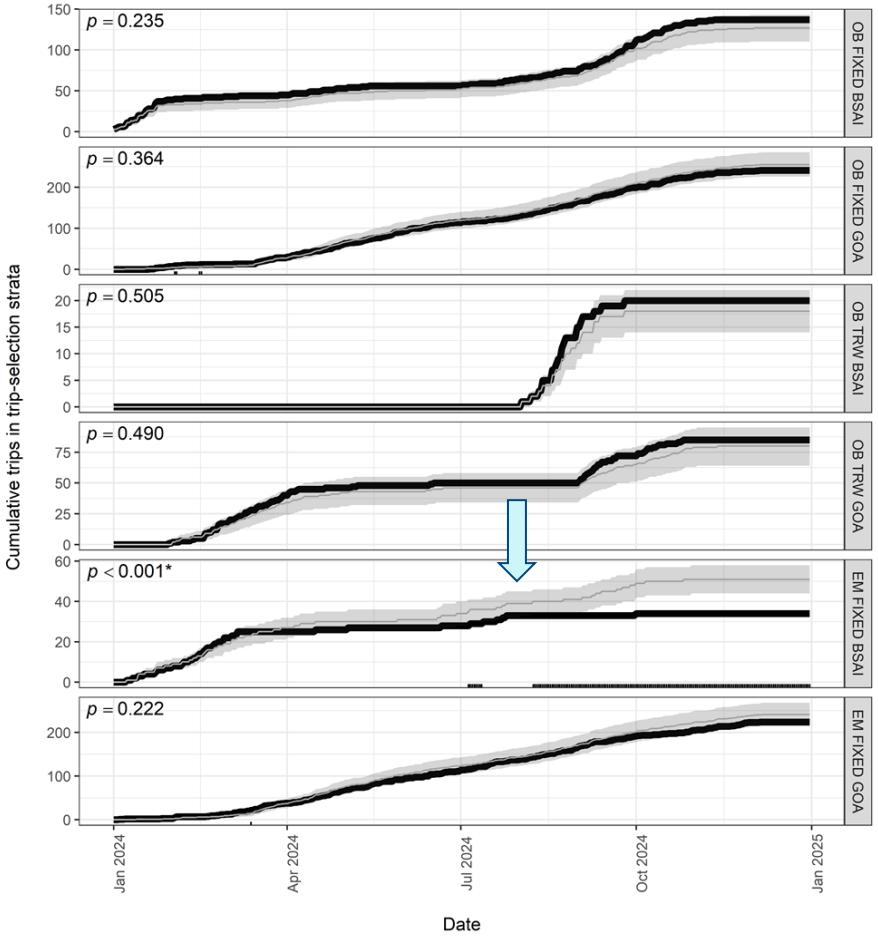


Figure 3-6: Spatial patterns in sampling

- Most strata showed no particular patterns in representativeness of samples, with two exceptions:
- *OB FIXED BSAI* in the eastern portion of the Aleutian Islands
- *EM FIXED BSAI*, also in the eastern portion of the Aleutian Islands
    - Caused by incomplete review of EM hard drives, mostly Pot trips between mid-March - November

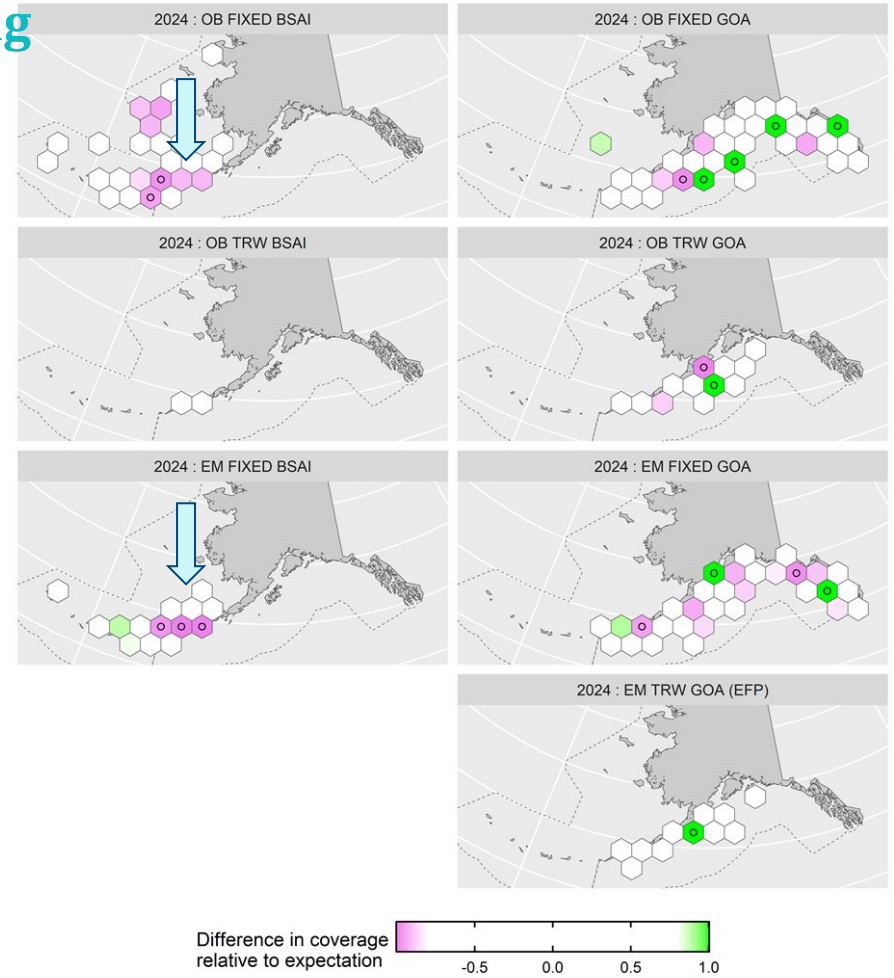
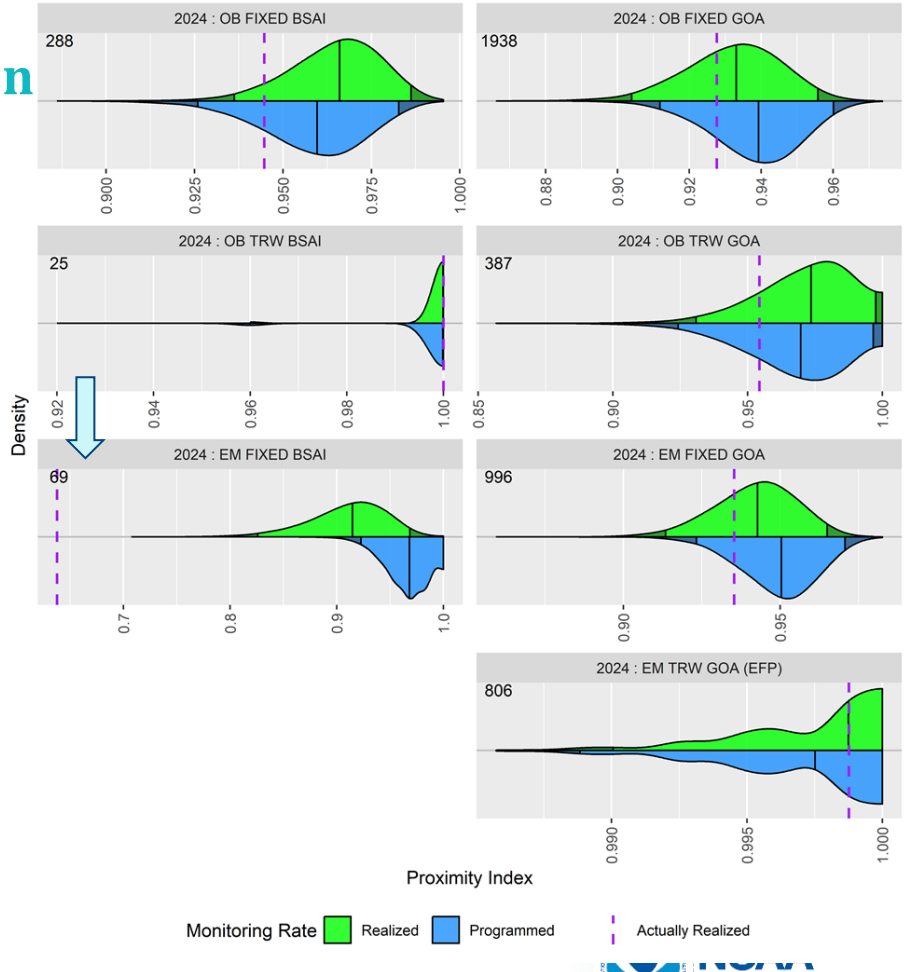


Figure 3-7: Spatiotemporal distribution of coverage (proximity indices)

- **Proximity indices**: proportion of trips monitored or neighboring a monitored trip in space and time
- Most strata achieved proximity indices expected by the rates set by the ADP (blue) and by the realized monitoring rates (green)
- *EM FIXED BSAI* expected an index of over 0.9 but achieved 0.64
    - Caused by incomplete review of EM hard drives, mostly Pot trips between mid-March - November



Chapter 4

Descriptive Information

Jason Jannot

Table 4-3. – Monitored catch[1] (metric tons), total catch, and percent monitored (%) of groundfish and halibut retained and discarded in the groundfish and halibut fisheries in 2024 in the **Gulf of Alaska**. Empty cells indicate that no catch occurred.

		Catcher/Processor			Catcher vessel: Partial			Catcher vessel: Rockfish program			Gear total		
Gear	**Catch**	**Monitored**	**Total**	**%**	**Monitored**	**Total**	**%**	**Monitored**	**Total**	**%**	**Monitored**	**Total**	**%**
Hook and Line	**Retained**	2,183	2,327	**94%**	1,882	13,701	**14%**				4,065	16,028	**25%**
	Discard	599	633	**95%**	1,676	11,565	**14%**				2,274	12,198	**19%**
Jig	**Retained**				0	98	**0%**				0	98	**0%**
	Discard												
Non-Pelagic Trawl	**Retained**	29,368	29,368	**100%**	2,638	14,782	**18%**	2,732	2,732	**100%**	34,738	46,882	**74%**
	Discard	3,084	3,084	**100%**	249	2,800	**9%**	513	513	**100%**	3,846	6,397	**60%**
Pot	**Retained**	295	402	**73%**	2,819	17,717	**16%**				3,115	18,119	**17%**
	Discard	9	10	**91%**	37	222	**17%**				46	232	**20%**
Pelagic Trawl	**Retained**	1,798	1,798	**100%**	41,611	122,048	**34%**	9,976	9,976	**100%**	53,386	133,823	**40%**
	Discard	147	147	**100%**	299	1,133	**26%**	212	212	**100%**	658	1,492	**44%**

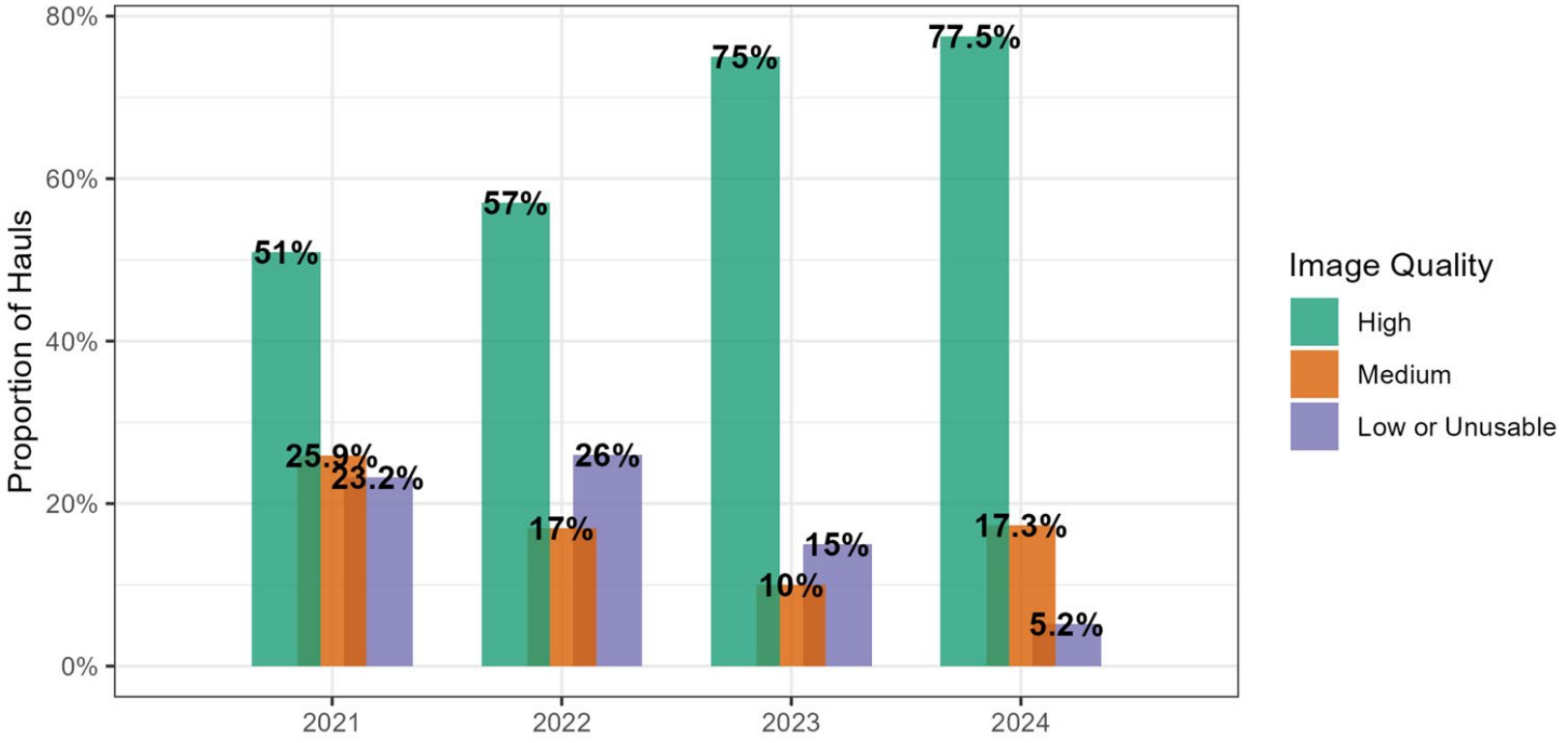
[1] Monitored reflects either trips with an observer, EM fixed gear trips for which some video was reviewed, or EM trawl trips where observers sampled shoreside. EM trawl trips also require 100% at-sea video monitoring for compliance with maximized retention requirements, but that monitoring is not reflected in this table.

Table 4-4. – Monitored catch[1] (metric tons), total catch, and percent monitored (%) of groundfish and halibut retained and discarded in the groundfish and halibut fisheries in 2024 in the **Bering Sea/Aleutian Islands**. Empty cells indicate that no catch occurred.

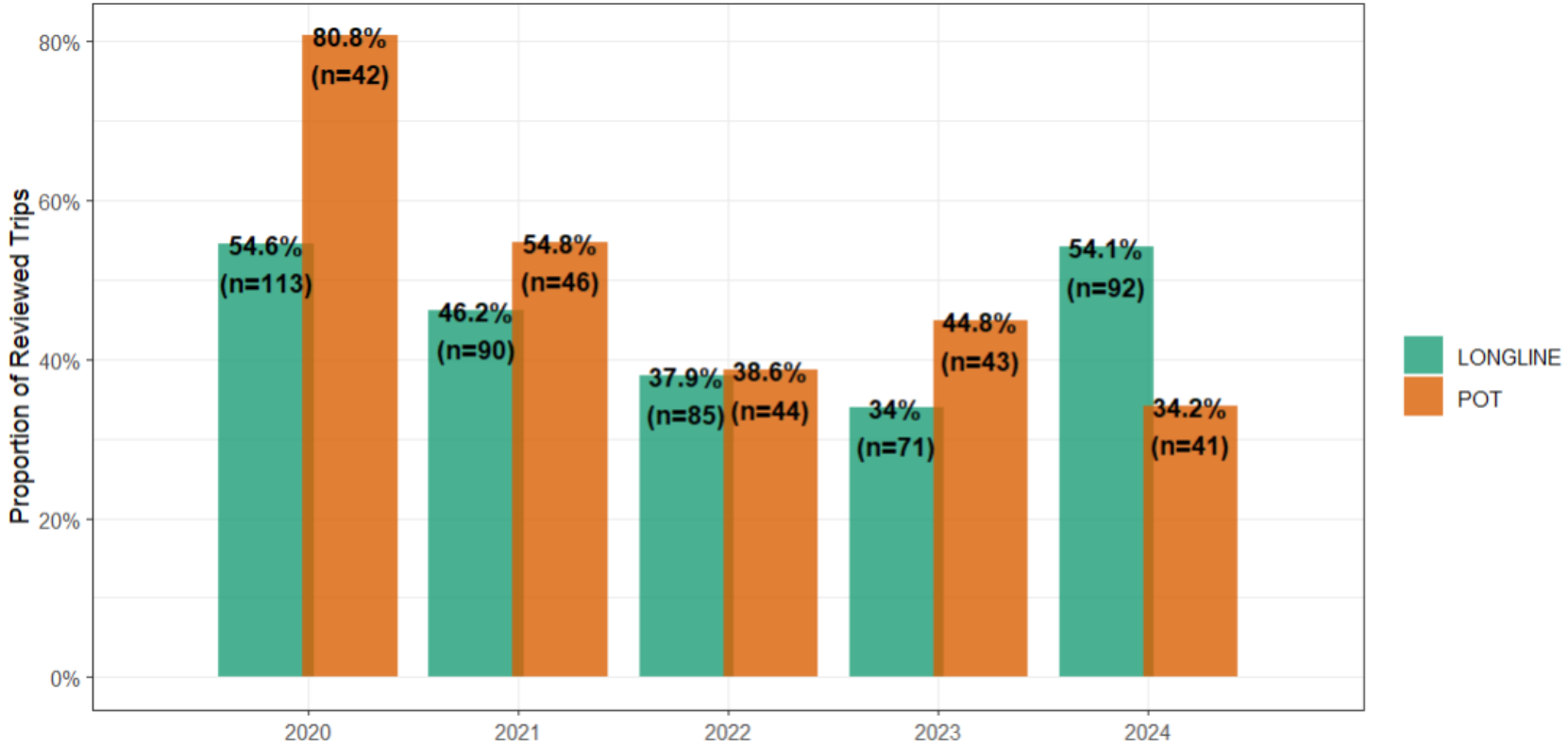
		Catcher/Processor			Mothership			Catcher vessel: Partial			Catcher vessel: Full			Gear total		
Gear	**Catch**	**Mon**	**Total**	**%**	**Mon**	**Total**	**%**	**Mon**	**Total**	**%**	**Mon**	**Total**	**%**	**Mon**	**Total**	**%**
Hook and Line	**Ret**	85,581	85,581	**100**				426	936	**46**				86,007	86,517	**99**
	Dis	17,183	17,183	**100**				348	691	**50**				17,532	17,874	**98**
Jig	**Ret**															
	Dis															
Non-Pelagic Trawl	**Ret**	320,264	320,264	**100**	14,526	14,526	**100**	1,097	1,374	**80**	16,963	16,963	**100**	352,849	353,127	**100**
	Dis	26,933	26,933	**100**	1,166	1,166	**100**	131	178	**73**	676	676	**100**	28,905	28,953	**100**
Pot	**Ret**	748	748	**100**				6,523	13,344	**49**				7,271	14,092	**52**
	Dis	9	9	**100**				77	170	**46**				86	178	**48**
Pelagic Trawl	**Ret**	585,779	585,779	**100**	112,964	112,964	**100**				567,969	567,969	**100**	1,266,712	1,266,712	**100**
	Dis	1,238	1,238	**100**	57	57	**100**				669	669	**100**	1,964	1,964	**100**

[1] Monitored reflects either trips with an observer, EM fixed gear trips for which some video was reviewed, or EM trawl trips where observers sampled shoreside. EM trawl trips also require 100% at-sea video monitoring for compliance with maximized retention requirements, but that monitoring is not reflected in this table.

Fixed-Gear EM Image Quality



Proportion of Fixed-Gear EM Trips with at least 1 issue reported by video reviewers



Chapter 5

Compliance and Enforcement
Jaclyn Smith

Statements Database Changes

Database used by observers to report potential violations was updated in July 2023

- Specified “unit” of potential violation - e.g., haul, day, or sample - improving quantification of reports
- Allows for bystander reports and reporting outside of assignments
- Fully implemented in 2024; trends over time are not included for 2024

Adapted from Table 5-4. -- Investigative Status of Statements

Highest Priority Statements	Investigative Statuses			
Observer Safety and Work Environment	**115 statements in total**	4 - compliance assistance	8 - forwarded for prosecution	4 - lack of evidence
	19 - referred	3 - Written Warning		4 - lack of resources
	47 - investigation continues	2 - Summary Settlement	1 - prosecution declined	23 - no violation
Interference with Duties	**63 statements in total**	11 - compliance assistance	2 - forwarded for prosecution	4 - lack of evidence
	3 - referred	0 - Written Warning		6 - lack of resources
	22 - investigation continues	3 - Summary Settlement	0 - prosecution declined	12 - no violation
Operational Requirements And Gear/ Equipment Requirements	**86 statements in total**	12 - compliance assistance	8 - forwarded for prosecution	1 - lack of evidence
	3 - referred	0 - Written Warning		9 - lack of resources
	25 - investigation continues	13 - Summary Settlement	0 - prosecution declined	15 - no violation

Annual Observer Operation

- The 2024 Annual A-Season Observer Operation took place in Dutch Harbor.
- The operation focused on investigations involving sexual assault/sexual harassment of observers, hostile work environment, general health and safety of observers, interference/sample biasing, and failure to abide by catcher operational requirements.
- OLE collaborated with WVPR, FMA, and AWT during this operation.

OLE Highest Priorities

- The safety and security of observers continues to be OLE's highest priority. The greatest rates of sexual harassment while low (0.52 % of days) was 8x greater on partial coverage CV trips than for CP/MS (the next highest rate).
- The greatest rate among OLE high priority categories was in the Observer Sampling Station" subcategory of the "Gear/Equipment Requirements" category. Nearly two percent of all observer-reported trips and nearly one percent of observer deployment days had a potential violation reported.

Notable Rate for All Other Statements

- The highest rate for all other statements was in the "Operational Requirements" category where nearly 12.9 % of offloads had reports of "CMCP" subcategory potential violations (Figure 5-3).
- High rates were also reported in the "Marine Mammal" subcategory (3.6 %)
- The "General Reporting Requirements" subcategory for offloads (3.4 %) was the 3rd highest rate and hauls (2.3 %) in the "false reporting" subcategory was the 4th.

Observer Provider Requirements

- Over the years, OLE has received numerous complaints from the fishing industry regarding observer professionalism in related to observers' use of drugs and alcohol, and sexual relations with crew.
- Changes to the regulations now requires observer providers to **enforce** their conduct and behavior policy.
- OLE will continue to encourage early communication about observer professionalism to the provider and concerns about data to FMA.

Chapter 6

NMFS Recommendations
Jason Jannot

NMFS Recommendations for 2026 Draft Annual Deployment Plan

Deployment Design

- Continue proximity allocation method for the partial coverage strata (except for trawl EM)
    - For the Trawl EM stratum in the BSAI, all offloads from Trawl EM trips are to be sampled for salmon, halibut, and biological data, In the GOA, NMFS recommends maintaining the sampling rate where all EM deliveries are monitored for salmon and halibut PSC and 33% are sampled by shoreside fishery observers for biological data.

- Maintain current stratification based on monitoring method (Observer, EM Fixed Gear, EM Trawl), Fishery Management Plan (BSAI, GOA), and gear type (Fixed, Trawl):
    - Observed fixed gear trips in the GOA (*OB FIXED GOA*)
    - Observed fixed gear trips in the BSAI (*OB FIXED BSAI*)
    - Observed trawl gear trips in the GOA (*OB TRW GOA*)
    - Observed trawl gear trips in the BSAI (*OB TRW BSAI*)
    - EM fixed gear trips in the GOA (*EM FIXED GOA*)
    - EM fixed gear trips in the BSAI (*EM FIXED BSAI*)
    - EM trawl gear deliveries in the GOA (*EM TRW GOA*)
    - Zero-coverage (under 40, jig, troll gear)

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NMFS Recommendations for 2026 Draft Annual Deployment Plan

EM Video Review

- Collaborate with PSMFC to monitor video review progress and enable a review strategy that will result in EM video review times that result in the most useful information for the most number of trips for a given cost.

- Collaborate with PSMFC to develop specific prioritization rules that can be used to allocate review effort to the fisheries, gear types, times and areas that are the most dependent on EM data for management needs.

NMFS Recommendations for 2026 Draft Annual Deployment Plan

Fixed-Gear EM

- Maintain an EM selection pool composed of up to 178 fixed gear vessels, which would maintain the size of the EM pool from 2025.

- Prioritize placement in the EM selection pool based on vessel size, fishing effort, minimizing data gaps, and cost efficiency

- For vessel operators with repeated problem causing data loss, NMFS may disapprove Vessel Monitoring Plans and the vessel may be removed from the EM pool

NMFS Recommendations for 2026 Draft Annual Deployment Plan

EM Development

- Continue to collaborate with industry partners on EM development and cost efficiency projects
- Work with FMAC and PCMAC to develop priorities and potential grant proposals to National Fish and Wildlife Foundation

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Acknowledgements

Thank you to the AFSC, AKR, and PSMFC staff who worked on the 2024 Annual Report and the 2025 Annual Deployment Plan.

Thank you to the observers, observer providers, captains, crew members, EM providers, video reviewers, and agency staff who make fishery-dependent data collection possible.