# 2023 Annual Report on the North Pacific Observer Program

## for the

## North Pacific Fishery Management Council

**Jennifer Ferdinand and Geoff Mayhew**
**Alaska Fisheries Science Center**
**Fisheries Monitoring and Analysis Division**

**Dennis Jaszka**
**Observer Liaison Contractor**
**NOAA Office of Law Enforcement**

# Chapters 1 & 2

Introduction and
Fees and Budget

# Overview - Observer Effort

- **350** 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
  - 159 new observers; 191 experienced observers
- Observers collected data onboard **343** vessels and at **11** processing facilities for a total of **32,789** observer days
  - 29,232 full coverage; 3,557 partial coverage

# Overview - EM Effort

- **179** vessels approved for the 2023 fixed-gear EM pool
  - 124 of these vessels fished at least one trip
- **305** selected fixed-gear trips for EM coverage
  - As of March 31, 2024 reviewed **211** fixed-gear EM trips
  - 149 longline and 62 pot trips reviewed
- **85** 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, **90.6%** of pelagic trawl catch was on trips in the full coverage category and **9.4%** was on trips in partial coverage

- All partial coverage trips were in the GOA and 33.5% 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

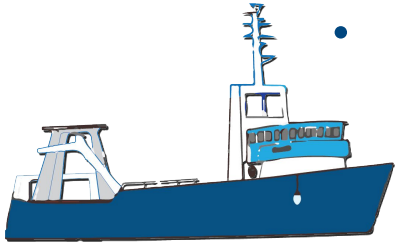
# Amount of Catch Monitored – Non-Pelagic Trawl

For the BSAI and GOA combined, **94%** of non-pelagic trawl catch was on trips in the full coverage category and **6%** was on trips in partial coverage

- Partial coverage trips occurred in both the BSAI and GOA with 45% and 42% 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 2023 was $11,741,838 for 29,095 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 $404
  - Average invoiced cost includes daily rate per observer day, transportation, and all other billed expenses
  - Total invoiced costs increased slightly in 2023 from 2023
    - Invoiced cost increased by 2.3%
    - Invoiced days increased by 0.1% (essentially flat)





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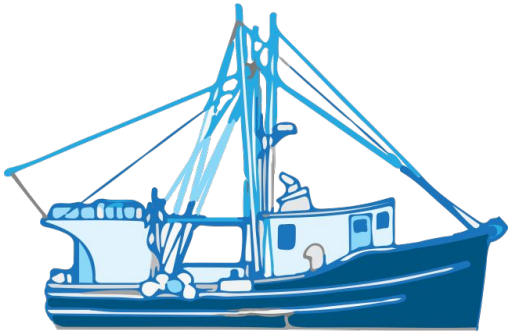
# Electronic Monitoring - Full Coverage

- 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

# Observer Cost – Partial Coverage

- Total expenditures for partial coverage observer deployments was $4,801,704 for 3,126 invoiced days
  - Average cost of $1,536 per invoiced day
  - Cost is inclusive of daily rate; reimbursable travel costs; quarantine days (some of which were still required in 2023); non-deployed day costs (training, debriefing, and running the ODDS Help Desk for both observer and EM deployments)





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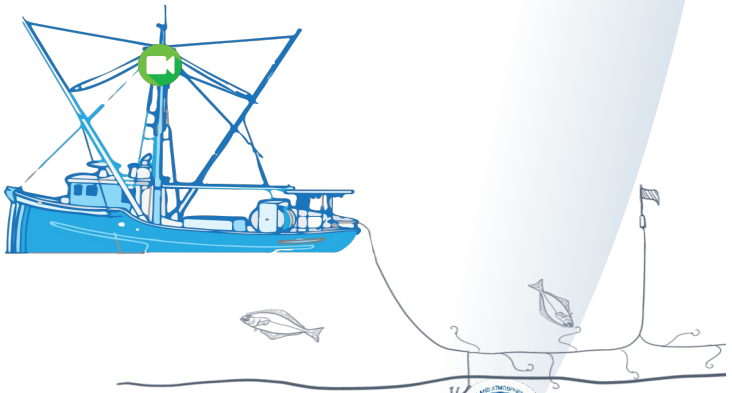
# Electronic Monitoring - Partial Coverage

- Preliminary expenditures for **fixed gear** EM deployments was $1,092,410
- 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 31, 2024
- Costs do not include funds drawn from the $2M Community Directed Spending to replace aging hardware and to outfit new EM vessels



# 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

# Allocation: Distributing sampling effort to strata

Proximity allocation evolved from the 15% hurdle used in 2023 in the following steps:

- Analysts noticed that having a single hurdle (set at 15%) resulted in different levels of data gaps among strata.
- Analysts improved the hurdle approach by estimating the stratum-specific hurdles that would result in the same level of data gaps among strata.
- Analysts improved the stratum-specific approach by measuring data gaps with equal-sized spatial cells rather than NMFS areas which differ in size.
- Analysts improved the stratum-specific approach further by incorporating an equation that buffers against low sample sizes, thereby producing the proximity allocation method.

# Chapter 3

Deployment Performance Review

# 2023 Deployment Strata

**Full coverage:**

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

**Partial observer coverage:**

3. OB HAL - Trips using hook-and-line gear
4. OB POT - Trips using pot gear
5. OB TRW - Trips using trawl gear

**Partial coverage EM:**

6. EM HAL - Trips by vessels in the EM pool and fished with hook-and-line gear
7. EM POT - Trips by vessels in the EM pool and fished with pot gear
8. EM TRW EFP - Trips in the partial coverage trawl EM stratum harvesting pollock with pelagic gear in the GOA

**Zero coverage:**

9. 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 | 101 | 1,592 | 1,588 | 100.0 | 99.7 | No - lower than expected* |
| EM TRW EFP | 46 | 1,162 | 1,162 | 100.0 | 100.00 | Yes |

* Four full-coverage trips were not monitored, all of which were open access non-pelagic trawl trips targeting Pacific cod.

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

| | | | | Coverage | | |
|---|---|---|---|---|---|---|
| Strata | Vessels | Trips | Sampled Trips | Expected | Realized | Meets expected? |
| OB HAL | 286 | 1,291 | 251 | 17.9 | 19.4 | Yes |
| OB POT | 176 | 1,074 | 191 | 17.1 | 17.8 | Yes |
| OB TRW | 67 | 657 | 212 | 22.7 | 32.3 | No - higher than expected |
| EM HAL | 112 | 619 | 139 | 30.0 | 22.5 | Preliminary rates realized as of March 31, 2024 |
| EM POT | 53 | 262 | 49 | 30.0 | 18.7 | |
| EM TRW EFP* | 34 | 580 | 188 | 33.3 | 32.4 | Yes |

*Evaluation of shorside sampling by observers

# Excerpt from **Table 3-4**. – Logged trips in each partial coverage stratum in 2023

| Strata | Trip Disposition | Selected Trips | Total Trips | Actual (%) | Programmed (%) | p-value |
|---|---|---|---|---|---|---|
| OB HAL | Initial random selection | 229 | 1,278 | 17.92 | 17.87 | 0.971 |
| | After cancellations | 177 | 1,146 | 15.45 | 17.87 | **0.034*** |
| | With inherits | 248 | 1,146 | 21.64 | 17.87 | **0.001*** |
| | After waivers | 245 | 1,146 | **21.38** | 17.87 | **0.002*** |
| OB POT | Initial random selection | 196 | 1,188 | 16.50 | 17.09 | 0.616 |
| | After cancellations | 161 | 1,062 | 15.16 | 17.09 | 0.103 |
| | With inherits | 204 | 1,062 | 19.21 | 17.09 | 0.073 |
| | After waivers | 194 | 1,062 | 18.27 | 17.09 | 0.308 |
| OB TRW | Initial random selection | 208 | 785 | 26.50 | 22.68 | **0.012*** |
| | After cancellations | 180 | 721 | 24.97 | 22.68 | 0.142 |
| | With inherits | 211 | 721 | 29.26 | 22.68 | **0.000*** |
| | After waivers | 211 | 721 | **29.26** | 22.68 | **0.000*** |

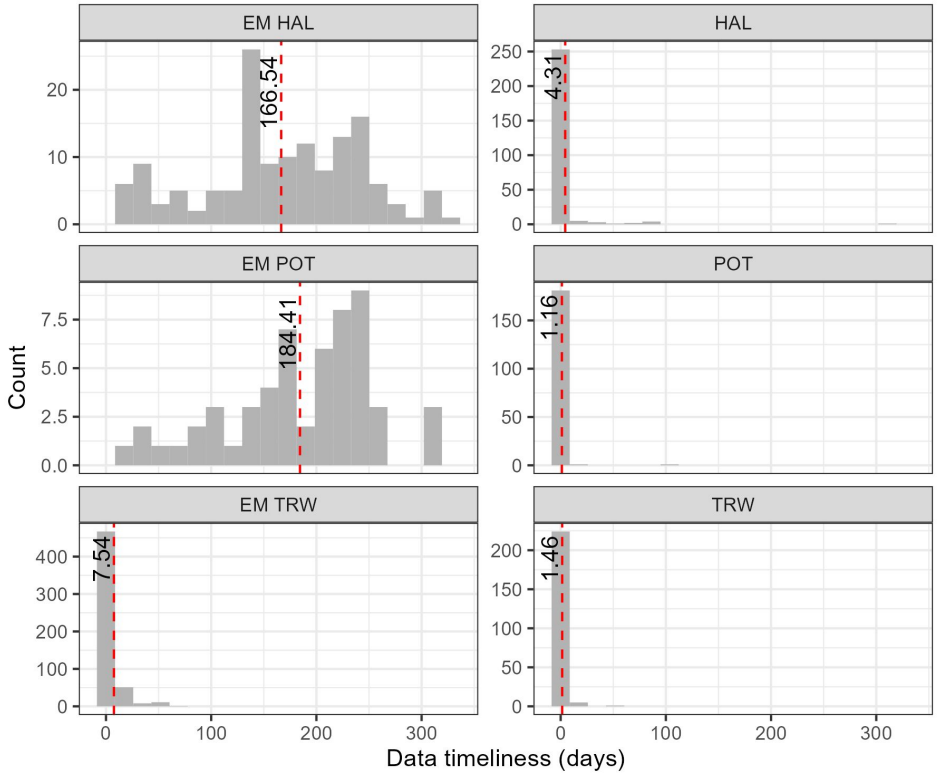
# Combination of **Tables 3-2**, **3-3**, **A-2**, and **A-3** : Trip cancellations and inherited monitoring in ODDS, 2022 and 2023

| | 2022 | | | | 2023 | | | |
|---|---|---|---|---|---|---|---|---|
| Strata | Randomly Selected | Canceled | Total Monitored | Inherited | Randomly Selected | Canceled | Total Monitored | Inherited |
| OB HAL | 277 | 116 (**41.7%**) | 206 | 74 (**35.9%**) | 243 | 53 (**21.2%**) | 245 | 71 (**29.0%**) |
| OB POT | 228 | 66 (**28.9%**) | 202 | 57 (**28.2%**) | 200 | 37 (**18.5%**) | 194 | 43 (**22.2%**) |
| OB TRW | 247 | 55 (**22.3%**) | 219 | 39 (**17.8%**) | 219 | 31 (**14.2%**) | 211 | 31 (**14.6%**) |
| EM HAL | 230 | 13 (5.7%) | 228 | 16 (7.0%) | 222 | 25 (10.9%) | 212 | 21 (9.9%) |
| EM POT | 115 | 3 (2.6%) | 118 | 8 (6.8%) | 103 | 9 (6.9%) | 97 | 5 (5.2%) |

# **Figure 3-2**. – Distributions of data timeliness

**Time between the end of a delivery and the availability of monitoring data for catch accounting**

- **At-sea/shoreside observers average between 1 and 8 days**
- **Fixed-gear EM average between 167-184 days, with high variability**
  - **Marginal improvement from 2022 (213-227 days, Figure A-2)**



# FMSC Recommendations

## ODDS

**Work with the Partial Coverage Fishery Monitoring Advisory Committee to find an ODDS trip cancellation policy that will not significantly impede industry, affords the observer provider adequate time, and reduces impacts to coverage rates and non-random monitoring. This new policy should be decided in time for implementation in the 2025 Annual Deployment Plan.**

## Fixed-gear EM review times:

**The NMFS should work with the EM review agency PSMFC to find a selection rate that provides timely data that achieves the goals of the monitoring program in a cost-effective manner**. The FMA needs all data reviewed by April of the following year for annual reports (a three month delay maximum) while stock assessors need data from the prior year by September (an eight month delay maximum).

The FMSC recognizes that EM review times are not fast enough for the purposes of in-season management and suggests that **the NMFS perform an analysis of impacts of missing EM data and risks to management and the stocks of not having these data available (e.g., risk of exceeding Total Allowable Catch and PSC, risk of premature or late fishery closures, etc.)**

# Chapter 4

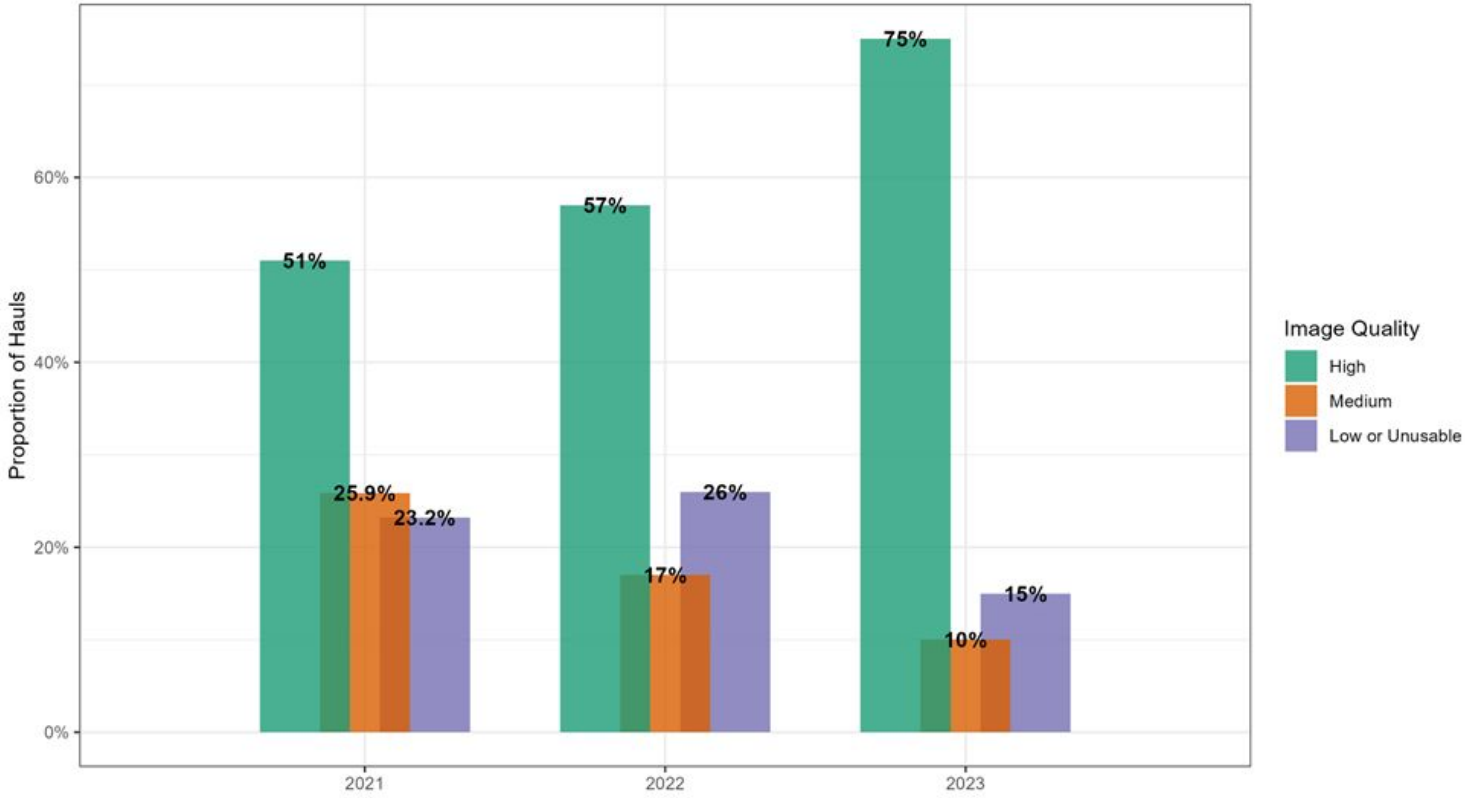
Descriptive Information

# 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 2023 in the Gulf of Alaska. Empty cells indicate that no catch occurred.

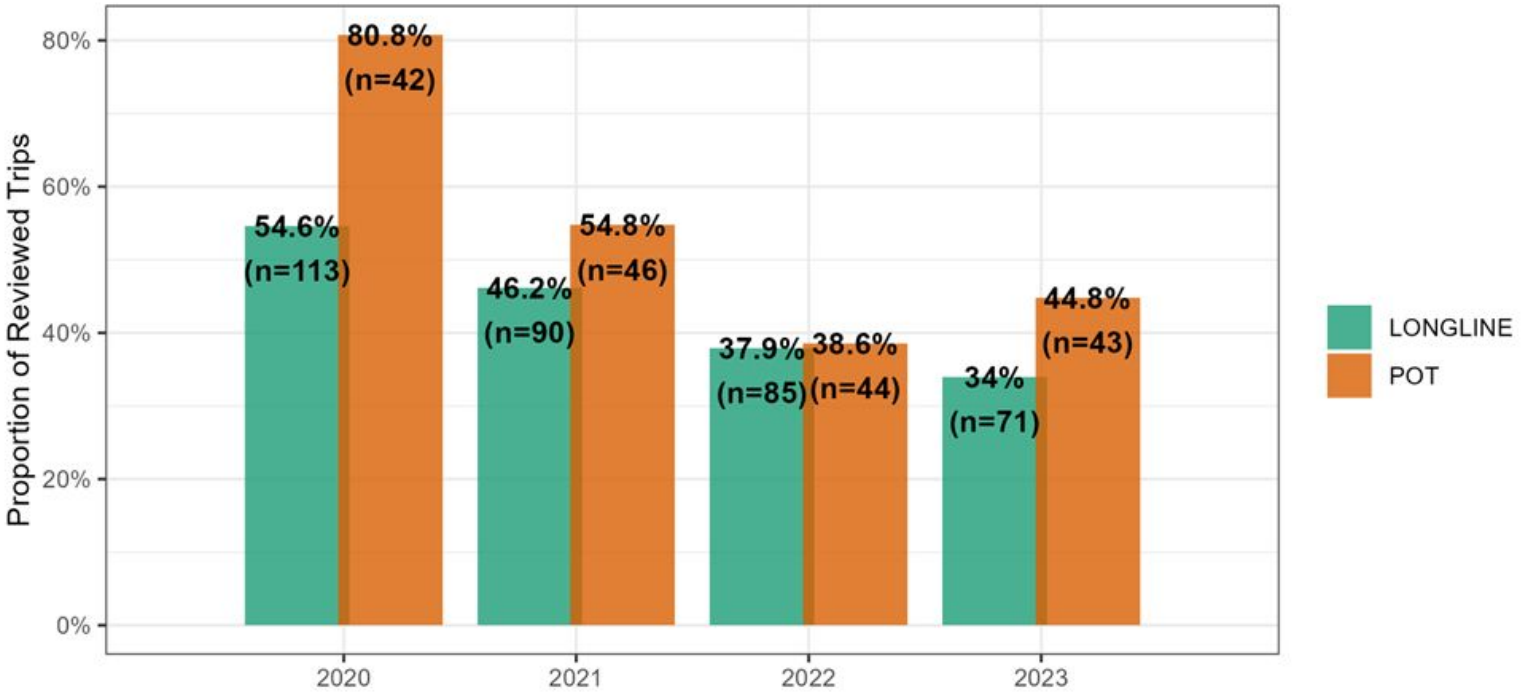
| | | Catcher/Processor | | | Catcher vessel | | | Catcher vessel: Rockfish program | | | Gear total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gear | Catch | Monitored | Total | % | Monitored | Total | % | Monitored | Total | % | Monitored | Total | % |
| Hook and Line | Retained | 2,191 | 2,402 | 91% | 2,136 | 13,724 | 16% | | | | 4,328 | 16,126 | 27% |
| | Discard | 638 | 723 | 88% | 1,955 | 12,009 | 16% | | | | 2,593 | 12,732 | 20% |
| Jig | Retained | | | | 0 | 69 | 0% | | | | 0 | 69 | 0% |
| | Discard | | | | | | | | | | | | |
| Non-Pelagic Trawl | Retained | 25,145 | 25,145 | 100% | 3,409 | 8,198 | 42% | 3,627 | 3,627 | 100% | 32,181 | 36,970 | 87% |
| | Discard | 2,383 | 2,383 | 100% | 495 | 1,095 | 45% | 186 | 186 | 100% | 3,063 | 3,664 | 84% |
| Pot | Retained | 609 | 630 | 97% | 2,750 | 15,350 | 18% | | | | 3,359 | 15,980 | 21% |
| | Discard | 14 | 14 | 99% | 59 | 395 | 15% | | | | 73 | 409 | 18% |
| Pelagic Trawl | Retained | 2,924 | 2,924 | 100% | 44,091 | 131,539 | 34% | 11,478 | 11,478 | 100% | 58,493 | 145,941 | 40% |
| | Discard | 292 | 292 | 100% | 492 | 1,488 | 33% | 86 | 86 | 100% | 870 | 1,866 | 47% |

[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

# Statements Database Changes

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

- Improved categorization of potential violations (451 potential violation types in 2023)
- Improved counts of potential violations through specific “units” - e.g., haul, day, or sample - improving quantification of reports
- Allows for bystander reports and reporting outside of assignments
- Complicates reporting for 2023 and trends over time are not included for 2023

# Table 5-9. -- Status of Statements and Incidents

| Statements | Incidents | Incident Statuses |
|---|---|---|
| 630 Statements received and reviewed in 2023 | | 69 Ongoing (249 statements) |
| | | 7 Forwarded for prosecution (15 statements) |
| | | 14 Written Warnings issued (20 statements) |
| 64 statements did not document an actual violation | 207 new incidents created (546 statements) | 23 Summary Settlements issued (67 statements) |
| | | 31 Compliance assistance provided (90 statements) |
| 566 statements were forwarded to agents and officers | 20 statements were added to 9 open incidents | 72 Closed - No OLE Action (125 statements) |

# Annual Observer Operation

- January 30 - February 24, 2023 in Dutch Harbor, AK
- OLE Special Agents and WVPR Regional Coordinator field operations with observers and industry members
- Allows for immediate disclosure of potential violations; rapid resolution through compliance assistance; and improved reporting, advocacy, and support for observers

# Chapter 6

NMFS Recommendations

# NMFS Recommendations for 2025 Draft Annual Deployment Plan

## Deployment Design

- Continue proximity allocation method for the partial coverage strata (except for trawl EM)
  - For partial coverage trawl EM maintain 33% sampling rate of EM deliveries by shoreside observers
- 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 (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 2025 Draft Annual Deployment Plan

## EM Video Review

- Collaborate with PSMFC to establish a video review selection rate and 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
- Conduct an assessment of impacts of delayed or missing fixed-gear EM data and risks to management and the stocks of not having these data available (e.g. risk of exceeding TAC and PSC, risk of premature or late fishery closures)


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# NMFS Recommendations for 2025 Draft Annual Deployment Plan

## Fixed-Gear EM

- Maintain size of 2024 EM selection pool composed of up to 177 fixed gear vessels
  - As additional funds are available, increase the number of vessels in the EM selection pool up to the Council's recommendation of 200 fixed-gear EM vessels
- 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, disapprove Vessel Monitoring Plans and remove from these vessels from the EM pool


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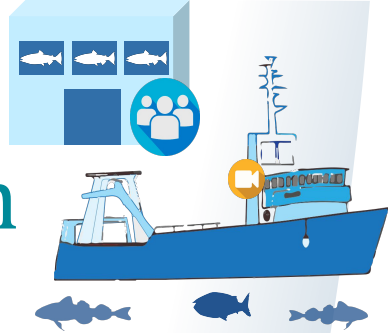
# NMFS Recommendations for 2025 Draft Annual Deployment Plan



## Trawl EM Implementation

- Anticipate publishing final rule to implement regulated program in 2025, including the following:
  - Vessels required to opt into the regulated program prior to November 1, 2024
  - Vessels required to have a NMFS-approved Vessel Monitoring Plan in place prior to participating in trawl EM in 2025
- Participating vessels need to transmit a Landing Notice to the shoreside processor through the NMFS approved system prior to each trawl EM offload
- EM hardware service providers would be required to have a NMFS-approved permit prior to the start of the fishing season
- NMFS will continue to evaluate shoreside sampling priorities in order to balance observer workloads for both partial and full coverage sectors
- NMFS requests collaboration from the EM service providers and the trawl EM EFP permit holders to gain a better understanding of EM trawl costs (both for EM and shoreside observers) so the agency can appropriately budget for trawl EM in the 2025 ADP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# NMFS Recommendations for 2025 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 coordinate with National Fish and Wildlife Foundation grantees to plan for potential upcoming grant proposals

## ODDS

- Collaborate with the Partial Coverage Fishery Monitoring Advisory Committee (PCFMAC) to develop an ODDS trip cancellation policy that will not significantly impede industry, affords the observer provider adequate time to deploy an observer, and reduces impacts to coverage rates and non-random monitoring in time for the 2025 Annual Deployment Plan
    - Goal of reducing temporal bias introduced by trip cancellation and inherits
- Modify ODDS to implement the regulated EM Trawl program

# Acknowledgments


- Thank you to the AFSC, AKR, and PSMFC staff who worked on the 2023 Annual Report and the 2024 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