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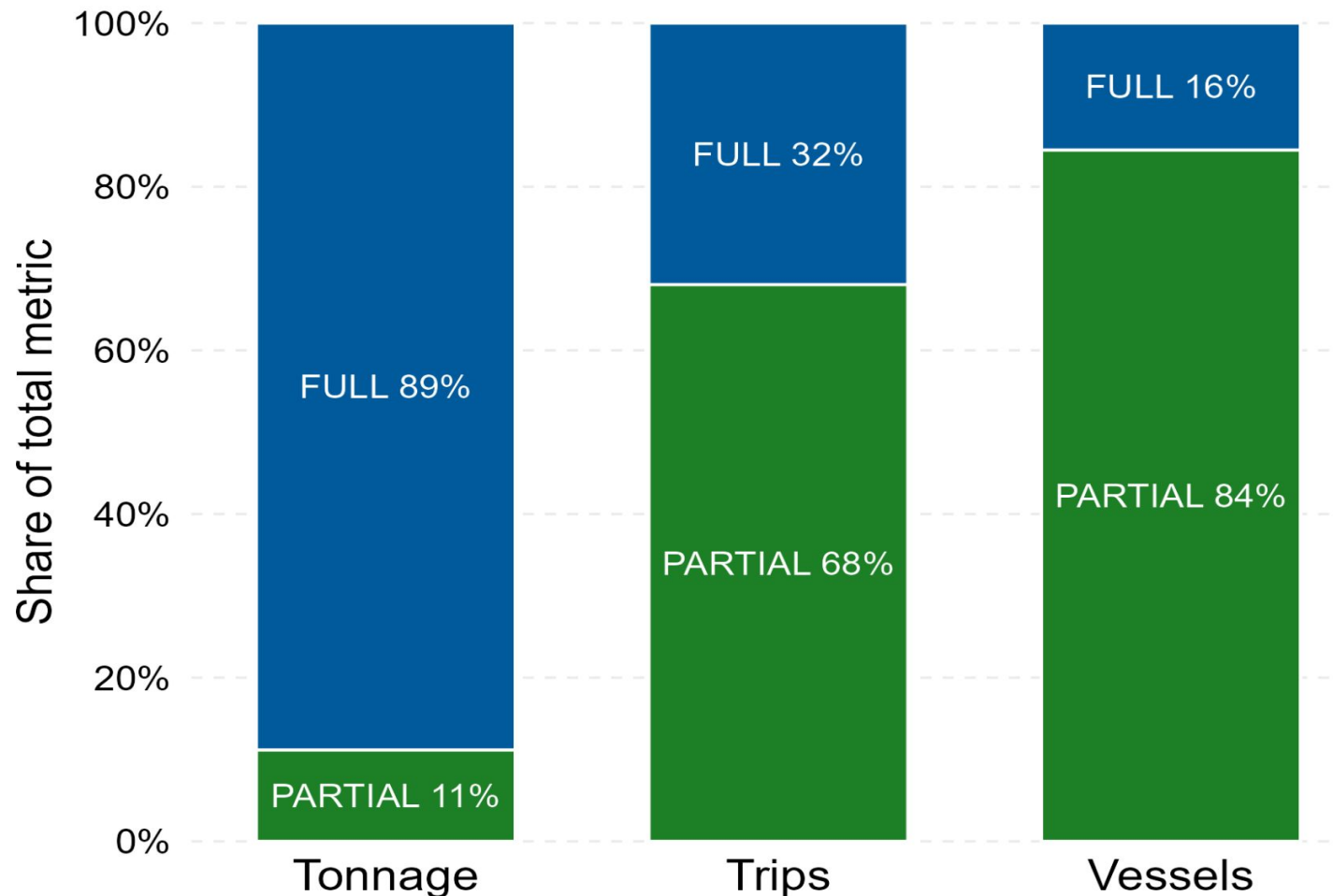
Draft 2027 Annual Deployment Plan

NPFMC/AP October 2026, 280th

Dr. Sean Lucey
Christian Gredzens
Geoff Mayhew
Dr. Jason Jannot
FMA, Alaska Fisheries Science Center, NOAA Fisheries

Scope of the Annual Deployment Plan

- Focuses on a small, but complex part of Alaskan fisheries



Core concerns

- Cannot monitor all fishing activity
- Monitoring needs to support:
 - Catch Accounting
 - Stock Assessment
 - Prohibited Species Catch (PSC) Management
 - Protected Species and Ecosystem Information Needs

Challenge

- Monitor a diverse, dynamic fleet
- Limited monitoring resources

NMFS Approach

- Implement a monitoring program that collects credible, statistically rigorous scientific data
- Maximize the collection of the best data under variable budgets using all the monitoring tools now available
- Collect data for a wide range of analytic needs (multi-objective program)

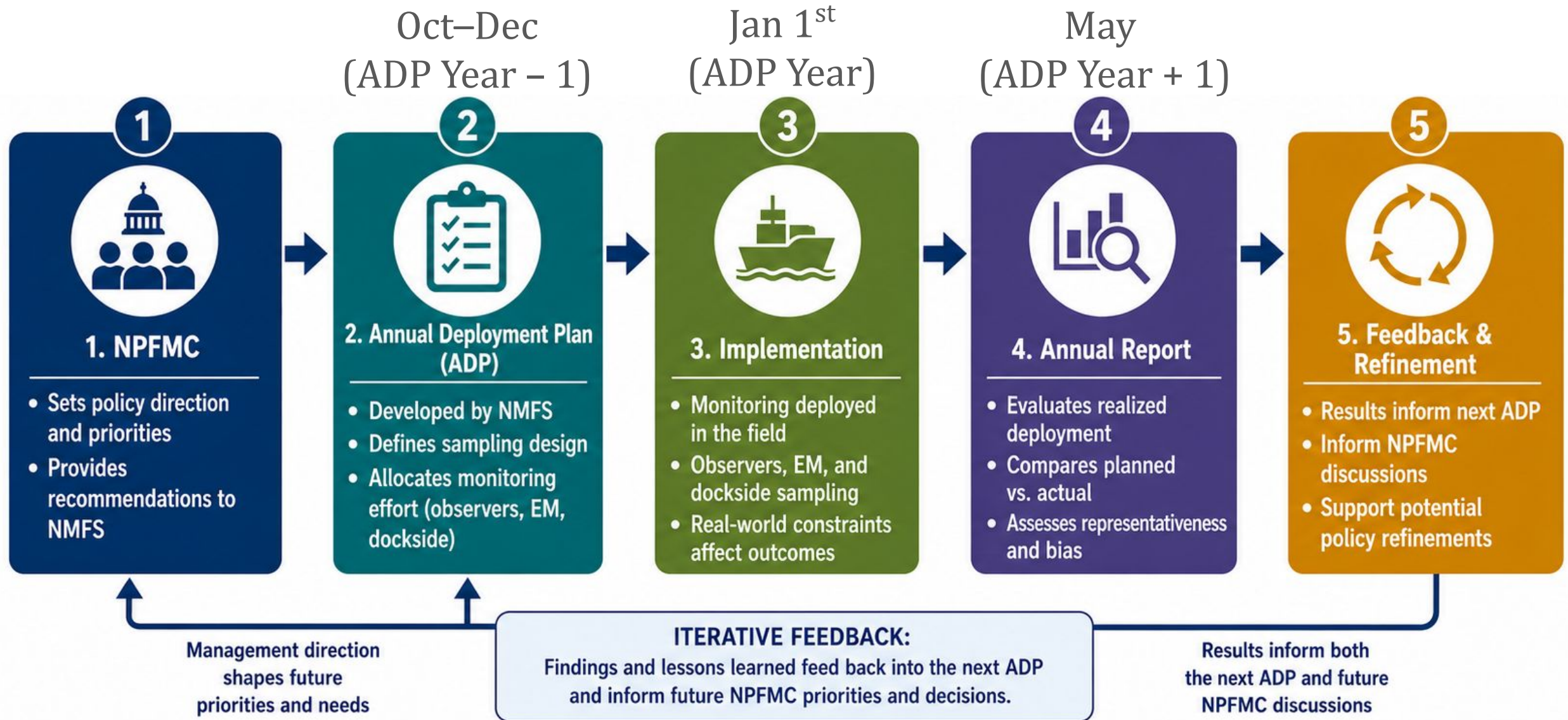
Council Priorities

- Efficiently distribute monitoring such that more monitoring is achieved for the available budget
- Increase monitoring on trawl-fisheries for PSC accounting
- Monitoring that has least impact on fishing operations
- A partial coverage program that isn't contentious

Goals of the ADP

- Meet the data needs of data users with a wide range of analytic and management objectives
- Collect data that reflects the full range of fishing activities: samples which represent the characteristics of the larger population

ADP/Annual Report cycle



Monitoring Approaches in 2027

At-sea observers + compliance cameras:

- Catcher-processors (all gear types) & motherships
- 1 or 2 fishery observers plus compliance cameras on all trips

At-sea observers:

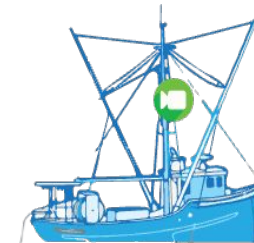
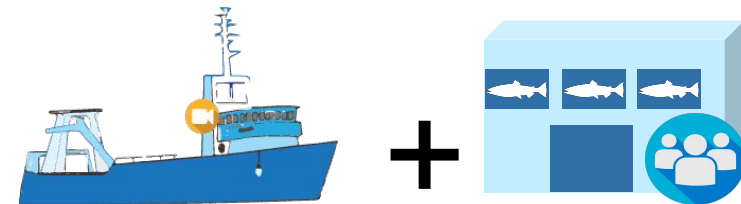
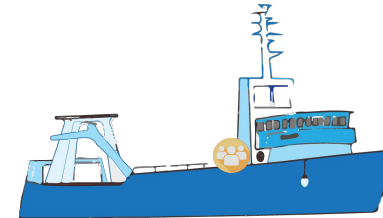
- Catcher vessels, all gear types & few catcher processors
- Observers sampling at-sea on either all trips (full coverage) or selection of trips (partial coverage)

EM + shoreside observers:

- Pollock catcher vessels in partial or full coverage fisheries
- At-sea EM for compliance with shoreside observers monitoring and sampling

EM only:

- Partial coverage longline and pot
- EM used for catch estimation



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Expected Monitoring in the AK Federal Fisheries in 2027

% of Retained Catch Monitored by FMP and Gear-type, Full & Partial Coverage		
	Trawl	Fixed-Gear
BSAI	99.96	88.74
GOA	86.42	14.25

% of Retained Catch Monitored by FMP and Gear-type, Partial Coverage ONLY		
	Trawl	Fixed-Gear
BSAI	46.54	33.30
GOA	82.19	10.24

Preliminary Budget for 2027

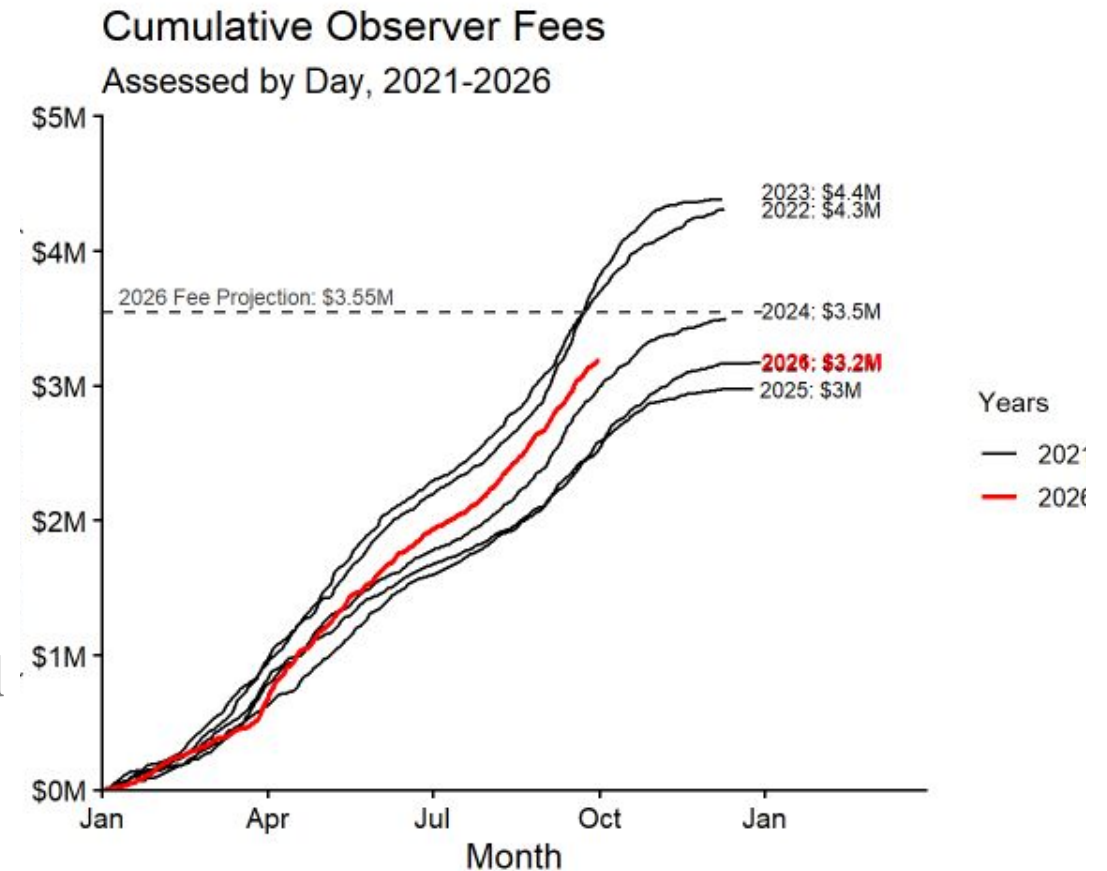
- For this analysis, NMFS set a **preliminary budget of \$5.45M** to support 2027 monitoring of the partial coverage fisheries.

Budget will be updated for the final 2027 ADP; presented to the NPFMC in December 2026

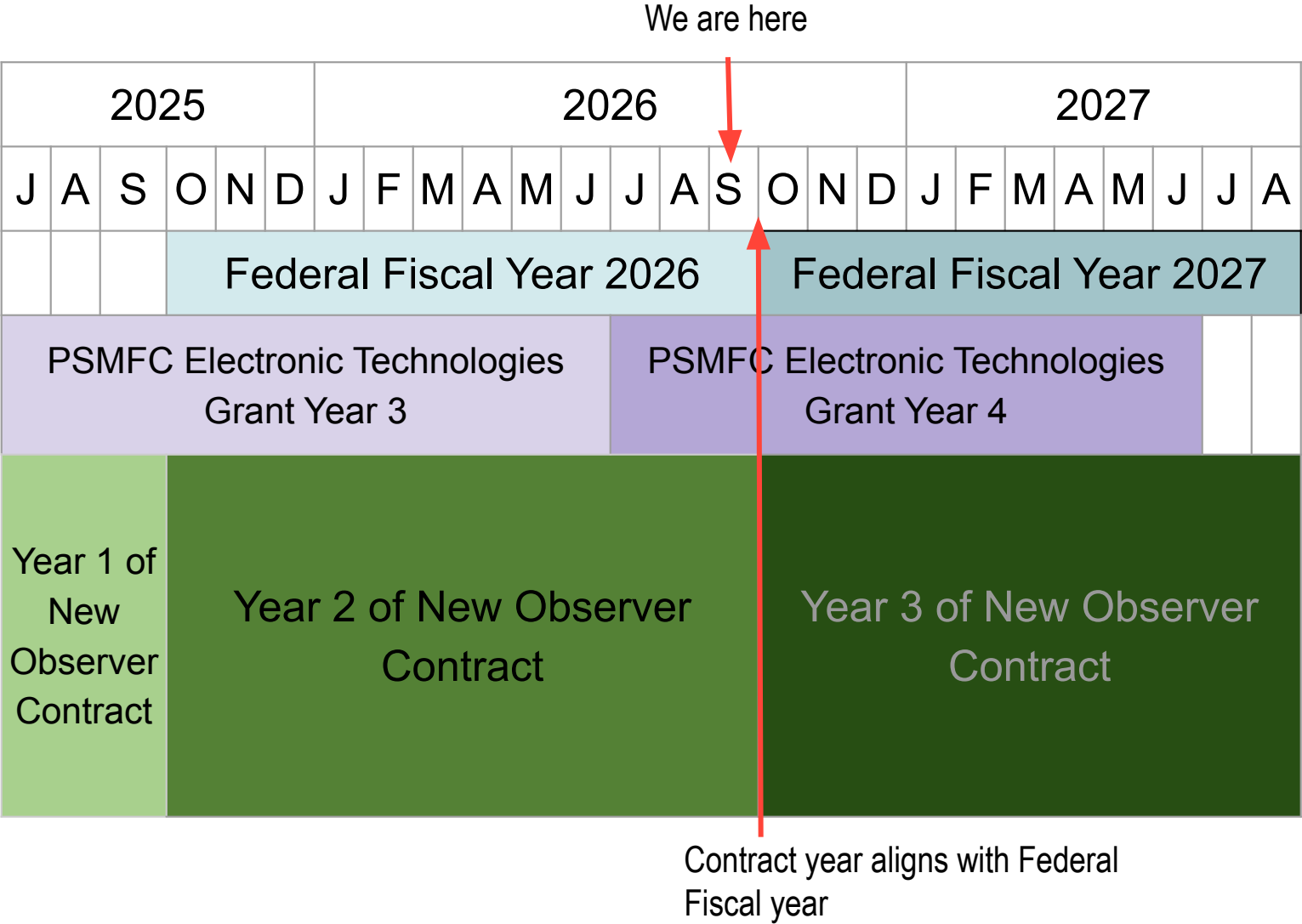
- The **preliminary budget** includes estimated revenues generated from 2026 ex-vessel fees, “carryover” revenue from ex-vessel fees from earlier years; and any federal funding that can be secured for direct monitoring costs
- **Uncertainty** in the preliminary budget to be refined in the Final ADP includes:
 - Updated projection of fee revenue
 - Trawl EM GOA shoreside monitoring needs
 - Updated assumptions regarding monitoring costs and updated cost reports

Uncertainty in Preliminary ADP Budget

- Fee revenue is still being assessed for landings in 2026; as of October 1st, \$3.19M in Observer Fees had been assessed out of the projected \$3.55M
- Integrating the costs of Trawl EM into the annual budget
- Still some delays in receiving funding associated with the new NOAA financial systems—but all observer fees were received in time to fund the 2026/27 contract year.



Fishing Year, Fiscal Year, Grant Year, and Contract Year





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Partial Coverage Deployment Plan

Christian Gredzens

2027 Partial Coverage Sample Design

- **Sample unit:** Fishing trip/shoreside delivery
- **Stratification:** Sampling strata defined by:
 - Monitoring method (At-sea observer, EM, or none)
 - Gear type (fixed-gear or trawl)
 - FMP (BSAI or GOA)
- **Allocation:** ‘Proximity Allocation,’ an algorithm that:
 - Reduces spatiotemporal data gaps
 - Guards against low sample size
 - Excluding EM Trawl GOA stratum
- **The Observer Declare & Deploy System (ODDS)** assigns a stratum to each trip and randomly selects trips for monitoring using allocated sample rates.

2027 Partial Coverage Sample Design

- **Stratification: 8 partial coverage strata**
 - At-sea observers
 - At-sea Observer Fixed-gear BSAI
 - At-sea Observer Fixed-gear GOA
 - At-sea Observer Trawl BSAI
 - At-sea Observer Trawl GOA
 - EM at-sea
 - EM Fixed-gear BSAI
 - EM Fixed-gear GOA
 - EM at-sea w/ Shoreside Observers
 - EM Trawl GOA
 - No-selection (vessels < 40 ft LOA and/or using jig gear)
 - No-selection

2027 Partial Coverage Sample Design

- **Stratification:** 8 partial coverage strata

- At-sea observers
 - At-sea Observer Fixed-gear BSAI
 - At-sea Observer Fixed-gear GOA
 - At-sea Observer Trawl BSAI
 - At-sea Observer Trawl GOA
- EM at-sea
 - EM Fixed-gear BSAI
 - EM Fixed-gear GOA

**Proximity
Allocation**

- EM at-sea w/ Shoreside Observers
 - EM Trawl GOA

**Costs estimated and
allocated first**

- No-selection (vessels < 40 ft LOA and/or using jig gear)
 - No-selection

2027 Partial Coverage Sample Design

- **Costs: EM Trawl GOA**

- **Shoreside Observer costs included:**

- Labor: 777 shoreside observer days
 - 7 observers in A season (445 shoreside observer days)
 - 6 observers in B season (332 shoreside observer days)
 - Lodging and food

- **EM equipment costs included:**

- Equipment maintenance costs per each GOA-only vessel (\$5,000 each for 36 catcher vessels and 6 tender vessels)
 - EM data storage and review costs
 - Excludes installation/replacement costs (previously covered by the Congressionally Directed Spending funds), to be included in the Final ADP

- **Total estimated cost: \$732,000**

- $\$5.45\text{M} - \$732\text{K} = \$4.72\text{M}$ remaining

2027 Partial Coverage Sample Design

- **Costs: At-sea observers:**

- **At-sea Observer costs included:**

- Labor: number and per-day costs of guaranteed and optional days and contract year
 - Travel (based on actual costs in recent years)

- **Costs: EM fixed-gear:**

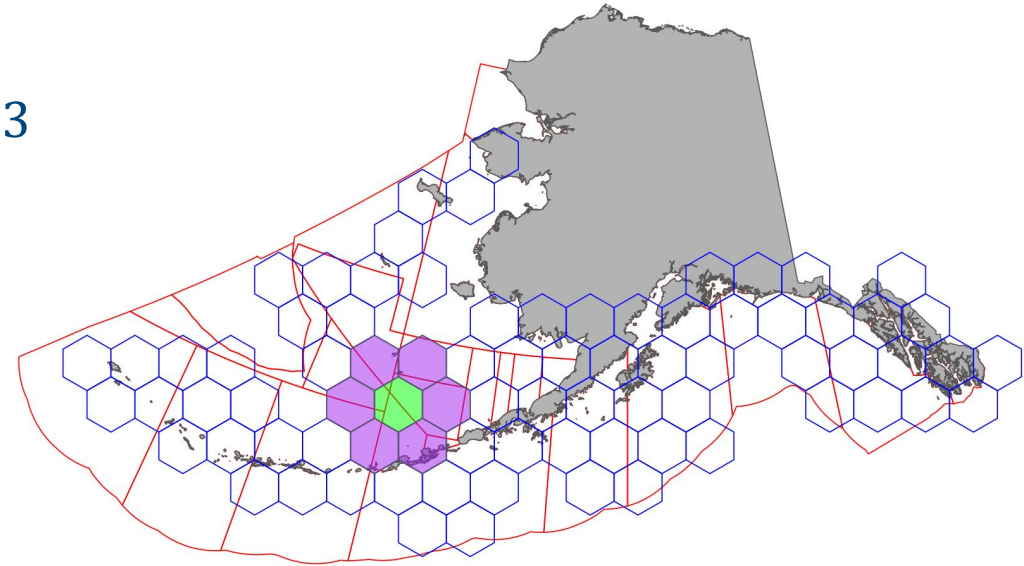
- **EM fixed-gear costs included:**

- Equipment maintenance and annualized system replacement costs per vessel (\$6,003 per vessel per year for 123 active vessels)
 - EM data storage and review costs
 - EM service provider management

2027 Partial Coverage Sample Design

Proximity Allocation

- Fishing effort (number of trips in each stratum and when/where they fished) assumed to be the same as 13 August 2025 through 12 August 2026.
- For each stratum, determine the relationship between sample rate and:
 - the proportion of fishing trips that will be monitored or nearby a monitored trip in space or time (**Proximity Index**)
 - measure of uncertainty in stratum-level estimates as a function of sample size (**Variance Scaling Factor**)
- The **Proximity Index** and **Variance Scaling Factor** combine into the **Proximity Allocation Index**. Determine the maximum value that is afforded by all strata.



2027 Partial Coverage Sample Design

- **Table B-1.** Preliminary budget and funds allocated to the monitoring pools

Partial Coverage Monitoring Budget	
At-sea Observer	\$3,227,000
EM Fixed-gear	\$1,479,000
EM Trawl GOA	\$732,000
Total	\$5,438,000

**\$4,706,000**



Dockside Monitoring for Pollock Deliveries

- Objectives
 1. salmon bycatch count
 2. halibut bycatch count
 3. salmon genetic samples
 4. biological samples from non-salmon species
- BSAI Trawl pollock fishery
Both EM & non-EM Trawl catcher vessels:
Every offload: all objectives
- GOA Trawl pollock fishery
EM TRW GOA
Every offload: objectives 1–3
33% of offloads for objective 4
OB TRW GOA
Offloads of trips monitored by at-sea observers: objective 1

For more information: see Table 3 in ADP

Preliminary Full Coverage Sample Size and Rates

Component	Pool	Stratum	Selection Rate (%)	Number of Trips Expected to be Observed
Full Coverage	Full Coverage	Full Coverage	100	968
	EM Trawl BSAI	EM Trawl BSAI	100	1,774



Preliminary Partial Coverage Sample Size and Rates

Pool	Stratum	Selection Rate (%)	Number of Trips	Number of Trips Expected to be Observed
At-sea Observer	Fixed-gear BSAI	31.35	253	79
	Fixed-gear GOA	9.31	1,868	174
	Trawl BSAI	46.54	35	16
	Trawl GOA	15.34	305	47
EM Fixed-gear	EM Fixed-gear BSAI	42.99	92	40
	EM Fixed-gear GOA	15.24	1,010	154
EM Trawl GOA	EM Trawl GOA	100.00	894	894
No-selection	No-selection	0.00	1,427	0



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Fixed-gear Vessel EM Minimum Effort Analysis Appendix C

Geoff Mayhew

Council Request

[C-1 Council motion](#), **Observer Program Annual Report, June 6, 2026**

“Provide a process to remove or deny vessels in the EM programs if they are **inactive** or have repeated issues causing data loss from the EM pool”

[C-1 AP motion](#), **Observer Program Annual Report, June 2026**

“Continue to review the **cost effectiveness of individual EM vessels** and **remove vessels from the fixed-gear EM pool** or deny vessels from the trawl EM category. Criteria for continued inclusion in these EM programs will be specified in the 2027 ADP”

NMFS evaluated:

- Catcher vessels currently in the **Fixed-Gear EM** selection pool
- 3 full years of fishing history during 2023–2025
- Quantifies each vessel’s cost differential in the EM versus Observer pool
- Identifies a minimum effort criterion for excluding EM vessels
- Demonstrates benefits to cost efficiency for observers and EM

Not evaluated:

- Whether current EM vessels have size limitations to carry observers

Fixed-gear EM cost vs effort relationship

Fixed-gear EM costs

- EM vessels require equipment maintenance and system replacements
 - High 'buy-in' cost
- EM review
 - Low additional costs per selected trip
- Vessels that do not fish enough trips to overcome the equipment-related costs are less cost-efficient

2023–2025 Fishing Effort:

- 172 vessels with a full 3-year history
- **39** vessels took no trips, **133** active vessels

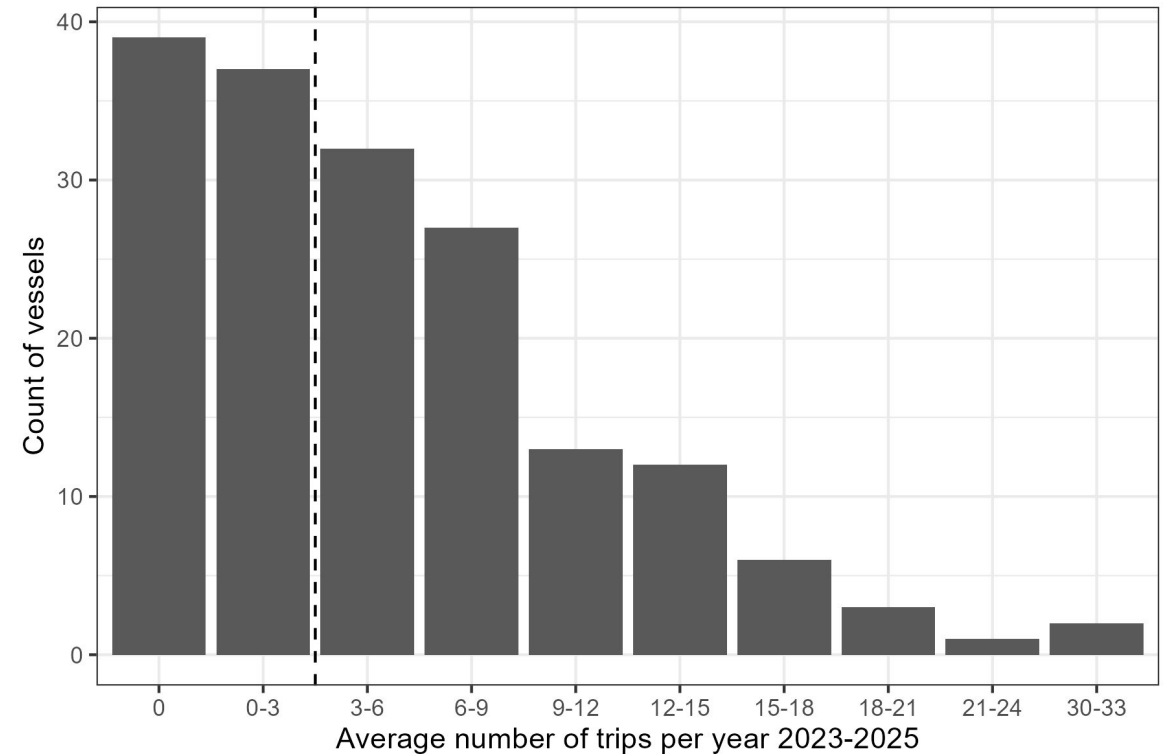


Figure C-1

Cost comparison

- Monitoring costs by EM and Observers were calculated for 133 active vessels
- Vessels where EM costs were greater than Observer costs were deemed **cost-ineffective**
 - vessels below $y = 0$
- Vessels that fished fewer than **3 trips per year** were generally cost-ineffective
 - 37 vessels
- **Total difference in cost of \$96,000** (Table C-1)

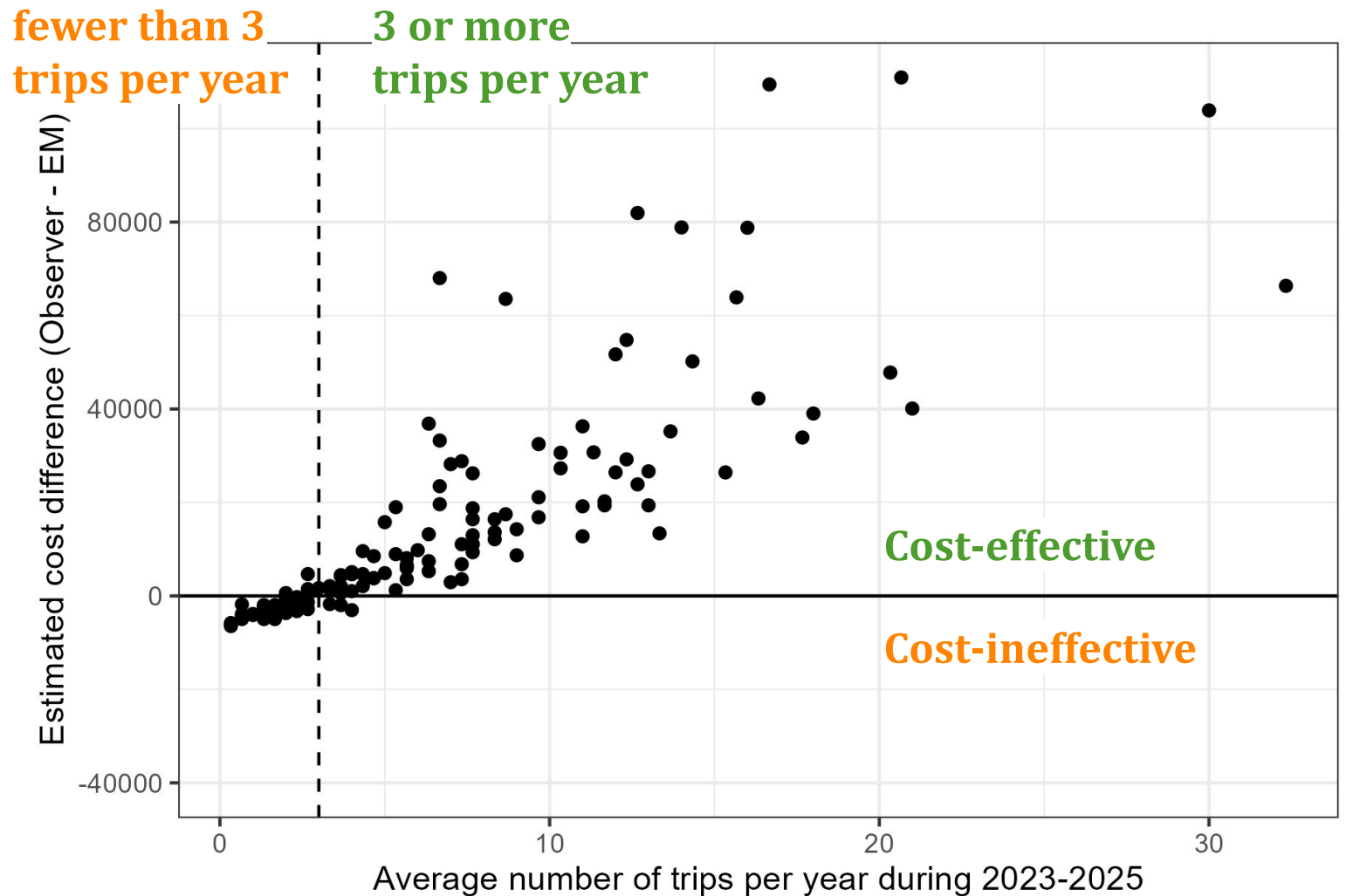


Figure C-2

Applying the < 3 trips per year threshold

- If we apply the **< 3 trips per year threshold** to 2026 fishing effort:
 - Moves **39 inactive** and **37 active vessels** (< 3 trips per year) to OB (76 vessels, 77 trips)
- Compare allocation (Tables C-2 and C-3)

Pool	Allocation Metric	Scenario		
		Status Quo	< 3 trips	Difference
At-sea Observers	Sample rate	12.60%	13.46%	+0.83%
	Option days	9	112	+103 days
	Cost per trip	\$10,964	\$9,967	-9.1%
Fixed-gear EM	Sample rate	16.96%	19.49%	+2.53%
	Cost per trip	\$7,494	\$7,017	-6.4%

- By re-allocating the ~\$96K cost savings, **all sampling rates increased** and **cost-effectiveness of both Observers and Fixed-gear EM improved**

Recommendation

For the upcoming 2027 ADP:

The PCFMAC supported the agency's recommendation for an annual evaluation of vessel participation in the fixed gear EM pool. The committee recommended the following as part of this review:

- *In 2027, vessels who have not complied with requirements to update and submit EM Vessel Monitoring Plans (VMPs) for the past 3 years would be removed from the fixed gear EM pool.*

32 fixed-gear EM vessels were identified as having not submitted a VMP in the past 3 years (2024, 2025, nor 2026). These vessels will be notified of their removal from the fixed-gear EM pool and placement in the observer pool for the 2027 fishing year.

Recommendation

Yearly evaluation, beginning during the 2028 ADP:

- Vessels with **at least 3 years** in the Fixed Gear EM pool will be evaluated yearly during preparation of the Final ADP
 - Vessels with **< 3 trips per year on average** (< 9 trips total over the prior 3 years) will be notified of their removal from the Fixed Gear EM pool for the upcoming year and immediate placement in the at-sea observer pool.
 - Vessels removed from the Fixed Gear EM pool:
 - will return their equipment to their provider to be reused
 - can request to rejoin the pool, but need a recent fishing history with higher fishing effort to be readmitted
 - At least **5 trips per year over the prior 3 years** are required to join the pool - This standard is in place for all vessels requesting to join the pool



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Evaluation of Low-effort Fixed-gear Vessels for No-selection Eligibility

Appendix D

Christian Gredzens

Council Request

“Consider revisions to the zero[no-] selection pool (currently <40’ fixed-gear catcher vessels and jig gear) for cost efficiency purposes to potentially include fixed-gear catcher vessels with 1–2 annual trips and/or low quota/catch volume.”

NMFS evaluated:

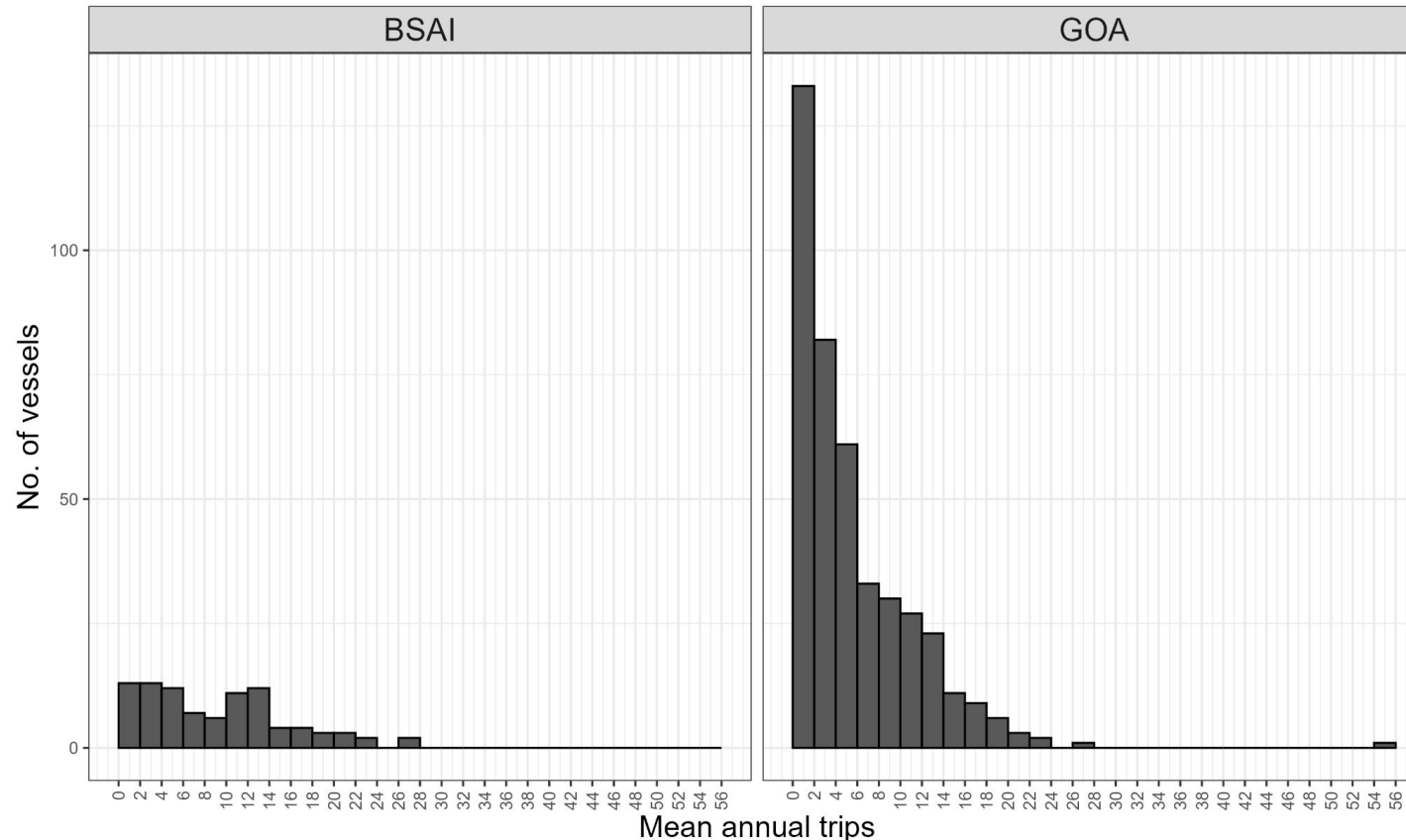
- Catcher vessels currently in the **fixed-gear at-sea observer** selection pool
- **No more than 2 trips** in any year during 2021–2025
- **At least 3 years** of fishing history during 2021–2025
- Targets vessels with a demonstrated history of consistently low effort
- Quantify effects on selection rates, deployment footprint, and number of trips expected to be monitored

Not evaluated:

- EM vessels: evaluated in Appendix C
- Vessel-level quota: IFQ quota allocated to quota holders, not vessels

Fishing effort in the at-sea observer fixed-gear fleet

Figure D-1



- Annual fishing effort is strongly **concentrated at the low end** of the distribution
- **~18% of vessels active during 2021–2025 met the criterion** (≤ 2 trips/yr, 3 years of history), with most located in the GOA
- Because these vessels make very few trips, **very few are observed** at current selection rates (31% BSAI, 9% GOA)

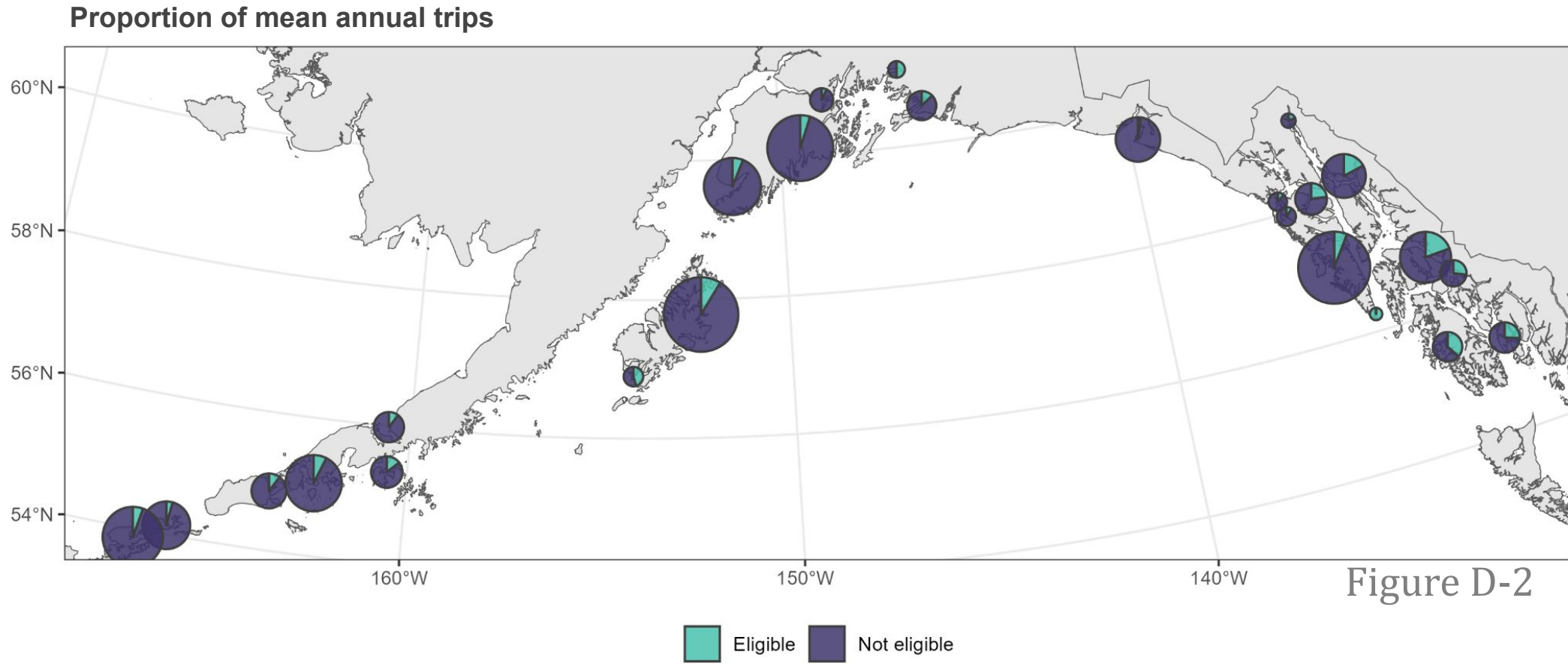
Effect on allocation and monitoring

Table D-1

Stratum	Status quo			Proposed			Difference (Proposed - Status quo)		
	rate (%)	<i>N</i>	<i>n</i>	rate (%)	<i>N</i>	<i>n</i>	rate (%)	<i>N</i>	<i>n</i>
<i>OB FIXED BSAI</i>	28.8	300	86	28.9	300	87	+0.1	0	+1
<i>OB FIXED GOA</i>	10.6	1,905	203	10.8	1,871	202	+0.2	-34	-1
<i>OB TRW BSAI</i>	58.1	30	17	58.3	30	17	+0.2	0	0
<i>OB TRW GOA</i>	16.3	341	56	16.4	341	56	+0.1	0	0
<i>EM FIXED BSAI</i>	48.1	90	43	48.3	90	43	+0.2	0	0
<i>EM FIXED GOA</i>	18.4	977	180	18.5	977	180	+0.1	0	0

- **Fixed monitoring budget:** Moving trips to the no-selection pool re-allocates funds rather than reduces expenditures
- **Result:** Reallocating these funds produces essentially **no change** in selection rates or expected monitoring
 - The overall allocation index remained the same under both scenarios

Changes to deployment footprint



- Vessels meeting the criterion **operate from the same ports** as those that do not
- Observers would be **deployed to the same ports** at essentially the same rate

Administrative requirements and findings

Administrative requirements

- NMFS would need to review vessel eligibility annually
- Vessels moved to no-selection would still need to declare fishing activity in ODDS to track eligibility

Findings

- NMFS did not find any cost efficiencies from revising the no-selection pool to include fixed-gear catcher vessels with low annual effort



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ODDS Updates

Geoff Mayhew

ODDS updates

In development:

- **Fall 2026: Reminder emails** to be sent to ODDS users every 2 weeks if pending trips are 2 weeks past their disembark dates, asking to either close, edit, or cancel these trips.
- **Mid December 2026:** Closing trips will be easier, with more frequently refreshed list of landing reports to select (8x daily instead of 1x), and highlights landing reports that match the trip's planned dates. Will also enable users to manually type in landing report IDs. (see next slides)

Planned:

- Monitoring waivers will have an expiration date instead of being indefinite.
 - In 2026, two vessels were issued waivers due to limited observer availability, but these vessels delayed their trips and could have taken observers.

ODDS updates

Current: When closing a trip, users can either select landing reports (refreshed once daily) OR manually type in landing date/time

Close Trip by Landing Report ID

Close Trip

FISH MEGLADON

Observer Monitoring Program Trip

202600302

Fixed Gear - BSAI

Trip Number: 202600302

Gear: Hook and Line

Start Date Time: 09/01/2026 10:50 AM

Start Port: Adak

CDQ Trip: Y

IFQ Trip: Y

Tender Delivery: Y

Close with Landing Information

Selected	Report id	Fish start date	Landing date	Gear	Management pgm	Processor	Port
☐	1202601	09/01/2026	09/02/2026	HAL	IFQ	TRIDENT SEAFOODS CORPORATION	-
☐	1202602	09/02/2026	09/03/2026	HAL	IFQ	TRIDENT SEAFOODS CORPORATION	-
☐	1202603	09/03/2026	09/04/2026	HAL	IFQ	TRIDENT SEAFOODS CORPORATION	-

Cancel

Landing Is Not Listed

Close Trip

OR

Close trip by port and date and time

Close Trip

FISH FINDER

Observer Monitoring Program Trip

202600342

Fixed Gear - BSAI

Trip Number: 202600342

Gear: Hook and Line

Start Date Time: 09/01/2026 06:00 PM

Start Port: Anchorage

CDQ Trip: Y

IFQ Trip: Y

Tender Delivery: Y

Confirm Disembark Details

Trip End Port: ATKA - AXTAM CORPORATION

* Trip End Date: 09/02/2026

Trip End Time: 12:00 AM

Close trip

ODDS updates

Updated: When closing a trip, select landing reports (refreshed 8x per day) OR manually type in Report ID and/or Landing Date (no time)

Close Trip by Landing **Report ID**

Landing Records

Select Landing(s) for your trip - Suggested Landing is highlighted for your convenience

Report ID: 1202601
☒ Starting: 09/01/2026 Landing: 09/02/2026
Processor: TRIDENT SEAFOODS CORPORATION
Gear: HAL Area: BSAI Program: IFQ Modifier: N/A

Report ID: 1202602
☐ Starting: 09/02/2026 Landing: 09/03/2026
Processor: TRIDENT SEAFOODS CORPORATION
Gear: HAL Area: BSAI Program: IFQ Modifier: N/A

Report ID: 1202603
☐ Starting: 09/03/2026 Landing: 09/04/2026
Gear: HAL Area: BSAI Program: IFQ Modifier: N/A

Landing Not In List * Can't find your landing? It may not be in the system yet, or your trip dates might be incorrect. Click this button to manually enter details, or close this window to edit your trip dates.

Disembark Details

Disembark Date: 09/02/2026 Disembark Port: SAND POINT - TRIDENT SFDS-SAND POINT Landing Report ID: 1202601

About Confirm Disembark Info & Close

Report IDs with dates matching the logged trip will be highlighted

Close Trip by **port** and **date**, **Report ID** optional

Landing Records

No matching landings were found for this trip. This usually means one of two things:

1. The landing report is not in the system yet: If the trip occurred as planned, you can proceed by manually entering the disembark details and landing ID below.
2. The trip dates are incorrect: If the trip actually occurred on different dates, please close this window and edit your trip dates first so the system can locate the correct landings.

Disembark Details

Disembark Date: 09/02/2026 Disembark Port: ATKA - AXAM CORPORATION Landing Report ID:

About Confirm Disembark Info & Close

OR

Landing date and port will be automatically entered based on Report ID selection

If no Report IDs are available to ODDS, user must key in Port and Date. Report ID will be optional.

Acknowledgments - Draft ADP

- Thank you to the observers, observer providers, captains, crew members, EM providers, video reviewers, and agency staff who make fishery-dependent data collection possible
- Thank you to the members of the FMAC, PCFMAC, AP, Council and public for their input, feedback, and dedication to sustainable fisheries management
- Thank you to the AFSC, AKRO, and PSMFC staff who have developed the Draft 2027 ADP



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Questions?



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NOAA Fisheries Center for Independent Experts (CIE):

An External Independent Peer Review of the North Pacific
Observer Program Annual Deployment Plan and Annual
Report

Dr. Jason Jannot

SSC Recommendation

“The SSC recommends that an occasional CIE (Center for Independent Experts) review be convened to review the ADP, with emphasis on novel methods such as the proximity allocation method and other elements of the Observer Program as appropriate.” - [SSC June 2024 final report](#)

What is a CIE Review?

- Ensure scientific quality by conducting rigorous review of scientific products by qualified, impartial experts without conflicts of interest or outside influence
- Deliver transparent, publicly available peer review reports to support credible fishery management decisions

CIE: Overview

- First CIE Review of NPOP
- June 16–18, 2026, Seattle, WA
- Scientific review of the methods
 - used in the ADP to deploy monitoring
 - used in the Annual Report to assess the outcomes of the ADP
 - covered the 2025 ADP and Annual Report
- Three experts from Canada, France, and Norway
 - All had expertise in fisheries science, fisheries surveys, stock assessment, statistics and commercial fisheries monitoring
- Executive Summaries from the Final Reviewer Reports are presented in Appendix E of the Draft 2027 ADP

CIE: Overview

- All agreed that the science used in the ADP and the evaluation methods for the ADP used in the Annual Report are sound, justified and best available science.
- No changes were recommended for the 2027 ADP
- Recommendations for future research exploring aspects of the current ADP and Annual Report, and better understanding the trade-offs between EM and observers.
- Final CIE Reviewer Reports can be found at:
<https://noaa-afsc.github.io/CIE-Review-Observer-ADP-AnnualReport/>

CIE: Terms of Reference

- Evaluate the justification and scientific basis of
 - the current stratification framework used in the ADP
 - the Proximity Allocation method used in the ADP
- Evaluate the methods in Chapter 3 of the 2025 Annual Report used to test whether the goals of the 2025 ADP were achieved.
 - spatiotemporal analyses
 - observer effects
- Provide guidance on key improvements and recommendations

CIE: General Findings

- All 3 Reviewers found:
 - ADP - Stratification is justified, appropriate, scientifically sound, consistent with sampling principles and internationally accepted best practices, adequately controls variation, and appropriate for the diversity of the partial coverage fisheries
 - ADP - Proximity Allocation is justified, appropriate, scientifically sound and robust, supported by the literature, consistent with best practices, **innovative**, and appropriately specified

CIE: General Findings

- All 3 Reviewers found:
 - Annual Report - Spatio-temporal comparisons are scientifically sound and robust and practical for evaluating the Proximity Allocation method. ODDS ensures sampled trips are representative of fishing activity
 - Annual Report - Assessment of coverage goals are scientifically sound and appropriate

CIE: General Findings

- All 3 Reviewers found:
 - Annual Report - Observer Effects current methods are scientifically sound and robust and useful
 - New methods are promising and should be operationalized
 - 2025 Annual Report Appendix B

CIE: ADP Reviewer Recommendations

- No Recommendations for 2027 ADP
- ADP - Stratification
 - Test for more specific area catch differences within each of the FMPs
 - Periodically review stratification definitions
- ADP - Proximity Allocation
 - Continue efforts to develop robust methods for forecasting next-year's fishing effort

CIE: Annual Report Reviewer Recommendations

- Annual Report - Spatio-temporal analyses
 - Periodically assess temporal strata to ensure representative of fishing times/seasons
- Annual Report - Coverage analyses
 - Suggestions for new ways to display results and more nuanced spatial and temporal comparisons
- Annual Report - Observer Effects
 - Operationalize new methods

CIE: Other Reviewer Recommendations

- Monitoring Data Needs Gap Analysis
 - Identify important sampling gaps/deficiencies
 - Determine how allocation strategy might perform
 - Link monitoring method with end-user requirements
- SWOT for Monitoring Approaches

CIE: Conclusions and Next Steps

- Overall...
 - All reviewers indicated that the science used in both the ADP and Annual Report is justified, best available, and reflective of best practices
 - No major improvements were recommended
- Next Steps
 - NMFS will review recommendations and prioritize
 - Report back to Council once we develop a plan for addressing reviewer recommendations

Acknowledgments - Thank You!

- AFSC and AKRO staff who supported, prepared, presented, and provided assistance:
 - Jennifer Cahalan (AFSC, PSMFC)
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 - Dr. Jason Gasper (AKRO)
 - Christian Gredzens (AFSC)
 - Geoff Mayhew (AFSC)
 - Dr. Sean Lucey (AFSC)
 - Gwynne Schnaittacher (AFSC)
 - Lisa Thompson (AFSC)
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- NOAA CIE Office, especially Mark Chandler



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Questions?