
C2 TRAWL EM- DRAFT ALTERNATIVES, COMMITTEE REPORT

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OUTLINE

Draft Alternatives document

- Purpose and need
- Alternatives
- List of program elements for implementation
- Potential regulatory timeline

Trawl EM Committee report

- Meeting May 21, 2021

Council Action- adopt a purpose and need and set of alternatives

- To develop a full analytical document for decision-making to implement a regulated EM program.



DRAFT ALTERNATIVES DOCUMENT

Introduction

- Draft alternatives for designated pollock catcher vessels (CVs) using pelagic trawl gear and tender vessels transporting pollock catch in the eastern Bering Sea (BS) and Gulf of Alaska (GOA) to utilize electronic monitoring (EM) systems in lieu of observers for at-sea monitoring of vessels for compliance monitoring with fishery management regulations.
- Developed by staff (NPFMC and NMFS) to provide a brief background and description of the proposed alternatives and program elements
- Updated to incorporate recommendations from Trawl EM Committee
- The Council may use the draft to adopt a purpose and need and alternative set to analyze for a regulated trawl EM program



DRAFT ALTERNATIVES DOCUMENT

Purpose and need

To carry out their responsibilities for conserving and managing groundfish resources, the Council and NMFS must have high quality, timely, and cost-effective data to support management and scientific information needs. In part, this information is collected through a fishery monitoring program for the groundfish fisheries off Alaska. While a large component of this monitoring program relies on the use of human observers, the Council supports integrating electronic monitoring and reporting technologies into NMFS North Pacific fisheries-dependent data collection program, where applicable, to ensure that scientists, managers, policy makers, and industry are informed with fishery-dependent information that is relevant to policy priorities, of high quality, and available when needed, and obtained in a cost-effective manner.

The Council and NMFS have been on the path of integrating technology into the fisheries monitoring systems for many years, with electronic reporting systems in place, and operational EM in some fisheries. An EM program for compliance purposes on pelagic pollock trawl catcher vessels and tenders both delivering to shoreside processors will obtain necessary information for quality accounting for catch including bycatch and salmon PSC in a cost-effective manner and provide reliable data for compliance monitoring of a no discard requirement for salmon PSC. This trawl EM program has the potential to advance cost efficiency and compliance monitoring, through improved salmon accounting and reduced monitoring costs.

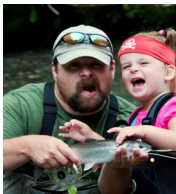
Regulatory change is needed to modify the current retention and discard requirements to allow participating CVs to maximize retention of all species caught (i.e., minimize discards to the greatest extent practicable) for the use of EM as a compliance tool on trawl catcher vessels in both the full and partial coverage categories of the Observer Program and meet monitoring objectives on trawl catcher vessels in the Bering Sea (BS) and Gulf of Alaska (GOA) pelagic pollock fisheries.



DRAFT ALTERNATIVES DOCUMENT

Draft Alternatives

- Provide a framework for analysis based on the three groups of participants: Bering Sea CVs, Gulf of Alaska CVs, and tender vessels.
- Participants have differences in fishing characteristics and monitoring requirements. The draft Alternatives provide an analytical framework to fully evaluate impacts of the proposed EM program on each group of participants.
 - **Alternative 1, No Action**
 - Under the No Action alternative, or status quo, EM would not be implemented and catch monitoring would be provided by at-sea observers.
 - **Alternative 2, Electronic Monitoring implemented on vessels (both catcher vessels and tenders) in the Bering Sea and Gulf of Alaska**
 - **Alternative 3, Electronic Monitoring implemented on catcher vessels delivering to shoreside processors (CVs only, no tenders)**
 - Option 1 Bering Sea
 - Option 2 Bering Sea and Gulf of Alaska



PROGRAM ELEMENTS

List of program elements for implementation

Organized by the participant type and fishery to which they apply and include overall elements that deal with policies, developing consistent methods, and funding mechanisms

Principal Categories

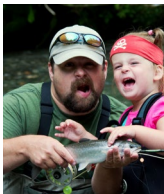
3.1 Vessel elements

3.2 Fishery elements

3.3 Processor elements

3.4 EM video reviewers and providers

3.5 Policies, Methods, and Funding



PROGRAM ELEMENTS - VESSEL

3.1 Vessel elements

- Operation
 - Vessel operator's responsibilities
 - Maximized Retention
 - Addressing equipment malfunctions
 - Communications and notifications of deliveries for shoreside sampling
- Logbook
 - Catcher Vessels Logbook
 - Tender Vessel Logbook
 - Data needs (What is collected via EM vs. logbook)
 - Access and integration of logbook data into CAS
- Data and equipment
 - Transmission of hard drives/data to reviewer
 - Equipment specifications
 - Vessel systems
 - Tender mobile systems



PROGRAM ELEMENTS – FISHERY

3.2 Fishery elements

- EM Deployment Design
 - EM deployment methods and coverage rates (less than 100%)
 - EM data collection goals and methods (types of data collected),
 - Biological sampling needs
 - Seabird handling,
 - Marine mammals
 - Incorporation into Annual Deployment Plan and the Annual Report
 - Deployment of observers on EM vessels as needed to support stock assessment
- Participation
 - Opt-in/Opt out process for each calendar year
 - Eligibility to participate
 - Gear / Target restrictions
 - Removal due to non-compliance



PROGRAM ELEMENTS - PROCESSORS

3.3 Processor elements

- Observer needs to meet sampling goals
 - Number of observers at plant
 - Supporting observers
- Catch Monitoring Control Plan
 - Sampling station
 - Flow of fish to support sorting
 - Preventing after scale salmon
 - Scales
 - Access to fish/ storage space for samples
- Observer Communication requirements



PROGRAM ELEMENTS –EM PROVIDERS

3.4 EM video reviewers and EM service providers

- Feedback Mechanisms
 - Transmitting feedback from video reviewers to vessel operators and EM providers
- Equipment and installation (EM service provider)
 - EM Equipment provision and installation services
 - Equipment maintenance and service/repair oversight
 - EM Technician and Contractor training and support
 - Call center and logging/ reporting to the agency on vessel issues or service requests
 - Support for EM Interpret (EMI) data review software
 - Follow up based of feedback mechanisms and service scheduling.
 - Education and outreach to participating vessels and tender vessels
 - Annual VMP updates and signature collection for submission to agency.
 - Provision of data drives and mailers to both vessels and/or processing plants.
 - Reporting to agency
- VMP Process



PROGRAM ELEMENTS – POLICIES

3.5 Policies, developing consistent methods

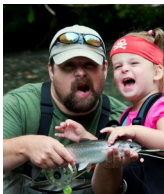
- EM data and Catch
 - Methods for video review (review protocols)
 - Integrating data into Catch Accounting System
 - Methods for certifying video review entities
 - EM review of other types of data (seabird handling, marine mammals)
- EM data retention
 - Retrieval for compliance
 - National guidelines on data storage
 - Confidentiality
- Regulation Changes
 - MRA
 - Pollock Trip Limit
 - Performance standard process



PROGRAM ELEMENTS - FUNDING

3.5 cont. Funding

- Fees/ Funding/ Costs (different decisions AFA versus GOA)
 - EM equipment purchase, installation
 - EM equipment maintenance and upkeep, service provider fees/overhead
 - Equipment replacement
 - Data processing and storage
 - Shoreside observers
 - NMFS management/infrastructure
 - Process for how fees are used
 - Process for how to achieve efficiencies and cost savings



PROGRAM ELEMENTS – FUNDING CONT.

Possible funding options

1. Paid directly by industry (“Pay-as-you-go”)
2. Observer fee
3. AFA Cost recovery

Example of potential funding mechanisms differentiated by fishery and vessel type. Actual funding mechanisms in the implemented program may differ.

Cost type	Funding mechanism
AFA CVs	
EM equipment, maintenance, replacement	Vessels
Data review, processing, storage	AFA cost recovery
Shoreside observers	Cooperatives
Other costs to consider?	?
GOA CVs	
EM equipment, maintenance, replacement (Non-Whiting vessels)*	Observer Fee or vessels
EM equipment, maintenance, replacement (Whiting vessels)*	Observer Fee or vessels
Data review, processing, storage	Observer Fee
Shoreside observers	Observer fee
Other costs to consider?	?
Tenders	
EM equipment, maintenance, replacement	Observer Fee or vessels
Data review, processing, storage	Observer Fee
Other costs to consider?	Observer Fee



* If Bering Sea AFA endorsed then equipment costs and maintenance will be paid directly by industry.

PROGRAM ELEMENTS - TIMELINE

Potential regulatory timeline: Jan 2024 Implementation

May 2021	<ul style="list-style-type: none"> • Trawl Electronic Monitoring Committee Meeting <ul style="list-style-type: none"> ○ Trawl EM EFP update ○ Development of trawl EM alternatives
June 2021	<ul style="list-style-type: none"> • Council receives Trawl EM update and discusses adopting alternatives
June – December 2021	<ul style="list-style-type: none"> • Continued coordination of trawl EM EFP • Start analysis on Trawl EM Alternatives • Modify EFP as needed for 2022
January / February 2022	<ul style="list-style-type: none"> • Coordination of 2022 EFP • Preliminary review of Trawl EM analysis (e.g. EFP results, sampling issues, key decision points, etc)
March / May 2022	<ul style="list-style-type: none"> • Continued Analysis of Trawl EM alternatives
April or June 2022	<ul style="list-style-type: none"> • Trawl EM Committee Meeting • Council Initial Review of Trawl EM
June or October 2022	<ul style="list-style-type: none"> • Council Final review of Trawl EM
October 2022 - March 2023	<ul style="list-style-type: none"> • Proposed rule for the Trawl EM program and associated shoreside observers
March –June 2023	<ul style="list-style-type: none"> • Final Rule for Trawl EM program and associated shoreside observers (Target Final Rule in June 2023)
January 2024	<ul style="list-style-type: none"> • Trawl EM - Regulatory Program Begins



TRAWL EM COMMITTEE REPORT

PCFMAC report on other EM NFWF proposals

- **Agrees with the PCFMAC recommendations**
 - support ongoing EM NFWF-supported projects
 - expand the size of the fixed gear EM pool
- Aleutians East Borough project to use current trawl EM systems on boats using fixed-gear in the WGOA
 - **Consistent with the Council's recommendation to explore ways to control monitoring costs**
 - **NMFS recommendations to collaborate with industry partners to explore alternative EM review protocols to minimize changes in catch handling required by EM participants**
 - **If requested, recommend the Council provide a letter of support**
- The deadline for the current NFWF funding cycle is June 16, 2021



TRAWL EM COMMITTEE REPORT

FMAC report on Alaska Region Electronic Technologies Implementation Plan

- Highlighted changes that were made since the Committee reviewed a draft in September 2020 and recommendations from the FMAC review on May 17, 2021
- A tool for developing EM programs and a living document that will be periodically reviewed by the Committee and updated by NMFS



TRAWL EM COMMITTEE REPORT

EM cost metrics- subgroup report on cost roll-up table

- Develop a cost reporting format that can be used across similar EM programs
- **recognized the productive and efficient work to date**
- **recommends an additional meeting of the current cost metrics sub-group plus a representative from PSMFC**
- **finalize this reporting structure to use reporting costs of the 2021 trawl EM program and in the regulatory analysis**



Reporting Category
1.0 Service Provider Fees and Overhead (ongoing)
Project Coordination
EM Software and Data Review Support
Technician/Contractor Recruitment and Training
2.0 EM Equipment Maintenance and Upkeep (Ongoing)
Existing Vessel Services
EM Spare/Replacement Parts and Accessories
3.0 Data Transmittal (Ongoing)
Drive Shipping Expenses (Envelopes & Freight)
4.0 Equipment Purchases and Installation (One Time)
New Vessel Equipment
New Vessel Installation Labor
New Vessel Installation Expenses
5.0 Data Processing and Storage (ongoing)
TBD
6.0 Plant Observer Provider Fees and Overhead (ongoing)
TBD



TRAWL EM COMMITTEE REPORT

2021 Trawl EM program update

■ Report from PIs

- Objectives are being met
- Initial comparisons indicate that EM is more cost-effective for compliance monitoring in pelagic pollock fisheries
- The use of EM for compliance monitoring functions better in a rationalized fishery with an established and well-defined fishing/processing schedule
- The PIs, EM service providers, video reviewers, observer providers, and NMFS representatives have held regular weekly or bi-weekly check-ins to ensure consistent and timely communication.
 - These meetings of the “EFP team” were essential for identifying and resolving issues and are expected to continue.



TRAWL EM COMMITTEE REPORT

2021 Trawl EM program update cont.

- **Data integration**
 - Data from the program are currently used in the management process
 - Next steps involve building a system for comparisons between self-reported data and video review data
 - Working with AKFIN to create the infrastructure to connect spatial location of hauls as recorded by the GPS of the EM systems to the haul level data that can be accessed by stock assessors.
 - The Committee discussed that data sources from the EM project have improved data collection for herring and crab PSC and salmon PSC particularly for tender deliveries.



TRAWL EM COMMITTEE REPORT

2021 Trawl EM program update cont.

- **2021 EFP changes and thoughts for 2022 EFP**
 - All changes recommended by the Committee in 2020 were made and implemented into the 2021 EFP
 - Issues that may benefit from more discussion or revisions to the EFP in 2022
 - 1) catch handling of skates that are causing problems at the pump,
 - 2) the potential for split offloads between tenders,
 - 3) modifying ODDS such that when boats close out trips they are matched to e-Landings to improve tracking of CV deliveries to tenders,
 - 4) expanding participants in 2022
 - NMFS will continue to receive suggestions until the modifications for the 2022 EFP are due in November 2021 (if require changes to ODDS deadline is earlier)
 - **The Committee appreciates the EFP team approach**
 - **Acknowledges the significant leadership role of the PIs and agency staff**
 - **Recommends continuing that approach with these and future requests for EFP modifications**



TRAWL EM COMMITTEE REPORT

2021 Trawl EM program update cont.

■ Update on budget and funding

- New timeline for implementation of a regulated program in 2024 requires an additional year of funding for the EFP
- Participants applying for NFWF funding for EFP in 2022 and 2023,
 - submit one grant request for two years of funding identifying areas where funding scope may be scalable if needed.
- Lack of NFWF support could be challenging, may result in a gap in participation if funding requirements rely on industry
- One-year hiatus of the program would be problematic because benefits in terms of improved data and cost efficiencies are already occurring and helping to achieve these objectives within the overall fishery monitoring program.
- **The Committee recommends that the Council provide a letter of support for a two-year request for NFWF funding, and advocate for other funding if needed, to support the program through 2023.**



TRAWL EM COMMITTEE REPORT

Develop alternatives for regulated Trawl EM program

- Draft provided as a framework to encourage Committee discussion regarding the purpose and need and structure of the program, recognizing that every detail has not yet been worked out but to highlight issues that will be decision points during the analytical process.
- Purpose and need
 - **The Committee made no changes to the purpose and need and recommends supporting the current purpose and need as written in the draft document.**



TRAWL EM COMMITTEE REPORT

Develop alternatives for regulated Trawl EM program cont.

- Draft alternatives
 - **The Committee recommends changing Alternative 2 to read “Electronic Monitoring implemented on vessels (both catcher vessels and tenders) in the Bering Sea and Gulf of Alaska.”**
 - **There was not unanimous Committee support for Alternative 3**
 - Some members supported a structure that includes only Alternatives 1 and 2
 - Some members voiced concern that a lot of work has been done under the EFP to test EM systems on tenders and including Alternative 3 would discount that work and preclude a large portion of the WGOA fleet from the regulated program and create unnecessary controversy.
 - Other members discussed that the fisheries operate differently in the Bering Sea and Gulf of Alaska and on CVs and tenders and that an alternative structure that includes Alternative 3 will help identify these differences in the analysis.



TRAWL EM COMMITTEE REPORT

Develop alternatives for regulated Trawl EM program cont.

- List of program elements for implementation
 - Discussion of possible funding options and concern over whether funding data review through AFA cost recovery was consistent with the NMFS Policy and definitions regarding funding in the West Coast EM program
 - **The Committee recommends that the confusion regarding cost recovery and the NMFS procedural directive be resolved prior to the June Council meeting.**
 - **The Committee recognized that continuing to define the program elements and specifications will require a lot of effort and coordination and acknowledged that the collaborative approach taken in the Alaska region and the work by the EFP team has been a positive model and should continue throughout the development of the regulatory program.**



TRAWL EM COMMITTEE REPORT

Develop alternatives for regulated Trawl EM program cont.

- Potential regulatory timeline
 - January 2024 Implement regulated program
 - February 2022 preliminary review
 - April/June 2022 Initial review
 - June/October 2022 final review
 - **The Committee recommended that the current EFP team process continue to be utilized to assist in the development of the preliminary review draft and that unless other issues are identified by the EFP team that require Committee input, the next Trawl EM Committee meeting be held prior to initial review.**

Other issues

- The Committee closed with a brief discussion of representation on the Committee and the EFP team and concluded that the current representation is working well.

