



Agenda Item F2
Electronic Monitoring
Regulatory Process

Agenda Item F2 - Reference Materials

- F2a Att1: Draft Analysis of an Electronic Monitoring Program for the Pacific Coast Limited Entry Trawl Groundfish Fishery Catch Shares Program.
- F2a Supplemental Att 2: Letter from Honorable DeFazio
- F2b GEMPAC Report: GEMPAC Report to Council.
- F2b PSMFC Report: PSMFC Final 2013 Report.
- F2b NMFS Report: Net Revenue Analysis for Electronic Monitoring on the West Coast.
- F2c Supplemental Pub Comment: Report on the 2004 to 2010 US Shore-based Whiting EM Program

Council Action

Consider Refining Alternatives and Adopting Preliminary Preferred Alternatives, as Appropriate, for Public Review



Overview

- GEMPAC report
- Draft Analysis of Alternatives
- Net Revenue Highlights
- Advisory body statements
- Public Comment
- Council Action



Agenda Item F.2.b, GEMPAC Report to Council



GEMPAC Recommendations

- 1) Adopt the definitions for total catch, retained catch, discard, maximized, and optimized retention for trawl and fixed gear as noted in Appendix C for the purpose of development and analysis of an EM program.
- 2) Revise the alternatives and options as detailed in Appendix D, “Recommended Revisions and Additions to Adopted Alternatives and Options.”

**GEMPAC Recommendations
in the Draft EM Program
Analysis
Attachment 1,
Table 2-1**



Photo courtesy of Archipelago Marine Research Ltd.

Video Reading Protocols

DETAILED COMPONENTS FOR ALL FISHERIES				
Section Ref.	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.2.2	Video Reading Protocols	None	Option A: 100% (census). Option B: Subsample Video (% to review must be developed)	Audit logbook (intensity varies based on vessel's compliance history)

GEMPAC recommended preliminary Preferred Alts:

Fixed gear representatives like Alternative 3. MDWT whiting like Alt 3 but want further analysis of Alt 2 prior to final recommendation.



Current IFQ Retained/Discard Accounting

Retained:

Landed catch

Discard:

Dumped off deck (e.g., shoveled, picked out of net)

Dumped/washed out of net for safety reasons (bleeding, pull zipper, etc.).

Dropped off gear

Floating fish

Lost gear (estimated using WCGOP protocol)

Consumed/used as bait (noted on WCGOP forms)

Unobserved sets/hauls (estimated using WCGOP protocol)

**Shoreside
catch
monitors**

**WCGOP
estimates**

**Total
IFQ
catch**



Discard Accounting

DETAILED COMPONENTS FOR ALL FISHERIES

Section Reference	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.3	Discard Accounting - Individual or Fleet-wide	Observers/IFQ	<p>Option A: One discard category and all discards are estimated using EM and counted against IFQ.</p> <p>Option B: Split into two discard categories; Category 1 count against IFQ, Category 2 count against sector or ACL; for some discard in Category 1, the estimate is based on trips with observer coverage.</p> <p>Option C: Split into two discard categories; Category 1 count against IFQ, no accounting for discard 2 category.</p>	

Discard Accounting - Option A

Option A - Estimate Discard with EM and Count against IFQ

One discard category with IFQ accounting:

- Dumped off deck (e.g., shoveled, picked out of net)
- Dumped/washed out of net for safety reasons (bleeding, pull zipper, etc.).
- Dropped off gear
- Floating fish
- Lost gear (not captured by EM, estimate using WCGOP protocol)
- Consumed/used as bait (not captured by EM)
- Unobserved sets/hauls (not captured by EM, maybe apply discard rate using EM estimates from previous sets/hauls)

Discard Accounting - Option B

Option B - Split into two discard categories; Category 1 count against IFQ, Category 2 count against sector or ACL

Discard 1 IFQ Accounting:

- Dumped off deck (e.g., shoveled, picked out of net)
- Dumped/washed out of net for safety reasons (bleeding, pull zipper, etc.).
- Unobserved sets/hauls (not captured by EM, apply discard rate using WCGOP)

Discard 2 Sector or ACL accounting (use WCGOP estimates and protocols):

- Dropped off gear
- Floating fish
- Estimated from lost gear
- Consumed/used as bait

Discard Accounting - Option C

Option C- Split into two discard categories; no accounting for discard 2 category

Discard 1 IFQ Accounting:

- Dumped off deck (e.g., shoveled, picked out of net)
- Dumped/washed out of net for safety reasons (bleeding, pull zipper, etc.).
- Unobserved sets/hauls (not captured by EM, apply discard rate using WCGOP)

Discard 2 No accounting:

- Dropped off gear
- Floating fish
- Estimated from lost gear
- Consumed/used as bait



Discard Requirements

		DETAILED COMPONENTS FOR ALL FISHERIES		
Section Reference	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.5	Discard Requirements	Discard at will unless required to retain.	Option A: Maximized Retention Option B: Optimize Retention of Catch Share Species with Limited - Potential Gear Specific Sub-options under Optimized Retention (must be verifiable under EM) Option C - Discard At Will (Status Quo)	

GEMPAC Recommended Preliminary Preferred Alts:

- Fixed gear and bottom trawl representatives prefer Optimized retention (Option B)
- Midwater trawl whiting representatives prefer Maximize retention (Option A)



Halibut Retention/Discard

DETAILED COMPONENTS FOR ALL FISHERIES

Section Ref.	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.6	Halibut Retention/Discard with Fishery Specific Options	Use WCGOP and IPHC protocols	<p>Option A: Apply mortality rate for specific gear type:</p> <ul style="list-style-type: none"> • MDWT Whiting 100% mortality; • MDWT non-whiting and BTW IPHC 90% mortality if discarded; • Fixed gear longline IPHC 16% mortality if discarded; • Fixed gear pot IPHC 18% mortality if discarded. 	



Halibut continued

DETAILED COMPONENTS FOR ALL FISHERIES

Section Ref.	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.6	Halibut Retention/ Discard with Fishery Specific Options	Use WCGOP and IPHC protocols	<p>Option B: WCGOP scientific observations (assumed 20-30% coverage) is applied to fleet</p> <p>Option C: IPHC exemption to allow full retention (need to examine the feasibility of this option)</p> <p>Option D: Captain and crew provide assessment (training would be required)</p> <p>Option E: Use an appropriate EM viability assessment (currently conducting study, need IPHC approval)</p> <p>Option F: Use vessel specific mortality rate (update rates periodically)</p>	



Discard Species List

DETAILED COMPONENTS FOR ALL FISHERIES				
Section Reference	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.7	Discard Species List Adjustment	None	<p>Options for a process to expand or change the species lists:</p> <p>Option A: NMFS make determination and provide list to fishers through the NMFS EM Observer Exemption Process.</p> <p>Option B: Use Council process routine management measures (e.g., use groundfish specification process, or some other routine management measure).</p> <p>Option C: Set initial lists in regulation and change through Council process with proposed/final rule making.</p>	

Payment for Scientific Collection



DETAILED COMPONENTS FOR ALL FISHERIES

Section Reference	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.10.1	Payment for Scientific data collection/observations	Status quo however in near future industry will need to pay for all observer costs	<p>Option A: Government funded, same as pre IFQ</p> <p>Option B: Industry Funded</p> <p>Option C: Combination of both Government and Industry [Need to discuss allocating costs]</p> <p>GEMPAC Recommended Preliminary Preferred: Most industry representatives would like Option A</p>	



NMFS Processes

DETAILED COMPONENTS FOR ALL FISHERIES

Section Reference	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.11	NMFS Processes	N/A	<p>Identify items for NMFS to work out and then conduct a formal deeming process with the Council.</p> <ul style="list-style-type: none"> • Observer Exemption Process • Individual Vessel Monitoring Plan Approval • Equipment Type Approval • Approved EM Provider List • Eligibility Criteria • Declaration Process to Use EM • Confidentiality Rules • WCGOP Scientific Observation Sampling Scheme 	



Spatial Management

DETAILED COMPONENTS FOR ALL FISHERIES

Section Reference	Component	Alternative 1 Status Quo: Human Observers Estimate Discard	Alternative 2 Camera Recordings Used to Estimate Discard	Alternative 3 Logbooks Used to Estimate Discard, with Camera Audits
2.12	Spatial Variation for High Bycatch Areas	Status quo for current are restrictions (e.g., Rockfish Conservation Areas)	<p>Option A - No special provisions</p> <p>Option B— fishing activity in areas that are likely to have lower bycatch could be monitored with EM rather than using observers; no EM in high bycatch areas</p> <p>Option C— Under this option, if you chose to fish in a high bycatch area, a higher level of EM review may be required</p>	

GEMPAC recommends removal of Option B and C.

EM Fishery Specific Alts and Options

Fishery specific decision Tables 2-2 through 2-4 provide the alternatives and options for:

- Midwater trawl whiting
- Fixed gear (longline & pot)
- Midwater non-whiting and bottom trawl

Only components of the EM program that contain options are provide in the tables.

These are the decision points for the Council for each fishery.



QUEST.

IONS?

Draft EM Program Analysis Attachment 1

Purpose & Need (pp. 11):

“...monitor the IFQ program for compliance in an economical and flexible manner...”

Objectives (pp. 19-20):

1. Reduce total fleet monitoring costs to levels sustainable for the fleet and agency;
 2. Reduce observer costs for vessels that have a relatively lower total revenue;
 3. Maintain monitoring capabilities in small ports;
- and others...

Chapter 4: Impact Analysis

Physical and Biological Environment

- Potential gear switching
- Potential changes in geographic distribution
- Increased retention and related mortality
- Changes in certainty around groundfish mortality estimates
- Changes in certainty around compliance
- Changes in quality of data on interactions with protected species

Socio Economic Impacts

- Continuing to develop the socioeconomic impact assessment
- Today covering
 - Cost estimation
 - Participation rate assumption
 - Logistical challenges
 - Net revenue analysis
- Information not available at May GEMPAC Mtg

Cost Estimation

- Working with NMFS and PSMFC to develop
 - Template – Table 4-3, pp. 91-92
 - Cost centers
 - Columns on who pays
 - Includes PSMFC video review cost estimates
 - Much to be developed
- Average Costs Will Vary Depending on Fisheries Included and Participation
 - Both government and private (provider fees)
 - With more fisheries, fixed costs spread over more vessels.
 - Likely inverse correlation
 - More EM participation,
lower average EM costs, **higher** average observer costs
 - Less EM participation,
higher average EM costs, **lower** average observer costs

Participation Rate Assumption

Costs will be affected by participation rates

Analysis range:

- High - 80%
- Medium - 50%
- Low - 20%

Looking for comments on this range

Logistical Challenges

- Monitoring capability in small ports
 - Resolve at-sea compliance observers
 - New challenge - shoreside catch monitors?
 - Currently observers cover shoreside monitoring
 - How will cost of shoreside coverage be affected?
- Seasonal by port - Figures 4-4 through 4-19
 - Seasonal summary for 2013 – Table 4-7.

Excerpts from Table 4-7.

Port	2013 Seasonal Summary (averages are for months with landings – zero months excluded)
Bellingham, Washington	Average of 2 per month, max of 4 and minimum of 1 (3 zero months).

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Port	2013 Seasonal Summary (averages are for months with landings – zero months excluded)
Bellingham, Washington	Average of 2 per month, max of 4 and minimum of 1 (3 zero months).
Astoria, Oregon	Average of 56 per month, max of 136 and minimum of 19 (no zero months).

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Fort Bragg, California	Average of 9 per month, max of 18 and minimum of 2 (no zero months).

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Fort Bragg, California	Average of 9 per month, max of 18 and minimum of 2 (no zero months).
Monterey, California	An average of 4 per month, max of 6 and minimum of 2 (6 zero months).
Moss Landing, California	Average of 4 per month, max of 6 and minimum of 3 (no zero months).

Excerpts from Table 4-7.

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Fort Bragg, California	Average of 9 per month, max of 18 and minimum of 2 (no zero months).
Monterey, California	An average of 4 per month, max of 6 and minimum of 2 (6 zero months).
Moss Landing, California	Average of 4 per month, max of 6 and minimum of 3 (no zero months).
Morro Bay, California	Average of 8 per month, max of 20 and minimum of 3 (no zero months).

Shoreside Logistical Challenges

- A smaller local core of observers/monitors
- Some vessels carrying EM
- Some observers at-sea
- Need to cover a few hour task.

- Responses to situation: uncertain
- Depending on the response - might expect
 - Some decrease in efficiency
 - Increased need for coordination
 - Reduced flexibility regarding landings

NMFS Report - Net Revenue Analysis (Agenda Item F.2.b, NMFS Report)

Economic health of fleet & at-sea monitoring costs

Table 2. Trawl endorsed vessels (page 5)	Variable Net Revenue Per Day	Per Vessel Annual Total Cost Net Revenue
At-sea Pacific Whiting	\$11,500	\$220,000
Shoreside Pacific Whiting	\$8,100	\$195,000
DTS Trawl	\$2,900	\$59,000
Non-Whiting, Non-DTS Trawl	\$3,000	\$22,000
Groundfish Fixed Gear	\$3,900	\$80,371

NMFS Report - Net Revenue Analysis (Agenda Item F.2.b, NMFS Report)

Table 4. (page 6)		Per Vessel Annual Total Cost Net Revenue				
EM Variable Cost Per Day	EM Fixed Cost Per Year	Small Vessel (<60')	Med Vessel (60'-80')	Large Vessel (>80')	Fished in AK	Only West Coast
\$0	\$0	\$58,000	\$63,000	\$145,000	\$200,000	\$55,000

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...
\$200	\$0	\$52,000	\$55,000	\$138,000	\$192,000	\$48,000

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\$200	\$5,000	\$47,000	\$50,000	\$133,000	\$187,000	\$43,000

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...
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\$200	\$5,000	\$47,000	\$50,000	\$133,000	\$187,000	\$43,000
...
\$400	\$0	\$45,000	\$47,000	\$131,000	\$185,000	\$40,000

NMFS Report - Net Revenue Analysis (Agenda Item F.2.b, NMFS Report)

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\$200	\$5,000	\$47,000	\$50,000	\$133,000	\$187,000	\$43,000
...
\$400	\$0	\$45,000	\$47,000	\$131,000	\$185,000	\$40,000
\$400	\$5,000	\$40,000	\$42,000	\$126,000	\$180,000	\$35,000

Questions?

