

Northeast Multispecies (Groundfish)

**Draft Amendment 23/Groundfish
Monitoring**

Council Staff

**AP/Cmte Meeting
January 21/23, 2020
Wakefield, MA**



For Today

1. Review updates from December Council meeting – **NO ACTION NEEDED**
 - Vessel specific coverage levels added as framework item (4.1.5).
 - Clarify that a process will be used for setting and evaluating EM video review rates – Council supports GARFO guidance for audit model EM.
2. Review draft analysis and potentially select preliminary preferred alternatives – **POSSIBLE MOTION(S)**

Amendment 23 Meeting Documents

Draft Amendment 23

- 3a. Part 1 – Sections 1-5 and Section 8
Background, Alternatives, Glossary of key terms
- 3b. Part 2 – Section 6 - Affected Environment
- 3c. Part 3a – Section 7 – Biological and Physical Impacts
- 3d. Part 3b - Section 7 – Economic and Social Impacts
- 3e. Part 4 – Appendices
- 3f. Draft decision document
- 3g. Presentation – Council staff
- 3h. Presentation – NMFS and Council staff
- 3i. Presentation – NMFS and Council staff

A23 Timeline - Milestones

Date	Action
January 23, 2020	Committee meeting - review Draft A23 and potentially select preliminary preferred alternative recommendations.
January 29, 2020	NEFMC reviews Draft A23 and votes whether to submit to NMFS for publication and public comment, potentially selects preliminary preferred alternatives.
Spring 2020	Public Comment Period and Public Hearings.
Mid June 2020	Committee meeting - review public comments and recommend final recommendations.
June 24, 2020	NEFMC final vote on A23 and whether to submit to NMFS for publication and public comment.
Fall 2020	Public Comment Period on A23 proposed rule.
Winter 2021	Final decision on A23 and final rule published.

A23 Goals and Objectives

Goals of the GF Monitoring Program

1. Improve documentation of catch
2. Reduce cost of monitoring
3. Incentivize reducing discards
4. Provide additional data streams for stock assessments
5. Enhance safety of monitoring program
6. Perform periodic review of monitoring program effectiveness.

Goal of Amendment 23

Goal – Maintain current goals but better address Goal #1: *improve documentation of catch (or catch accounting)*.

Objectives – 1) determine total catch and effort; 2) achieve coverage level sufficient to minimize effects of potential monitoring bias to the extent possible while maintaining as much flexibility as possible to enhance fleet viability.

A23 Alternatives

4.1.1	Sector monitoring standard (target coverage level)
4.1.1.1	Option 1 (No Action)
4.1.1.2	Option 2 (Fixed total at-sea monitoring coverage level based on <u>% of trips</u>) (25%-100% sub-options)
4.1.1.3	Option 3 (Fixed total at-sea monitoring coverage level based on <u>% of catch</u>) (25%-100% sub-options)

Note 1: Option 3 text has been clarified (p.18 of Doc.#3a)

Background on simulation work added – to achieve target % of catch, overall coverage must be higher. In practice, would monitor % of trips and would require annual review to verify % of total catch for each stock is monitored.

A23 Alternatives (cont.)

4.1.2	Sector monitoring tools (options for meeting monitoring standards)
4.1.2.1	Option 1 – EM in place of human at-sea monitors
4.1.2.2	Option 2 – Approve use of Audit model EM
4.1.2.3	Option 3 – Approve use of Maximized retention EM

Note 2: Option 2 updated to reflect Dec. motion (p. 20 of Doc# 3a)
NMFS has ultimate authority to set EM video review rate, alternative supports initial rates provided in NMFS guidance.

A23 Alternatives (cont.)

Dec. Council motion:

to clarify electronic monitoring (EM) alternatives in Amendment 23 to include more specific language about a process that will be used for setting and evaluating EM video review rates. NMFS would develop standards during implementation and the final video review rate would be selected by NMFS. The Council recommends that the EM video review rate for the audit model EM option should initially be similar to guidance provided from GARFO in its proposed EM option for sectors, e.g. 50% of trips (or hauls) as a rate for Year 1, 30% of trips (or hauls) for Year 2 or 50% for vessels not meeting reporting requirements, and 15% of trips (or hauls) in Year 3, with the potential for 100% review rates for vessels not meeting reporting requirements. After implementation, EM video review rates would be evaluated and possibly modified on a regular basis to ensure accurate reporting and that costs are minimized to the extent practicable.

(Carried 12/1/2)

A23 Alternatives (cont.)

GAP motion:

The Groundfish Advisory Panel recommends that the Groundfish Committee include an addition to the impacts analysis for the review rate of electronic monitoring as follows: 20% (audit) and 30% (maximum retention).

(Carried 7/2/0)

A23 Alternatives (cont.)

4.1.3	Total Monitoring Coverage Level Timing
4.1.3.1	Option 1 (No Action)
4.1.3.2	Option 2 –Knowing coverage level at a time certain
4.1.4	Review process for sector monitoring coverage
4.1.4.1	Option 1 (No Action)
4.1.4.2	Option 2 – Establish review process
4.1.5	Addition to list of framework items

Note 3: Section 4.1.5 updated to reflect Dec. motion (p. 24 of Doc# 3a)
Vessel specific coverage levels would be added to the list of framework items – future action could consider.

A23 Alternatives (cont.)

Dec. Council motion:

that vessel specific coverage levels be added as a frameworkable alternative in Amendment 23.

(Carried 15/0/0)

A23 Alternatives (cont.)

4.2	Commercial Groundfish Monitoring Program Revisions
4.2.1	Dockside monitoring program (DSM) (Sectors + Common Pool)
4.2.1.1	DMS Option 1 (No Action)
4.2.1.2	DSM Option 2 – Mandatory DSM for entire commercial fishery
4.2.2	Dockside monitoring program structure and design
4.2.2.1	DSM funding responsibility (Option A – dealer and Option B – vessel)
4.2.2.2	DSM program administration (Option A – contracts with providers, Option B – NMFS admin.)

Note 4: Some vessels are currently not required to carry at-sea monitors (e.g. ELM), under Option 2, these vessels would be required to have DSM (p. 25 of Doc# 3a).

Option 2 would apply to all gf vessels, could decide to remove vessels from DSM based on fishing location under different alternatives (Section 4.6).

A23 Alternatives (cont.)

4.2.2.3	Options for lower DSM coverage levels (20% coverage)
4.2.2.3.1	Option A –for ports with low volume of gf landings
4.2.2.3.2	Option B –for vessels with total gf landings in 5 th percentile
4.2.2.4	Options for DSM safety and liability associated with fish hold
4.2.2.4.1	Option A – DSM fish hold inspections required
4.2.2.4.2	Option B – Approve use of cameras
4.2.2.5.3	Option C – No fish hold inspection, captain signs affidavit

Note 5: Option A for lower DSM coverage clarified – final list of major ports equals nine – all others at lower coverage level (p. 28 of Doc# 3a)
Cmte expanded list from original 5th percentile list (top 4 ports) to address concerns about landings of individual stocks (Figures 25 & 26 on p.57-58 in Doc#3c).

Alternatives (cont.)

4.3	Sector Reporting
4.3.1	Option 1 (No Action)
4.3.2	Option 2 – RA authority to streamline
4.4	Funding/Operational provisions of gf monitoring program
4.4.1	Option 1 (No Action) – Industry pays
4.4.2	Option 2 – Provisions for an increase or decrease in funding
4.4.2.1	Sub-option 2A – Higher coverage levels if NFMS funds available (Sectors Only)
4.2.2.2	Sub-option 2B – waivers for monitoring requirements allowed (Sectors and Common Pool)

Alternatives (cont.)

4.5	Management uncertainty buffers for the commercial groundfish fishery (Sectors only)
4.5.1	Option 1 (No Action) <i>(Table 1 on p. 35 of Doc #3a)</i>
4.5.2	Option 2 – Elimination of management uncertainty buffer for Sector ACLs with 100% monitoring of all sector trips

Alternatives (cont.)

4.6	Remove commercial gf monitoring program requirements for certain vessels fishing under certain conditions
4.6.1	Option 1 (No Action) – maintain existing measures that remove some vessels from coverage requirements
4.6.2	Option 2 – Vessels fishing exclusively west of <u>72 30 W</u> would not be subject to monitoring requirements on trips in that area
4.6.2.1	Option 2A (Sectors only)
4.6.2.2	Option 2B (Sectors and Common Pool)
4.6.3	Option 3 – Vessels fishing exclusively west of <u>71 30 W</u> would not be subject to monitoring requirements on trips in that area
4.6.3.1	Option 3A (Sectors only)
4.6.3.2	Option 3B (Sectors and Common Pool)
4.6.4	Review process for vessels removed from commercial groundfish monitoring program requirements
4.6.4.1	Option 1 (No Action)
4.6.4.2	Option 2: Implement a review process

Valued Ecosystem Components (VECs)

- Biological – regulated groundfish and other species
- Essential fish habitat
- Endangered and protected species
- Economic
- Social

Biological and Physical Impacts

- **Approach for gf resource**

- 4 initial analyses prepared to evaluate aspects of gf monitoring program. SSC reviewed in April 2019.
- Impact of different coverage rates and bias on gf catch.
- Explored potential magnitude of missing catch (GOM cod example).

- **Approach for EFH**

- Indirect, related to whether change in monitoring system influences magnitude or location of effort.

- **Approach for protected resources**

- Indirect, monitoring provides additional info on interactions. Any expected change in effort could have direct impacts.

Economic and Social Impacts

- 3 components for adjustments to sector program and buffers
 1. Quantitative *static* costs
 2. Quantitative *dynamic* costs
 3. Qualitative assessment of risk of non-compliance and enforcement
- 2 models used:
 - cost efficiency model – quantifies costs from existing pilots
 - quota change model – (QCM) analyzes combination of measures; models fishery-wide behavioral changes from A23 measures.
- Impacts for 6 metrics: gross revenues, costs, profits, etc.
- Impacts not uniform – summarized by days absent, homeport, vessel size and sector.

Economic and Social Impacts

- Additional *blended* dynamic analysis – model vessel’s selection into one of the 3 possible tools.
- For buffers – higher sub-ACLs put in QCM for 3 scenarios: human observers only, blended EM options without subsidy and blended EM options with subsidy.
- A subsidy scenario was considered to account for possible funding support.
- Eco analyses have “No Action” (industry funded) and “Status Quo” (federal compensation) runs.

Economic and Social Impacts

- Dockside monitoring: quantitative static costs and qualitative assessment of risk of non-compliance.
- Various assumptions about offload times etc incorporated.
- Specific analyses completed for alternatives that would remove monitoring requirements for certain vessels that fish in certain locations in SNE/MA only.
- Social impacts – Qualitative assessment based on 6 social factors, crew survey results incorporated.

Break

Move to Economic Impact Presentations

Chad Demarest, NEFSC

Melissa Errend, NEFMC

Draft Decision Document (Doc. #3f)

- Purpose and Need – Goals of A23 (p.1)
- Table 1 – Summary of alternatives (p.2-6)–*see Sec. 4.0*
- Summary of methods for impact analyses
 - Bio and Physical impacts – p.7
 - Eco and Social impacts – p. 8-10
- What is No Action GF Monitoring program (p. 11)
- Table 2 – Summary of impacts – *See Sec. 7.0*
Does not capture everything – high points only
- Following slides boil that down even further

Biological Impacts – groundfish resource

- Improvements in monitoring of the commercial groundfish fishery will likely influence two different factors with regards to the biological impacts:
 - 1) Potentially have positive biological impacts by lowering fishing effort on stocks that are overfished due to higher total catch reporting from improved monitoring of missing catch; and
 - 2) Improvements in monitoring should also improve stock assessments, stock status determination and the ability to quantify biological impacts in the future. However, improvements to the stock assessments though improvements in monitoring will likely be different in the short-term relative to the long-term.

Biological Impacts – groundfish resource

Possible short- and long-term impacts of 100% monitoring of all sector trips on regulated groundfish species:

- Short-term (upon implementation and up to five years)
 - Improved accuracy of catch attribution at the stock-level
 - Increased accuracy of the magnitude of catches for discard-only stocks
 - Reduce the likelihood of overfishing because in-season catch monitoring would improve – such that the “true” catch would be better known for the sector fishery
 - Reduce the likelihood that illegal discarding would occur because monitoring would have an ancillary benefit of increasing compliance. This should better control fishing mortality.
 - Create a level playing field where all participants are equally held accountable to available ACE
 - Increased accuracy and precision of commercial sector catch going into the assessments

Biological Impacts – groundfish resource

Possible short- and long-term impacts of 100% monitoring of all sector trips on regulated groundfish species:

- Long-term (greater than five years)
 - Improved estimation of fishing mortality and stock biomass
 - Increase the likelihood of rebuilding overfished stocks by constraining the true catch to be consistently lower than ACLs. Increased accuracy of catch data can also lead to reduced uncertainty in the stock assessments.
 - Improvements in model diagnostics if monitoring shows that missing catch was a significant issue in the past.
 - Allow for consideration of a wider-range of stock assessment approaches – for example shifting from low information content empirical approaches to the development of full analytical assessments.
 - Improvements in groundfish management through the more accurate catch advice from assessments.

Biological Impacts – groundfish resource

Possible short- and long-term impacts of 100% monitoring of all commercial (sector and common pool) groundfish landings.

- Short-term (upon implementation and up to five years)
 - Increased accuracy of commercial landings going into the assessments
 - Reduce the likelihood of overfishing because in-season monitoring of landings would improve – such that the “true” landings would be known by at least the species-level
- Long-term (greater than five years)
 - Improved estimation of fishing mortality and biomass
 - Allow for consideration of a wider-range of stock assessment approaches – for example, comprehensive monitoring may enable assessments to shift from low information content empirical approaches to the development of full analytical assessments. This transition in assessment methodology may be possible because comprehensive monitoring would provide accurate data on the magnitude and age structure of removals in the commercial fishery, which would be better aligned with the data requirements of the age-structured assessment models that are employed for groundfish in the region.

For Today

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 - Clarify that a process will be used for setting and evaluating EM video review rates – Council supports GARFO guidance for audit model EM.
2. Review draft analysis and potentially select preliminary preferred alternatives – **POSSIBLE MOTION(S)**

Additional slides

Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.1.1	Sector monitoring standard (target coverage level)		
4.1.1.1	Option 1 (No Action)	--	Cost: 0/-- C&E: --
4.1.1.2	Option 2 (Fixed target based on <u>% of trips</u>) (25%-100% sub-options)	0/++	Cost: 0/-- C&E: +/+++
4.1.1.3	Option 3 (Fixed target based on <u>% of catch</u>) (25%-100% sub-options)	+ / ++	Cost: -/-- C&E: +/+++

+++ is high positive
 ++ is positive
 + is low positive

0 is neutral

--- is high negative
 -- is negative
 - is low negative

Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.1.2	Sector monitoring tools (options for meeting monitoring standards)		
4.1.2.1	Option 1 (EM in place of human at-sea monitors)	0	Cost: -- C&E: --
4.1.2.2	Option 2 (Audit Model EM)	++	Cost: --/--- C&E: +++
4.1.2.3	Option 3 (Maximized Retention EM)	++	Cost: --/--- C&E: +++

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.1.3	Total Monitoring Coverage Level Timing		
4.1.3.1	Option 1 (No Action)	o	-
4.1.3.2	Option 2 (Knowing coverage level at a time certain)	o	<i>indirect</i> ++
4.1.4	Review process for sector monitoring coverage		
4.1.4.1	Option 1 (No Action)	o	o
4.1.4.2	Option 2 (Establish review process)	indirect ++	++
4.1.5	Addition to list of framework items	o	o

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.2.1	Dockside Monitoring Program (DSM) (Sectors + Common Pool)		
4.1.2.1	Option 1 (No Action)	--	Cost: 0 C&E: --
4.1.2.2	Option 2 (Mandatory DSM program for commercial groundfish fishery)	++	Cost: - C&E: ++

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.2.2	Dockside monitoring program structure and design		
4.2.2.1	DSM funding responsibility		
4.2.2.2.1	Option A (dealer funded)	o	<i>Cost: uncertain C&E: o</i>
4.2.2.2.2	Option B (vessel funded)	o	<i>Cost: uncertain C&E: o</i>
4.2.2.2	DSM program administration		
4.2.2.2.1	Option A –(contracts with providers)	o	<i>Cost: o/+ C&E: o</i>
4.2.2.2.2	Option B (NMFS administered program)	o	<i>Cost: o/- C&E: o</i>

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.2.2.3	Options for lower DSM coverage levels (20% coverage)		
4.2.2.3.1	Option A –for ports with low volume of gf landings	++	Cost: - C&E: +/++
4.2.2.3.2	Option B –for vessels with total gf landings in 5 th percentile	++	Cost: -/-- C&E: +/++
4.2.2.4	Options for DSM safety and liability associated with fish hold		
4.2.2.4.1	Option A – DSM fish hold inspections required	++	Cost: - C&E: +
4.2.2.4.2	Option B – Approve use of cameras	+ / ++	Cost: 0 / -- C&E: +
4.2.2.5.3	Option C – No fish hold inspection, captain signs affidavit	+	Cost: 0 / + C&E: --

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.3	Sector Reporting		
4.3.1	Option 1 (No Action)	o	Cost: o/-
4.3.2	Option 2 (RA authority to streamline)	o	Cost: o/+

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.4	Funding/Operational provisions of gf monitoring program		
4.4.1	Option 1 (No Action)	o	Cost: o/---
4.4.2	Option 2 (Provisions for an increase or decrease in funding)		
4.4.2.1	Sub-option 2A (Higher coverage levels if NFMS funds available)	indirect ++	Cost: o/+++
4.2.2.2	Sub-option 2B (Waivers for monitoring requirements allowed)	indirect -	Cost: ++

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.5	Management uncertainty buffers for the commercial groundfish fishery (Sectors only)		
4.5.1	Option 1 (No Action)	o/+	Cost: o/- C&E: o/-
4.5.2	Option 2 (Elimination of management uncertainty buffer for sector ACLs with 100% monitoring of all sector trips)	-/++	Cost: -/-- C&E: +++

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.6	Remove commercial gf monitoring program requirements for certain vessels fishing under certain conditions		
4.6.1	Option 1 (No Action)	-	Cost: + C&E: o/-
4.6.2	Option 2 (Vessels fishing exclusively west of <u>72 30 W</u> would not be subject to monitoring requirements on trips in that area)		
4.6.2.1	Option 2A (Remove at-sea monitoring requirements) (Sec	-	Cost: o C&E: o/++
4.6.2.2	Option 2B (Remove dockside monitoring requirements)	-	Cost: +/++ C&E: --

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Summary of Impacts

	Alternative	Biological impacts (regulated groundfish)	Economic and social impacts
4.6.3	Option 3 – Vessels fishing exclusively west of <u>71 30 W</u> would not be subject to monitoring requirements on trips in that area		
4.6.3.1	Option 3A (Sectors only)	-	Cost: + C&E: o/--
4.6.3.2	Option 3B (Sectors and Common Pool)	-	Cost: +/++ C&E: --
4.6.4	Review process for vessels removed from commercial groundfish monitoring program requirements		
4.6.4.1	Option 1 (No Action)	o	indirect --
4.6.4.2	Option 2: Implement a review process	indirect ++	Cost: o C&E: o/+

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