NOAA FISHERIES
Alaska Region

Electronic Monitoring Workshop

Topics

- EM/ER Strategic Plan
- EM/ER Implementation Plan
- Fixed Gear Fishery Overview

EM/ER Strategic Plan

- Oct, 2012: Council initiated EM strategic planning process & requested NMFS:

  Provide a strategic planning document for EM that identifies the Council's EM management objective of collecting at-sea discard estimates from the 40' – 57.5' IFQ fleet, and the timeline and vision for how EM pilot projects will serve to meet this objective.

- June, 2013: Presented to Council

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EM/ER Approaches

Compliance Monitoring

- Video for compliance of specific regulation
  - Amendment 91 Salmon bycatch in BSAI – video verifies salmon sorted & stored properly to enable observer sampling
- Video to audit self-reported data
  - BC Groundfish Hook & Line Monitoring Program – logbook used for catch accounting, video used to audit self-reported data

Data collection for science & Management

- Catch Share Programs
  - Suite of EM/ER tools in combination with observers
    - GOA Rockfish: Atlas, elogbook; elandings; flow scales, EM as a compliance tool
  - Reduce reliance on observers
    - Nothing implemented in regulations - pilot projects in GOA Rockfish to estimate halibut PSC
- Less Time Sensitive fisheries
  - Nothing implemented in regulations – previous pilot projects in hook & line fisheries to estimated catch using video

Monitoring tools implemented in Alaska fisheries

'rogram Type	Fishery	Current Requirements									Additional ER Potentially Suitable?	Potential EM Application?
		ER for Landings &/or Production (IERS)	Paper logbook[2]	ER for logbook (elogbook in IERS)	ER for Observer data (Atlas)	Flow Scale	VMS	Video	Observer Coverage	2nd Observer		
Catch Share	BSAI pollock trawl CP & mothership (AFA)	Y	N	Y	Y	Y	Y	Y	100%	Y		
	BSAI non-pollock trawl CP (Amendment 80)	Y	N	Y	Y	Y	Y	Y	100%	Y		Y - video and/or flow scale to monitor deck sorted halibut PSC
	Central GOA Rockfish Trawl CP	Y	N	Y	Y	Y	Y	Y	100%	Y		
	BSAI Pacific cod Longline CP	Y	N	Y	Y	Y	Y	Y	100%	Y		
	BSAI rationalized crab CP	Y	Y	Few-voluntary	N	Y	Y	N	100% - not NMFS	N	Y- elogbook	
	BSAI pollock trawl CV (AFA)	Y	Y	Few-voluntary	Y/N[3]	n/a	Y	N	100%	N	Y- elogbook; Atlas	
	CGOA Rockfish Trawl CV	Y	Y	N	Y	n/a	Y	N	100%	N	Y- elogbook	Y-compliance monitoring & estimation of halibut PSC
	IFQ Sablefish CP	Y	Y	Few-voluntary	N	N	Y- AI only	N	100%	N	Y- elogbook	
	IFQ Halibut CP	Y	Y	Few-voluntary	N	N	Y- AI only	N	100%	N	Y- elogbook	
	IFQ Sablefish CV	Y	Y	N	N	n/a	Y- AI only	N	Partial	N	Y- elogbook	Y- video for catch estimation
	IFQ Halibut CV	Y	Y[4]	N	N	n/a	Y- AI only	N	Partial	N	Y- elogbook	Y- video for catch estimation
	IFQ Halibut & Sablefish <40' LOA CV	Y	Y[2]	N	N	n/a	Y- AI only	N	None	N		Y – video for catch estimation
Non-Catch Share	BSAI Turbot longline CP	Y	Y	N	N	N	Y	N	100%	N	Y- elogbook	
	GOA Trawl CP	Y	Y	N	N	N	Y	N	100%	N	Y- elogbook	
	GOA Longline CP	Y	Y	N	N	N	Y	N	100%	N	Y- elogbook	

EM/ER Strategic Plan

Vision:

A future where electronic monitoring and reporting technologies are integrated 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, available when needed, and obtained in a cost-effective manner.

EM/ER Strategic Plan

Goals-> Objectives-> Strategies-> Actions

- Goal I: NMFS has the infrastructure and regulatory requirements to support EM/ER operations
- Goal II: NMFS is advancing cost-effective EM/ER capabilities through science-based studies and technological developments
- Goal III: NMFS has a cost-effective, adaptable, and sustainable fishery data collection program that takes advantage of the full range of current and emerging technologies
- Goal IV: The Council and NMFS leverage global EM/ER developments while sharing AK perspectives with others

EM/ER Strategic Plan

After reviewing the Strategic Plan, the Council:

- Adopted plan as guidance document for incorporating EM into Observer Program
- Recognized small-boat, halibut and sablefish fisheries as highest priority for integration of EM
- Recommended catch estimation approach to develop EM for these fisheries
- Created an EM Workgroup

EM Workgroup Focus

Goal II: NMFS is advancing cost-effective EM/ER capabilities through science-based studies and technological developments

Objective 1: Conduct scientific research to advance the science of monitoring and data integration

- Strategy C: Evaluate EM technologies in the 2013-14 EM project on volunteer vessels in the < 57.5 ft longline and pot vessels.

Goal III: NMFS has a cost-effective, adaptable and sustainable fishery data collection program that takes advantage of the full range of current and emerging technologies

Objective 1: Implement EM/ER technology where appropriate and cost-effective to improve catch estimation and better inform stock assessments

- Strategy A: Implement EM as appropriate based on scientific research from goal II.
  - *Action*: Select EM approach.
  - *Action*: Analyze EM approach, impacts, cost, and benefits.
  - *Action*: Write implementing regulations.
  - *Action*: Implementation, roll out, outreach.

EM/ER Milestones

2006-2008

- NMFS Video Monitoring Discussion Paper presented to Council 2006
- EM Workshop in Seattle 2008

2011

- Discussion paper Use of EM Technologies in Alaskan Fisheries presented to Council

2012

- Strategic Plan for EM/ER presented to Council
- Pilot study deploying EM technologies on fixed gear vessels <58 ft awarded to SWI Inc.

EM/ER Milestones

2013

- NMFS Policy on Electronic Technologies and Fishery Dependent Data Collection - NMFS request Regional EM/ER Implementation Plans
- NMFS Discussion Draft EM/ER Guidance and Best Practices for Federally Managed Fisheries - includes EM/ER White Papers

2014

- National EM Workshop held in Seattle
- Strategic Plan for EM/ER published as a NOAA Technical Memorandum
- Council appoints EM Workgroup to develop Cooperative Research Program (Meetings in May, Aug, Sept, Nov, Jan)

EM/ER Milestones

2014 continued

- Office of Inspector General audit of NMFS observer programs with specific focus on electronic monitoring

2015

- EM Workgroup presents CRP to SSC and Council
- Alaska Region Electronic Technologies Implementation Plan submitted to NMFS

Five EM/ER Initiatives

Electronic Monitoring

1. EM for catch estimation in small boat, fixed-gear fishery
2. Video Compliance Monitoring
3. Deck sorting of halibut Prohibited Species Catch (PSC)

Electronic Reporting

4. Interagency Electronic Reporting System (eLandings)
5. Atlas

Fixed Gear Fishery Demographics

- Characteristics likely to influence EM program design
- Will continue to be developed by EM Workgroup
- Vessel landing activity patterns by port, target fishery, month, region
  - 3 fisheries: halibut, sablefish, Pacific cod
  - Pot and hook & line
  - Vessel size categories: <40’; 40-57’; >57’

Fixed Gear Fishery Demographics

- 2,000 vessels, 7,300 landings, 50 ports
- 40-57' - 50% of landings occur in 3 ports (Homer, Juneau, Sitka)
- Season:
  - <40' halibut fleet distinctly seasonal – peak June to August
  - Larger vessel distributed more evenly April – October
- Nearly 70% fixed gear fleet fished 1 to 10 days per year
- Over 75% fixed gear fleet made 1 to 3 trips per year