This document is a draft outline of a strategic plan for EM/ER for presentation to the Council in April, 2013 and further refinement in June, 2013. It is not a complete representation of all objectives, strategies and actions at this time.

DRAFT Strategic Plan for EM/ER in the North Pacific

March 26

2013

Fishery Monitoring Technology for Fisheries Operating in the North Pacific

Contents

INTRODUCTION

"Simply put, strategic planning is clarifying the overall purpose and desired results of an organization, and how those results will be achieved." Carter McNamara, September 30th 2010.

Overview

We live in a world of great technological advances many of which are applicable to fisheries monitoring issues, and many which have already been utilized in Alaska.

Consider this:

1977: MSA was new, a programmable Texas Instrument calculator (TI-59) cost $300, Apple Computer was just incorporated and key punch cards and mainframes were state of the art in industry.

1987: joint ventures in AK, personal computers (windows 2.0) with floppy disks commonly available, but mainframes dominate business and government; communications from observers at sea were still Single Side Band and Morse code.

1997: MSA continues, joint ventures in AK were long gone, Y2K was a real concern, PC's are the norm (windows 98) with e-mail and web access. Oracle is now the primary NMFS database. We have vastly improved communications from sea via ATLAS application and on-board technologies.

2007: MSA newly reauthorized, i-phone released, vastly improved PC storage and speed, laptops commonplace, continuing improvements in communications, Oracle still serving NMFS needs. We see an emerging use of cameras in fisheries applications.

So, where will we be in 2017? Already we see camera use in surveillance commonplace (how many cameras have seen you today?), an expanded cell phone grid (not always in AK), the use of notebooks emerging, social media pervading everything, improved battery capacity, and some extraordinary integrations of technologies.

NMFS and the Council have been on a path of integrating technology into our fisheries monitoring systems for many years, as we have advanced Electronic Reporting (ER) systems in place, conducted several experimental projects with Electronic Monitoring (EM), and have operational EM in a compliance capacity. The operational EM capacity was expanded as recently as January of 2013 with the implementation of flow scales and video monitoring of them. In turn, application development, database and web technologies have revolutionized how we manage and report information to internal and external constituents.

Developing and implementing technology requires careful thought. Some technologies are short lived, some are rapidly evolving, while others are well established. All technological investments cost money, and the cost extends beyond the acquisition of the technology. The cost includes the infrastructure necessary to support the technology into the future, and to adapt and evolve as

technology advances. Decisions about where to invest in technology represent strategic choices. Wrong choices can be costly.

In October of 2012, the Council passed a motion addressing electronic monitoring as follows:

"The Council requests that NMFS provide a strategic planning document for electronic monitoring (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 the EM pilot project in 2013 and future years' projects will serve to meet this objective, including funding."

This motion also forwarded an AP recommendation to:

"Recommend that NMFS report to the Council on other EM options that may be appropriate to replace or supplement human observers."

Concurrent with the development of this Alaskan EM plan, NMFS headquarters (HQ) staff developed several white papers on the use and development of electronic technologies. Drafts of five of these white papers were presented to the Council Coordination Committee (CCC) in February of 2013. These papers provide helpful information that may be useful to NMFS and the Council in future EM/ER developments. The white papers are available on the CCC web site at: http://www.nmfs.noaa.gov/sfa/reg_svcs/Councils/ccc_2013/Agenda.htm

Please note that the HQ white papers addressed both EM and ER. For consistency, and because effective electronic approaches to data collection can include both EM and ER, we have included both in this planning document.

Primary Authorities

Magnuson-Stevens Fishery Conservation and Management Act (MSA) was amended by the 2006 Magnuson-Stevens Reauthorization Act.

The MSA is the primary domestic legislation governing management of the nation's marine fisheries. NOAA manages fisheries in federal waters through fishery management plans (FMPs) developed in conjunction with the Councils.

Marine Mammal Protection Act (MMPA)

The MMPA provides for, in part:

- A program to authorize and control the taking of marine mammals incidental to commercial fishing operations;
- Preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction;

Endangered Species Act (ESA)

NOAA's National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) share responsibility for implementing the Endangered Species Act (ESA).

There are approximately 2,050 species listed under the ESA. Of these species, approximately 1,430 are found in part or entirely in the U.S. and its waters; the remainder are foreign species.

Generally, USFWS manages land and freshwater species, while NMFS manages marine and "anadromous" species. NMFS has jurisdiction over 94 listed species.

The ESA requires NMFS to designate critical habitat and to develop and implement recovery plans for threatened and endangered species.

Assessing our current Observer Program monitoring activities

Each of the listed activities are current 2013 data collection requirements for observers deployed on hook and line vessels in Alaska. These tasks were excerpted from the observer training manual available on line at: http://www.afsc.noaa.gov/FMA/document.htm.

Current Monitoring Activities of Observers on Hook and Line Vessels	Observer	EM as it is currently available	Industry self report	Notes	Purpose
Birds					
Monitor and report take of short-tailed albatrosses	Yes	No	No		ESA Biop
Document all observations of short-tailed albatrosses	Yes	No	No		ESA Biop
Identify and count all other seabirds within samples	Yes	No	No		ESA Biop
Dead short-tailed albatrosses must be frozen and surrendered to the NMFS or the USFWS.	Yes	No	Maybe	Physical specimens	ESA Biop
Mammals					
Record marine mammal sightings	Yes	Maybe	Maybe		MMPA
Record marine mammal interactions including deterrence, entanglements, lethal removals, ship strikes, and predation on fishing gear by sea lions, sperm whales and killer whales.	Yes	Maybe	No		MMPA

Current Monitoring Activities of Observers on Hook and Line Vessels	Observer	EM as it is currently available	Industry self report	Notes	Purpose
Collect marine mammal parts (snouts, etc)	Yes	No	No	Physical specimens	MMPA
Fish					
Catch composition by species in number and weight to incorporate into the CAS for total catch accounting.	Yes, with some species limitations.	No	No		MSA – catch accounting and management under ACL's
Disposition of the catch (retained or discarded) by weight.	Yes	No	No		MSA management
Viability of halibut released	Yes	No	No		IPHC and MSA management
Sexed length frequency data for target and bycatch species	Yes	No	No		Stock Assessments and Council analyses
Sexed length and weight for salmon, crab.	Yes	No	No		Stock Assessments and Council analyses
Misc biological collections (maturity, genetics, scales)	Yes	No	No	Physical specimens	Stock assessments, genetic, and ecosystem studies
Miscellaneous/Invertebrates					
Numbers, weights and identifications of corals and misc invertebrates (degree of ID varies)	Maybe	No	No		Habitat, potential for ESA issues, ecosystem research.
All Species					
Tag recoveries	Yes	No	Maybe	Physical specimens	Stock assessments
Collection of voucher specimens	Yes	No	Maybe	Physical specimens	Training and verification

Current Monitoring Activities of Observers on Hook and Line Vessels	Observer	EM as it is currently available	Industry self report	Notes	Purpose
Fishing, gear characteristics, and management program identifications					
Set/ retrieval dates, times, and locations.	Yes	Yes	Yes		Stock Assessments, Council analyses, Catch Accounting and Management
Location of non-fishing days.	Yes	Yes	Yes		Council analyses
Quantity of gear deployed in each set.	Yes	Yes	Yes		Effort
Quantity of gear retrieved.	Yes	Yes	Yes		Stock Assessments, Council analyses, Catch Accounting and Management
Hook Counts and spacing measurements of specific set segments (sablefish only).	Yes	No	No	Hook and line-sablefish only	Stock Assessment Catch Accounting
Gear performance, including instances of predation.	Yes	No	Maybe		Catch Accounting and MMPA interactions
Beginning and end Depth	Yes	Maybe, with sensor integration.	Yes		Stock Assessments and Council Analyses
IFQ- Yes or no	No	No	Yes		Catch Accounting Management
CDQ group number if applicable	No	No	Yes		Catch Accounting Management

Current Monitoring Activities of Observers on Hook and Line Vessels	Observer	EM as it is currently available	Industry self report	Notes	Purpose
Regulatory Compliance					
Compliance with careful release regulations.	Yes	Yes		Hook and line only	Regulatory Compliance
Ensure rehabilitation of injured short-tailed albatross	Yes	No		Physical handling required	Regulatory Compliance
Compliance with seabird avoidance measures	Yes	No			Regulatory Compliance
Compliance with time area closures	Yes	Yes, with GPS integration			Regulatory Compliance
Real time position monitoring	Yes	Yes, with GPS integration			Regulatory Compliance
Witness flow scale testing and record test weights and results	Yes	Maybe		Flow scale vessels only	Regulatory Compliance

Vision

Vision – What do we see as our future?

A future where electronic monitoring and reporting technologies are integrated into NMFS Alaskan fisheries dependent data collection systems 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.

Definitions:

Electronic monitoring (EM) – The use of technologies – such as vessel monitoring systems or video cameras – to passively monitor fishing operations through observing or tracking. Video monitoring is often referred to as EM.

Electronic reporting (ER) – The use of technologies - such as phones or computers - to record, transmit, receive, and store fishery data.

Goals – Our goals describe how the future world will be different. They do not describe what we will do. Goals address: "How will the world be different" and should not change over time.

Objectives – Measureable, attainable milestones that we want to achieve on the way to meeting the goals.

Strategies – How we organize our resources and actions to maximize our effectiveness and efficiency to meet the Objective (examples will be provided to illustrate).

Actions – Concrete and sometimes completed steps implementing the strategies.

Electronic Monitoring/Reporting Approaches:

1. Systems that enable and/or improve regulatory compliance monitoring:

   Technology is used to provide independent information to inform agencies if industry is complying with specific regulations.

   Examples:

   A. VMS

      VMS provides a specific tool that provides tamper evident reporting of vessel positions in real time, on a defined and automated reporting schedule. The information is captured in and OLE data system and used to support enforcement of time/area closures. There are secondary uses for science and management.

      System requirements are well known and defined elsewhere

   B. Auditing logbook reports (the Canadian EM system)

      The Canadian hook and line monitoring system consists of extensive logbook reporting requirements by set, which are audited by industry contractors using on-board camera systems. All vessels have camera systems and a subset of footage is monitored to validate the log reports. There are immediate financial penalties for poor reporting in the log as the entire video may require review and the industry bears this cost. The system appears to perform well for the species they have chosen to monitor.

   C. The West Coast video on trawl C/V's pilot (did they discard hake or not).

      The West Coast has experience placing video on board catcher vessels fishing for hake under a no discard requirement. The video appears to be able to detect discard events though some events have occurred outside of the camera view, and a well publicized discard event occurred when the camera was unplugged. The design, however, is simple, and the objective clear.

D. Existing EM systems in Alaska on the Amendment 80, Amendment 91, and freezer longline fleet.

2. Systems that enable/improve information timeliness, quality and confidence:

Technology is used to improve timely reporting and information quality.

Examples:

A. E-logs and e-landings.
B. NMFS at-sea data entry application (Atlas) allows timely reporting by observers.
C. Web based trip reporting for observer coverage (ODDS).
D. Flow scales.

3. Systems that collect scientific data used for independent estimation:

Technology is used to monitor events and information is extracted for management/science.

Examples:

A. Denmark work quantifying discard (what species and quantities did they discard).
B. West Coast pilot work quantifying hake discard.
C. Estimating yelloweye rockfish catch in Canada (Stanley et.al. 2011).
D. Rockfish Pilot projects estimating halibut discard.
E. Pacific States Alaska longline project (Cahalan et.al. 2010).

Strengths, Weaknesses, Opportunities, and Threats of Current State:

Strengths (internal)

To be developed in consultation with AKR.

Weaknesses (Internal)

To be developed in consultation with AKR.

Opportunities (external)

To be developed in consultation with AKR.

Threats (external)

To be developed in consultation with AKR.

GOALS AND OBJECTIVES FOR EM/ER in ALASKA

Goals address: "How will the world be different" and should not change over time.

In this document, NMFS has identified the following goals, objectives, strategies and actions to implement electronic monitoring strategies in the North Pacific. Are these objectives, strategies and actions sufficient to meet the overall goals?

Goal I: NMFS has the infrastructure and regulatory requirements to support EM/ER operations.

Objective 1: Dedicate resources to support EM data acquisition and post processing.

Objective 2: Develop the regulatory framework to implement an EM requirement.

Objective 3: Fund technology to advance, support EM/ER implementation and integration.

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

Objective 1: Advance the technology of monitoring tools.

Strategy: Conduct scientific research to advance the science of monitoring and integration

Action: Two EM proposals (EM light and Stereo Cameras) were submitted to NPRB in 2012 and if funded will begin October, 2013.

Strategy: Provide support to partners in cooperative research, and industry volunteers.

Action: We have assisted in providing technical support and guidance on two 2012 NFWF grants to AK.

Objective 2: Reduce costs by gaining efficiencies in data processing and/or improving data quality.

Strategy: Develop automated review and data extraction technologies.

Action: Collaborate with other AFSC staff to develop image analyses procedures.

Action: Identify potential efficiencies in data processing and improving data quality such as automated review and data extraction technologies.

Action: Build a stereo camera system (PSMFC funding support) to provide a prototype for testing automated review and collection of length compositions.

Strategy: Identify fish handling practices and integration methods that will facilitate automation and improve data quality.

Action: Collaborate with industry to develop Vessel Monitoring Plans.

Goal III: The Council and NMFS are informed on and leveraging global EM/ER developments while sharing AK perspectives with others.

Objective 1: Learn from the experience of others.

Objective 2: Influence and inform monitoring policies.

Objective 3: Communicate through planning documents and processes.

Objective 4: Collaborate with partner organizations and industry.

Goal IV: The Alaska Region has a cost effective, adaptable and sustainable fishery data collection program implementing strategies that take advantage of the full range of current and emerging technologies.

Objective 1: Implement EM technology where appropriate and cost effective to improve catch estimation or collect biological samples to better inform stock assessments.

Strategy: Work with Regional staff to identify catch assumptions and post stratification to develop algorithms incorporating data gathered through electronic monitoring.

Action: Evaluate broad e-logbook coverage and technology that independently records specific catch location and total effort for improved specification on post strata assumptions and catch rates to support stock assessments.

Action: Develop potential algorithms to estimate or inform discard in the Catch accounting system.

Strategy: Develop methods that can improve EM data to fill existing gaps such as length compositions and/or weight specimens.

Action: Build a stereo camera system (PSMFC funding support) to provide a prototype for testing automated review and collection of length compositions.

Action: Develop vessel monitoring plans to improve ability to identify and quantify discard through discard control points.

Action: Develop procedures where crew could potentially collect random samples.

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

Action: Evaluate species identification issues.

Action: Identify data gaps and potential solutions for species weight estimates, biological samples and rare species interactions.

Action: Assess the efficacy of using technology for capturing information that would quantify discard and provide spatial and temporal distribution of effort.

Objective 2: Implement EM/ER technology where appropriate and cost effective to enhance compliance monitoring or data timeliness to support management.

Objective 3: Collect information on all aspects of costs associated with EM technology integration, implementation and processing.

Strategy: Track all associated costs of the 2013-14 pilot study.

Action: Track project expenditures to inform potential logbook audit approach or sample based approach to inform discard.

Action: Determine cost to support EM such as port sampling and programming personnel, data storage, post processing, hardware, maintenance and installation.

Action: Determine cost benefit ratios for various fleets or fleet sectors where EM could provide improvements or cost savings compared to observer coverage.

Strategy: Evaluate observer fee to implement operational EM systems.

Action: Dependent on when fee proceeds becoming available in 2014 and we have operational EM systems.

Action: Present evaluation of impacts on observer deployment and coverage rates to the Council.

Objective 4: Improve procedures, methods or technology to enhance quality of EM data.

Strategy: Provide evaluation and solutions to incrementally improve data quality throughout the 2013-14 pilot study period.

Action: Develop performance standards for species identification.

Action: Develop vessel monitoring plans, maintenance protocols and operator responsibilities.

Action: Address challenges to managing a fishery using an integrated system approach that incorporates data collected through a variety of sources that includes electronic reporting (eticket, elog and sensors), data obtained from camera based systems and observer information.

Implementing the strategic plan

In 2012, NMFS designed a video based electronic monitoring project to achieve Council's objective of "collecting at-sea discard estimates from the 40' – 57.5' IFQ fleet" and "explore other EM options that may be appropriate to replace or supplement human observers". Individual project action items or steps are mapped to illustrate the relationship to each implementation strategy designed to meet a specific objective which collectively are intended to meet a specified goal (see the Table below).

The EM project will be in place in 2013 and 2014 and is designed to inform logistical, data storage requirements, data processing procedures and methods. Most importantly, it is designed to evaluate

and address universal challenges in using video data to establish or estimate discard. Major challenges include; 1) inability to accurately identify species, 2) inability to obtain weights of discarded fish, 3) time required to obtain and review video and extract all requisite information and 4) inability to collect biological samples from discarded catch. Without first addressing these issues it is not possible to fully develop potential strategies to utilize data for either establishing discard through a compliance program (Canada's logbook audit program) or through estimation procedures. Further, this information will be required prior to resolving integration issues on how these data will or can be used in the catch accounting system to inform discard estimates.

Another important focus for the 2013-14 EM project is to evaluate cost information. Project costs will be used to inform cost benefit ratios in order to evaluate the relative scale and potential target fishery of the program prior to implementation. Only after this step is taken can we then establish the necessary regulatory requirements required to support an electronic monitoring data collection program to inform discard, stock assessments or management.

NMFS is also evaluating the potential to automate capture of single catch events and provide length composition through image processing techniques of stereo images. We believe image processing in real time has great promise in greatly reducing processing time, storage requirements and enable collection of length composition that could be used to infer weight of discarded species. Software routines using wireless technologies are also being examined to automate data acquisition download from vessels landing catch in ports where wireless services exist. These innovations have great prospect to drastically change the cost benefit ratio of collecting and processing video images to inform discard or provide near-real time catch information on temporal and spatial distribution of fishing effort.

Key decision points for Council consideration.

To be developed in consultation with AKR.

	2013-14 EM Project(s) Objectives	STRATEGIES	Actions
GOAL II	**Objective 1: Advance the technology of monitoring tools**	Strategy: Conduct scientific research to advance the science of monitoring and integration	***Action:** Two EM proposals (EM light and Stereo Cameras) were submitted to NPRB in 2012 and if funded will begin October, 2013*
		Strategy: Provide support to partners in cooperative research, and industry volunteers.	***Action:** We have assisted in providing technical support and guidance on two 2012 NFWF grants to AK.*
	Objective 2: Reduce costs by gaining efficiencies in data processing and/or improving data quality.	Strategy: Develop automated review and data extraction technologies.	***Action:** Collaborate with AFSC Develop image analyses procedures in collaboration with AFSC staff.* ***Action:** Identify potential efficiencies in data processing and improving data quality such as automated review and data extraction technologies.* ***Action:** Build a stereo camera system (PSMFC funding support) to provide a prototype for testing automated review and collection of length compositions*
		Strategy: Identify fish handling practices and integration methods that will facilitate automation and improve data Quality	**Action:** Collaborate with Industry to develop Vessel Monitoring Plans.
GOAL IV	**Objective 1: Implement EM technology, instead of human observers, where appropriate and cost effective to improve catch estimation or collect biological samples to better inform stock assessments.**	Strategy: Work with Regional staff to identify catch assumptions and post stratification to develop algorithms incorporating data gathered through electronic monitoring.	***Action:** Evaluate broad elogbook coverage and technology that independently records specific catch location and total effort for improved specification on post strata assumptions and catch rates to support stock assessments.* ***Action:** Develop potential algorithms to estimate or inform discard in the Catch accounting system.*
		Strategy: Develop methods that can improve EM data to obtain biological samples such as length compositions and/or weight specimens.	***Action:** Build a stereo camera system (PSMFC funding support) to provide a prototype for testing automated review and collection of length compositions.* ***Action:** Develop vessel monitoring plans to improve ability to identify and quantify discard through discard control points.* ***Action:** Develop procedures where crew could* collect.

	Objective 1: Implement EM technology, instead of human observers, where appropriate and cost effective to improve catch estimation or collect biological samples to better inform stock assessments.	Strategy: Evaluate EM technologies in the 2013-14 EM project on volunteer vessels in the <57.5 ft longline and pot vessels	***Action:*** *Evaluate and species identification issues.* ***Action:*** *Identify data gaps and potential solutions for species weight estimates, biological samples and rare species interactions* ***Action:*** *Assess the efficacy of using technology for capturing, quantifying discard and effort*
GOAL IV	**Objective 3: Collect information on all aspects of costs associated EM technology integration, implementation and processing**	Strategy: Track all associated costs of the 2013 pilot study.	***Action:*** *Track project expenditures to inform potential logbook audit approach or sample based approach to inform discard* ***Action:*** *Determine cost to support EM such as port sampling and programming personnel, data storage, post processing, hardware, maintenance and installation* ***Action:*** *Determine cost benefit ratios for various fleets or fleet sectors where EM could provide improvements or cost savings compared to observer coverage*
		Strategy: Evaluate observer fee to implement operational EM systems	***Action:*** *Present evaluation of impacts on observer deployment and coverage rates to the Council.*
	Objective 4: Improve procedures, methods or technology to enhance quality of EM data	Strategy: Provide evaluation and solutions to incrementally improve data quality throughout the 2013-14 pilot study period.	***Action:*** *Develop performance standards for species identification* ***Action:*** *Develop vessel monitoring plans, maintenance protocols and operator responsibilities* ***Action:*** *Address challenges to managing a fishery using an integrated system approach that incorporates data collected through a variety of sources that includes electronic reporting (eticket, elog and sensors), data obtained from camera based systems and observer information.*

Appendix A: Council Motions on EM/ER

Appendix B: Strawman compliance monitoring options

Appendix C: Requirements of using Video information in the Canadian B.C. Audit based approach for fishery monitoring to a potential estimation based approach.

Comparison of the Canadian B.C. audit-based approach to establish total discarded weight by species versus a estimation-based monitoring approach to estimating discard rates in a fishery.

Required Elements	Audit based[1]	Estimation based
Logbook	Y	Y
EM sensors	Y	Y
Video imagery	Y	Y
Species weight	Y	Y
Hails	Y	N
Dockside monitoring	Y	N
Port Sampling	Y	N
Complex Scoring/Audit	Y	N
Catch based on self reported data	Y	N

Source: [1]Stanley et.al. 2011

General Considerations	Audit based	Estimation based
Scalability is a function of	Ports/Fisheries/Season	Rate/Fishery/Season
Coverage flexibility	Difficult	Easy
Dependence on compliance	High	Low
Species ID limits	Species on audit scoring list	Any identifiable species
Industry support and training	3 years	1 year
Potential cost controls	Audit rate/Scoring list	Sampling rate
Precision	Unknown-Self Reported	Depends on Sample intensity and rarity
CAS integration difficulty	High	Low
Discard spp. weight required	Yes	Yes
Limited Port of landing	Yes	No
Start up costs	High	Low
Monitoring costs	3.33% [1]	1.25%[2]
Total	998	908

Source: [1]Stanley 2010 personal communication with NEFSC; and [2] current Observer Program's cost recovery rate

Regulatory Considerations	Audit based[1]	Estimation based
Retention Requirements	Y	N
Data confidentiality and control	Y	Y
Industry responsibilities	High	Low
Enforcement action and penalties	High	Low
Port hail requirements	Y	N
Dockside monitoring requirements	Y	N
System component requirements	Same	Same
Maintain logbook	Y	Y
Logbook Audit requirements	Y	N
Species ID requirements	Scoring list	Maybe some

Source: [1]Stanley et.al. Personal communication

Synthesis of Council requests/expectations for June 2013 report on the restructured observer program

Note, this lists the requests that were made at each meeting, and does not account for duplication.

Council's original request for an annual report on program
(from Oct 2010 motion, and restructured observer program analysis)
	Annual report on the observer program to include:
	• Detailed financial spreadsheet, by budget category, on the financial aspects of the program
	  • program revenues and costs
	  • information on the fees collected, NMFS' financial contribution, dollars spent
	  • intent: transparency on financial aspects of the program
	• How industry participants have adapted to and been able to accommodate the new program
	• Observer coverage levels
	• Fishery management objectives

NMFS' plan for the annual report *(from Final 2013 ADP, Jan 2013)*	NMFS proposes breaking out the annual report on the observer program (to be presented in June) from the annual deployment plan (to be prepared by Sep 1). The report will include: • Comprehensive evaluation of observer activities, costs, sampling levels, issues and potential changes in the coming year • Evaluate data collected in prior years to identify areas where improvements are needed to (1) collect the data necessary to manage the groundfish and halibut fisheries; (2) maintain the scientific goals of unbiased data collection; and (2) accomplish the most effective and efficient use of the funds collected through the observer fee • It is intended that this review will inform the Council and the public of how well various aspects of the program are working, and consequently lead to recommendations for improvement • In June 2013, as the review will not include an entire year of data collection, the report will focus on implementation of the program to date
Council additional requests for June 2013 *(from Oct 2012 motion)*	Requests to be specifically looked at in the 1st year (June 2013) review: • Consider that vessels in the vessel selection pool should either have the option to go into the trip selection pool OR all vessels should be in the trip selection pool • Evaluate the difference between coverage in the vessel and trip selection pools • Provide information on catch vessels that operate as catcher processors for a portion of the year • Insert cost effectiveness measures into the deployment plan, to prevent expensive deployments to remote areas for insignificant amounts of catch • Report on whether there are issues related to observer availability as a result of this program • Report on other EM options that may be appropriate to replace or supplement human observers • Identify detailed programmatic costs and possible cost reductions as they relate to programmatic and deployment options Council also asked NMFS for strategic planning document on EM, for June 2013, that identifies: • the Council's EM priority of collecting at-sea discard estimates from the 40' to 57.5' IFQ fleet • the timeline and vision for how the EM pilot project in 2013 and future years' projects will serve to meet this objective, including funding.

Council asked that an outline of requested evaluations be presented in April 2013 *(from Dec 2012 motion)*	To include: • Review of the trip selected and vessel selected pools, in consideration of whether vessels should have an option to choose either one, or whether the deployment plan should place every vessel in the partial coverage category in the trip selection pool • Review of the sampling method resulting in a difference between observer coverage in the vessel and trip selection pools • Evaluation of how to insert cost effective measures into the deployment plan • Evaluation of detailed programmatic costs • Identification of alternative approaches to achieving Council's stated EM objectives
Council additional request for April outline and June report, if appropriate *(from Feb 2013 motion)*	• Asked NMFS to assess a proposal submitted in public testimony (by FVOA) to implement deployment based on vessels that account for the greatest percent of harvest for any sector; include if it meets the Council's objectives for data collection and increasing cost effectiveness

ITEM C-1(b)
APRIL 2013

North Pacific Fishery Management Council

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Observer Advisory Committee – Meeting Agenda

April 1, 2013: 3-8 pm
Dillingham/Katmai Room, Hilton Hotel, Anchorage, AK

I. Introductions, review agenda *(Dan Hull)*

II. Update on implementation of observer restructuring *(Martin Loefflad)*

III. Update on national electronic monitoring initiatives

a. Pacific Council EM workshop *(Dan Hull, Farron Wallace)*
b. NMFS HQ EM papers and CCC discussion *(Martin Loefflad, Chris Oliver)*

IV. Electronic Monitoring Strategic Plan - Outline

a. Presentation of EM strategic plan outline *(Martin Loefflad, Farron Wallace)*
b. Public comment
c. Discussion and recommendations

V. Scheduling & other issues

NOTE:

- Presentations from the Pacific Council EM workshop are available online at: http://www.pcouncil.org/2013/02/23742/trawl-catch-share-program-electronic-monitoring-workshop/
- NMFS HQ EM papers are available under the EM agenda item on Day 2 of the CCC meeting agenda: http://www.nmfs.noaa.gov/sfa/reg_svcs/Councils/ccc_2013/Agenda.htm

AGENDA C-1
Suppolemental
APRIL 2013

Subject: Agenda Item C-1 Observers
From: The Dalys <dalys@gci.net>
Date: 3/25/2013 10:35 AM
To: npfmc.comments@noaa.gov

Agenda Item C-1 Observers

Dear Chairman Olsen,

I would like to submit a few comments regarding the new IFQ observer regulations for vessels under 58 foot. My husband and I own a 42 foot boat; hold IFQs and employee a crew to help with landing and selling the halibut and sablefish we catch. We are concerned about the impact the new observer regulations impose on our small business.

When we longline we have enough room and bunk space to satisfy our crew. An additional person would mean one of the crewmembers would have to be displaced, (sleep on the floor of the wheelhouse) in order to accommodate the observer. In addition the observer will be bring aboard sampling equipment that will need space and our operational space is very limited, it will be very difficult to accommodate the typical amount of sampling equipment usually brought aboard the larger (60ft and above) vessels.

My husband participated in a pilot camera observational program last year (2012). We had substantial success with the cameras, the usable footage of our longlining catches, and the data retrieved. We encourage NMFS, the council and whomever else to please revisit this observer option in a more timely manner in order for smaller boats like ours to utilize the ability of camera observational equipment in lieu of a physical observer. The camera program will be a fraction of the cost of the human observer (independent research as shown to be true). The boat would not have to wait for the observer to arrive in port in order to go fishing, (wait time could be the difference between having a good weather window or not). And crewmembers will not be displaced.

My husband and I appreciates the council taking the time to address the many "loose ends" of the new observer program.

Thank you for your time

Lorraine Daly

To: NPMC

My name is Gary Egerton. I am a long liner from Sitka. I am writing to give my thoughts on agenda item c-1 observers.

I urge you to provide electronic monitoring for the Halibut and Sablefish fleet as an alternative to having an observer on board. Most of the IFQ's I harvest belong to another permit holder so I usually have an extra person on board my 46 foot boat which has limited space. The fisheries with high by catches of halibut salmon and crab have plenty of large boats that can accommodate an observer as if they were in a hotel. That fleet should be your priority for an observer. Every year our expenses grow higher and higher. To have to pay an observer to share tight quarters, feed him, and pay insurance for him and sit there and watch us work is an insult when it can all be done with a camera if it has to be done at all. There is more than enough dockside sampling to cover the excuse for an observer. I have never heard what the monitoring objective is for halibut and sablefish fisheries. That would be a good place to start in order to design a monitoring program for each fishery.

Gary Egerton

Monday, March 25, 2013

Chairman Olsen and members of the North Pacific Fisheries Management Council:

My name is Carter Hughes and I am a troller with a 40 ft vessel. I hold quota share for both halibut and sablefish and I am writing this letter to encourage you to take the opportunity to make some amendments to the current Restructured Observer Deployment Plan. I will address three basic concerns I have the program so as to keep this letter short. Those concerns are:

1. Reduced observer coverage on the trawl fisheries.
2. NMFS's unwillingness to fast tract the camera option for the vessels under 57.5 ft.
3. Cost inefficiencies, especially the chosen method for collecting fees and the increase in observer day cost.

First and for most, I am very disturbed by the decrease of observer coverage on the catcher vessel trawl sector from 30% to 13% (over 60ft). These are high volume fisheries with high volumes of king salmon and halibut bycatch. As a troller and halibut longliner I have seen my quotas cut considerably while little has been done to curb the bycatch of these species in the trawl sector until recently. The bottom trawl fisheries in particular are of concern because the rationalizing process that is currently occurring encourages them to fish dirty. I recently heard of one vessel, the Golden Fleece, which was fishing near Kodiak, and hauled in 600 king salmon. That is more king salmon than most trollers catch in a year. The Golden Fleece was observed, which is good. However, with only 13% coverage on the catcher vessel section of the fleet I am dubious that the king salmon bycatch is really being properly counted. With the king salmon concerns in parts of Alaska, especially South Central, I am surprised that more is not being done to observe these fisheries. In the case of halibut, the area 4 halibut directed fishery is now smaller than the trawl bycatch quota. Decreased observer coverage on the trawl fisheries is a dangerous trend in this situation.

The redeployment of observers onto small, longline vessels that have small volume harvest contributes to the problem with large volume prohibited species catch by reducing observer resources for the larger trawl vessels. This could be remedied by fast tracking Electronic Monitoring for the 40 to 57.5 ft fixed gear fleet. This would be more convenient for the small boat fleet as well. The current situation encourages people like myself to find larger vessels to fish on where workspace is not so minimal. I will be fishing my IFQs on a 58 ft. vessel that has the accommodations for an observer. Perhaps consolidation is what the NPFMC and NMFS want in the small boat longline fisheries. Further consolidation seems redundant since that has already been accomplished with the implementation of the IFQ system. However, if that is your intent, it should be stated publicly and explicitly. The deployment of observers onto the under 57.5 ft vessels is certainly not as cost effective. An observer day costs $1000 under the current program and cameras cost less than $400 a day.

Finally the fee collection method seems like a major inefficiency in cost management. There is already a model for fee collection that is used by the RAM division of NMFS in the halibut and sablefish IFQ fisheries that is simple and could be rolled into the observer fee collection. Why have two different collection methods and two different bodies of fee managers when one could

do both? I know that is RAM and the Observer Program are different branches of NMFS, but can't they work together on the fee collection requirements? This is classic government inefficiency that leads to increased costs. Further, last years landing values do not necessarily correlate with the current years landing values. This year's sablefish exvessel price is currently about half of last years. This year it will be working in NMFS's favor for sable fish and the tax will be closer, to 2.5% not 1.25%. But what will happen in the situation reverses. No doubt NMFS will be back at the table looking to increase the tax. If they used the other method and had the same personnel manage fee collection it would save costs in personnel.

I hope these considerations are taken seriously and the opportunity to amend the current Observer Redeployment Program is taken. As it stands now, I think the program is going to be very expensive and ineffective, while providing increased opportunity for dirty fishing in the trawl sector while driving up costs and forcing consolidation in the small vessel fixed gear fleet.

Sincerely,
James C Hughes
F.V. Radio
Sitka

Alaska Longline
FISHERMEN'S ASSOCIATION

Post Office Box 1229 / Sitka, Alaska 99835 907.747.3400 / FAX 907.747.3462

March 23, 2013

Eric Olsen, Chairman
605 West 4th Street, Anchorage, AK 99501

Agenda Item C-1 Observers

Dear Chairman Olsen,

At the April Council meeting, NMFS will present an outline of the scope and elements of the strategic plan for integrating electronic monitoring into the restructured North Pacific Observer Program. On behalf of ALFA members, I would like to submit the following comments on key elements of the strategic plan and our recommendations for Council action in April to facilitate the strategic planning process and EM development.

Specifically, ALFA members request that four critical elements be identified and analyzed as part of the April and June Council actions. These are:

1. Fishery specific, at-sea monitoring objectives and priorities for Council identified EM candidate fisheries (IFQ halibut, sablefish, and fixed gear P cod)
2. Alternatives describing how human observers, EM, dockside monitoring, logbooks and resource surveys can be integrated to meet these objectives. The alternatives should have clearly defined decision points that minimize cost and impact to the natural and human environment.
3. Target funding levels and sources
4. Regulatory options and timelines

Additional detail on each of these elements is provided below.

Monitoring Objectives— The Council and the OAC have identified the sablefish/halibut fisheries as the first candidate fisheries for EM, with the fixed gear pacific cod fishery as the secondary candidate. The Council also identified at-sea discards as their priority; however, NMFS has identified multiple general objectives for at-sea monitoring including biological samples, sea bird monitoring, marine mammal monitoring, as well as catch and discards estimation. In order to advance EM, the differences between the Council's specific objective and NMFS general objectives must be reconciled.

The EM roadmap recently released by NMFS states *"once monitoring objectives are clearly established, **only then** can an appropriate combination of monitoring activities and tools be identified to successfully achieve these goals."* Given the information already available and the known capabilities of EM, ALFA members believe that monitoring catch and catch composition, including discards, is the correct objective for an EM program in these fisheries. We ask that the Council reaffirm these objectives to focus the EM portion of the strategic plan in June.

Because NMFS repeatedly states that EM cannot collect biological data nor affirm proper deployment of seabird deterrents, these issues are addressed briefly below.

Biological data-- Both sablefish and halibut fisheries have annual, resource-funded surveys that collect most of the information needed for stock assessments. The Sablefish stock is managed with an age structured model that uses approximately 1,200 otoliths collected from the commercial fishery each year. Observers at-sea and in shore based processing plants collect 3,000 to 5,000 sablefish otoliths each year, but only 1,100 to 1,200 are actually aged and used in the assessment (see http://access.afsc.noaa.gov/al/searchform.cfm .) The IPHC uses dock side samplers to collect biological information from the commercial fishery for the halibut stock assessment. This collection program is funded and conducted independent of the observer program. Of the bycatch species taken in these fisheries, only rougheye rockfish has an age structured model; this model uses approximately 300 to 400 otoliths combined, which are currently collected from the fixed gear and trawl fisheries. All other rockfish species taken as bycatch have Tier 5 stock assessments that do not rely on biological samples from the commercial fisheries. In short, NMFS and the IPHC currently secure "biological samples" from the sablefish and halibut stock assessment surveys, and from the commercial fishery from at sea and/or dockside samplers to meet identified stock assessment needs. The Council recommendation to provide EM as an alternative for the "vessel selected" fleet (under 57.5 ' LOA) will not change these on-going collection programs.

Sea bird deterrents: Compliance with seabird avoidance regulations is currently monitored by inspection of the deterrent gear during at-sea and dockside boarding's. The analysis for the research plan did not identify any deficiencies with the current approach which would warrant the cost of increased at-sea monitoring. However, as Saltwater, Inc. (the EM contractor) is mounting one camera on each EM monitored boat with a 360 degree view of the deck and aft areas, the deployment of seabird deterrent gear can be monitored on EM boats. The cameras are programmable to capture an image periodically even when the hydraulic pressure sensors are not active. Currently they are recording a frame every few minutes when not active. The view from the 360 degree camera is sufficient to see if the vessel is using sea bird deterrents when setting. A simple requirement to keep any seabird that comes up on the line would allow accurate species identification shore side to determine seabird takes.

For marine mammals, the two species that interact with longline gear are killer and sperm whales. Likely a photo from a Polaroid, let alone a sophisticated digital EM camera image, would allow species identification between these two whale species.

In summary, while EM cannot collect biological samples, the fisheries and small vessels the Council prioritized for EM coverage have minimal need for additional biological samples all of which can be met. Seabird deterrent deployment can continue to be monitored during boarding's or enhanced using EM cameras. Requirements to retain any seabird caught can ensure identification and support any enforcement action. Marine mammal entanglement can also be documented using EM.

That leaves catch and catch composition as the priorities for at-sea monitoring for the IFQ fleet and halibut PSC catch for the fixed gear Pacific cod fleet. If NMFS has other monitoring goals for the sablefish/halibut fishery, these should be clarified and brought to the fleet and Council's attention.

Alternatives: Once the data needs and specific monitoring objectives are identified by fishery, there will be several decision points on integrating the various monitoring tools, (human observers, EM, dockside sampling, logbooks etc.) to achieve the identified objectives. Given the socioeconomic impact of at-sea of monitoring on these fisheries, it is important to identify discrete alternatives so the cost, impact, and ability to meet identified priorities can be openly and transparently evaluated.

Funding: The EM roadmap also notes that long-term funding strategies for EM need to be developed during the "pre-implementation phase." The strategic plan should identify a target amount of funding for EM monitoring in each of the next five years so the program can be appropriately scaled. In 2013, NMFS is spending $200,000 on EM and in excess of $1.5 million to deploy human observers on small boats. Future funding for EM is opportunistic, relying on grants and other funding sources outside the fees collected for the observer program. Stakeholders are very concerned with this lack of commitment to EM and disproportionate spending on human observers. We ask that the Council ensure that the June document contain specific funding alternatives for stakeholder input and Council action.

Regulatory Options—The EM roadmap notes that during the initial implementation, *"as new logistical challenges are resolved and industry and managers adapt to the new monitoring program, this phase will include a period of initial program refinements."* There are several regulatory options of how to structure this initial implementation and these should be identified as explicit decision points in the strategic plan. Currently, NMFS is developing EM under a voluntary program without specific objectives or an outside review of the experimental design. After an unspecific period of testing, NMFS will begin the regulatory process to define performance standards and operator responsibilities. Once regulations are in place, EM may be provided as an alternative to human observers. Presentations at the October 2012 Council meeting and in other forums indicate that this process will take 4 to 6 years before the regulations are in place. Once in place, the regulations would need to be revised as the initial implementation phase identifies initial program refinements—another lengthy process.

An alternative to this approach would be to initiate an **exempted fishing permit** (EFP) process similar to that used to deploy EM in the West Coast Hake fishery from 2003 to 2010. A 3rd party such as Pacific States Marine Fisheries Commission (PSMFC) could sponsor the EFP and manage the development and field testing of an operational EM program in coordination with NMFS. As envisioned, the EFP would clearly identify performance standards, operator responsibilities, and research objectives for vessels selected to carry EM equipment as an alternative to human observers. Because an EFP requires Council and SSC review, these standards and research objectives would be subject to annual review to ensure feasibility, alignment with Council objectives, and input from stakeholders. The advantages of an EFP are that:

- It can be implemented by 2014 to provide the regulatory environment allowing vessels to carry EM as an alternative to human observers. This is consistent with the Councils June 2010 motion and May 14, 2012 comments on the proposed rule.
- It provides an adaptive framework within which performance standards and potential regulations can be identified, tested and rapidly refined.
- It allows operational procedures and handling practices to be standardized thus yielding reliable results. Voluntary programs by their nature cannot require vessel operators to implement handling procedures, fill out logbooks, or maintain the EM equipment.
- It allows retention requirements for rockfish, seabirds and other species to be evaluated without burdensome regulatory changes. Full retention of some difficult to identify species, like rockfish, has been identified as potential component of an EM program which needs to be considered. Without an EFP, this would require a multi-year regulatory process to change.
- It can be superseded by permanent regulations once the field testing and initial implementation phases are complete.

In sum, an EFP process involving a 3rd party such as PSMFC would develop the necessary performances standards and operational requirements for an ongoing integrated EM alternative much quicker than the current 4 to 6 year track. The EFP approach has many advantages over the current voluntary approach and should be integral to the strategic plan.

In closing, ALFA members would like to express a sense of urgency to implement an at-sea monitoring program that integrates human observers, EM and dockside monitoring for the fixed gear fleet. Based on our understanding of the social, economic, and biological needs of the fixed gear fisheries, and our experience with EM systems, ALFA remains convinced that EM is the most cost effective and least disruptive at-sea monitoring strategy for the fixed gear sablefish/halibut fleet. We are equally convinced that EM, as an integrated component of the restructured observer program, provides fishery managers with the necessary data to conserve and manage these fisheries. In forming the strategic plan to implement EM, we urge the Council to identify clear objectives, alternatives strategies for achieving the objectives, an adequate and dedicated funding stream, and an aggressive timeline to achieve EM implementation. We believe expeditious development of EM demands an EFP process and engagement of an experienced third party such as PSMFC and we urge you to explore this option. Finally, we remind the Council that the fleet worked hard to develop an implementable EM program and, based on Council action, supporting analysis and the proposed rule, fully expected EM to be available as an alternative to human observer coverage when the restructured observer program was implemented. In short—2014 implementation of EM would not be soon enough.

Thank you for your attention to these lengthy comments.

Sincerely,

Linda Behnken

Linda Behnken, Director

UNITED FISHERMEN OF ALASKA

Mailing Address: PO Box 20229, Juneau AK 99802-0229
Physical Address: 410 Calhoun Ave Ste 101, Juneau AK 99801
Phone: (907)586-2820 **Fax:** (907) 463-2545
Email: ufa@ufa-fish.org **Website:** www.ufa-fish.org

February 27, 2013

Eric Olson, Chairman
North Pacific Fishery Management Council
605 West 4th, Suite 306
Anchorage, Alaska 99501-2252

Dear Chairman Olsen and Council Members,

United Fishermen of Alaska is the largest statewide commercial fishing trade association, representing 36 commercial fishing organizations participating in fisheries throughout the state and its offshore federal waters. On behalf of UFA's membership I would like to submit the following comments on electronic monitoring (EM) for Council consideration during the April NPFMC meeting.

UFA members have consistently supported integrating EM as part of the Observer program in order to achieve cost effectiveness and minimize the impact of at-sea monitoring. We ask the Council to re-focus NMFS on achieving previously identified priorities and fishery specific monitoring objectives for EM as a component of an integrated at-sea monitoring program. We believe a focused effort can result in a workable program by 2014 and urge the Council and NMFS commit to this goal.

Adequately funding EM will be essential to achieve this goal. The current approach of opportunistically funding EM from grants or cooperative research funds does not provide the funding stability, focus, or adequate resources to develop EM in a timely fashion. We request a portion of the fees collected under the restructured observer program be dedicated for EM. This is consistent with the goal of having EM be an integrated component of the observer program and will provide a tangible step forward in achieving this goal.

UFA also recommends the Council consider the using EFP process to provide the flexibility needed to fine-tune the integration of EM and identify the necessary performance standards and regulations. NMFS has previously identified the two year process to identify and implement regulation governing EM as a significant barrier implementing an EM alternative in a timely fashion. The EFP process can be completed more quickly and provide the necessary framework under which to identify and develop formal regulations.

In closing, the success of the Canadian system and various pilot programs have shown existing EM technology is capable of providing reliable estimates of catch and catch composition if monitoring objectives are identified and performance standards articulated. There have been several side-by-side comparisons of EM and human observes which further document the ability of EM to achieve specific objectives associate with at-sea monitoring. What is needed in Alaska is a focused effort to implement EM as part of the observer program in a timely manner.

Sincerely,

Julianne Curry
Executive Director

March 26, 2013

Mr. Glenn Merrill
Assistant Regional Administrator
Sustainable Fisheries Division
NMFS, Alaska Region
P.O. Box 21668
Juneau, Alaska 99802-1668

Attention: Ellen Sebastian

FDMS Docket Number NOAA-NMFS-2011-0210

My name is Oystein Lone I am the operator and manager of the F/V-C/P Pacific Sounder. The vessel is based out of Dutch Harbor, Alaska. We do a combination of fisheries in the Aleutian Islands and Bering Sea. As a C/V we catch King Crab, Snow Crab, Pot Cod and Halibut. As a C/P we catch Sablefish & Turbot.

We do not qualify for the partial observer coverage under the new plan. Under the new plan there is a cut off date 2003 to 2010 to comply under the 5,000 lb. per day if you operate as a C/P. Our business was started in 2011. My question is; "why is there a control date on this"?

Yearly costs for observer coverage is around $30,000. Under the new program, the cost would jump to over $110,000 per year. That is if we stay at the same rate. Under the new plan we will be spending from 8% to 10% of our gross stock on observer coverage.

This will severely impact our ability to stay in this fishery. We have now changed our business plan for the year, reducing our fishing by 30% to try to make this work. So, now we will leave fish on the table that will not be harvested under the IFQ flag. Further cuts will be necessary if no changes are made to this program.

I recommend highly that the council make some changes to make this program so that it is fair for everyone.

1. Extend the access period, which is currently 2003-2010, to 2012 or eliminate the control date altogether to make it open for boats in the future.

2. Raise the 1 metric ton limit to 5 metric tons per day. This will make it easier to comply and retain fish and not have wastage of fish in a 24 hour period.

It has been a struggle this past year trying to comply with laws from the EPA and the Coast Guard ACSA program. Because the daily reporting requirement, our vessel had to put a very costly communication system onboard. Being a small boat owner we are just trying to make a decent living for the crew, my partner and myself while still having enough profit to keep up with vessel maintenance. This is extremely difficult to do for a small business such as ours. We would hope that public policy would be shaped to help small businesses such as ours to thrive, rather than forcing us out of business.

With the aging of the fleet, I know it would be good to have new participants coming in to the industry. This is very difficult because of all the restrictions and new regulations. There just doesn't seem to be the same hope for the future of the fishing industry that there was when I started out over 30 years ago. I am asking you to please look into this new ruling and to try to come up with a solution that will allow me to keep my business going well into the future as well as provide hope for incoming participants.

If you have any questions please feel free to contact me either on the vessel @ 206-965-9539 or via email at oysteinlone@frontier.com

Sincerely,

Oystein Lone

Oystein Lone
C/V-C/P Pacific Sounder

P.O. Box 3302, Seward, Ak 99664
(907) 224-5584 Kruzof@ak.net

Attn: Eric Olsen, Chairman and Corresponding Council Members 3/26/2013
605 West 4th Street, Anchorage, Ak 99501

Dear Chairman Olsen and Council Members,

Re: Agenda Item C-1 Observers

As council receives reports on the Re-structured observer program, please consider the following changes to the rule as soon as the Council process allows.

A. Observer Coverage Requirements for certain classes of Catcher Processors (CP's).

Certain CP's are provided a choice of receiving 100% observer coverage or participating in the partially observed program based on the following exceptions;

1. If production is no more than 1 MT of Round wt /day, such CP can go w/partial observer coverage for the following year.

2. CP's of <60'LOA in operation between 2003 and 2010 to be allowed a one-time decision of participating in the partial delivery category and pay an observer fee on their catch, or be 100% observed and pay as they go.

3. CP's who historically processed less than 5,000 lbs of round weight equivalent between 2003 and 2010 to be allowed a one-time decision of participating in the partial delivery category and pay an observer fee on their catch, or be 100% observed and pay as they go.

Requested changes;

On item 1, raise production volume to 5MT of Round wt/day of the target species only.

On item 2, change the one time selection to an "annual" decision and eliminate control dates.

Eliminate Item 3, as it would default to change in item 1.

The production limit of 1 MT of round wt/day might seem feasible for a freezer troller operation in Southeast, but hardly viable for larger scale vessels that are more conducive to the fishing regions of Western Alaska, Aluetian Is and Bering Sea.

The one-time selection is unreasonable. Such selection would supersede the vessel's future years of operations and expectant change of ownership. Consequently flexibility in how a vessel could respond or adjust to fishery demands and markets in the future would be limited.

Eliminating control dates provides opportunity for vessels to do CP work on a small scale now or in the future. This proves worthy in certain fisheries where catch quantities may be limited, delivery points distant and/or where the quality of products can be preserved better. CDQ fisheries could also benefit since such quota can be harvested and delivered unprocessed or processed, therefore providing choice in how a vessel may fully utilize and market such harvest.

Amendments to these exceptions are needed for such operations to remain viable in their business. Depending on how a vessel operates from one year to the next, the type of observer coverage decided upon initially could significantly impede on the fiscal success of a vessel's operations.

Without amendments to the rule the observer program discriminates and adds costs to new entrants and vessels that may have the capacity for diverse operations.

When this part of the rule was deliberated and determined at the council level in October of 2010, industry had minimum input on the development or outcome of the motion. Furthermore no economic review or assessment was given on those vessels potentially impacted. Council is urged to re-consider this part of the rule as soon as possible.

B. Base Observer Fee on current year prices for IFQ fisheries.

For purpose of administrative ease and reducing potential duplicative reporting or invoicing, agency encouraged using previous year's price for the current year IFQ catch. Such notions can be refuted if agency made effort to correspond their collection of observer fees with the current NMFS fee billing system.

1. The NMFS fee billing illustrates the same landings that the observer fees are to be based on.
2. Prices would be more accurate since they would be regionally and seasonally based.
3. Collection of fee would be timely since it is presented in December and expected to be paid by January 31st. This is sooner than when the Observer fee is required to be paid by the processors.
4. No duplicative report or additional invoicing would be necessary other than a separate line item on the NMFS fee notice illustrating a separate value to be paid for observer coverage.

Please consider this change to the rule so the IFQ fleet can pay real time prices for current catch.

Thank you for your timely attention to these items as they move through the council process.

Sincerely,

Rhonda A. Hubbard

Observer Advisory Committee – Meeting Report
April 1, 2013
Dillingham/Katmai Room, Hilton Hotel, Anchorage, AK
3 pm – 10 pm

Committee: Dan Hull (Chair), Bob Alverson, Jerry Bongen, Julie Bonney, Dan Falvey, Kathy Hansen, Michael Lake, Todd Loomis, Paul MacGregor, Brent Paine, David Polushkin, Anne Vanderhoeven. **Not present**: Kenny Down, Joe Rehfuss (at sea), Darren Stewart.

Agency Staff[1]: Diana Evans, Chris Oliver (NPFMC); Martin Loefflad, Farron Wallace, Michael Vechter, Nick Thom, Paul Wilkins (NMFS FMA); Glenn Merrill, Mary Furuness, Rachel Baker, Josh Keaton (NMFS AKR); Nathan Lagerwey (NMFS Enforcement); Susan Auer (NOAA GC - Enforcement); Nicole Kimball, Cora Campbell (ADFG), Gregg Williams (International Pacific Halibut Commission).

Other attendees included: JoAnn Alvarez, Linda Behnken, Heather Brandon, Tim Carroll, Sam Cotton, Craig Cross, Jason Dean, Ed Dersham, Jeff Farvour, Paul Gronholdt, Kent Helligso, John Henderschedt, Rhonda Hubbard, David Long, Dorothy Lowman, Brian Lynch, Tracy Mayhew, Chuck McCallum, Liz Mitchell, Becca Robbins-Gisclair, Herman Squartsoff, Lori Swanson, Shawna Thoma, Matt Upton, Ernie Weiss, Elizabeth Wiley.

Agenda

I. Introductions, review agenda
II. Update on implementation of observer restructuring
III. Update on national electronic monitoring initiatives
    a. Pacific Council EM workshop
    b. NMFS HQ EM papers and CCC discussion
IV. Electronic monitoring strategic plan - outline
    a. Presentation of EM strategic plan outline
    b. Public comment
    c. Discussion and recommendations
V. Scheduling & other issues

1 Introductions and agenda

Introductions were made, and the agenda was approved. The Chair identified the two tasks that the Council provided for this meeting: to review the draft outline of the NMFS EM strategic plan, and to receive an update on implementation of the restructured observer program for the current year.

2 Update on implementation of observer restructuring

Martin Loefflad provided an update on the implementation of the new program, focusing on operations to date in the trip selection and vessel selection pools. He also reported about the agency's training and outreach activities, and the impacts of sequestration on hiring for the program. The Committee had various questions of clarification.

[1] NPFMC – North Pacific Fishery Management Council; NMFS FMA – Fishery Monitoring and Assessment division at the National Marine Fisheries Service's Alaska Fisheries Science Center; NMFS AKR – NMFS Alaska Region; NOAA GC – National Oceanic and Atmospheric Administration General Counsel; ADFG – Alaska Department of Fish and Game.

3 Update on national electronic monitoring initiatives

Pacific Council EM workshop

Various members of the OAC attended the Pacific Council's EM workshop, held at the end of February. It was noted that the Pacific Council is dealing with many of the same issues with implementing EM as the North Pacific, although they are trying to address different fishery objectives. The workshop was a good example of a collaborative process among all industry and agency stakeholders.

NMFS HQ EM papers and CCC discussion

Mr Loefflad updated the Committee on NMFS HQ's release, in late February, of five of six planned white papers on EM, and summarized key findings. The six white papers address the following topics: 1) Analysis of existing EM technologies/programs; 2) Enforcement issues/impediments; 3) Research and development requirements; 4) Re-alignment of management and monitoring; and 5) Funding options; and 6) Legal/confidentiality concerns (not yet released). Chris Oliver noted that the white papers were presented at the Council Coordination Committee (CCC) meeting last month, and provide a good summary of the current state of EM development and associated issues. The CCC will form a subgroup to provide input to NMFS as they work on turning the white papers into national policy guidance, with the hope that any guidance will enhance, not constrain, regional efforts.

4 Draft electronic monitoring strategic plan

Presentation of draft EM strategic plan

Farron Wallace and Mr Loefflad gave a presentation of the March 26th draft of the Strategic Plan for EM/ER (electronic monitoring/electronic reporting) in the North Pacific. The plan includes a description of current observer program objectives, and whether EM, as it is currently available, can meet those objectives. The plan also describes the Council's objectives for EM, and efforts that are underway to address those objectives. Largely, Mr Wallace reported that information would be available to assess EM objectives in mid-2014, with the combination of results from the 2013 pilot program, and the performance evaluation of the first year of the restructured program. The Committee questioned whether other information can be used to assess data needs and identify objectives on an earlier timeframe.

The Committee clarified Mr Wallace's intent in comparing an audit compliance monitoring approach (such as is used with EM in Canada), and a sampling/estimation approach (which is currently used in the Alaska human observer program, but not yet in any EM programs). The intent was to clarify the relative merits and challenges of both approaches, about which there has been confusion in the past, and to present these alternative approaches, and their cost effectiveness, as an eventual decision point for the Council with respect to the use of EM in Alaska.

Finally, Mr Loefflad walked through the draft's vision statement, goals and objectives, and strategies and actions related to the objectives. Mr Loefflad noted that NMFS' intent with the strategic plan was to provide a broad perspective on EM/ER, and articulate multi-year goals that would apply across Alaska fisheries. The final section of the plan focuses on implementation, and provides the intersection with the Council's existing EM priority for discard monitoring on the IFQ small boat fleet, and the ongoing work to address that priority, as described by Mr Wallace.

Public Comment

Two people provided public comment on this issue. The issues raised in public comment were subsequently captured in the Committee's discussions and recommendations. One of the Committee members, who could not be present at the meeting, also submitted a written letter.

Committee Discussion and Recommendations

The Committee makes the following recommendations to the Council regarding the draft Strategic Plan for EM/ER.

The OAC recommends the matrix presented in the strategic plan, beginning on page 4, be expanded to include:

1. The list of tools identified in the draft EM roadmap (page 12, EM Fisheries Monitoring Roadmap - attached)
2. The high, medium and low rankings, notations describing handling procedures, and comments describing the integration of various monitoring tools to meet monitoring objectives in the fixed gear IFQ and Pacific cod fisheries similar to those included in the EM Roadmap (page 12).

The Committee commented that the current portrayal of EM capability in the strategic plan's matrix, as compared to the tasks that can be performed by a human observer, does not provide sufficient context about other reporting tools that are also available in an integrated fishery monitoring system. It was noted that a broader understanding of the available tools would help the Council evaluate the strategic uses of EM, in June. The referenced EM Roadmap is not a NMFS document, but is a draft document that was made available during the CCC meeting in late February. The recommendation is intended to reflect that the format of the attached table is a useful way to expand the existing version in the strategic plan; the Committee does not presuppose that the content of the table would necessarily be the same, and understands that in some instances (such as the small boat IFQ fleet), Alaskan data needs (as listed in the rows) have yet to be identified.

The Committee also discussed that the strategic plan for EM needs to include information to allow the Council to specifically identify monitoring objectives for EM. The Council may reaffirm its existing objective (discard monitoring on the IFQ fleet 40-57.5 ft), or may wish to identify different objectives. Including a discussion of the known data needs for different Alaska fisheries (e.g., data needs for the stock assessment program, or other observer program clients) would allow the Council to better determine appropriate objectives, which could then lead directly to a strategic choice of the appropriate combination of monitoring activities and EM/ER tools to meet those objectives. The Committee noted the interrelationship of these data needs with potential elements that may be reported to the Council in the June 2013 performance evaluation.

The OAC recommends the following changes to the vision statement on page 7 (new text is underlined):

> A future where electronic monitoring and reporting technologies are integrated into NMFS Alaskan fisheries dependent data collection systems, where applicable, to ensure that scientists, managers, policy makers, and industry are informed with fishery dependent information that <u>meets fishery specific data needs, is</u> relevant to policy priorities, of high quality, available when needed, and is obtained in a cost effective manner <u>that is designed to minimize economic and social impacts to the vessel</u>.

The Committee discussed whether the vision statement should remain focused specifically on EM/ER, or be expanded to recognize that EM/ER is part of a diverse suite of tools in an integrated observer program. The Committee chose to have the vision statement remain focused, in part to avoid slowing down the impetus to move forward with implementation of EM.

The OAC recommends that a tactical strategy appendix be added to the strategic plan identifying the following decision points for Council consideration:

1. Regulatory options, EFPs, voluntary participation in pilot programs, and regulatory changes with their associated timelines
2. Funding options
3. Strawman alternatives, describing alternative timelines and implementation schedules
4. The more detailed description on how workplans and experimental designs for pilot program phases and design elements affecting cost effectiveness will be developed, reviewed, and coordinated with stakeholders.

The Committee would like the strategic plan to explicitly identify decision points for the Council with respect to the cost effectiveness of EM choices, the different pathways that could be taken to achieve them, the process to ensure that the data resulting from these choices will be credible, and different timing options for when these decisions might be made (including what information would be available to the Council with respect to these decisions at different times). The Committee had a brief discussion about the regulatory process for EFPs in Alaska (which is different than that in other regions). It was noted that many of the requested items relate more to deployment of EM, rather than strategic goals, and the Committee noted that these items could also appropriately be addressed in the final section of the document, "Implementing the strategic plan", beginning on page 13, rather than as an appendix.

The OAC would like to reaffirm the sense of urgency, and the need to move EM ahead, as an alternative to human observers, and part of the integrated observer program.

5 Scheduling

The Committee discussed the need for and timing of future OAC meetings. The Chair suggests that the next OAC meeting should be in conjunction with the June 2013 Council meeting, to review the draft EM strategic plan, and also provide comment on the 2013 performance evaluation of the program. The meeting could either be during the meeting (likely Sunday or Monday), or the week before, depending on when documents are available for review, and may need to be two days. The Chair also recommends holding an OAC meeting in September, once the 2014 Annual Deployment Plan has been released, to provide recommendations for the Council discussion in October.

The Committee also discussed what the appropriate process should be for soliciting and reviewing potential regulatory amendments to the restructured program. The Committee did not feel that a formal call for proposals was required at this time, but noted several potential amendments that have been suggested in public testimony or Council discussion. The Committee suggests that a list of potential amendments be discussed by the OAC in June, for Council consideration, and that a more detailed review of these proposals could then occur at the September OAC meeting.

Ability to Meet Data Needs

	high
	medium
	low
	not applicable

Data Needs	Fishery Characteristics		Independent Monitoring				Self-Reporting	
			Vessel Monitoring System	Camera-based System	At-sea Observers	Dockside Monitoring	Logbooks	Hailing or Notifications
confirm if any catch was discarded	full retention			Requires appropriate camera coverage. Cameras must stay on once catch is onboard.	Requires observer to be present during all catch handling events		Can upgrade this rating if there is incentive to report discards	Ability to notify if any catch was discarded is high. Need incentives to ensure accuracy of data.
Discards: species and amount (count, length or weight)	serial or low volume catch handling			Discards released one at a time in a dedicated location	requires access to catch handling areas		Given experience with the vessel and fishing gear, vessel operators can estimate amount of catch discarded	Logistically, it may be difficult to notify discards for every event.
	high volume catch handling	single target species		Can use bins to approximate volume of catch				Not optimal as a standalone reporting mechanism.
		multi-species		Requires discards to get sorted into bins by species	Speciation is facilitated if the observer can take samples for catch composition or for later identification			
	species difficult to differentiate							
Retained catch: species and amount (count, length or weight)	serial or low volume catch handling			High ability as long as camera is not obstructed			Can upgrade this rating if incentives to report are high.	Not optimal as a standalone reporting mechanism.
	high volume catch handling	single target species		Can use bins to approximate volume of catch				
		multi-species		requires modified catch handling procedures	requires access to catch handling areas			
	species difficult to differentiate			requires modified catch handling procedures				

ABILITY TO MEET DATA NEEDS

	high
	medium
	low
	not applicable

Data Needs	Fishery Characteristics	Independent Monitoring				Self-Reporting	
		Vessel Monitoring System	Camera-based System	At-sea Observers	Dockside Monitoring	logbooks	Hailing or Notifications
spatial information for fishing trip	single management area	will depend upon reporting frequency	Usually integrated with GPS-can show location of gear deployment and retrieval				Stock area fished often declared upon departing and returning to port.
spatial information by fishing event	multiple management zones	can show areas fished, but no catch attribution data		Record fishing location based on vessels GPS			can notify changes in fishing location-catch attribution difficult
details on interactions with protected species	species encountered			Are trained to identify, assess condition, properly handle and release and collect any necessary samples from protected species			
	handling method						
	condition at release						
	discarded or retained				Species retained can be identified and sampled		
	other interactions						
operational details	gear used						
	amount and type of bait						
	economic data						
biological data from catch	length frequency		only for low volume batch with dissimilar species		considerations needed for discarded catch		
	age						
	reproductive condition						