



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**

*National Marine Fisheries Service*

*P.O. Box 21668*

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May 31, 2012

Eric A. Olson  
Chairman, North Pacific Fishery Management Council  
605 W. 4<sup>th</sup> Avenue, Suite 306  
Anchorage, Alaska 99501-2252

Dear Mr. Olson:

We are writing to reaffirm our commitment to develop electronic monitoring (EM) as an alternate tool for fulfilling observer coverage requirements as a component of the restructured North Pacific Groundfish and Halibut Observer Program (Observer Program) per the Council's June 2010 motion. The change in the draft proposed regulatory text to implement Amendment 86 to the Fishery Management Plan (FMP) for Groundfish of the Bering Sea and Aleutian Islands and Amendment 76 to the FMP for Groundfish of the Gulf of Alaska (Amendments 86 and 76), the Council reviewed in October 2011, to the proposed rule published April 18, 2012 (77 FR 23326), does not reflect a change in our intent to develop and integrate EM into the restructured Observer Program. The following provides an update on our efforts and objectives to integrate EM into the restructured observer program by 2013.

The Council's October 2010 motion to restructure the Observer Program expanded the program to all groundfish and halibut vessels participating in fisheries under the Council's jurisdiction. NMFS Alaska Fisheries Science Center (AFSC) and Alaska Regional Office (AKR) staff participated in meetings of the Council's Observer Advisory Committee (OAC) and the Council in 2011. The results from those meetings established that the initial phase of an EM program should focus on the 40 to 57.5 ft halibut and sablefish hook-and-line vessels. The Council's October 2011 motion clarified the Council's goal of integrating EM into the Observer Program as an alternative tool for meeting program requirements and urged NMFS to advance in that direction. Various limitations about EM were discussed in these meetings including the inability for EM to provide the biological information collected by observers, difficulty in species identification, the time lag in information availability from EM, system reliability, susceptibility to tampering, and the multi-year interval required to establish a very productive data generating system from EM. Despite these limitations, NMFS agreed that EM may be a helpful tool for gathering data to generate estimates of at-sea discards on previously unobserved vessels, particularly in the hook-and-line individual fishing quota fisheries, where it would be relatively difficult or impractical to carry an observer. As such, NMFS has been developing the capacity to deploy EM systems on some vessels at the outset of the restructured Observer Program.



We are working to achieve the Council's short-term goal of including EM for use on hook-and-line vessels less than 57.5 ft in length and working to incorporate EM as an integrated component of the Observer Program over the longer-term where technically and economically feasible. Lessons learned from prior fishery EM projects demonstrate the need to match the sampling objective with the system capabilities. We think the first-look at discards on small hook-and-line vessels where there's not a need for rapid data transmission is a good starting point.

As noted at the April 2012 Council meeting and in correspondence to you from the AFSC on March 21, 2012, the AFSC has dedicated \$175K to fund EM in 2013. This amount is in addition to the \$3.8M NMFS dedicated to start the restructured Observer Program. NMFS is developing two separate contracts for implementing the restructured program: one to provide the camera deployment infrastructure for EM, and the second to hire and deploy human observers across the restructured fleet. The Request for Proposals (RFP) for the EM contract has been submitted to our procurement office and will be advertised in the near future. The RFP for the observer contract has been advertised and we are evaluating bids. We expect to award both contracts this fiscal year; together they form the basis for the restructured Observer Program with an EM component in 2013.

The AFSC recently hired Farron Wallace, a long-time member of the Council's Science and Statistical Committee. Mr. Wallace will lead the development of EM on hook-and-line vessels while assisting the analytical work to inform our human observation systems. We also plan to add resources to extract video data collected from EM systems.

NMFS AFSC and AKR are also collaborating to enable efficient storage and retrieval of EM-collected data and to potentially automate analysis of images. Images contain a large volume of data, and organized database access will be needed. Data storage and retrieval solutions exist for some EM applications, and we have the resources and skills to implement them. We have also identified potential for the development of software analytics that can assist in rapid, automated interpretation of images. We completed a contract demonstrating this potential and anticipate further work this year focusing on hook-and-line gear.

Pilot EM work conducted by the Alaska Longline Fisherman's Association (ALFA) under a National Fish and Wildlife Foundation (NFWF) grant has provided valuable guidance for the operational and logistical aspects of EM. They have deployed camera systems on several vessels and presented their work to the Council and the OAC. AFSC staff worked with the principal investigator in 2012, the initial year of the NFWF grant. AFSC staff spent a week in Sitka assessing the video footage and providing feedback for the next year's work. As well, ALFA has provided information that has helped NMFS in our work to contract for operational EM in small boat hook-and-line fisheries.

On a broad level, NMFS has initiated a nationwide effort to examine EM technologies and provide guidance to the regions, where applicable. The goal of that effort is to develop a strategic process for the agency to evaluate and fund EM technologies and to understand any impediments to implementing EM programs including technical, policy, regulatory, budgetary, and

enforcement issues.<sup>1</sup> NMFS Headquarters staff have committed to developing six white papers addressing analysis of existing EM technologies/programs, enforcement issues/impediments, legal/confidentiality concerns, research and development requirements, re-alignment of management and monitoring, and funding options. After development of the white papers, the national effort will focus on:

- working with the Council Chairs Committee and Councils to set up opportunities to resolve issues impeding adoption of EM;
- developing guiding principles and best practices for implementing EM in U.S. fisheries
- devising more options to help develop and fund EM; and
- incorporating EM results into a cost-effective strategic approach to sustainably meet data collection requirements.

NMFS AKR and AFSC staff are participating in the development of the white papers, which are targeted for completion this year. We will share the completed white papers with the Council. We may glean information from these documents that will be helpful to our own EM efforts.

We provided the Council with a discussion paper on prior EM projects in fisheries off Alaska at the February 2011 Council meeting. The experience from the EM projects discussed in that paper (in the Gulf of Alaska rockfish fishery, the halibut hook-and-line fishery, and BSAI Amendments 80 and 91), provided useful background for the priorities for initial EM efforts in the restructured Observer Program. As well, we are continuing to coordinate with and learn from EM projects that are occurring outside Alaska. NMFS Northeast Region is employing EM on a variety of gear types to monitor quota allocations and sub-annual catch limits. Upon completion of the first year of the project in 2010, NMFS Northeast Fishery Science Center (NFSC) concluded that their EM system was insufficient to meet the program objectives which included identifying species of flounder and hake and monitoring weights of discarded fish by species. That project is continuing and some improvements in EM performance were expected through further research.<sup>2</sup> We expect to continue to learn from their efforts and acknowledge that their use of EM for real-time catch accounting in a catch share fishery was a high bar to achieve through EM. We think the approach in Alaska, without the demand for timely catch accounting in the hook-and-line fishery, may be a better fit for the existing technology.

Pending implementation of the final rule for Amendments 86 and 76, we will deploy EM systems on cooperating vessels in the vessel selection pool in 2013. NMFS does not intend to deploy EM systems on vessels that are opposed to carrying EM in the initial years of the program due to concerns about NMFS' ability to enforce the requirement for vessels to carry EM until more detailed specifications are provided in the regulations. As well, NMFS AKR and AFSC recognize the importance of industry support for EM. We intend to continue to work collaboratively with industry and the Council to develop EM and apply it where it makes good sense in meeting an information need for effective fisheries management. Thus, the change in

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<sup>1</sup> A presentation on the national EM perspective was presented to the Council Chairs Committee at its May 2012 meeting and to the Pacific Fishery Management Council in April 2012. The presentation is available online [www.pcouncil.org/wp-content/uploads/14b\\_SUP\\_NMFS\\_PPT\\_APR2012BB.pdf](http://www.pcouncil.org/wp-content/uploads/14b_SUP_NMFS_PPT_APR2012BB.pdf).

<sup>2</sup> The contractor's report on the first year of the Northeast's EM program and NMFS NFSC's review are available online [www.nefsc.noaa.gov/fsb/Electronic%20Monitoring%20Pilot%20Study/2010\\_EM\\_Report\\_FINAL.pdf](http://www.nefsc.noaa.gov/fsb/Electronic%20Monitoring%20Pilot%20Study/2010_EM_Report_FINAL.pdf).

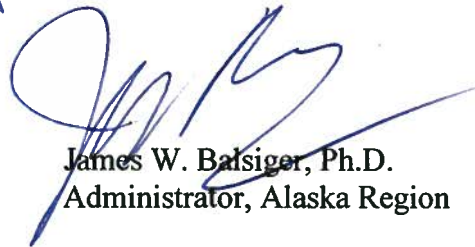
EM text from the draft proposed regulations in October 2011 to the proposed regulations in April 2012 does not decrease our incentive to develop EM. However, we will give full consideration to the Council's comments on the EM language in the proposed rule submitted by Chris Oliver on May 14, 2012.

There are numerous perspectives within NMFS, the Council, and the industry about what constitutes an integrated EM component and how far along the EM program will be in 2013. Our goal for a fully-integrated EM program in the North Pacific includes obtaining quality effort (location and quantity of gear set) and catch composition information from EM-observed vessels. Implementation of an EM program will need to consider the potential economic costs and benefits to the industry and NMFS. While work is underway, it may be several years before the overall goal of a fully-integrated EM program is realized. We envision continued coordination with the Council and industry to develop an EM program to provide data necessary to meet the high standards for fishery management in the North Pacific.

Sincerely,

Douglas P. DeMaster, Ph.D.  
Science and Research Director, Alaska Region

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BOTH



James W. Balsiger, Ph.D.  
Administrator, Alaska Region