

Electronic Monitoring Workgroup - Minutes

April 27, 2015 8am – 4pm, teleconference

Workgroup: Bill Tweit (chair)

Appointed: Stacy Buckelew (Saltwater, Inc.), Bernie Burkholder (F/V Northern Endurance), Dan Falvey (ALFA), Howard McElderry (Archipelago Marine Research (AMR)), David Polushkin (KBFA), Jeff Stephan (UFMA)

Agency: Alia AlHumaidhi (PSMFC), Dave Colpo (PSMFC), Sam Cunningham (NPFMC), Courtney Donovan (PSMFC), Diana Evans (NPFMC), Trent Harthill (ADFG), Nicole Kimball (ADFG), Tom Meyer (NOAA GC), Jennifer Mondragon (NMFS AKR), Chris Rilling (NMFS FMA), Farron Wallace (NMFS FMA)

Others attending included: Adam Batty (AMR), Jane DiCosimo (NMFS National Observer Program), Karl Haflinger (Sea State), Kathy Hansen (Southeast Alaska Fishermen's Association), Eric Torgeson

The Chair opened the meeting with introductions and a discussion of the agenda.

Updates on 2015 research

Updates were provided on the 2015 EM Cooperative Research and Implementation Program, which was adopted by the Council in February 2015. The research plan has four elements: deployment of EM systems (fieldwork on operational testing with standard camera), research and development of EM technologies (fieldwork on the feasibility of EM data (from varied cameras) to estimate catch by weight), infrastructure to support EM implementation (application development to support EM data integration into the observer database), and analyses to support EM implementation decision points. Progress to date has primarily focused on the first three.

Farron Wallace updated the workgroup on the research and development fieldwork that has concluded on the Northern Endurance, using both standard and stereo cameras. The vessel had multiple trips in each of three different fisheries during that time – the Pacific cod pot fishery, and longline halibut and sablefish fisheries. The EM data will be matched with results from the at-sea observer's results for the same sets, and an analysis should be available for the next EM Workgroup meeting. He is also preparing to send cameras out on two IPHC survey vessels this summer.

Howard McElderry and Adam Batty provided an update on the operational testing fieldwork. The 2015 fieldwork is focusing on Sitka and Homer as service ports, although a data collection program has also been established in Seward as many Homer vessels land fish there also. Equipment has been installed on ten vessels to date, with two more installations planned in May. The vessels are distributed between Sitka and Homer, with landings in a variety of ports. Hard drives are being collected every two weeks, by the local technician if in a service port, or otherwise the vessel operator pulls the hard drive and mails it to Pacific States for data review. Vessels are being asked to do a dockside debrief as planned, although it has been adapted so as to remove duplicative questions on a trip by trip basis. As the fieldwork proceeds, AMR is documenting steps to be able to develop an operational specifications document at the end of the fieldwork cycle. The Workgroup identified that issues of chain of custody and timing of data retrieval will need to be considered for the program next year, and also discussed how cost estimates can be used for budgeting for the 2016 program.

Farron also updated the group on continued application development efforts at the AFSC, to allow EM data to be incorporated into the observer database. This work will be ongoing into next year.

Video review protocols for 2015

Dave Colpo, Alia Al-Humaidhi, and Courtney Donovan reported that they have received data for six Northern Endurance trips (three pot and three setline), and 24 volunteer longline vessel trips (vessels participating in the operational testing fieldwork) which account for 223 hauls. Of the volunteer vessel trips, ten trips have full sensor and video, full rockfish retention, and dockside monitoring, which account for 68 hauls.

They described the data review protocol that they are intending to use for reviewing 2015 EM data, and resolved specific questions with the Workgroup. The Workgroup agreed that the priority of projects for data review will be: 1. IPHC halibut longline survey data (noting that this will not be available until mid-June, therefore there should be time to review data from the lower priority projects before then); 2. Northern Endurance longline data sets that have matching observer information; and 3. Volunteer longline vessels (among these, prioritize trips that have full sensor and video, full rockfish retention, and dockside monitoring). Review of data from the Northern Endurance pot fishery is on hold until further notice. There are slight differences in the protocol for each of these data sources, which are described in a PSMFC protocol summary document on the Council website.

PSMFC staff alerted the Workgroup to a problem that has been occurring with the video data due to the 24 hour seabird streamer line compliance camera that is being used on the vessels in 2015. When the vessel is powered off at night, the EM computer's backup battery engages to continue running the seabird camera. The battery is, however, sometimes insufficient to prevent an emergency shutdown of the EM computer, which may compromise the data. The Workgroup discussed various possible solutions, and Howard is going to investigate and report back to the group at the next meeting.

2016 Draft EM Pre-implementation Plan for small hook-and-line vessels

Dan Falvey and Howard McElderry developed a discussion draft of the 2016 EM pre-implementation plan, which they presented to the Workgroup. The Workgroup reviewed the draft, and adopted it as a Workgroup product, with revisions based on the discussions. The working draft 2016 pre-implementation plan is considered to be part of these minutes. Major points of deliberation for the Workgroup at this meeting were the criteria for qualifying for the EM pool, and the process and timing for opting in to the pool. While budget constraints are certainly a factor affecting the maximum size of the EM pool, another constraint is ensuring that the remaining vessels in the human observer pools retain an acceptable number of participants to ensure data quality¹. The draft 2016 Annual Deployment Plan, which is issued in early September, needs to analyze the effect of moving vessels to zero selection to participate in the EM pool. After much discussion, the Workgroup suggested sending a letter to the 40-57.5 ft fixed gear vessels, requesting owners to indicate if they are interested in participating in the 2016 EM pre-implementation program. The letter is to be sent to all vessels, but would indicate that priority would be given to longline vessels who demonstrated a past history of problems accommodating an observer onboard (the Council's stated priority), and to those who respond before July 27, 2015. In this way, the Workgroup would have an idea of the number of interested vessels for the July meeting, and this information would inform the 2016 ADP analysis. As the EM program design will not be finalized until after the October Council meeting, participants who initially expressed interest would be given a time-limited opportunity to decline and return to the human observer pool once the final program parameters are decided. Moreover, if the EM pool can accommodate more vessels than initially express interest by July 27th, additional participants that meet the established criteria may be accepted until the final fall deadline.

Some other issues that were highlighted in the discussion related to how many ports the program should operate in, and under what circumstances vessels would be required to go to those ports; whether full retention of rockfish is needed, and who should write an EFP to allow this; how to structure a program

¹ It was suggested that one solution might be for the ADP to consider combining large and small vessel pools.

that accommodates competitive EM service providers; the fact that some protocols might be acceptable in a pre-implementation program which may not be permissible in a regulated program (e.g., requirements in response to equipment breakdown, compliance incentives); and the opportunity to use the 2016 pre-implementation to test some aspects of the program (e.g., tradeoffs with data turnaround times).

Planning for further discussion at the July 30-31, 2015 EMWG meeting

The Workgroup identified a number of items that will help the meeting in July be more productive with respect to decision points for the 2016 draft pre-implementation plan, ranging from data needs and analyses to agency consideration of specific issues. A summary is provided below. The Workgroup member who is assigned as lead for each of these issues is identified in the Workgroup's project tasking list, which is posted on the Council website.

- Cost breakdowns for budgeting discussions – per port, fixed hardware unit (sensors, housing), transferable hardware unit (camera, computer), vessel installation, data review, plus overhead
- Analysis to evaluate options for EM deployment – on the basis of pre-registration or past history, by calendar quarter or for a more flexible period (e.g., 1, 2, or 3 months after the first trip)
- Analysis to evaluate minimum selection rates for the EM pool – 12%, 20%, 30%
- Demographic information for the 170 vessels that have identified problems with accommodating observers in 2013 and 2014; also specifically for any vessels that have opted in by July 27
- 2015 video review results to date
- Discussion of how EM data will get used in the catch accounting system in 2016 and in the future
- Comparison of methods to turn piece counts into weight
- Rockfish – full retention to enable identification of catch at the dock, how would an EFP for full retention go forward
- Discussion of effort logbooks and tradeoffs between paper and electronic
- Considerations regarding the enforcement of the program and how to avoid gaming

Funding / Budget

Chris Rilling and Dave Colpo updated the Workgroup on budget for 2015 and 2016. They are projecting that all 2015 money will be spent through the end of the fiscal year on the 2015 EM Cooperative Research, with perhaps an overrun (which would need to come out of funds for 2016). Currently the funding in hand for 2016 is about \$1.2 million, which would allow for 13 cameras plus fieldwork. Additional proposals have been submitted to NFWF (about \$500,000) and within NMFS (\$2 million, but could be scaled down), which will hopefully provide additional funds to extend work into 2017 and allow for additional camera units (the initial budgeting estimate targeted 30 cameras for 2016). The Workgroup had questions and clarifications, including about whether it is possible to avoid overspending in 2015, and agreed to continue budget discussions at the next meeting.

Stacy Buckelew also provided an update on two proposals submitted to NFWF by Saltwater, supporting the continuation of the pot cod EM research, and to develop open source software for EM data review.

Other issues

The Workgroup has scheduled its next meeting for July 30-31, 2015. There is also a follow-up meeting scheduled for September 8, 2015. The main purpose of the next meetings is to develop a proposal for EM work in 2016, to present to the Council at the October meeting. The Workgroup is also interested in continuing other EM research in 2016 if possible, especially operational testing for pot vessels, and will discuss opportunities in July. To that end, the Workgroup agreed to follow up on the Council's request that the Alaska Fisheries Science Center provide a letter outlining monitoring priorities for stock assessment for pot fisheries (as they have already done with respect to longline vessels 40-57 ft). Jennifer Mondragon agreed to work on providing information on species identification needs for management.