

## **EM Technical sub-group Final Minutes**

6/15/14 Meeting in Seattle

Participants: Howard McElderry (Archipelago), Chris Rilling (AFSC), Martin Loefflad (AFSC), Farron Wallace (AFSC), Dave Colpo (PSMFC), Jennifer Cahalan (PSMFC), Elizabeth Chilton (AFSC), Jennifer Mondragon (AKRO via Phone), Adam Batty (Archipelago), Morgan Dyas (Saltwater)

### **Track 1 update**

Dave provided an update on Pacific States contracting processes and noted that the current contracts the EM system providers are expiring in 2014 and Pacific States is working to initiate a new RFP process to establish an EM contract for the future. Fortunately, this coincides with the summer salmon fishing where we are not expecting any EM work.

We noted that we have a number of current EM deployments under Track 1 and any potential expansion of the scope of this work would need to be discussed and agreed with the broader EM committee.

Status of current and planned deployments on vessels and at shore-side plants are:

- Saltwater: 4 boats have been deployed with cameras (Douglas River, Miss Lead, Defender, Captain Cook) out of Homer. Deployed cameras on all 4 in the spring and, in general, everyone was done fishing in April or early May. One boat (Miss Lee) plans to fish near Kodiak in Aug. And there is interest from others in fishing in the fall but nothing is concrete yet. They also have an “interest list” but those boats were waiting to see if there was going to be a release from coverage.
- Archipelago: 5 boats have been deployed with cameras (Cherokee, Magia, Minke, Sherrie Marie, Tammy Lin) out of Sitka. 2 of them are still fishing and will stop in June. 18 trips total so far, expecting 4 more trips. They are not sure if some of these boats will fish in the fall or not.

Entities who have expressed interest in continued EM work and process for selection:

- AFSC sent a letter out to all vessels in the vessel selection pool asking for volunteers to participate in Track 1 and that they would be released from observer coverage if they participated. The deadline for responding to the letter was May 30. AFSC got 17 responses. Nine of them are the same boats that have already been participating in Track 1. There are 5 boats that are already participating in Track 1 that did not respond. But, they may not have thought they needed to – so AFSC will reach out to them.
- Respondents are from Sitka, Homer, Kodiak, Petersburg, and 2 others that are home-ported in WA but fish out of SE and said they could pick up cameras in any SE port.

- Initial idea was about 10 boats in Track 1. And we have 22 total that have either responded or been part of Track 1. So we will have to prioritize and develop criteria for who will be able to participate moving forward. Once selected, we noted that it will be important to set clear expectations that selected vessels will participate for the duration of the research.
- The project could be scaled up or down depending on who has responded and what we decide to do with Track 1 moving thru 2014 and into 2015.

#### Funding & contract support:

- There was a discussion about who is responsible for Track 1 and how to structure contracts to support the Track 1 research plan. So far PSMFC has supported Track 1 with VMS funds and NMFS is likely to use federal funds thru Pacific States to continue support. The details of the goals of the research plan have been developed by ALFA and Archipelago. But since the work will be constrained by budget, then there needs to be coordination on the budget. It isn't clear how PSMFC will continue to have contracts with the 2 existing EM providers because the work so far has been conducted under existing contracts, which will be expiring in 2014. Dave is working within PSMFC to develop a future EM contract for continued work.
- An aspect that is missing from the process so far is some way to capture lessons learned to share with the EMWG. It would be great for Saltwater and Archipelago to try and write this up for the EMWG fall meeting. But it isn't clear how PSMFC could support that work, given that the existing contracts expire at the end of June.

#### Other issues

- Howard McElderry discussed the idea of conducting an a priori analysis of species composition to identify difficulties and potential problem areas including:
  - Species
  - Frequency
  - Quotas
  - Identification or other issues that may challenge EM

At the close of the meeting, we discussed that some of this type of analysis may best be done by agency staff, but that this would be a change to the overall track plans outlined and would need discussion at the broader committee level. We noted that further analysis may best be carried out by NMFS as they have access to data sets that would be needed for this analysis. It was suggested that potential approaches to gather weight estimates could be done by Howard and would be helpful to subsequent discussions with the committee and with the SSC.

#### Tracks 2 & 3 update

- PSMFC in in the process of hiring an employee who will be conducting the field work on Tracks 2 & 3, and will be co-located with AFSC staff in Seattle.

- PSMFC is also writing an RFP to hire a camera provider that will support Alaska and West Coast EM work.
- AFSC is continuing development of the chute system. There was a prototype that was tested as a proof-of-concept on a catcher/processor to look at halibut discard. There is also ongoing work on the application development of software that processes video from the chute cameras. In addition, there is also application development being done that can analyze the video for species identification.
- The RFP from PSMFC to hire vessels to participate in Tracks 2 & 3 is being written. It should be advertised by the end of June. We are targeting 10 boats for Track 3 and 4 vessels for Track 2. The goal would be to start field work in the fall.

The rest of the meeting focused on outlining the specific data elements that would be extracted from the imagery obtained under the various tracks, and some of the processes that would be followed.

## Video Data Review protocols

Specifically identify the data elements needed to be collected off video:

Data Categories	Capture Level	Data Element	When	Interval	Track 1		Track 2		Track 3		
					Log or setup file Dockside Monitor Image Data Automated	Log or setup file At-Sea Monitor Image Data Automated	Log or setup file At-Sea Monitor Image Data Automated	Log or setup file At-Sea Monitor Image Data Automated			
<b>Meta Data</b>											
	<b>Trip Level</b>										
		Vessel Name				x	x	x	x	x	
		ADFG Permit				x	x	x	x	x	
		Port Code				x		x	x		
		Date	Embark and Disembark			x	x	x	x	x	
		Time	Embark and Disembark			x	x	x	x	x	x
		GPS & Time	Embark-Disembark	30 sec.				x			x
		Sensor Data	Embark-Disembark	30 sec.			x		x		x
<b>Haul Data</b>	<b>Set/Haul Level</b>										
		Buoy Number	Start and end	Each Haul		x		x	x	x	x
		Date	Retrieved	Each Haul		x		x			
		Position	Start and end	Each Haul		x		x			
		Skate number		Each Haul		x	x	x	x	x	x
		Number of hooks		Each Haul		x	x	x	x	x	x
		Hook Status	All hooks	Each Hook		x		x			x
		Species	All Fish, Birds, Mam, Inverts	Each Hook		x					x
		Piece Count	All species	Each Hook		x					x
		Length	All species	Each Hook							x
		Release Meth.	Halibut only	Each Hook		x		x			x
		Condition	Halibut only	Each Hook		x		x			x
<b>Video/Sensor</b>	<b>Trip Level</b>										
		Completeness						x			x
		Image Quality						x			x
		Video Review?						x			x
		Only review if Dockside and/or Useful									
<b>Dockside</b>	<b>Trip Level</b>										
		When all rockfish retained									
		Full offload verification						x			
		Rockfish species count						x			
		Weight per species						x			

"x" Denotes where the data element will be collected.

There was considerable detail in the above table so we provided an EXCEL spreadsheet (the rough meeting notes are included), and also added tabs with specific coding and instructions that

we pulled together after the meeting. Note that the workgroup agreed that for efficiency and cost saving in Track 1, only the video that could be paired with dockside monitoring would be full reviewed. All imagery would be reviewed for trip level and quality ranking.

#### Additional Notes

- Species identification & disposition (retained vs discard) of ALL catch coming onboard
  - We are trying to measure total discard. But getting total counts and disposition of ALL catch will enable us:
    - Calculate discard rates, which are used in catch estimation
    - Do comparisons with landings data to do high level evaluations of EM discard data (e.g. presence/absence of particular species)

It was noted that from a video review processing perspective, it is easier to record all catch events instead of only recording discard events (only recoding some info is actually more time intensive).

- Use the observer species codes (from the observer manual). And if species cannot be identified, then use the group codes.
- Effort
  - Data elements: haul start time; haul end time; total hooks per set.
  - We need to know how many hooks were set. This information will be recorded in the logbook. But getting the info off the video will enable us to evaluate the ability to get total hooks off the video vs the logbook.
- Track 1:
  - We plan to rate video quality (high, medium, low) per set. This will enable us to evaluate number of sets where you can get “good” video in an operational situation.

There are several issues that still need to be resolved and these include:

- 1) Developing and documenting the process and criteria to be followed in imagery review for all tracks.
- 2) Clarifying the process for tracking and submitting information to Pacific States to ensure data continuity.
- 3) For NMFS and Pacific States to coordinate on database structure and data transfer.