



## North Pacific Fishery Management Council

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### Trawl EMC Update for the FMAC, May 2019\*

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#### Overview

The Trawl EM Committee cooperative research plan outlines methods to: 1) to minimize costs and improve PSC accounting at shoreside processing plants for salmon accounting (both for pollock and non-pollock trawl deliveries), 2) for changing salmon PSC estimates for catcher vessels delivering to tenders from at sea sampling to census counts at shoreside processors and 3) for minimizing at sea monitoring costs by replacing human observers with EM for compliance monitoring for catcher vessels delivering to shoreside processors/tenders in both the BS and GOA. EM systems can provide reliable data for compliance monitoring of a full retention requirement for salmon PSC however modifications may be needed to current retention and discard requirements to minimize discards at sea. Modifications to current requirements might include eliminating trip limit discards, required discards of bycatch species at sea (both PSC species and MRA species limits), which could potentially remove onerous sorting requirements for vessels at sea.

Understanding that a true version of full retention of all catch may not be possible or feasible, the Trawl EM Committee has determined to start with assessing a maximized retention plan and shift to an optimized plan based on recommendations from the Council, NMFS, and other agencies (IPHC, ADFG, etc.) and actual testing within the fishery via an Exempted Fishing Permit (EFP). The Committee has identify species and instances where discarding would be operationally difficult to retain (maximized retention) which may be refined after testing under an EFP. This work emphasizes maintaining or increasing coverage rates over time, which has been an issue of concern to the Council, and improves Salmon PSC estimates, promotes safety, addresses operational challenges of carrying observers for the smaller trawl vessels, and most likely will reduce overall monitoring costs which has been an issue of concern to the Trawl EM Committee. **With initial input from the Trawl Committee, an EFP is now actively being drafted amongst a subset of Committee members.**

Total # trawl CVs potentially affected by the research plan: **144**

Total # trawl CVs in ongoing research/EFP application: **15 + 27 = 42**

#### CGOA Processing Plant Research 2019

Project: Develop and Test Image Analysis Tools to Monitor Salmon Bycatch Recording by Alaska Groundfish Processors

Project Outcomes: Analyses of 2018 data collections demonstrated that video monitoring could detect high proportions of salmon entering sorting areas by either human or electronic review and that

handling of those salmon could be documented through human review of overview cameras. In January of 2019, more than 400 sequences of salmon in unsorted pollock catches were collected from camera systems installed for the rockfish fishery project at one Kodiak plant to develop and test an automated detector for pollock deliveries. For the 2019 rockfish fishery, conveyor imaging systems were improved based on 2018 experience and check-in cameras were added. Sorting personnel put all sorted salmon in the check-in location where a time-stamped closeup image will allow automated confirmation of detection and species identification. From May 3 to 19, 53 rockfish deliveries at Kodiak plants have been monitored with these video installations. Collections will continue until rockfish deliveries taper off in mid-June. A successful proposal to the AFSC Catch Share Program, for implementation testing at a broader range of delivery situations, will fund EM systems and collections at additional plants in the Gulf of Alaska and Bering Sea and further algorithm improvements.

## WGOA research 2019

Project: Implementing EM in the Western Gulf of Alaska Trawl Catcher Boat Fleet and Associated Tenders (submitted by the Aleutians East Borough on behalf of the Peninsula Fishermen's Coalition and catcher and tender vessel operators of the Western Gulf of Alaska)

Progress to date: As of March 2019, systems had been **installed on 15 vessels**, 2 tender vessels and the rest being catcher vessels, with one upgrade to an existing EM vessel. Of a target 16 vessels, one install remained pending in March.

## BS/CGOA research 2018/2019

Pilot Project with Existing West Coast EM Vessels: Bering Sea Pollock B Season 2018

Project Outcomes: The trawl EM Committee received an update on this project at their November 2018 meeting. Overall, the EM hardware and systems functioned as expected, but some of the catch compositions were varied enough to present important challenges during the review process. While pelagic pollock trawl vessels in the North Pacific share many characteristics with the west coast whiting fleet, this research demonstrated some key differences and some added challenges that will need to be addressed prior to implementing any EM program for compliance with a retention requirement in the North Pacific.

Project: Implementing Electronic Monitoring for Pollock Trawl Catcher Vessels in the Bering Sea and Gulf of Alaska (submitted by United Catcher Boats, Alaska Groundfish Data Bank, and Alaska Whitefish Trawlers Association)

Progress to date: As of March 2019, systems had been installed on 14 new vessels (10 in Kodiak, 3 in WA and 1 in OR). In March 2019, there were 11 participating whiting vessels who were equipped and got updated software. There are 2 boats expecting installations in Dutch Harbor by early June, for a **total 27 boats to date** in this program, of a target 31. Of the target 31 vessels, one whiting vessel chose not to fish pollock and have been eliminated from the project. The project team needs to identify 2 more BS vessels and follow up. Review so far: As of March, reviewers had received 35 drives from 18 vessels and reviewed 6 drives from 6 vessels, totaling 18 trips and 35 hauls. As of May, reviewers had received 122 drives from 22 vessels and reviewed 91 trips consisting of 158 hauls from 16 vessels.

## Timeline

Year	Fieldwork / Pre-implementation Timeline
2018	Collect EM footage on a handful of trawl CVs during pollock fishing <b>Summer:</b> Apply for two NFWF grants for 2019 research <b>November:</b> Two NFWF grants approved for 2019 research
2019	<b>Dec-March:</b> Install & operationalize EM on a large variety of trawl pollock CVs in both the GOA and BS. <b>May:</b> Begin to develop an Exempted Fishing Permit (EFP) application to exempt vessels from certain regulations (i.e., observer coverage, discard requirements). Confer with ADFG and IPHC to ensure EFP allows for full/maximized retention across regulating bodies (ADFG/IPHC/NMFS). <b>Mid-June:</b> Complete draft EFP for review by AFSC/ NMFS AK region. <b>June/July:</b> Apply for grant funding to continue EM research and funding support for the EFP through 2020/2021 in all areas. <b>May:</b> Update FMAC about EFP development and implications for the 2020 ADP. <b>October:</b> EFP application review and approval by the Council.
2020 and 2021	Fish using EFP and EM systems in CGOA, WGOA, and BS pelagic pollock fisheries; continue EM research in all areas
2020	EFP results for the first year for the SSC/Council for consideration of initiating an analysis to identify alternatives related to retention and observer coverage on pelagic trawl pollock CVs in the BS and GOA.