



## North Pacific Fisheries Association, NPFA

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Fishery Monitoring Advisory Committee Sub-group

May 14, 2019

RE: EM Data Review & NPFA-Saltwater Project Update

Mr. Tweit and Sub-group Members,

A NFWF contract to North Pacific Fisheries Association (NPFA) & Saltwater Inc. currently covers the equipment, field support, program management, and data services for 31 boats in the fixed gear, partial coverage program. This funding is scheduled to end in mid-2019, when it was expected that Alaska's EM program would be contracted through NMFS and funded through the partial coverage fee. (*Funding for 26 boats is scheduled to end September 1, 2019, and the additional 5 boats will end December 31, 2019.*)

From the beginning NPFA-Saltwater proposed, and have implemented, a model for service delivery that is different from the model being used by Pacific States Marine Fisheries Commission (PSMFC)-Archipelago Marine Research (AMR). Some of the differences (skippers mailing data rather than Port Coordinators, hard drives mailed directly from the boats to service providers, use of NMFS-trained NP observers to be data reviewers) have now been adopted at least in part by the overall EM program for Alaska Fixed Gear. Other differences remain – a significant one being the primary review of EM data by a non-governmental 3<sup>rd</sup> party (Saltwater).

The NPFA-Saltwater model was designed to provide high quality data in a cost-effective way. Our boats are receiving excellent field service, our skippers are engaged with the data, the buy-in within the fleet is high, and the data is timely and of high quality. NPFA would like to see the advantages of this model, detailed below, considered carefully as NMFS and the Council and stakeholders move forward with an integrated EM program which is a fundamental change in the Observer Program, but also as costs considerations are examined. Please note the following:

### Data Quality

- Timely data review improves data quality by flagging problems to be fixed before they persist. Saltwater's turnaround goal is to have a feedback memo to skippers before their next trip. This doesn't work for back-to-back trips, but for most trips it does.
- Feedback memos have encouraged skipper buy-in and engagement with the data. This has resulted in better handling practices and better imagery.
- Saltwater and NMFS have developed and tested a database and data pipeline so data can be available to NMFS in a timely manner in a format that is useful to fishery managers.
- Saltwater's reviewers have made significant improvements to review protocols which will allow for better integration with observer data (using the same species codes) and better data overall (image quality as it relates to confidence in species ID)

### Cost Efficiencies

- The NPFA-Saltwater grant project is using open source software (OSS) to review the EM data and has eliminated software licensing fees. The OSS is now being used in multiple NMFS programs across the country and opens the door to other OSS innovations including those being developed by NMFS for the NP.
- Project reviewers are continually developing tools and approaches to speed review (event marking) and improve data quality.



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- Project reviewers have provided insights and recommendations for key data elements that would cut review time (counting retained catch, consolidating disposition codes)
- NPFA-Saltwater have promoted workarounds or refinements for restrictive onboard handling protocols that would slow production (“clear the table”).

Strengthen the Infrastructure for EM in Alaska

- NPFA and other industry stakeholders have long advocated for an EM infrastructure that allows for competition between service providers. We have advocated this because we believe different players will bring different approaches and ideas, and competition will bring cost efficiencies.
- Saltwater has hired and trained Alaska-resident technical support people to provide field services, equipment, project management, and data services. This includes all installs and data review.
- The feedback provided to skippers has helped establish an informed fleet that is invested in the success of EM.
- In collaboration with NMFS, Saltwater developed a database and transmission protocols to transmit data to AFSC’s database and, ultimately, NMFS’ catch accounting system
- Saltwater’s integration of NMFS-trained NP observers throughout their EM program retains the observer’s skills and insights within the monitoring program and promotes the integration of EM and observer data. All of Saltwater’s reviewers are NMFS-trained observers with experience in the NP.
- Implemented a non-governmental model for data review and storage that works.

The advantages of this model are significant and should be considered as the FMAC and FMAC subgroup work in their advisory capacity as the Observer Program charges into the future.

Respectfully,

Malcolm Milne