## North Pacific Fishery Management Council

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National Fish & Wildlife Foundation 1133 Fifteenth Street, NW Washington, DC 20005

Dear Sir or Madam:

On behalf of the North Pacific Fishery Management Council (Council), I am writing in support of proposals related to Alaska fisheries that have been submitted in response to the Electronic Monitoring (EM) and Reporting Request for Proposals and are directly responsive to the Council's priorities and plans for trawl and fixed gear EM programs:

- Proposal from United Catcher Boats (UCB), Alaska Groundfish Data Bank and Aleutians East Borough (AEB) to improve and expand EM systems onboard pollock mid-water trawl catcher vessels in the Bering Sea and Gulf of Alaska; including the sub-project from AEB to test current trawl EM systems on boats using fixed-gear in the western Gulf of Alaska (WGOA).
- Proposal from the Alaska Longline Fishermen's Association (ALFA) and North Pacific Fishermen's Association (NPFA) to develop machine learning algorithms that can evaluate image quality.
- Proposal from the Fishing Vessel Owner's Association (FVOA) to form and test an industry run co-op model that will contract with existing NMFS-certified observer contractors and EM providers to improve cost efficiencies in the current partial coverage observer program.

The Council has actively pursued the development of EM technology for several years. Between 2014 and 2017, the Council's priority was cooperative research for fixed gear vessels, field testing the use of camera systems, and integrating fixed gear EM data with catch accounting databases to obtain estimates of at-sea discards. Thanks in large part to support from NFWF, the Council was able to implement a regulatory framework in 2017 to allow EM as an alternative to carrying an observer to meet the monitoring requirements for the fixed gear groundfish and halibut fisheries off Alaska. The fixed gear EM program has been operational since 2018 and has successfully met the initial objectives of providing an alternative for fixed gear vessels that have difficulty accommodating a human observer. It has steadily gained popularity, with increasing numbers of vessels enrolling each year and a total of 169 vessels participating in 2020 and 2021.

With an operational fixed gear EM program in place, the Council turned its attention to Bering Sea and Gulf of Alaska pelagic trawl catcher vessels, initially those participating in the pollock fishery. The Council has great need for more precise estimates of bycatch in trawl fisheries and recognizes the demonstrated value of EM systems to improve cost efficiency, reduce bias and increase precision of bycatch monitoring for vessels that are delivering to tender vessels. Through the Council's Trawl EM Committee, which brings together representatives from the fishing industry, management and enforcement agency representatives, and EM service providers, the Council developed a robust Cooperative Research Plan, and adopted the following objectives for trawl EM development:

- improve salmon bycatch accounting;
- reduce monitoring costs; and,
- improve the overall quality of monitoring data.

This committee, the successor to the Fixed Gear EM Committee provides ongoing Council oversight and coordination for the current NFWF funded projects and other EM development and implementation efforts. This increases the likelihood that NFWF funded projects will be successful and it facilitates the transition of NFWF project outcomes into fully integrated components of the industry funded fishery monitoring program.

In 2020 NFWF provided support for several proposals for Alaska fisheries, which the Council greatly appreciates, that have improved the fixed gear EM program and supported significant progress in the development of trawl EM. External funding is essential for development of these programs, as revenue from the partial coverage observer fee (used to fund monitoring costs throughout Alaska) can only be used to support EM once a program is implemented in regulation. The proposals that are being submitted this year build on and extend the accomplishments from the projects funded in 2020.

In 2020 an Exempted Fishing Permit (EFP) was issued for two years to evaluate the efficacy of electronic monitoring systems and shoreside observers for pollock catcher vessels using pelagic trawl gear and tenders in the eastern Bering Sea and Gulf of Alaska. The project combines EM systems that provide at-sea monitoring of vessels for compliance with fishery management objectives to achieve maximized retention, electronic reporting of catch and discard information, and shoreside observers to monitor salmon bycatch and collect biological information. In 2021, 52 vessels participated in the BS and CGOA and 29 vessels and 11 tenders participated in the WGOA portion of this EFP. The fishery monitoring data generated from this project, under the terms of the EFP, are already being incorporated into the NMFS catch accounting database and are used for management. There is interest in expanding participation with an additional 10 vessels in 2022. In June 2021, the Council took action to initiate analysis to implement a trawl EM program, targeting January 2024 for the beginning of the regulated program. Under this regulatory timeline, the current EFP will be extended, and external funding support will be necessary, through 2023.

The Council supports the **trawl catcher vessel proposal, submitted by UCB, Alaska Groundfish Data Bank, and AEB** which would improve existing EM operations and expand the number of participating vessels with EM camera systems under the EFP in the Gulf of Alaska and Bering Sea fisheries. This will capitalize on the initial successes accomplished in the first three years of the program, and gain needed efficiencies to achieve the Council's objectives for developing a trawl EM program that both reduces costs and improves data quality. The current EM development is successfully meeting the objectives of the EFP and the principal investigators regularly coordinate with project partners including EM service providers, video reviewers, observer providers, and NMFS representatives to identify and resolve issues and ensure consistent and timely communication. The increased participation in EM field testing and development that would be supported with this proposal should ensure the Council and NMFS have the requisite information to prepare and implement a trawl EM regulatory package. Additionally, the AEB sub-project to test the efficacy of using current trawl EM systems on boats using fixed-gear in the WGOA has the potential to streamline costs and increase participation in the fixed-gear EM program as well as identify catch handling procedures, specifically for pot boats, that improve the ability to use EM data for catch monitoring.

The Council also supports the joint **proposal from ALFA and NPFA** to field test recently developed machine learning algorithms that detect common image quality issues and provide feedback to the vessel operator in real-time.

The field tests will evaluate the software on operational EM systems used in Alaska's fixed gear and trawl EM programs. Good image quality and timely feedback to the vessel operator is critical for an EM program to provide useful data and reduce EM review costs, both of which contribute to achieving the Council's objectives of reducing monitoring costs and improving the overall quality of monitoring data.

The Council also supports the **industry-run monitoring co-op proposal from FVOA** to form co-ops that could contract directly with existing NMFS-certified observer providers and EM providers in 2022-2023, outside of the current Federal contract while remaining fully integrated with the structure of the partial coverage program. The co-op would provide for all required monitoring needs (i.e., observers and EM) while NMFS remains responsible for determining the data and monitoring requirements. The goal of this proposal is to test whether greater cost efficiencies could be gained in the partial coverage observer program for at-sea observers than are currently realized under the government contracting system, and it will also help determine whether a co-op model will encourage innovation in the partial coverage program by advancing fixed gear EM optimization while testing lower-cost EM systems and data service models.

In summary, the Council recognizes the value of the proposals submitted by the Alaska regional stakeholders: for the expanded development and progress towards an implemented regulatory program for EM as a compliance tool in Bering Sea and Gulf of Alaska pelagic trawl fisheries focused towards meeting the Council's goal of reducing costs and improving data quality; continued studies of EM hardware and data quality that could increase cost-efficiencies in our successful fixed gear EM program; the industry co-op proposal offers an alternative to the current Federal contracting processing, which has reliably provided observers in the challenging environment of Alaska fisheries, but has not met the Council and industry's cost containment expectations. If successful, it may also provide a model for public/private operation of a partial coverage observer program, analogous to the successful public/private partnership of the Council's full coverage program.

On behalf of the Council, I hope that you will consider the proposals submitted from these stakeholders favorably. The Council is ready to invest our resources to ongoing oversight and coordination that will facilitate successful execution of all three projects.

Sincerely,

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Simon Kinneen Chairman