Technical improvements to EM deployment in 2016

Technical improvements

Logbooks, E-logbooks, and/or sensor data should be integrated into the 2016 EM Selection Pool for both EM-observed and EM unobserved vessels. This would greatly improve our ability to collect and validate information on temporal-spatial catch and effort data. These data are required for estimating catch.

Paper logbooks are required by IPHC on this fleet. In an effort to integrate logbook designs NMFS/IPHC have developed an e-logbook format that would satisfy self-reporting data requirements for IPHC. NMFS has also lab-tested an application that collects and stores sensor data (GPS, hydraulic pressure sensors, vessel speed, and any others?) that will be field tested in 2015. The e-logbook and sensor application can be run on an existing onboard computer or through a NMFS provided laptop. The e-logbooks are already a requirement for catcher/processors and motherships fleets operating in the North Pacific.

Integrating e-logbook and sensor information into a seamless application for both EM-observed and EM-un-observer vessels in the EM Selection Pool will enable validation of effort (number of sets, location of sets, and duration of sets). In addition, it could greatly improve the projects ability to meet minimum technology requirements (as recommended by NMFS HQ) including;

1) **Trip Identifiers** to link to landings reports and observer information

2) Improve **Quality of data** by providing error checking on haul (effort) information to prevent submission of erroneous data

3) Provide **Verification of data** through use of sensor data to identify the location and number of haul backs

4) Improve **Resolution of data** through capture of GPS information

5) Reduce costs and improve **Reporting frequency since** data download/upload is easy and does not require key-punching

6) Improve **Capacity for data integration** since format is consistent with observer data such that it can be seamlessly integrated into the catch accounting system and is transferable/portable across vessel types, fisheries, sectors, regions

7) Improve **Security and accessibility** since frequency and timeliness of data availability improves (including access/permissions by submitters, managers, other stakeholders, and public) while ensuring data confidentiality requirements are met through encryption

8) Improve **Display of trip reports** since the e-logbook system is consistent with the requirements for estimation and has the capability to be available for inspection upon request by authorized personnel necessary to validate self-reported data on number hooks fished required for catch expansion

9) **Technical support** is available through the current electronic reporting systems in AKR.