

Project Title: Development of open-source EM software platform

Recipient: Sea State, Inc.

Project Description:

Development of an open-source software platform for shipboard electronic monitoring of fisheries

This project addresses the problems of cost and complexity that are significant hurdles to the adoption of EM as a primary tool for fisheries management nationwide. It is well aligned with the funding priorities of the Fisheries Innovation Fund, especially in terms of “improvement in the quality, quantity and timeliness of fisheries-dependent data collection.”

We plan to develop a suite of complementary software applications that will support EM data acquisition, review, summarization and archival. This software platform will be open source and freely available, allowing any EM implementer to adapt it to their requirements. As the number of EM implementations grows, enhancements will be shared with the broader community, lowering the development costs for new implementations.

We will design the software to work with hardware ranging from laptop based EM systems with one camera, up to systems with six or more cameras, GPS and VMS integration, hydraulic pressure and reel rotation sensors and sophisticated data encryption protocols. The use of commodity hardware and open source software will not only significantly reduce the upfront cost of EM implementations, but will also make it less likely for fisheries to become “locked in” to a particular vendor.

We will demonstrate these systems in Alaska and the Pacific Northwest and disseminate project source code and design documents on a project web site. We plan to present our software at EM conferences nationwide.