compliance monitoring was implemented to accurately monitor discards of IFQ species for vessel quota debiting. Human monitors can reduce flexibility in the fishery, increase costs, decrease safety and sometimes eliminate the opportunity to fish when monitors are not available on short notice. Electronic monitoring (EM) systems, where demonstrated to be a viable substitute for human monitoring, could resolve some of the limitations imposed by the need to monitor 100% of fishing activity. Pacific States Marine Fisheries Commission (PSMFC) has developed an EM program with pre-implementation exploration started in 2012. In order to successfully implement EM as a management tool, key players must be involved and systems must be in place. Beginning in May of 2015, EM will be implemented in the IFQ fishery to a limited degree using exempted fishing permits to further explore EM as a management tool. Up-to-date findings will be presented on the EM program within this management structure.

Implementing Electronic Monitoring in the New England Groundfish Fishery

Brett Alger, National Marine Fisheries Service (NERO)

Electronic monitoring (EM) has been used for catch monitoring and reporting compliance in fisheries worldwide. After years of pilot projects, and both regional and national workshops, implementation of EM has been limited in the United States. Understanding legal requirements, data integration, coordination among stakeholders, and costs are some of the challenges facing our fisheries. Despite these challenges, the interest in EM remains high, and in the case of the New England groundfish fishery, we are on the doorstep. The Greater Atlantic Region Fisheries Office and the Northeast Fisheries Science Center is collaborating with the Maine Coastal Community Sector, The Nature Conservancy, the Gulf of Maine Research Institute, and Ecotrust Canada, to fully develop an EM model in 2015. We will build the database infrastructure and processing tools for data collected from EM video footage, conduct comparative analysis to the existing catch monitoring systems in the fishery, and address the legal and logistical hurdles associated with a fully functional EM program. This end-to-end approach tries to tackle the remaining challenges that many of the pilot projects have yet to address, and if successful, we plan to fully implement EM for a portion of the groundfish fishery in 2016.

Electronic Monitoring from a NPFMC Perspective

Bill Tweit, Washington Department of Fish & Wildlife

This presentation will describe the North Pacific Fishery Management Council's (NPFMC) approach to incorporating EM into fishery monitoring programs. The Council is examining the benefits of electronic monitoring for coverage of the pot fleet, primarily cod directed fisheries. The Council approach for developing these program expansions is to establish workgroups comprised of knowledgeable fishermen, EM providers, NMFS staff, enforcement personnel, and others to direct the implementation. The NPFMC has been relying on electronic monitoring as a key element in its fishery monitoring program for large fishing boats for over a decade, and is now broadening its use to supplement fishery information collection in the small boat fleet. Existing efforts include use of cameras to assist onboard observers, vessel monitoring system requirements to assist enforcement efforts and management biologists, and industry developed innovations such as cameras in trawls. The NPFMC has also been expanding the use of electronic reporting, particularly for the large vessel fleet that has sophisticated onboard communication capabilities. In 2013, the NPFMC adopted a Strategic Plan that directs the efforts for further integration of electronic capabilities into fishery monitoring programs. The Council has set a goal for full implementation in 2017.