

# Electronic Monitoring Program: Plan for the 2013 Season

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Dave Colpo, Pacific States Marine Fisheries Commission

The electronic monitoring (EM) program was designed to provide the Pacific Fishery Management Council with information to inform a decision regarding options for compliance monitoring of discards in the Pacific Trawl Rationalization Program other than the current human compliance monitor model. The expectation is that the West Coast Groundfish Observer Program will continue to administer a level of scientific observer coverage to provide stock assessors and other scientists the necessary scientific data for effective management of the various west coast fisheries. This program is not meant to replace scientific observers. This program is solely meant to explore the ability of electronic monitoring systems to capture the at sea discards from vessels of IFQ species to effectively debit quota accounts throughout the fishing season, therefore replacing the need for 100% at sea human compliance monitor coverage.

The 2012 season included 11 fishing vessels carrying electronic monitoring equipment, 5 fixed gear vessels in California and 6 hake targeting vessels in Oregon. All 6 hake targeting vessels delivered to both at-sea motherships and to shoreside processors during the fishing season. Pacific States Marine Fisheries Commission (PSMFC) is in discussion with the fishing industry to find vessels willing to test the electronic monitoring system in the 2013 fishing season in the fixed gear and bottom trawl sectors.

The study design includes: a. coast wide coverage, with vessels carrying the equipment fishing and landing in California, Oregon and Washington to test the system in a variety of conditions, fishing styles and catch compositions, b. coverage of both bottom trawl and fixed gear sectors of the fishery, but no hake directed sector coverage, c. a range of vessel sizes, d. complete retention of legal IFQ species, e. recording of discarded catch in logbooks provided to the vessels.

There are a few limitations of this project that affect the ability to implement this study design. First, this is an opportunistic study. Vessels are not required to participate and therefore ensuring the randomness of vessels and the variety of geographic and vessel size ranges for an ideal study design is difficult. Also ensuring consistent fishing behavior (i.e. complete retention of legal IFQ catch) among vessels cannot be enforced. Second, to reduce cost of the project, PSMFC would prefer vessels carrying EM equipment to be fishing out of ports clustered together geographically for efficiency of equipment installation, maintenance, and data retrieval. Third, the current system cannot identify all species effectively nor can it provide accurate weights of discarded fish. Fourth, due to the requirement of human compliance monitors on every IFQ trip, testing the EM system in the absence of the compliance monitor is not an option. This limits the ability to test the EM system in conditions that will closely mimic fishing where a vessel can choose between a human compliance monitor or an EM system. Fifth, cost information will be estimated with the caveat that economies of scale will undoubtedly drive down the cost to each vessel. Finally, funding is limited to testing this equipment on an estimated 12 fixed gear and 12 bottom trawl vessels.

Data collected by the electronic monitoring systems will be compared to the at-sea compliance monitoring data and the logbook data to assess how effectively the EM system captures the occurrence of discard events as well as the nature of the discard including species and quantity. This comparison will be done at the haul level if possible. This level of review proved to be problematic with 2012 data given the differences between how the EM reviewers and at-sea compliance monitors track hauls in the fixed gear sector of the fishery.

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#### Goals of the current grant

- Compare EM with at-sea compliance monitoring data
  - Develop logbooks as needed
  - Fixed gear logbook in draft
- This program will not replace science observers

#### 2013 vessels (expected):

- Groundfish trawlers
  - Verbal agreement on up to 12 vessels
  - Expectation of discards of halibut, salmon, large fish (sharks) and logs/crab pots, etc.
  - Working with fleet to address discards of other species
- No directed whiting vessels expected in 2013
  - Some groundfish trawlers expected to participate in whiting
- Fixed gear vessels: 12 vessels
  - Mix of pot boats and pot/line boats
  - 4 of 5 CA vessels are expected to return
  - Adding OR/WA fixed gear vessels

#### Cameras

- Archipelago Marine Research (AMR)
  - AMR expected to provide cameras for most groundfish trawlers and CA fixed gear vessels
  - AMR expected to provide cameras/support for some OR/WA fixed gear vessels
  - Expectation is all AMR video will be reviewed by PSMFC staff with AMR providing backstop support as needed
  - Sub-contract negotiations are ongoing at this time
- Saltwater, Inc.
  - Saltwater Inc. expected to provide cameras/field support for up to 4 OR fixed gear vessels and 2 groundfish trawl vessels (Newport/Astoria?)
  - Limited video software review options at this point
  - Sub-contract negotiations are ongoing at this time
  - Expectation is all Saltwater video will be reviewed by PSMFC staff