

## Context for framing the EM analysis

For discussion at EM Workgroup meeting, September 23-24, 2014

### Goals and objectives from the strategic plan, Council motions

#### 1. EM/ER Strategic Plan

Vision: A future where EM/ER technologies are integrated into NMFS North Pacific fisheries dependent data collection program where applicable to ensure that scientists, managers, policy makers, and industry are informed with fishery dependent information that is relevant to policy priorities, of high quality, available when needed, and obtained in a cost effective manner.

Goal III: NMFS has a cost effective, adaptable, and sustainable fishery data collection program that takes advantage of the full range of current and emerging technologies.

Objective 1: Implement EM/ER technology where appropriate and cost effective to improve catch estimation and better inform stock assessments.

- Strategy A: Implement EM as appropriate based on scientific research from goal II.
  - Action: Select EM approach.
  - Action: Analyze EM approach, impacts, cost, and benefits. Following Council action, the next step will be to initiate Strategic Plan
  - Action: Write implementing regulations,
  - Action: Implementation, roll out, outreach.

#### 2. Language from Council motions

April 2014:

- Council goal is to integrate electronic monitoring into the observer program
- Council objective is to estimate catch and discards
- Develop an analysis of alternative approaches to EM to meet Council objective

June 2013:

- Focus on developing a catch estimation based program for the IFQ fisheries rather than a logbook audit approach
- Identify performance standards, operational procedures, and sampling and deployment plans appropriate for IFQ vessels and also look at implementation vehicles and potential phase-in approaches

October 2012:

- At sea discard estimates for the 40'-57.5' LOA IFQ fleet

Underlying Council assumption:

- EM is one of the tools among the suite of tools available for effective fisheries monitoring. Observers are another such tool. Monitoring of our fisheries will require many different tools. EM is therefore a supplement to human observers, not a replacement for them.

### **Clarify expectations of the workgroup:**

- Are we looking at EM as a solution for vessels that can't take human observers (ie those that are being granted waivers), or for anyone in partial coverage who doesn't want to take an observer (a free choice)?
  - Does this apply to <40?
  - Does this apply to >57.5?
  - Are we just considering longline, or planning for pot vessels?
  
- Is it the operator's choice whether they get choose which alternative, EM or observer? If EM is a supplement, are there some vessels that must take an observer if selected?
  - 1) require EM across board if can't carry an observer (by random deployment?);
  - 2) everyone <57.5 gets to choose EM or observer;
  - 3) x% of pool needs a human observer, rest get to choose EM or observer

### **Steps for identifying alternatives:**

1. Identify the management need/goal, eg:
  - Improve discard estimation
    - Improved coverage
      - Broader
      - Increased sampling
    - Reduce potential bias
    - Compliance
      - Full retention of species
  - Improve PSC estimation
  - Improve bird and marine mammal counts
  - Bycatch reduction
2. Which groups will EM apply to? – identify strata
  - Gear or fishery
    - Vessel length
      - Area
        - Species
  - Unobserved fleet
  - Combination of various strata
3. Who in those groups will be required to carry an observer – deployment strategy
  - EM as an alternative for carrying an observer
    - No criteria
    - With criteria
      - Bunk space
      - Liferaft
    - Annual basis
  - Part of random selection process
    - No criteria
    - With criteria
      - Bunk space
      - Liferaft
4. Data collection strategy – what are viable options for collecting data to meet goals
  - Look at the suite of EM tools, and apply menu options
    - E.g., VMS or GPS + datalogger
    - E.g., VMS or GPS + integrated elog-sensor package + PC