



2016 EM Cooperative Research Project Participation

This **Vessel Monitoring Plan (VMP)** was developed by working with the participating vessel to identify the specific installation and catch handling practices required for the vessel's unique configuration. This VMP will be shared with the EM Workgroup to inform the group about elements of VMPs that should be incorporated into a regulated program.

This section contains program details such as the general system details, operator responsibilities, and operator checklist. Appendix A defines the vessel-specific installation details, system settings, camera locations and views.

First Trip Quality Control Review: Operators of vessels selected for EM coverage will be strongly encouraged to make their first landing at an EM service port to allow for a quality control visit.

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|------------------|--|
| Vessel Name: | |
| Home Port: | |
| Contact Name: | |
| Landing Port(s): | |
| VMP Version: | |

System details:

- Your vessel is equipped with an Archipelago EM Observe system that consists of cameras, GPS, gear sensors and a control center.
- The system will record sensor data (GPS, pressure) every 10 seconds while powered, and video at the rail and deck camera view during hauling, and for two hours after
- Video will be collected for monitoring compliance with seabird mitigation device regulations, and the settings are vessel specific. **Please refer to Appendix A: Installation Summary for details.**
- The system automatically enters sleep mode when the engine is off to avoid battery drain, and will be reactivated when the engine is restarted
- **If landing in Homer or Sitka:**
 - Contact the EM Field Coordinator to exchange the hard drive monitor the offload of rockfish. (see Program Contacts sheet).
 - Give the EM Logbook to the EM technician
- **If landing in another port**, and it has been two weeks since your last data retrieval:
 - Perform a hard drive exchange as described on the following page
 - Mail the EM Logbook, and email a photo of the IPHC logbook to contacts provided.

Operator Responsibilities

- **Confirm Hard Drive Capacity:** The vessel operator must ensure that the system has adequate memory to record the entire trip. The vessel operator must carry one or more spare hard drives, sufficient to record the entire trip, as a back-up.
- **Function Test:** Prior to leaving port, the vessel operator must turn the system on and conduct a system functionality test. If the functionality test identifies a malfunction, the vessel operator must follow the trouble shooting guidelines and contact the service provider.
- **Effort logbooks:** Vessel operators will be required to keep a simple logbook and write down their hook size, spacing, skate length, and the number of skates on each set. They will not be required to record catch information, other than what is already required in IPHC or other logbooks.
- **Catch handling:**
 - **Discard control points.** The vessel operator will be responsible for ensuring all catch is handled within view of the cameras as described in the VMP. A deck camera will be used to ensure that all discards are done in view of the rail cameras.
 - **Seabirds:** An additional camera will be installed to determine if a seabird streamer line was used during setting. Vessel operators will be required to hold incidentally caught seabirds up to the camera for 2-3 seconds and ensure that certain key parts of the animal, such as the beak, are captured by the cameras.
- **Video quality:** The vessel operator is required to check the monitor before each haul and to clean camera lenses to maintain video quality. Video quality for each set will be recorded on the vessel score card by PSMFC

Operator Checklist

Trip Start

- Log your trip in the Observer Declare and Deploy System (<http://odds.afsc.noaa.gov/>)
- Run a function test at the start of each trip according to the instructions provided.
- Complete the EM Logbook noting the Trip Start: date, time, port etc.
- Maintain uninterrupted electrical power to the EM unit while vessel is underway.
- Take at least one backup hard drive on each trip

Daily

- Maintain uninterrupted electrical power to the EM unit while vessel is underway.
- Confirm that cameras are clean and positioned correctly consistent with the baseline images identified in your Vessel Monitoring Plan (VMP).
- Complete the EM Logbook with the required set/haul/effort information.

Catch Handling Requirements

- All discards must occur at a control point designated in Appendix A and within view of the rail cameras while recording.
- If seabirds are caught, please provide an extended presentation (3 to 5 sec) to show the camera the body, wings and head of the bird to the camera.

System Trouble Shooting:

If the functionality test identifies a malfunction, the vessel operator must contact the EM service provider immediately to resolve the issue. The EM service provider will determine if the malfunction is critical or non-critical based on the definitions provided by the EM Work Group.

- **Non-Critical EM System Malfunction:** If the malfunction cannot be fixed in a timely fashion, the vessel operator may depart on the scheduled trip, but must follow the service provider's instructions to trigger video recording manually. The vessel operator may not depart on a second trip without a functioning EM system unless approved by the EM service provider.
- **Critical EM System Malfunction:** A critical malfunction is one that prevents the data collection objectives from being achieved. If the malfunction is a camera defined as "critical", the vessel must remain in port for up to 48 hours to allow the EM service provider time to effect repairs. If the problem cannot be fixed within the 48 hour window, the vessel may receive a release and depart on the scheduled trip. The malfunction must be fixed prior to departing on subsequent trips. The service provider will notify NMFS in the event of a critical malfunction.
- **Equipment breakdown at sea:**
 - In the event of a breakdown, refer to the System Trouble Shooting Guidance document.
 - If the system passes the function check prior to leaving port, and remains continuously powered during the trip, the operator would NOT be required to return to port in the event of a breakdown. The vessel operator should continue to run the system with all functional parts (e.g., if one camera is not recording then the operator must keep the system powered on).
 - Any malfunctions must be fixed prior to departing on subsequent trips. If a vessel has repeat problems with EM system reliability or video quality, that vessel may be removed from the EM pool for a period of time and placed in the human observer pool.
 - The vessel must remain in port for up to 48 hours to allow the EM service provider time to effect repairs. If the problem cannot be fixed within the 48 hour window, the vessel may receive a release and depart on the scheduled trip. The malfunction must be fixed prior to departing on subsequent trips.

Contacts

If you require system trouble-shooting or have any questions or, please refer to the EM Program Contacts sheet.