

Sector At-Sea Monitoring Program

The purpose of this document is to supplement information contained within Amendment 16, to provide additional current policy details as sectors begin to develop operations plans and as at-sea monitor service providers plan to obtain certification. Data collected by sectors can also be used for regional management decisions and stock assessment applications if they are of comparable quality to on-going regional data collection systems. The recommendations included here are designed to ensure that quality, and enable integration of sector data with other monitoring programs.

At-Sea Monitor Providers must be certified by NMFS. As noted in Amendment 16, (Section 4.3.3.5.5) “sector monitoring program service providers, including those providing dockside, roving, and at sea monitor services, must apply for certification/approval from NMFS. NMFS shall approve or disapprove a service provider based upon the completeness of the application and a determination of the applicant's ability to perform the duties and responsibilities of a sector monitoring service provider.”

Advanced certification/approval of at-sea monitor providers (provider) will enable sectors to indicate in their operations plans that they will be using a certified/approved provider, or include a list of certified providers under consideration. Providers may seek pre-eligibility as an at-sea monitoring provider by providing basic information to the NEFSC. This process will be outlined and posted for the public through a Request for Information with an invitation to attend a Provider Workshop. If a provider is determined to be eligible, their name and contact information will be posted on a NEFSC website. The final approval/certification of the provider would be sector-specific and would be assessed at the time that the Operations Plan is reviewed jointly by the NEFSC and NERO. This two-phase approach will significantly streamline the component of the operations plan dealing with at-sea monitoring because much of the responsibility for reporting, logistics, and quality control (including parts of the vessel selection and observer deployment protocols) rests with the provider rather than the sector itself. The set of information needed for the eligibility determination (drafted in this document) must also be presented in the same format with the sector operation's plan. The certification/approval would be done annually for a specific fishing year.

Workshop for Prospective At-Sea Monitor Providers: A workshop is proposed for all prospective providers. The workshop will detail requirements for NMFS certification, including information on operational details. In addition to the standards outlined below, the workshop will also cover the requirements for providers detailed in Amendment 16, such as Equal Employment Opportunity, standards of conduct, conflict of interest, insurance and liability, emergency action plans, contact information, CPR certifications, physician clearance for at-sea monitors. Information on a no-cost contract service delivery model will also be presented for future consideration.

Training: All at-sea monitors will be required to receive standardized training. The training of the at-sea monitors will be conducted by the NEFSC, at no cost to providers. In the event that demand for training outstrips NEFSC capacity, NEFSC will work with providers to “train the

trainers” by providing a standard curriculum and auditing training course components. Once the curriculum is stable, training at remote sites may be possible.

A pre-test will be developed and issued by the NEFSC to the potential trainees seeking at-sea monitoring certification. The pre-test will be designed for adults to test basic reading, writing, and math skills. The entrance exam must be passed as outlined by the NEFSC for acceptance into the training program. Training is expected to be approximately 8 days and would be likely to include:

Safety training (16 hrs); Data collection (vessel, economic, gear, tow, and catch information) (16 hrs); Species identification (16 hrs); Catch estimation (4 hrs); Reporting requirements (2 hrs); Computer usage (3 hrs); Conflict resolution (2 hrs); Testing (3 hrs); and Gear distribution (3 hrs).

A standard identification credential will be issued to trainees who successfully complete NEFSC training. This will assist in identification of at-sea monitors by the Coast Guard during boardings at sea, as well as by vessel captains and crew at the dock.

Standard background checks for at-sea monitors may be necessary as a Transportation Worker Identification Credentials (TWIC) is required at certain fishing docks, and/or desired by some providers as an additional recruitment screening tool. The role and execution of background checks will require further assessment and discussion. TWIC is a common identification credential for all personnel requiring unescorted access to secure areas of [Maritime Transportation Security Act \(MTSA\)](#)-regulated facilities and vessels (includes ports), and all mariners holding Coast Guard-issued credentials. Individuals who meet TWIC eligibility requirements will be issued a tamper-resistant credential containing the worker's biometric (fingerprint template) to allow for a positive link between the card and the individual. Coast Guard-credentialed merchant mariners, port facility employees, long shore workers, truck drivers, and others requiring unescorted access to secure areas of maritime facilities and vessels must obtain a TWIC card. The fee for TWIC is \$132.50 and is valid for five years. Methods of payment are detailed on the website listed below.

TWIC card Information:

http://www.tsa.gov/what_we_do/layers/twic/twic_faqs.shtm#twic_process

Homeland Security Information:

<http://homeport.uscg.mil/mycg/portal/ep/contentView.do?contentType=2&channelId=-24885&contentId=51317&programId=50393&programPage=%2Fep%2Fprogram%2Feditorial.jsp&pageTypeId=13489>

Refresher Trainings: At-sea monitors will be required to attend an annual refresher course for data collection, species identification, and vessel safety. This would be expected to be 3 days long for at-sea monitors in good standing and will be provided by the NEFSC.

Compensation for the at-sea monitors’ travel and time for the initial and refresher trainings should be described by the provider.

Gear Issuance: A standard list of equipment to be issued to at-sea monitors is provided below. It includes the following, listed by equipment category (ELE =electronics, SAF =safety, REF = reference materials and SAM = sampling) and estimated cost:

Category	Item	Cost per Item	Number issued	Cost of Initial Issuance
ELE	Otter Box for iPaq	\$35.00	1	\$35.00
ELE	HP iPaq hx2490	\$310.00	1	\$310.00
SAF	Ear plugs	\$0.13	2	\$0.26
SAF	Whistle	\$1.00	1	\$1.00
SAF	Beeswax stick	\$1.50	1	\$1.50
SAF	Light stick	\$2.00	1	\$2.00
SAF	Signal Mirror	\$6.00	1	\$6.00
SAF	Strobe Light	\$20.00	1	\$20.00
SAF	PFD, USCG approved	\$91.00	1	\$91.00
SAF	Foul weather gear	\$106.00	1	\$106.00
SAF	Personal Locator Beacon/PEPIRB	\$150.00	1	\$150.00
SAF	Immersion suit, USCG approved	\$252.00	1	\$252.00
SAF	Rubber gloves	\$3.25	4	\$13.00
SAF	Glove liners	\$2.00	3	\$6.00
REF	Marine Mammal erasable worksheet	\$2.00	3	\$6.00
REF	Cheat sheets	\$2.00	1	\$2.00
REF	Regulatory Compliance - Folder Contents	\$2.00	1	\$2.00
REF	Seals of Atlantic Canada and the Northeastern US	\$4.25	1	\$4.25
REF	Regulatory Compliance - Folder Only	\$7.00	1	\$7.00
REF	Atlantic Coast Fishes - Peterson Field Guide	\$20.00	1	\$20.00
REF	Atlantic Seashore - Peterson Field Guide	\$20.00	1	\$20.00
REF	Turtle info book	\$20.00	1	\$20.00
REF	Guide to Sharks, Tunas & Billfishes of the US Atlantic & Gulf of Mexico	\$25.00	1	\$25.00
REF	Marine Mammals & Turtles of the US Atlantic & Gulf of Mexico	\$25.00	1	\$25.00
REF	Beached Birds	\$39.00	1	\$39.00
REF	Flescher Guide	\$5.00	1	\$5.00
SAM	Graphite pencils	\$0.25	30	\$7.50
SAM	Clipboard	\$2.00	1	\$2.00
SAM	Permanent Markers	\$2.00	5	\$10.00
SAM	Field diaries	\$2.00	10	\$20.00
SAM	WD-40	\$2.50	1	\$2.50
SAM	Sharpening Stone	\$3.00	1	\$3.00
SAM	Waterproof notebook	\$4.50	10	\$45.00
SAM	5-gallon bucket	\$5.00	2	\$10.00
SAM	Clam knife	\$8.00	2	\$16.00
SAM	Solar-powered calculator	\$10.00	1	\$10.00
SAM	Bushel Baskets	\$10.00	2	\$20.00
SAM	Clicker boards for longline	\$10.00	1	\$10.00
SAM	Measuring Tape, about 50 ft	\$16.00	1	\$16.00
SAM	Large knife w/sheath	\$19.00	1	\$19.00
SAM	Craftsman (or other) 26" tool box	\$22.50	1	\$22.50
SAM	Observer Program Manual	\$25.00	1	\$25.00
SAM	Scale, 12 lbs	\$62.00	3	\$186.00
SAM	Calipers, 12"-16"	\$68.37	1	\$68.37
SAM	Scale, 100 lbs	\$158.00	3	\$474.00
TOTAL				\$2,199.21

The NEFSC plans to provide gear to the at-sea monitoring providers as funding allows. In the absence of Federal funds, the gear must be supplied by the providers. NEFSC will inspect gear to insure at-sea monitors are supplied with adequate safety and sampling gear. This inspection will be done at the completion of training and may be periodically checked in the field.

Monitor Pay: At-sea monitors would be expected to work no more than 12 hours per day at sea, and several hours on shore after a trip. An at-sea pay rate as well as a land hour rate should be established with the provider. Pay rates must meet or exceed minimum wage regulations in each state.

Methods to compensate at-sea monitors for time spent on travel, travel costs, and time spent in port awaiting departure of trips should be described by the provider. Arrangements for meals for at-sea monitors while onboard should also be described.

Arrangements to cover shoreside travel costs associated with monitor deployment and/or training should be described.

Pre-Trip Notification: Vessels must notify providers of the date/time of departure in advance of each trip, to provide ample time for the vessel selection process to take place and for the at-sea monitor to prepare for the trip and get to the port.

Generally, experience has shown that notification should be at least 18 hours in advance. The notification process must be detailed, i.e. the pre-trip notification time, method (phone, email, etc.), information needed, and tracking system to be used. Methods to ensure that all vessels are providing sufficient notification must be detailed, including how the process would be remedied if vessels are failing to meet the notification time requirement.

The at-sea monitor must be given sufficient notice prior to the trip and this process should be detailed.

A method to allow for waivers in certain instances should be detailed, i.e. under what circumstances would a trip be exempted from taking an at-sea monitor when selected to do so, how would waivers be requested, assessed, and recorded.

Vessel Safety: The Pre-Trip Vessel Safety Checklist (Attachment 1) must be completed and passed before an at-sea monitor may sail onboard a vessel. If a vessel cannot pass the checklist, the at-sea monitor cannot take the trip, and the vessel cannot fish legally. The vessel must detail any identified safety hazards to the provider and the at-sea monitor prior to sailing.

Vessel Selection: A formal vessel selection protocol must be developed to insure that the data collection system is representative and accurate with respect to sector fishing practices. Without a standardized, statistically-founded selection protocol, sectors will be more likely to receive biased (non-representative) data, leading to incorrect removal estimates, of limited utility to not only sector management but to regional management and stock assessment application.

Specific vessel selection protocols will depend on target coverage levels (see below) but should be proportional to expected distribution of effort within the sector, by gear and season/quarter. A call-in system where every nth vessel is selected has been a robust approach in the industry-funded sea scallop fishery. (e.g. to achieve 10% coverage, every tenth vessel that calls in would be selected to carry an observer). NEFSC will work with sectors to review performance of vessel selection and deployment protocols.

All vessels must be subject to coverage. All participating vessels must be able to accommodate an at-sea monitor (i.e. must meet safety standards detailed in safety section and provide equal accommodations and food to that of the crew).

Monitors should be randomly assigned to selected vessels in a fair and equitable manner. A monitor must not cover the same vessel more than three trips in a row.

Coverage Levels: NEFSC will develop a good faith approximation of necessary at-sea monitor coverage levels to achieve the desired level of precision based upon past data and gear types to be used in each sector. This minimum coverage level will not address bias concerns and would not necessarily be reflective of operations under sectors, but a stable coverage estimate would require additional experience under the proposed sector regime before it could be developed. NMFS will work with sectors to identify the appropriate coverage level for each sector once additional information regarding sector operations and sector rosters becomes available.

A monitored trip must be a trip where landings of groundfish occur (a ‘groundfish’, ‘skate’ or ‘monkfish’ trip as defined in Amendment 16).

Coverage levels will be in terms of number of sea days.

Data Collection: The data collected by at-sea monitors will be used to quantify the discards that occurred on that trip. The data will also be used to estimate the discards that occur by sector vessel trips that were not selected to take an at-sea monitor. A method for estimating discards that occurred on non-monitored trips will be provided by NMFS.

The data fields to be observed and methods used to collect the data will be detailed in the training and published in an At-Sea Monitoring Manual by the NEFSC. The current fields proposed for observation/reporting are listed in Attachment 2. NEFSC will work with providers and sectors to review data quality and performance of at-sea monitors.

Reporting: All data must be reported electronically in a standard acceptable form from the at-sea monitors to the sector managers, NEFSC, and NERO within 48 hours of the completion of the trip.

Electronic submissions must pass NEFSC-programmed automated checks to be accepted into the system (i.e. all required fields must be complete, within range, and match with other databases such as with the permit number entered). Electronic reporting is further detailed in the Electronic Reporting Document for Sectors.

At-sea monitors found to be falsifying or fabricating data must be immediately removed from service.

Enforcement issues, such as trip refusals, gear tampering, intimidation, harassment, sexual harassment, interference, assault, etc. must be reported immediately to NOAA Fisheries Office for Law Enforcement.

Attachment 1: Pre-Trip Vessel Safety Checklist

<input type="checkbox"/>	Vessel name	3-09	7
	Trip ID		
	Hull number		
	Date landed (MM/DD/YYYY)		

Northeast Fisheries Observer Program
PRE TRIP VESSEL SAFETY CHECKLIST (PTVSC)

For each item place a ✓ in the appropriate box. Y = yes, N = no, NR = not required. If the item is required for this particular trip but not on board, or service date is expired, fill in the "No" box. Please provide comments. An incomplete PTVSC may affect your bonus.

Y	N	NR	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vessel walk through: note general condition of vessel. *See back of sheet for examples
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Current USCS Commercial Fishing Vessel Safety Examination Decal *Required for all vessels Safety Decal Number <input style="width: 50px;" type="text"/> Exp <input style="width: 30px;" type="text"/> (MM/YY)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency Position Indicating Radio Beacon (EPIRB) *Required for all vessels operating beyond 3 miles Hydrostatic release service expiration <input style="width: 30px;" type="text"/> (MM/YY) Battery expiration <input style="width: 30px;" type="text"/> (MM/YY)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Life raft(s) Hydrostatic release service expiration <input style="width: 30px;" type="text"/> (MM/YY) Raft service expiration <input style="width: 30px;" type="text"/> (MM/YY) *Required to be sufficient for everyone on board, including observer. *Not required for vessels within 12 mi. of coast, ≤3 people and length <36'.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Immersion suits and personal flotation devices *PFDs are required to be worn by the observer while out on deck Are there enough for everyone on board? Keep yours easily accessible.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Radio(s)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fire extinguishers Vessels <26' with outboard motor(s) and portable fuel tanks = not required
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency signaling flares *Check expiration dates <3mi. = night light and smoke or 3 day/night flares; >3mi. = 3 parachute, 6 hand held, 3 smoke
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	First aid material
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Life rings Vessels <26' = cushion, >26' = 1 life ring buoy, >65' = 3 life ring buoys.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are safety drills conducted on this vessel? (May include fire, flooding, life raft deployment, abandon ship, etc.) Please ask captain.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will one be conducted while you are onboard? Comments? (on back)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will an underway wheel watch be maintained during this trip? Comments? (on back)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Were there any stability concerns/issues, either because of behavior or vessel design, during this trip? *See back of sheet for examples. If yes, please comment on the back.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did you provide any additional comments? If yes, please comment on the back.

Please provide comments and your signature on the back of this sheet.

Attachment 2: Proposed Data Elements to Be Collected under At-Sea Monitoring

05/27/2009

**Vessel and Trip Information Log
(OBTRP, OBTRG)**

Program code	Primary gear used
Contract code	Target Species I
Vendor id	Target Species II
Observer/trip id	Dealer
Vessel number	Tons of ice used
Vessel Permit number	Gallons of fuel used
VTR serial number	\$ Damage
E-VTR Id number?	\$ Supplies
Date sailed	\$ Food
Time sailed	\$ Ice per ton
Port sailed	\$ Fuel per gallon
Date landed	\$ Water
Time landed	\$ Oil
Port landed	\$ Bait

**Trawl Gear Characteristics Log
(OBOTG)**

Gear code
Net name
Net type
Gear number
Codend - hung shape
Mesh size of codend (10)
Liner used
Mesh size of liner (10)
Excluder/separator device used
Escape outlet used

Trawl Haul Log (OBHAU)

Gear code
Gear number
Haul number
Haul observed
Gear condition code
Begin haul date
Begin haul time
End haul date
End haul time
Latitude begin haul
Longitude begin haul
Latitude end haul
Longitude end haul
Target species
Area
Weather
Wave height

**Gillnet Gear Characteristics
Log (OBGGG)**

Gear code
Gear number
Number of nets
Net length
Net height
Tie downs used
Tie down length
Mesh size (multiple fields)

**Gillnet Haul Log (OBHAU,
OBGGH)**

Gear code
Gear number
Haul number
Haul observed
Gear condition code
Begin haul date
Begin haul time
End haul date
End haul time
Latitude begin haul
Longitude begin haul
Latitude end haul
Longitude end haul
Target species
Area
Weather
Wave height
Soak duration
Number of nets hauled
Number of pingers hauled

**Longline Gear
Characteristics Log (OBLLG)**

Gear code
Gear number
Number of hooks
Hook brand
Hook model
Hook size

**Longline Haul Log (OBHAU,
OBLLH)**

Gear code
Gear number
Haul number
Haul observed
Gear condition code
Begin haul date
Begin haul time
End haul date
End haul time
Latitude begin haul
Longitude begin haul
Latitude end haul
Longitude end haul
Target species
Area
Weather
Wave height
Soak duration
Mainline length

Species Catch Composition (OBSPP)

Species name
Catch disposition (K/D)
Pounds

Disposition code (discard reason)
Weight type (dressed/round)
Weight method (actual/estimate)

Length Frequency Log (OBLEN)

Species name
Fish disposition code
Sample weight
Sample type code
Length (cm)

Marine Mammal, Sea Turtle, and Sea Bird Incidental Take Log (OBINC)

PSID #
Haul number
Gear number
Species name
Animal condition code
Photo taken

Logs that would NOT be used

Individual Animal Log
Marine Mammal Biological Sample Log
Sea Turtle Biological Sample Log
Crustacean Sample Log
Protected Species Sighting Log

Fields that have to be asked of the captain have been included in the PRA clearance request.

**Catch Estimation Worksheet
(Not Entered Yet)**

Fishing method
Catch estimation method
Number of subsampling containers used
Volume of subsample container
Total subsample volume
Sample weight multiplier
Percent subsampled