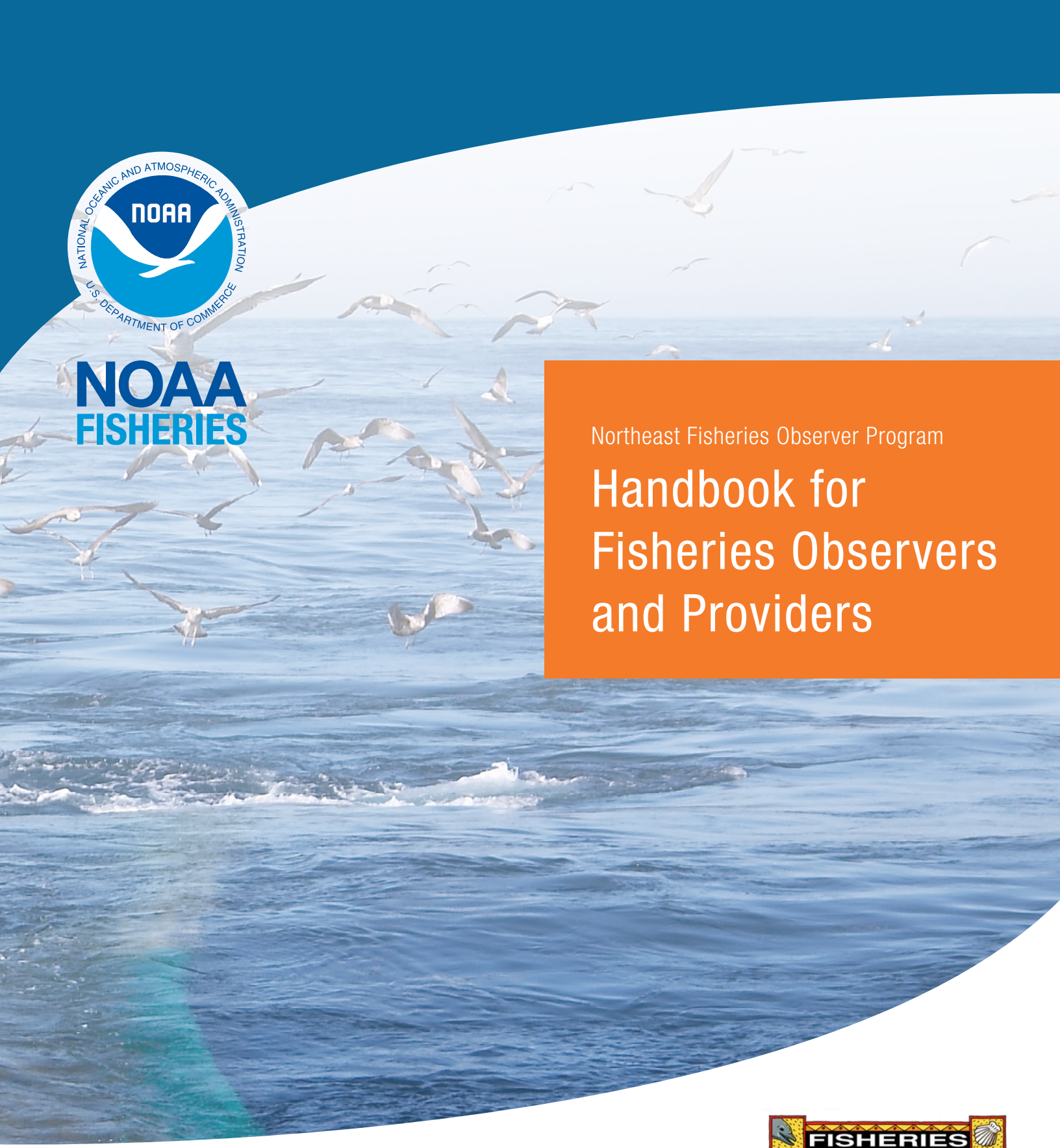


NOAA FISHERIES

Northeast Fisheries Observer Program

Handbook for Fisheries Observers and Providers

Published August 2019

FISHERIES
OBSERVER
LYBRAND TROLL

How to use this handbook

The purpose of this handbook is to provide prospective and certified observers—and providers—with an overview of the Northeast Fisheries Observer Program—its objectives, approach and requirements for observed fishing trips. This document offers brief summaries of a range of observer-related requirements, along with references to the specific policies, memoranda, documents and/or reports that related to each. A parallel handbook has also been prepared—*Northeast Fisheries Observer Program Handbook for the Fishing Industry*—which focuses on the requirements and expectations for observed fishing trips from an industry perspective.

All referenced policies, memoranda, documents and reports have been included in a separate document—*Northeast Fisheries Observer Program Master Appendix*—which should be used alongside this handbook.

Both handbooks are available in printed format and electronically as a PDF; the master appendix is available as an electronic document only.

In addition to these resources, the FSB provides **three additional program manuals:** (1) the Operations Manual covers the process of observing a trip and provides detail on trip selection, gear, communication/conflict resolution, fishery-specific information, protected species information, and protocols for biological sampling and catch estimation; (2) the Observer On-Deck Reference Guide provides summaries and tables intended to enable observers to quickly determine the correct biological sampling protocols and methods, as well as suggested catch estimation strategies, while at sea; and (3) the Observer Data Entry Manual provides detailed instructions for each data field collected.

Published August 2019

Prepared for the Northeast Fisheries Science Center, Fisheries Sampling Branch (FSB) by Tidal Bay Consulting and Shelly Tallack Caporossi. Content development for these handbooks was a collaborative effort, with contributions from over a dozen FSB staff, coordinated by Tania Lewandowski and Amy Martins.

The content of this handbook and master appendix are current as of the date of publication. As observer programs evolve, these materials may change and the most current information may be obtained from the FSB. Please also refer to FSB for the most up-to-date rules and regulations, as these materials do not serve as a substitute for federal regulations or agency policies.

Table of Contents

List of acronyms

ACFCMA	Atlantic Coastal Fisheries Cooperative Management Act
ACL	Annual Catch Limit
AOLA	Atlantic Offshore Lobstermen's Association
AOP	Annual Operating Plan
ASM	At-Sea Monitoring
ASMFC	Atlantic States Marine Fisheries Commission
CAC	Common Access Card
CFR	Code of Federal Regulations
CFVSE	Commercial Fishing Vessel Safety Examination
COTR	Contracting Officer's Technical Representative
CV	Coefficient of Variation
DFO	Department of Fisheries and Oceans Canada
DOF	Declare out of Fishery
EEZ	Exclusive Economic Zone
EFP	Experimental Fishing Permit
EM	Electronic Monitoring
EPIRB	Emergency Position Indicating Radio Beacons
ER	Electronic Reporting
ESA	Endangered Species Act
EVIC	EPIRB Visual Inspection Card
eVTR	Electronic Vessel Trip Report
FMP	Fishery Management Plan
FOIA	Freedom of Information Act
FSB	Fisheries Sampling Branch
GARFO	Greater Atlantic Regional Fisheries Office
GMRI	Gulf of Maine Research Institute
HVF	High Volume Fisheries
IDIQ	Indefinite Delivery Indefinite Quantity

IFM	Industry-Funded Monitoring
IFS	Industry-Funded Scallop
LOF	List of Fisheries
MARPOL	International Convention for the Prevention of Pollution from Ships
MDM	Mobile Device Management
MMPA	Marine Mammal Protection Act
MSA	Magnuson Stevens Fishery Conservation and Management Act
NEFMC	Northeast Fishery Management Council
NEFOP	Northeast Fisheries Observer Program
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NHFG	New Hampshire Fish and Game
NMFS	National Marine Fisheries Service (or NOAA Fisheries)
NOAA	National Oceanic and Atmospheric Administration
NOPAT	National Observer Program Advisory Team
OLE	Office of Law Enforcement (NOAA)
OMI	Operations, Management and Information
PFD	Personal Flotation Device
PRA	Paperwork Reduction Act
PTNS	Pre-Trip Vessel Notification System
PTVSC	Pre-Trip Vessel Safety Checklist
RFA	Regulatory Flexibility Act
SBRM	Standardized Bycatch Reporting Methodology
SDR	Safety Deficiency Reporting
SVP	Species Verification Program
SWAT	Safety & Wellness Advisory Team
USC	United States Code
USCG	United States Coast Guard
VMS	Vessel Monitoring Service
VTR	Vessel Trip Report

X

Section 1.
Introduction

The Northeast Fisheries Science Center Fisheries Sampling Branch (FSB) manages three observer programs in the Northeast region, which all have unique legislative requirements, protocols, and internal policies. The FSB receives numerous requests for information each week. This handbook summarizes all the documents and policies that are most relevant to Observers and Providers—it should be used together with the Northeast Fisheries Observer Program Master Appendix.

The role of the Fisheries Sampling Branch

The National Oceanic and Atmospheric Administration (NOAA) is within the Department of Commerce, and the National Marine Fisheries Service (NMFS) has an extensive program to monitor and observe living marine resources and associated communities to provide information on biota, their habitats, and the human activities and actions that may impact coastal and ocean ecosystems.

The Northeast Fisheries Science Center (NEFSC) is a regional science center for NMFS. The NEFSC's Fisheries Sampling Branch (FSB) manages three major programs that collect data during commercial fishing trips throughout state and federal waters from North Carolina to Maine: (1) the Northeast Fisheries Observer Program (NEFOP), (2) the At-Sea Monitoring (ASM) program, and (3) the Industry-Funded Scallop (IFS) program. Trained fishery observers collect these data for scientific and fisheries management use, including stock assessments, protected species management, and catch accounting.

The FSB also processes and manages the data and biological samples obtained.

The fisheries requiring observer coverage fall under the following fishery management plans (FMPs) and permits: Atlantic sea scallops; Northeast multispecies (groundfish); monkfish; Northeast skate complex; squid, mackerel, and butterfish; scup, summer flounder (moratorium permit), and black seabass; bluefish; spiny dogfish; Atlantic herring; tilefish; Atlantic deep-sea red crab; Atlantic surfclam and ocean quahog; and American lobster.

Data are the foundation of the scientific advice that supports decision-making by resource managers. To collect the quantity and quality of data necessary to ensure good science and management, NMFS continually strives to increase its capacity for data gathering to supplement data self-reported by fishermen. Fishery observers are one of the most important sources for obtaining some types of at-sea information such as bycatch composition and mortality, and interactions with marine mammals, sea birds, and sea turtles.

Observed trips are required under many of the region's FMPs, and by other federal laws and authorities such as the Marine Mammal Protection Act (MMPA), the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), the Endangered Species Act (ESA), and the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

An **observer** refers to any observer or monitor working for a NEFOP, ASM or IFS provider.

A **provider** is a company approved by NMFS to provide observer services.

How we provide observer coverage

Observer services are provided by contractors who deliver valuable services that help NOAA execute its missions to ensure sustainable fisheries, and recover and conserve protected species.

FSB works with multiple private companies that provide observer coverage. These companies either hold a direct federal contract for these services or are an approved service provider that contracts directly with the fishing industry:

- FSB partners with private federal contractors to supply NEFOP observer support services.
- Approved providers for the IFS program provide observer services to vessels as they are selected for coverage by NMFS.
- Approved providers for ASM contract directly with the groundfish sectors.

Redacted copies of the NEFOP contract are available for public viewing. Proprietary corporate information protected by the Trade Secrets Act has been removed as the Freedom of Information Act (FOIA) protects this information. NEFOP services are provided by one contractor through an Indefinite Delivery Indefinite Quantity (IDIQ) contract, under which the contractor provides NEFOP services through IDIQ Task Orders.

For consistency in this document, the term “observer” refers to any observer or monitor working for a NEFOP, ASM or IFS provider; a “provider” refers to a company that has been approved by NMFS to provide observer services.

Our observer programs

This section provides an overview of the three core observer programs currently operating, including the fisheries covered, the gear types used, and areas fished. While there is overlap in the type of data collected, observers in each program have unique duties that are governed by various laws and regulations. There are also several other observer programs in development, including Industry-Funded Monitoring (IFM) for Atlantic herring and electronic monitoring (EM) and/or dockside monitoring in the groundfish fishery and in mid-water trawl fisheries for herring and mackerel. The EM programs are described in Section 4.

At-Sea Monitoring (ASM)

At-sea monitors collect fisheries data used for scientific, management, compliance, and other purposes during fishing trips aboard commercial groundfish sector vessels. Monitors collect information by interviewing vessel captains and crew, observing fishing operations, and measuring selected portions of the catch and parts of the fishing gear. The ASM requirements are detailed under Amendment 16 to the Northeast Multispecies FMP and were first required beginning May 1st, 2010. At-sea monitoring coverage is an integral part of quota monitoring, and this is how these data are primarily used. At-sea monitors collect accurate information on catch composition and the data are used to estimate total discards by sectors, gear type, and stock area. The program ensures that annual catch limits (ACLs) are not exceeded, supporting the NOAA Fisheries mission to build sustainable fisheries.

Industry-Funded Scallop (IFS) Observer Program

The IFS observers monitor sea scallop dredge and trawl gear catch aboard Limited Access and Limited Access General Category vessels as specified by Amendment 13 to the Atlantic Sea Scallop FMP. Data collected by observers are used to identify key characteristics of the commercial scallop fishery in the Northeast and Mid-Atlantic regions. Catch data and biological information help inform stock assessments, which rely on several data sources, including information taken directly from the fisheries. Protected species are sometimes caught during fishing operations. Samples obtained from these animals provide life-history information and data used to understand where, when, and how many of these species are unintentionally caught during fishing operations.

Northeast Fisheries Observer Program (NEFOP)

NEFOP observers collect catch, gear, fishing effort, and biological data over a range of commercial fisheries from Maine to North Carolina. These include the groundfish, herring, squid, surfclam, ocean quahog, and lobster fisheries. The primary purpose of NEFOP is to collect data needed to confidently estimate bycatch of all federally managed species in the Northeast region. In most fisheries, vessels are required to carry a federal fisheries observer if their trip is selected for coverage, particularly if the vessel is federally permitted or participating in a Category I or II fishery under the MMPA.[1]

The catch data and biological information collected support scientists when preparing a stock assessment. Samples obtained from protected species encounters provide valuable life-history information and data for bycatch estimation.

1 The MMPA mandates that all commercial fisheries be classified by the level of incidental marine mammal death and serious injury. Accordingly, the List of Fisheries (LOF) puts each fishery into one of three categories: (I) Frequent incidental death or serious injury of marine mammals, (II) Occasional incidental death or serious injury of marine mammals, and (III) Remote likelihood of/no known incidental death or serious injury of marine mammals.

How observer data is used

Some of the largest, most profitable fisheries rely on fishery observers to collect, process and manage data and biological samples from commercial fishing trips for stock assessment and management purposes. Following are some other uses for observer data that may directly—or indirectly—impact you, your family and friends, your wallet, your lifestyle, your community and more.

1. FishWatch

Ever heard of FishWatch? FishWatch provides up-to-date information and facts about U.S. seafood so shoppers and restaurant patrons can make seafood choices that align with their personal goals for consuming sustainably harvested seafood. FishWatch also explains how seafood is harvested using strict monitoring, management and enforcement that helps keep our marine environment and our fisheries healthy. Fishwatch would not be possible if NEFOP was not collecting data that helps assess the state of the fishery, determine fishery impacts to habitats, and evaluate bycatch. Eco-certification programs (e.g. Marine Stewardship Council) have also used observer data to identify and recommend sustainable seafood choices like Northwest Atlantic haddock, spiny dogfish, sea scallop, pollock, Acadian redfish, Atlantic surfclam, and ocean quahog. If supporting businesses that harvest or provide sustainably fished seafood is important to you, then so too is the data NEFOP collects.

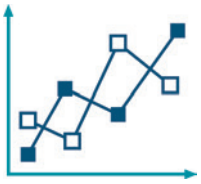
2. Safety

Per the federal requirements from NOAA and the United States Coast Guard (USCG), each time a fisheries observer arrives to cover a fishing trip, a thorough safety check is completed before the trip starts. This ensures that required life-saving equipment—for example, life rafts and emergency locator beacons—are present and in proper working condition to be utilized in an emergency. Safety preparedness and training help reduce the number and severity of worker accidents and at-sea emergencies. In addition to a well-equipped vessel, a well-trained observer leads to an overall increase in safety, to the benefit of all onboard.

3. Scientific and research community

Every year NEFOP receives requests from government agencies, the commercial fishing industry, and academic and research institutions across the country for data useful in fisheries research. In fact, from 2016-2018 the program processed 223 of these data requests. One of those requests came from the Massachusetts Department of Marine Fisheries, the University of Massachusetts Dartmouth, and an industry group called the Sustainable Fisheries Coalition who were working together on a project. Using NEFOP records of river herring catch, they established a system that sends real-time alerts to vessels about river herring and shad bycatch—how much is occurring and where—so fishermen can avoid areas where bycatch would be high.

4. Better stock assessments and fishery management



Stock assessments need to include information about total commercial catch—what is discarded at sea as well as what is landed. Commercial fishermen know that people not only *want* healthy, sustainably harvested seafood, they are also *willing to pay for it*. That is why fishermen work hard to minimize catch that they will not take to market, since it must be discarded and does not always survive. Observers help to document what is discarded and why—usually because there is no market, the individual fish is undersized for legal landing, or because landing the catch would result in exceeding a quota limit. This information directly contributes to better stock assessments and management, and provides seafood consumers with proof that what they are feeding their families aligns with their desire for sustainably harvested seafood.

5. Exploring new or revisiting small fisheries

When there is interest in exploring a new—or revisiting a smaller—commercial fishery, observers are there to collect baseline data to determine if the resource could be—or still is—fished sustainably. A sustainable blue or ocean economy happens when the ocean ecosystems can support economic activity such as a fishery, while remaining healthy and resilient. Collecting baseline data at the early stages of a burgeoning fishery is crucial for blue and ocean economies. Not only do these data help us maintain sustainable fisheries, but also related business like processing plants, utility and service providers, transport and delivery, restaurants, tourism, and their employees.

6. Special collections

Besides observers' regular duties, sometimes they are called upon to collect additional biological samples to fill data gaps, provide baseline data for preliminary research, or feed data-hungry statistical models for scientists and managers across the country. It is not unusual for universities, research institutions, and fisheries managers to tap into the experience, specialized sample collection gear, and remote fishing locations accessible within the observer program. It is another way scientists acquire the quantity and quality of data they require. Most recently FSB has worked with New Hampshire Fish and Game (NHFG), Massachusetts Division of Marine Fisheries, the Atlantic Offshore Lobstermen's Association (AOLA), Duke University, and Department of Fisheries and Oceans Canada (DFO) to collect samples for a variety of research studies.

For example, NEFOP was the only program sampling the offshore lobster fleet, prompting AOLA and NHFG to approach NEFOP with a pilot tagging and reproduction study to assess the distribution of egg-bearing female lobsters and their movement in eastern Georges Bank. Another example of a special data collection request is a study conducted by DFO on eastern Georges Bank cod. It is thought that there may be two genetically different populations of cod on Georges Bank—an eastern and a western population. Many studies have looked at the western population, but few have looked at the eastern. To determine if there are two genetically different populations, NEFOP observers are collecting DNA samples during the spawning season in targeted locations. If there are two genetically different populations, managers may have to assess and manage them differently.

7. Documenting species

In 2018, Northeast Fisheries Observers spent about 10,782 days—approximately 172,200 hours—at sea. During that time, they encountered many types of fish, mammals, seabirds, and invertebrates. The FSB's Species Verification Program (SVP) ensures accurate identification of the species they encounter by requiring observers to photograph or submit a wide variety of commercially important species, endangered species, or species of special concern. These records are each identified by at least two specially trained FSB staff—usually within 24 hours—who provide fast feedback to the observers, often before they deploy on their next trip.

In 2018, the SVP received 31,653 photos that included over 14,000 specimens. SVP data are used to audit and support observer data, improve training methods, and provide data users with information about data accuracy. Observers can send any species encountered on trips into the SVP for identification. As a result, observers can quickly learn the identification of less common species. In 2018, observers documented nine 'Verified for the first time within the NEFOP' fish or invertebrate species; these included a pallid sculpin, snubnosed eel, and dotterel filefish. Observer SVP records are a source of high-confidence data on species distributions that can be used to identify important habitats and species ranges, but also can be used to highlight changes in fishing effort or changing sea conditions.

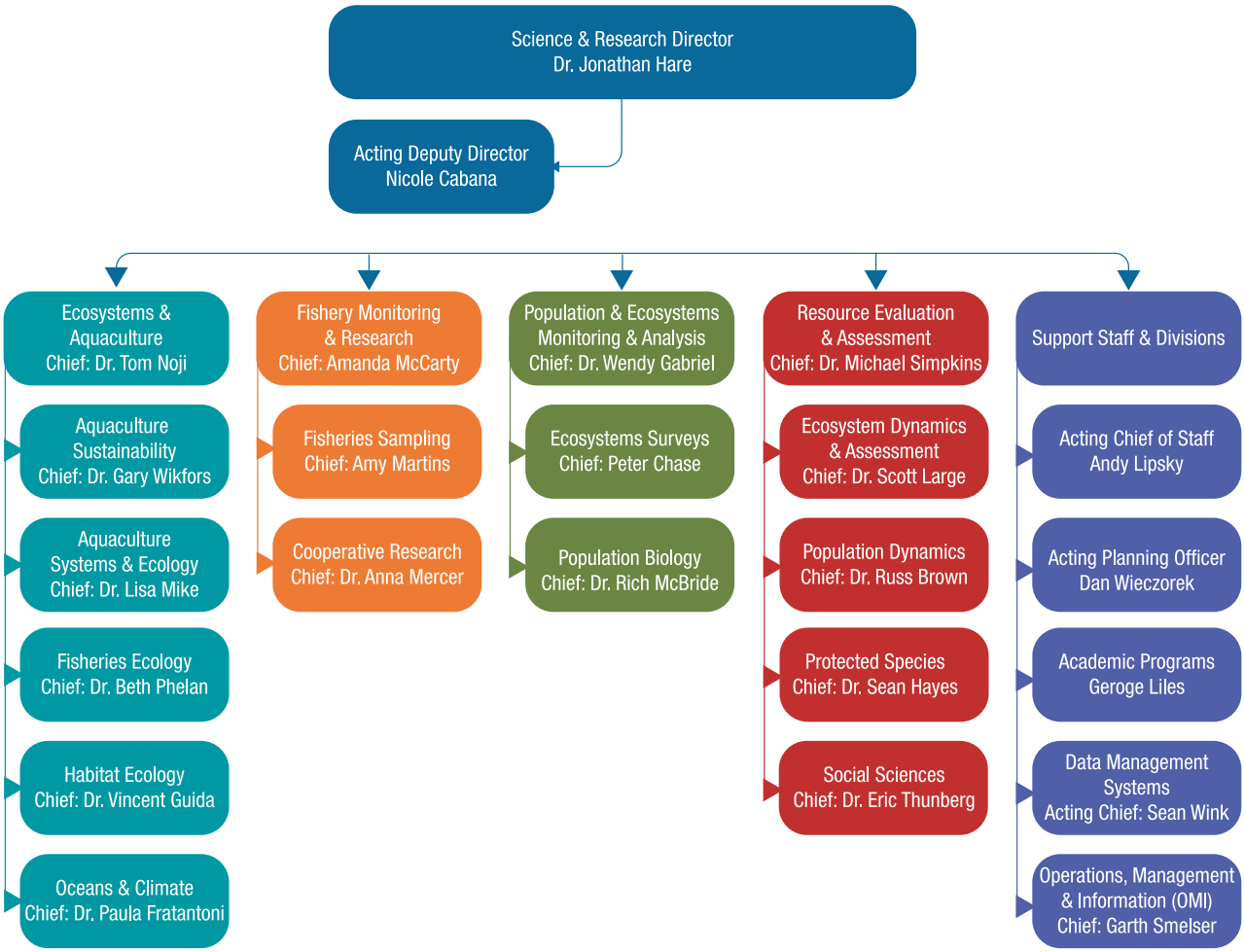
8. Gear modifications to reduce bycatch

Commercial fishery catch has two components: animals that will be kept, and those that will be thrown back. Kept catch is landed and sold. Catch thrown back into the ocean is referred to as discards or bycatch. Because a good portion of the bycatch does not survive capture and discard, NOAA Fisheries and other organizations are working on modifications to commercial fishing gear that reduce bycatch and improve survival of animals when discarded. Once a gear modification is being used, continued monitoring of modified gear performance is essential to make sure it is still fishing as intended even as fishing and ocean conditions change over time. Because observers are on commercial fishing vessels outfitted these modified gears, they can collect data to evaluate gear performance.

When gear modification is successful, it offers an alternative to allow fishing to continue while mitigating risks to protected or rebuilding populations. For example, haddock separator trawls retain haddock, but also have a separate panel that allows recovering species and stocks—like Georges Bank cod and yellowtail, winter, and witch flounders—to escape. Gear modifications can also help reduce fish processing time on commercial fishing vessels or allow commercial fishing in areas and at times that are otherwise prohibited. In a commercial fishery, where time is money, using modified gear can make a big difference.

Northeast Fisheries Science Center organizational chart

Directorate and Science & Research Divisions



OMI Branches

Office and Laboratory Locations

Fisheries Sampling Branch organizational chart

FSB is within the Fishery Monitoring and Research Division of the NEFSC. There are multiple observer programs within FSB. This organization chart shows how these programs are linked and lists staff that support these programs.

Fishery Monitoring & Research Division, Fisheries Research Branch (71): Updated 7/24/2019
13 federal positions (dark blue text), 4 vacancies (yellow text), 56 affiliates (white text), 5 part-time position (PT) and 3 off-site positions (OS).

Who we are

FSB comprises approximately 70 staff members, including a Branch Chief, administrative assistants, area and fisheries leads and assistants, a training team, debriefers, data auditors, data entry and archive staff, data analysts, database support, data quality control, at-sea technology integration, vessel call-in coordinators, and liaison staff for observers, fishermen and the electronic monitoring project.

Most staff members have at-sea and/or fishing industry experience as observers, scientists, observers, trainers, or liaisons. The FSB is responsible for:

- Observer training, support, equipment, and debriefing.
- Observer report reception, processing, and validation of observer reports.
- Observer data and sample management.

A staff directory is available online and in Appendix A1.

Where we operate and how to reach the Fisheries Sampling Branch

Our primary office where staff are located is the Observer Training Center within the Town of Falmouth's Technology Park, with the following physical and mailing address:

NOAA Fisheries
Northeast Fisheries Science Center
Fisheries Sampling Branch
Observer Training Center at Tech Park
25 Bernard East Saint Jean Drive
East Falmouth, MA 02536

Telephone: (508) 495-2130 or (508) 495-2000
Email: NEobserver.info@noaa.gov
Web: www.nefsc.noaa.gov/fsb

Contact information for common inquiries

FSB frequently responds to inquiries about programs and protocols. This table contains a point of contact and details for common inquiries.

General inquiries

Inquiry	Point of Contact	Phone #	Email Address
Emergency or to report a late observer	24/7 Line	(855) FISHES1 / (855) 347-4371	
Branch Chief	Amy Martins	(508) 495-2266	amy.martins@noaa.gov
Administrative	Kathy Abney	(508) 495-2338	katherine.abney@noaa.gov
Data requests	Gina Shield	(508) 495-2139	gina.shield@noaa.gov
Observer regulations	Tom Gaffney	(508) 495-2147	tom.gaffney@noaa.gov
Observer Compliance Liaison	Zachary Fyke Day/extended hours	(508) 495-2146 (774) 392-5261	zachary.fyke@noaa.gov
Observer service providers	A.I.S., Inc. E.W.T.S. Fathom Resources	(508) 990-9054 (860) 910-4957 (508) 990-0997	
Outreach coordination	Chad Keith	(508) 495-2067	charles.keith@noaa.gov
Safety	Kenneth Keene Kara Gross	(732) 872-3070 (508) 495-2154	kenneth.keene@noaa.gov kara.gross@noaa.gov
Seaday schedule	Sara Weeks	(508) 495-2227	sara.weeks@noaa.gov
Sector Manager Liaison	KB McArdle	(508) 495-2377	katherine.mcardle@noaa.gov

U.S.C.G. safety decals—the best way to schedule a Commercial Fishing Vessel Safety exam is to visit the official request page at: http://www.fishsafe.info/docksideexamrequest.htm

Observer training

Inquiry	Point of Contact	Phone #	Email Address
Training Lead	Tania Lewandowski	(508) 495-2264	tania.lewandowski@noaa.gov
Training Coordinator	Diana Cowan	(508) 495-2283	diana.cowan@noaa.gov
Trainer	Diana Janda	(508) 495-2221	diana.janda@noaa.gov
Trainer	Alex Post	(508) 495-2261	charles.post@noaa.gov
Trainer	Victoria Oriole	(508) 495-2075	victoria.oriole@noaa.gov
Trainer	Vacant	(508) 495-2189	-

Observer inquiries: extended hours for non-emergencies are 7:00 a.m. to 7:00 p.m.

Inquiry	Point of Contact	Phone #	Email Address
General questions or concerns			NMFS.NEC.ObserverSupport@noaa.gov
Species verification	Loren Kellogg	(508) 495-2159	loren.kellogg@noaa.gov
Debriefing question		(744) 392-5270	-
Freezer delivery: Trip & trip sample Large freezer samples	 Ashley Taylor-Haynes Day/extended hours	 (508) 495-2321 (508) 566-6071	 ashley.taylor-haynes@noaa.gov -
Incidental take lead	Johanna Pedersen Stephanie Petrus	(508) 495-2126 (508) 495-2005	johanna.pedersen@noaa.gov stephanie.petrus@noaa.gov
Sample delivery / Incidental take issues	Day/extended hours	(508) 566-6071	-
Pre-Briefings			
Pots/traps, all target species	Glenn Chamberlain Extended hours debriefing line	(508) 495-2153 (744) 392-5270	glenn.chamberlain@noaa.gov
Herring	Glenn Chamberlain Extended hours herring line	(508) 495-2153 (744) 392-2735	glenn.chamberlain@noaa.gov kristen.gustafson@noaa.gov
Scallop dredge & scallop trawl	Lacey Bluemel Tyler Staples Chad Keith Extended hours scallop line	(508) 495-2188 (508) 495-2129 (508) 495-2067 (508) 560-3550	lacey.bluemel@noaa.gov tyler.staples@noaa.gov charles.keith@noaa.gov
Clam/quahog dredge	Data Debriefer Meghan Plourde Extended hours debriefing line	 (508) 495-2158 (744) 392-5270	See FSB contact list meghan.plourde@noaa.gov -
High volume fisheries	Glenn Chamberlain Extended hours herring line	(508) 495-2153 (744) 392-2735	glenn.chamberlain@noaa.gov kristen.gustafson@noaa.gov
Shrimp trawl	Alex Post Bridget Harner Extended hours debriefing line	(508) 495-2261 (508) 495-2331 (744) 392-5270	charles.post@noaa.gov bridget.harner@noaa.gov -
Boats using a conveyor belt* (first trip only)	Data Debriefer Extended hours debriefing line	 (744) 392-5270	See FSB contact list
Small mesh trawl fisheries (recommended	Data Debriefer Extended hours debriefing line	 (744) 392-5270	See FSB contact list -
Boats using Electronic Monitoring systems (NEFOP observers only)	Justin Potter Corey Endres Extended hours debriefing line	(508) 495-2152 (508) 495-2292 (744) 392-5270	justin.potter@noaa.gov corinne.endres@noaa.gov -
PTNS		(855) FISHES1 / (855) 347-4371	-
Tech support	Charles Dunlap Erin Kupcha Extended hours Technical Assistance	(508) 495-2035 (508) 495-2031 (508) 367-8256 -	charles.dunlap@noaa.gov erin.kupcha@noaa.gov - NMFS.NEC.FSBTechSupport@noaa.gov

*Since there are different protocols for a day skate trip and a multiday squid trip, it is recommended to call in before each type.

Fishermen inquiries

Inquiry
Scallop Pre-Trip Notification, (508) 495-2100
Herring, mackerel Pre-Trip Notification, (774) 392-2735

Groundfish Pre-Trip Notification System (PTNS):

Internet (preferred method) - This should be the primary means of trip notification and trip changes. The PTNS website is available at the following address: http://fish.nefsc.noaa.gov/PTNS. Vessels should log in using the same username (Permit Number) and password (PIN) as they use for Fish-On-Line.

Email - This should be the secondary means of trip notification. The email address to submit trip notifications, trip changes, questions, or problems is nefsc.ptns@noaa.gov.

Phone - If neither the internet or email methods are working, the third means of trip notification is by phone. The number for notifications is 1 (855) FISHES1 or 1 (855) 347-4371. At this number the PTNS Coordinator is available from 8:00 a.m. to 5:00 p.m. on business days. **After business hours and on weekends and holidays,** calls will be fielded by an answering service operator who is qualified to enter notifications, to answer frequently asked questions, and to help troubleshoot common PTNS issues. In emergency situations, the operator will immediately contact a NMFS representative for assistance.

Northeast Fisheries Science Center science plan

NEFSC vision statement

Conduct ecosystem-based research and assessments of living marine resources, with a focus on the Northeast Shelf, to promote the recovery and long-term sustainability of these resources, and to generate social and economic opportunities and benefits from their use

Mission objectives

Research and monitoring

Understand and predict changes to marine ecosystems and their subsystems affecting living marine resources, fisheries, habitats, ecosystem condition, productivity, aquaculture, and the generation of net national benefits.

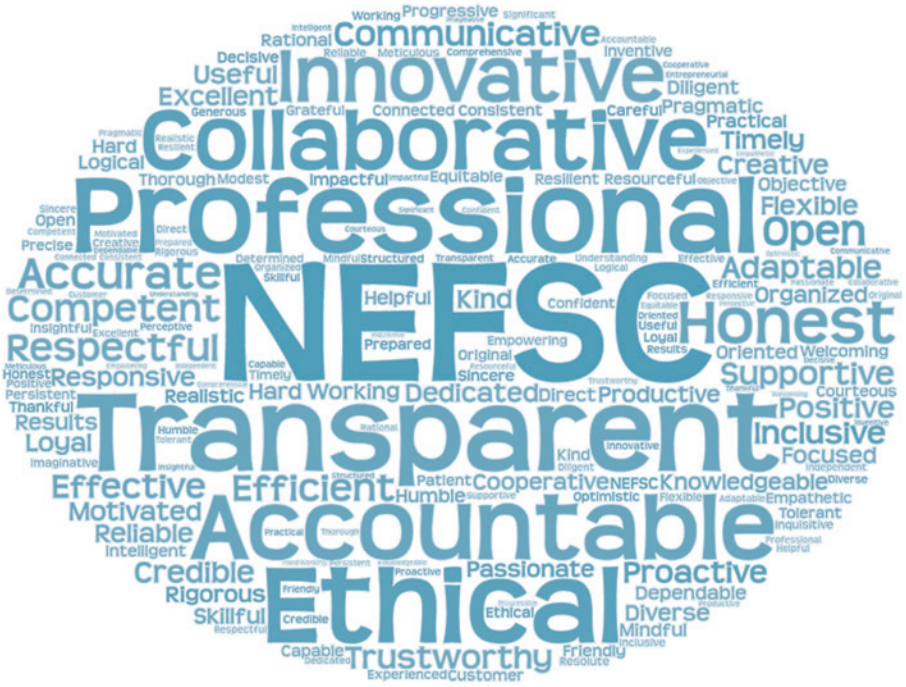
Scientific advice

- Develop and provide the scientific foundation for management programs that has an ecosystem-based framework.
- Enhance society's capability to respond to changing ecosystem conditions and to manage risk by developing science-based decision tools.

Education and outreach

Engage and interact with individuals, partners, schools, communities, and industries to facilitate information flow, to assure coordination and cooperation, and to provide technical assistance in the management of living marine resources and their habitats.

Core values



Fisheries Sampling Branch scientific work plan

FSB vision

To provide high quality information to support ecosystem-based fishery management.

Mission

To collect exceptional, timely, and unbiased fishery dependent data in the Northwest Atlantic. To promote long-term sustainability of fishery ecosystems by working collaboratively with fishing communities, scientists, resource managers, stakeholders, and the public.

Goals

- Train, certify, and retain high performing observers.
- Safely deploy and support observers.
- Modernize and enhance at-sea data collection and dissemination.
- Strengthen stakeholder relationships.
- Support science and fishing communities.
- Provide outreach to fishing communities and the public regarding observer program purpose and goals, including information about coverage levels.

Values statement

With integrity and transparency, safely deploy highly trained fisheries observers. Through strong relationships with fishermen and end users, provide an adaptive workforce to support ecosystem-based fishery management with unbiased quality data.

Fisheries Sampling Branch milestones

NOAA's Annual Operating Plan (AOP) consists of performance measures with associated milestones directed toward achievement of the agency's strategic plan objectives and annual priorities. NOAA Fisheries leadership tracks accomplishments through the NOAA Fisheries AOP, and reports progress quarterly to NOAA. This includes planning, monitoring, and reporting of milestones and performance measures.

The NOAA Fisheries Strategic Plan 2019-2022 provides specific strategic guidance on our highest priorities; it addresses our core mission, administration priorities, and those priorities identified in the Department of Commerce Strategic Plan. Milestones have been set to align with this guidance, supporting our priorities. Milestones are directed by our strategic goal to improve organizational excellence and regulatory efficiency, strengthening our capacity to maximize return on program investments, and deliver quality, timely service.

Milestones

For Fiscal Year 2019, FSB set the following milestones for science, monitoring, and assessment.

1

Provide timely, high quality observer and at-sea monitoring data of commercial fisheries in the Northeastern U.S. from Maine through North Carolina.

Observers submit preliminary data from observed trips within 48 hours of landing. Data quality assessment and final data load is completed within 90 days of trip end (45 days for scallop trips). This includes a thorough review of the data, observer debriefing, data entry, audit, and upload to a final Oracle database. Observer logs are scanned into a searchable database and filed at an archive facility. For more information, *see flow chart on page 17.*

2

Complete 90% of the annual NEFOP Seaday Schedule deployments for observer coverage as assigned by the Population Dynamics Branch, Protected Species Branch, and the Greater Atlantic Regional Fisheries Office (GARFO). Follow the vessel selection plan and measure accomplishments.

The Seaday Schedule reflects the requirements of various end user groups, with differing observation and monitoring goals. The Seaday Schedule assigns monthly coverage to specific fleets in a way that tracks with funding sources and program goals. Certain fisheries may also have an expected or targeted coverage rate defined at the beginning of the schedule year (April-March). Needed seadays are distributed by month and based on the previous year's fishing patterns. Since fishing patterns change from year to year, there is flexibility to shift unused days from past months into upcoming months within a year, following guidelines and priorities identified through the fishing management process and/or by working with the end-users.

3

Assist with the implementation of EM in the New England groundfish fishery and slippage monitoring in the mid-water trawl fisheries. Develop and assess requirements, standards, and operating procedures.

Work with NEFSC and GARFO staff to develop and design performance standards for implementing EM in specific sector(s) of the New England groundfish fishery, as an alternative to ASM. Work with the mid-water trawl fleet to develop EM systems to monitor and verify compliance with slippage events, under the IFM Omnibus Amendment.

4

Conduct outreach and field operations to address observer safety and code of conduct.

Work with the fishing industry—vessel owners, representatives, captains, crew members, and permit holders—to improve sampling environments on vessels and to resolve problems. This will promote safer work conditions, result in fewer fishing delays, reduce hostility toward observers in the field, and improve data quality with a better prepared and supported fishing industry.

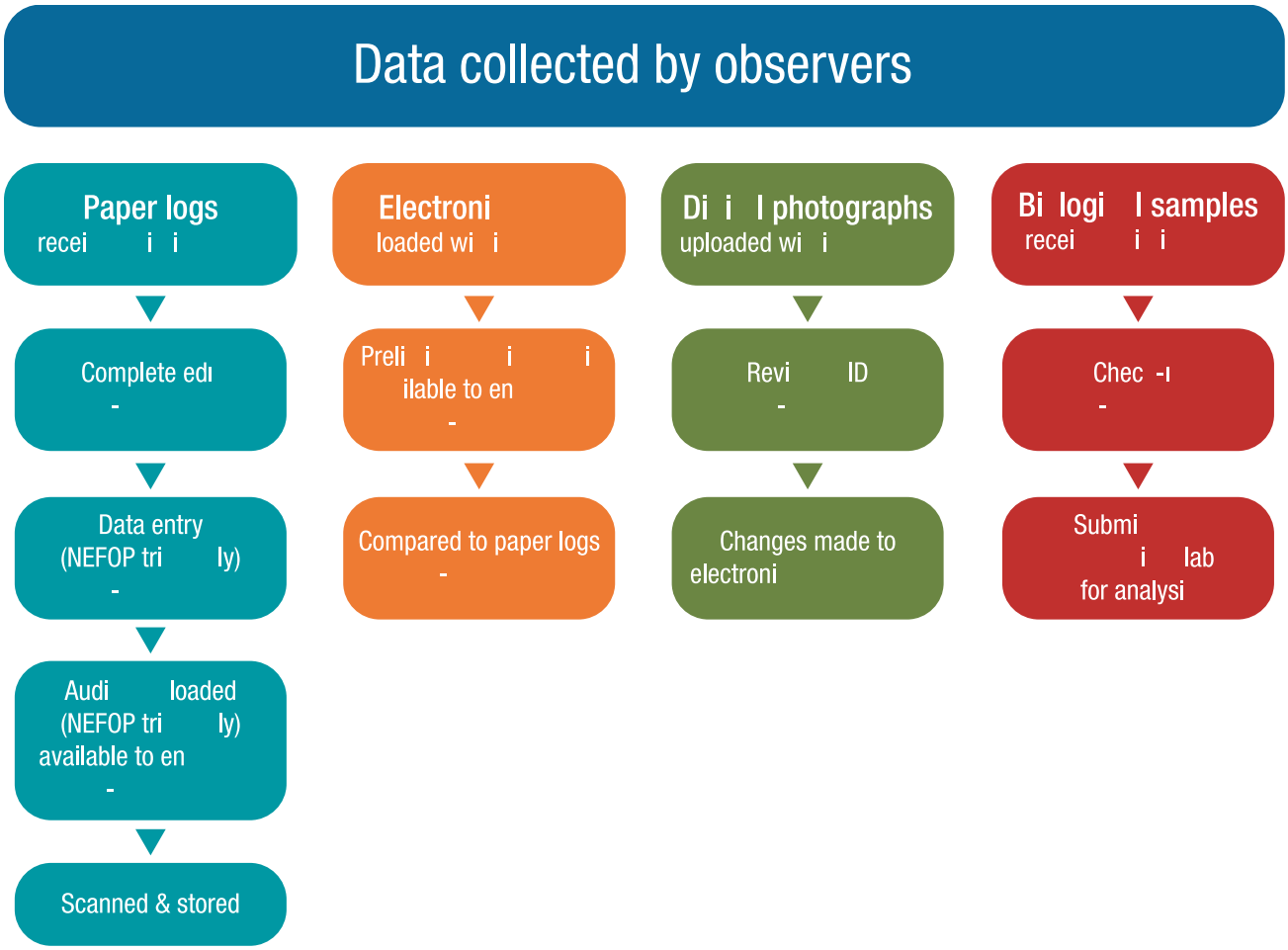
Subjects for milestones

- Bycatch Reduction
- Protected Species Stock Assessments
- Fishery Stock Assessments
- Marine Ecosystem Studies
- Outreach and Education
- Human Dimensions

Anticipated results

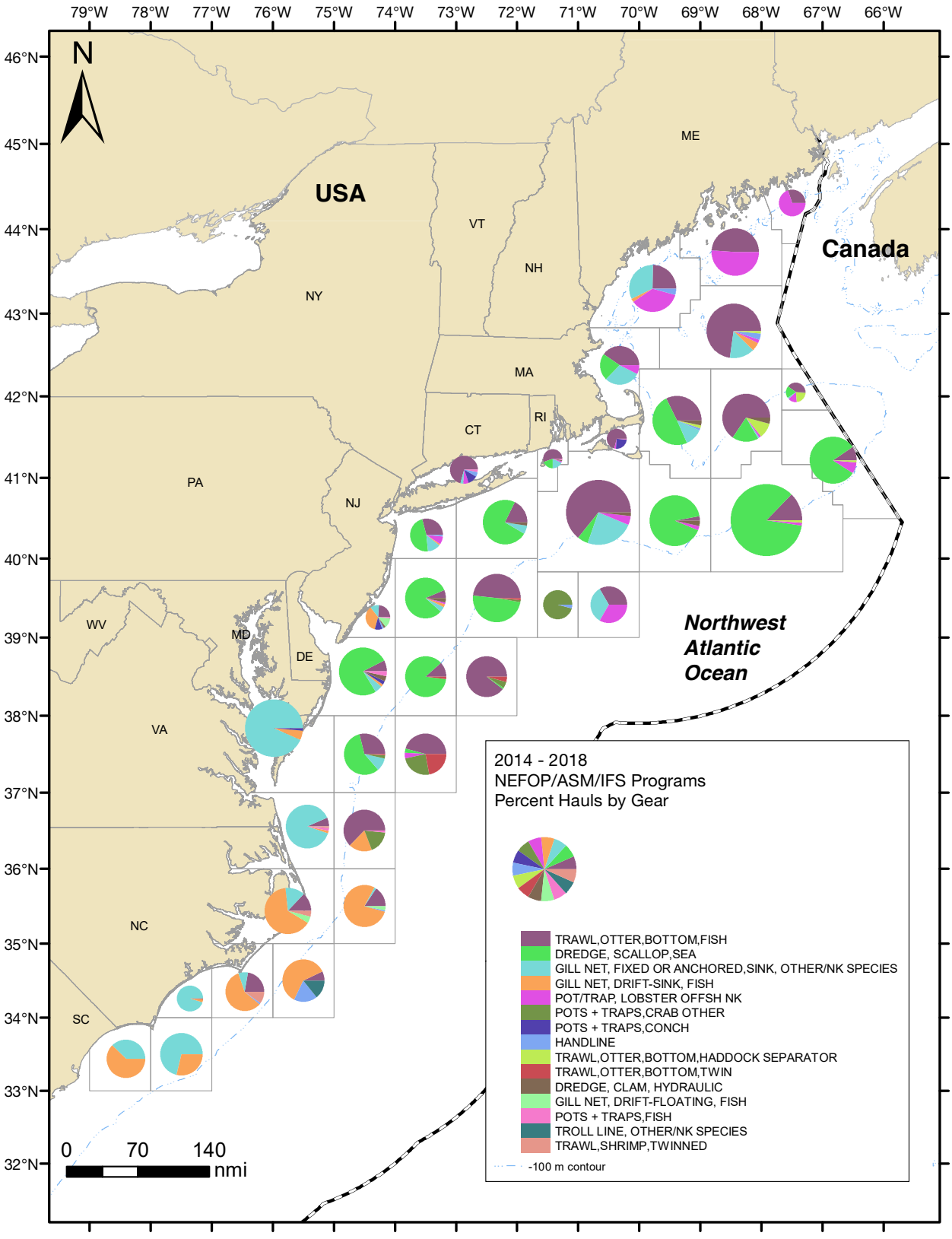
- Increase accessibility and use of fisheries data.
- Expand the usage of emerging technology capabilities.

Processing of observer data, by observer data type



Background information

Observer coverage by gear type in the Greater Atlantic Region (2014-2018)



Additional uses for observer data

To manage fisheries, data are needed—not only for species targeted by a fishery, but for all species making up the affected ecosystem. Observers are the only independent data collection source for some types of at-sea information, such as bycatch, catch composition, biological sampling, protected species interactions, and gear configuration.

Reducing bycatch

Not everything caught by a fishing vessel is kept. In many cases, fishing vessels discard fish that are too small or are not the species being targeted. Some protected and regulated species cannot be kept by law and are also discarded. In other cases, the fishing vessel has reached its total allowable catch for a species, so any extra catch of that species must be discarded. Depending on the fishery and species caught, discards may be alive or dead.

Observer programs are the primary source for discard data in the U.S. While on board commercial fishing vessels, observers record the type and amount of discards as well as the reason for discarding. We need this information to create a complete picture of fishing impacts. High levels of discards, particularly of commercial and ecologically valuable species, may be a signal to alter fishing activities or gear to reduce the impact of fishing on the marine environment.

Supporting stock assessments

Stock assessments provide a picture of the current state of a fishery stock as well as its likely future state under various conditions. A range of biological samples taken throughout the year in all fisheries help scientists and managers see changes in a fish population, and perhaps to determine the cause of change. These assessments drive the fisheries management process and are used to set catch levels, maintain healthy fish populations, and rebuild overfished stocks—all required by the under U.S. law, which mandates sustainable federal fisheries.

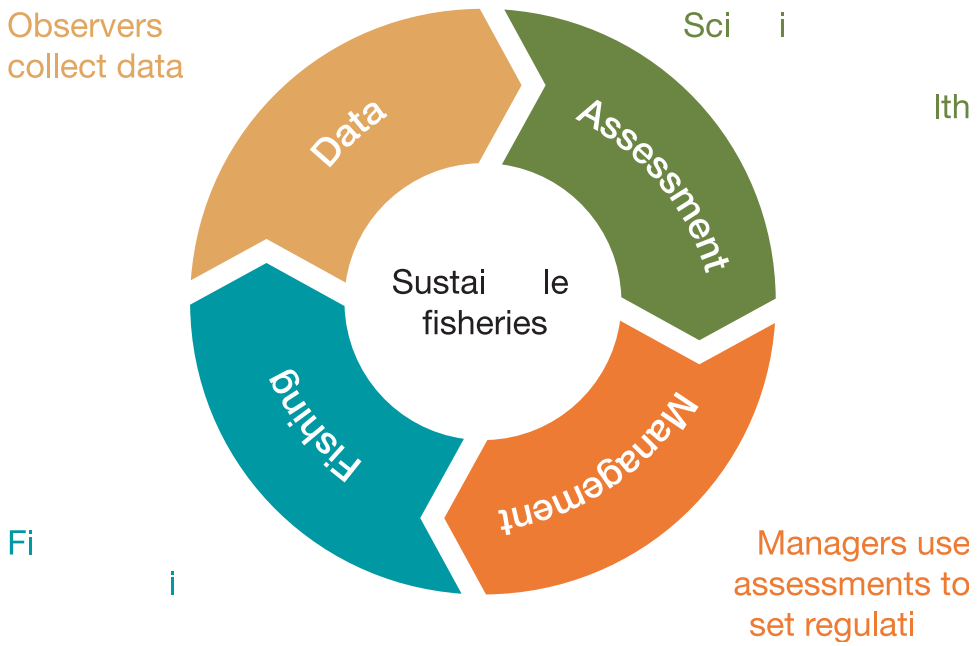
The stock assessment process requires detailed information for each species, such as size, age, gender, and number caught. Our fishery scientists use the information provided by observers, along with other data sources such as research surveys and fishermen-reported data, to complete a stock assessment.

Monitoring protected species interactions

Observers also collect information on when and how often fishermen interact with, or "take," protected species like marine mammals, sea turtles, certain populations of fish, and endangered seabirds. The term "take" refers to fisheries interactions with species protected under the MMPA or ESA, as well as seabirds protected under the Migratory Bird Treaty Act. The data collected help scientists develop ways to reduce the risk of fisheries interactions with these species. The information collected by fisheries observers also allows scientists to monitor the health of marine mammal and protected species populations, which is required under the MMPA and the ESA.

Biological data—such as estimates of the total number, age, and gender, of animals incidentally killed or seriously injured during the course of commercial fishing operations—are used by NOAA Fisheries take reduction teams when developing take reduction plans. These plans help to recover or prevent depletion of certain marine mammal stocks. Biological data on capture and discard rates of fish species are also an important part of recovery plans developed for threatened and endangered species under the ESA.

The role of observers and fishermen in sustainable fisheries



Monitoring experimental fisheries and gear types

The fishing industry constantly evolves as new technology is developed and new markets open. Observer programs are one way to collect information on the impacts of changes in fishing activity and gear types.

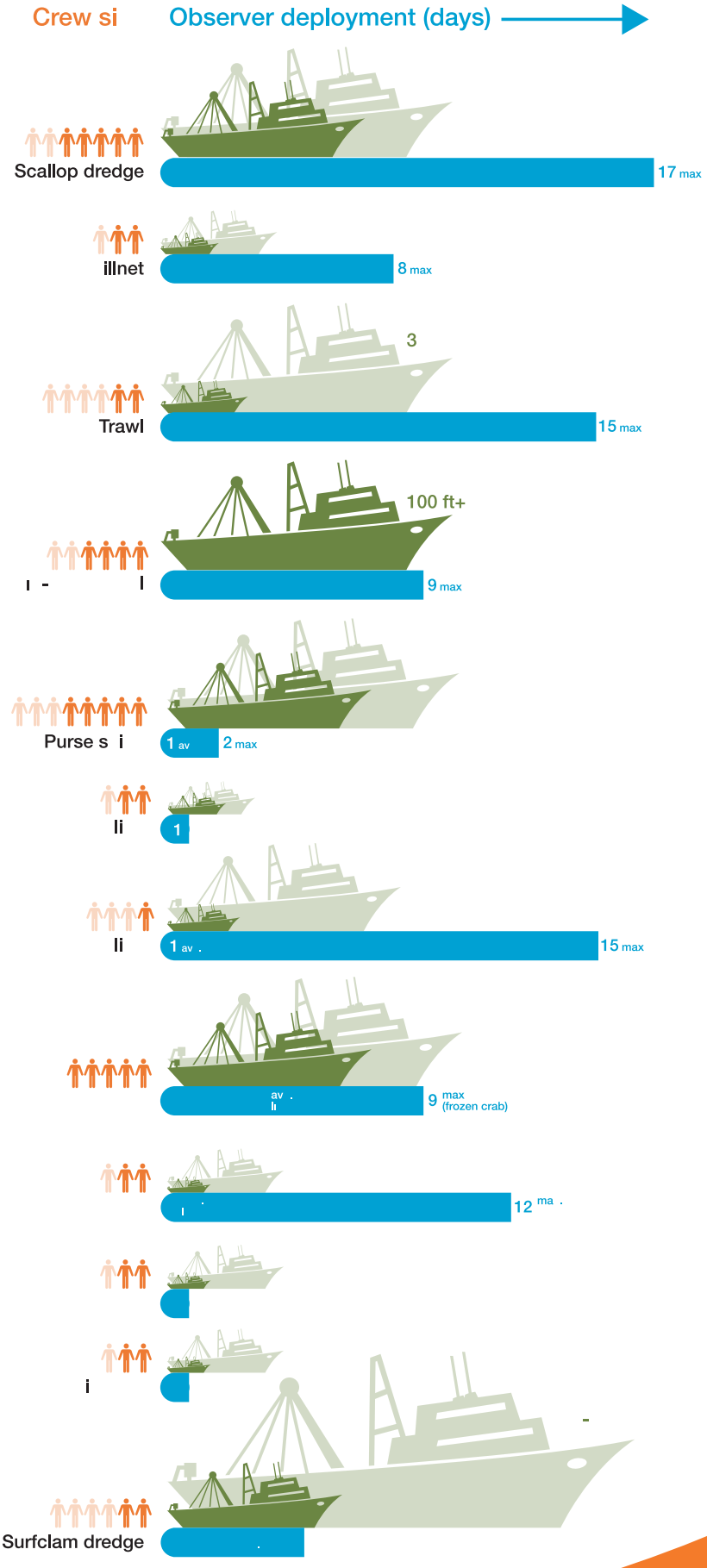
Observers are often included as a condition of getting federal exempted fishing permits. These permits are issued to test modifications to fishing gear, such as devices intended to help reduce bycatch. An exempted permit may also be issued when a fishery develops to serve a new market. In all of these cases, observer data help fisheries managers make balanced decisions on the potential benefits and impacts of the experiment. In the past, observer data collected under exempted permits has led to the development of bycatch reduction devices such as the turtle excluder devices in the southeastern U.S. shrimp trawl fishery, and the implementation of acoustic deterrents, or "pingers," to reduce harbor porpoise bycatch in the Northeast and Southwest.

Supporting regulations for sustainable fisheries

Most observer programs are authorized through federal FMPs, which are administered by regional fishery management councils. Each FMP outlines what measures will be used to regulate the fishery. Observer data are critical to the success of the plans, as they inform council decisions regarding quotas, caps, and discard allocations. For example, when a "total allowable catch" level has been specified for a species, observer data are used during the fishing season to project when the cap has been reached.

For rebuilding species, such as New England groundfish, pre-season target catch numbers are provided to the management team. After the fishing season, observer data are evaluated and compared to the pre-season targets to evaluate total catch, and the next season's targets are adjusted accordingly. We may also cap the number of marine mammals, sea turtles, or seabirds incidentally caught by the fishery. Observer data are used to estimate when that number has been reached. If it is reached before the fishing season ends, the fishery may be closed early.

Observer gear types and trip lengths



How trips are selected

Each fishery has slightly different regulations and requirements around notification to NMFS and vessel selection.

Pre-Trip Notification System for Northeast multispecies (groundfish) trips

The Pre-Trip Notification System (PTNS) is designed by NMFS to provide a fast, simple, and effective way to ensure fair and adequate coverage across multiple sampling programs, of all vessels fishing for groundfish. Vessels must notify NMFS for groundfish trips a minimum of 48 hours in advance of trip sail time.

Notification system for Atlantic herring

Atlantic herring vessel representatives notify NEFOP 48 or 72 hours in advance of a fishing trip, depending on their permit category. NEFOP will issue waivers or selection notices for observer coverage weekly via Vessel Monitoring Service (VMS). Selection of vessels is representative of effort, and designed to achieve sea days allocated by fleet per quarter under the Standardized Bycatch Reporting Methodology (SBRM). More information about SBRM is available online.

Notification system for Atlantic mackerel

Representatives for Atlantic mackerel vessels that are issued a limited access permit (Tier 1, 2, or 3) must call NEFOP at least 48 hours in advance of a fishing trip. NEFOP will issue waivers or selection notices for observer coverage weekly via the vessel's VMS. Selection of vessels is representative of effort, and designed to achieve sea days allocated by fleet per quarter under SBRM.

Notification system for Atlantic sea scallop

The IFS Observer Program utilizes an automated Interactive Voice Response (IVR) system to record information on a vessel's intent to fish for scallops, (508) 495-2100. The system is available 24 hours a day, 365 days a year. Limited Access vessels are required to call the system on a per-trip basis, and Limited Access General Category vessels are required to call once per calendar week (Sunday through Saturday). Each permit type is required to provide the IVR with 72-hour notice of their intent to fish.

Section 2.
Getting involved in the observer program

There are several avenues to getting involved in the Northeast Fisheries Observer Program. Individuals who meet the eligibility requirements may apply to observer service providers and one of the Fisheries Sampling Branch (FSB) training programs. Observer service providers can apply to provide contract observers for one or more of the observer programs, and once every five years, there is an opportunity for apply for the NEFOP Indefinite Delivery Indefinite Quantity (IDIQ) contract for observer support services.

Northeast fisheries observers deploy on commercial fishing vessels from ports in Maine to North Carolina. Trips can range over a variety of fisheries and gear types with an average duration of one to 15 days at sea. Before each trip, observers complete a vessel safety check to ensure the vessels have the required safety gear. During a fishing trip, observers collect economic information, detailed gear configuration, weights of kept and discarded catch, biological samples (e.g. lengths, otoliths and scale samples), and document sightings and interactions with protected species (marine mammals, sea birds, turtles, and sturgeon).

Observer coverage requirements

Each of the Fisheries Sampling Branch (FSB) observer programs have different protocols for assigning observer coverage. The Standardized Bycatch Reporting Methodology (SBRM) is the primary process FSB utilizes to assign coverage for the Northeast Fisheries Observer Program (NEFOP). The groundfish sector At-Sea Monitoring (ASM) and Industry-Funded Scallop (IFS) programs also utilize SBRM, and have other regulations and requirements that drive coverage and allocation of seadays.

Standardized bycatch reporting methodology

To assign observers coverage for the purpose of estimating bycatch in commercial fisheries across the Greater Atlantic Region, the SBRM process divides commercial vessels into fleets based not on what they fish for, but rather on the type of fishing gear they use and where they fish (New England or Mid-Atlantic).

For commercial fisheries, information about bycatch is primarily collected by at-sea observers. Without an observer on every trip, we need to use information from observed trips to estimate discards on the trips that don't carry observers. The observer coverage assigned to each fleet is primarily driven by the variability in discards of the managed fish species.

For example, if boats using a certain gear always discard ten pounds of a particular species for every 100 pounds of fish landed, we could easily estimate how much an unobserved trip discarded since we know how much fish was landed for each trip. However, if the amount discarded by vessels using a certain gear type is highly variable, it is more difficult to estimate discards on unobserved trips. Generally, more observer coverage leads to both a better understanding of discard variability and a more precise estimate of total discards.

In response to a 2011 court ruling, FSB revised the SBRM, which now uses a formulaic process to distribute limited observer coverage across the various fleets in our region. In some cases, this change results in more observers being assigned to fleets that have had little or no observer coverage in recent years, such as vessels that fish with hydraulic clam dredges or lobster pots.

For more information, refer to FSB's SBRM webpage and the SBRM Amendment and the final rule.

Northeast Fisheries Observer Program (NEFOP)

The NEFOP has a specific protocol for NEFOP observers working for a federally-contracted observer provider, to accomplish SBRM and Marine Mammal Protection Act (MMPA)-driven sea days on the NEFOP Seaday Schedule in the Greater Atlantic Region, from Maine to North Carolina.

The sea days needed to achieve a precision-based performance standard (30% coefficient of variation [CV] of the discard estimate) for 15 SBRM species groups[1] (including sea turtles) are estimated, by the Northeast Fisheries Science Center (NEFSC). Funding levels are determined and a final NEFOP Seaday Schedule is established. The NEFOP Seaday Schedule is a compilation of sea days required under the SBRM and MMPA by fleet, excluding sea days required to monitor discards in the Northeast multispecies (groundfish) and IFS programs.

1 15 SBRM species groups include: (1) Atlantic salmon, (2) Bluefish, (3) Fluke, Scup & Black sea bass, (4) Atlantic herring, (5) Large mesh groundfish (American plaice, Atlantic cod, Atlantic halibut, Atlantic wolffish, Haddock, Ocean pout, Pollock, Redfish, White hake, Windowpane flounder, Winter flounder, Witch flounder, Yellowtail flounder), (6) Monkfish, (7) Atlantic deep-sea red crab, (8) Sea scallop, (9) Skate complex (Barndoor skate, Clearnose skate, Little skate, Rosette skate, Smooth skate, Thorny skate, Winter skate), (10) Small mesh groundfish (Offshore hake, Red hake, Silver hake), (11) Spiny dogfish, (12) Squid, Butterfish & Mackerel, (13) Surfclam & Ocean quahog, (14) Blueline & Golden tilefish, and (15) Loggerhead turtles.

Vessel selection for the NEFOP Seaday Schedule trips is done at the fleet level. Fleets are partitioned by five classification variables: geographic region (New England or Mid-Atlantic), gear type, mesh category, access area, and trip category. For example, the New England large mesh bottom trawl fleet consists of any vessel landing in a port from Maine to Rhode Island using bottom trawl gear with a codend mesh size of 5.5 inches or greater.

The FSB contracts with an observer service provider, who stations observers in ports throughout the Greater Atlantic Region, to achieve the sea days tasked on the Seaday Schedule. The NEFOP provider is responsible for selecting vessels for coverage and the day-to-day logistics of observer deployments and support, although a vessel may also be selected by a National Marine Fisheries Service (NMFS) employee, or observer acting on behalf of the Regional Administrator. The NEFOP provider, as the NMFS designated contractor, has several ways to inform vessel representatives they have been selected for observer coverage. Refer to Appendix A2 for more information on vessel selection and notification.

At-Sea Monitoring (ASM)

Every year, NOAA Fisheries conducts an analysis to determine the target monitoring coverage level for sector vessels. This analysis considers past performance to predict coverage necessary for the upcoming year to effectively monitor sectors and estimate discards. Coverage must meet a level of precision in estimating discards at the overall stock level for each groundfish stock. The target coverage level is set based on the stock that has the highest monitoring requirement to achieve the required level of precision, based on a 3-year average. A complete description of the analysis for fishing year 2019 is available online.

Industry-Funded Scallop (IFS) Observer Program

There are two processes for allocating observer days to the New England and Mid-Atlantic scallop fleets. All observed scallop seadays are prosecuted under the IFS Observer Program. The first process is the SBRM, which is completed by NEFSC and the second process is a scallop compensation rate analysis which is conducted by the GARFO. The SBRM process estimates the number of seadays necessary to achieve a 30% CV from the discard estimates in the scallop fisheries. SBRM seadays serve as a minimum number of seadays needed for the scallop fishing fleets. The scallop compensation rate analysis determines the total number of industry-funded sea days available for observing the scallop fleets by taking 1% of the scallop biomass (observer set-aside) from the annual catch limit (ACL) for the fishing year. The Observer Program allows scallop vessels an increase in landings to help defray the costs of carrying the observer (i.e., the compensation rate). The sale of the additional scallops allocated to each boat supplies the funding for the at-sea costs of observer coverage. Based upon projected scallop landings and expected prices, the IFS Observer Program generates funds in support of additional discard monitoring of the scallop fleets. The Scallop FMP justifies the use of the scallop observer set-aside to achieve observer coverage levels that exceed those required by SBRM in order to increase the precision of finfish bycatch estimates and to aid in scallop assessment and rotational management.

Observer duties

While there are many overlapping duties among observers in different programs, there are also unique duties for each fishery. This section outlines observer duties and captain and crew responsibilities for each observer program. The following tables provide a high-level overview of this information, and are not meant to be representative of all responsibilities, nor do they go into detail on the complexity of these tasks. For more information, contact the FSB Training Lead or the service provider.

At-sea observers should provide a handout containing this information to the captain at the beginning of an observed trip.

Observers shall perform the following duties, at a minimum:

Description	ASM	IFS	NEFOP
Conduct a pre-trip safety check.	•	•	•
Communicate with vessel personnel about monitor duties and data collection.	•	•	•
Ask the captain and/or owner of the vessel for some economic information, such as trip costs (price of fuel, ice, etc.), dealer, and Vessel Trip Report (VTR) number.	•	•	•
Collect information on fishing gear, such as size of nets and dredges, mesh sizes, and gear configurations. (For IFS this includes information on dredge frame type and size, presence or absence of turtle chains, twine top/codend mesh measurements, measurements of bag ring sizes; and obtain photographs of each dredge frame and chain mat used.)	•	•	•
Collect tow-by-tow information, such as depth, water temperature, wave height and location, and time when fishing begins and ends.	•	•	•
Record all kept and discarded catch (fish sharks, crustaceans, invertebrates, and debris) **on observed hauls** and record kept catch, tagged animals and pelagic species on unobserved hauls, which includes species, weight, and reason kept or discarded.	•	•	•
Collect actual weights of catch whenever possible, or estimate or extrapolate weights by sub-sampling.	•	•	•
Collect length frequencies of kept and discarded catch.	•	•	•
Record shell heights for both kept and discarded scallops every other observed haul; obtain shucked meat weight, and volume of meats for one crew filled basket of kept scallops per on-watch period.	-	•	-
Complete an off-watch log with the captain's assistance for hauls when observer is not on effort out on deck, to include number of hauls not observed, locations, average number of bushels/weight of kept scallops caught.	-	•	-
(Depending on the watch schedule) the observer should switch watches halfway through the trip to ensure proper data collection, and should be respectful of the crew's off-watch time.	-	•	-
Collect whole specimens, photos, length frequencies, and biological samples, such as scales, ear bones, and/or spines from fish invertebrates, and incidental takes (for IFS trips this is a minimum of once per watch).	-	•	•
Collect detailed information, biological samples, measurements and photographs on interactions with protected species, such as sea turtles, porpoise, dolphins, whales, and birds (also called incidental takes).	•	•	•

Observers should not:

Description
Provide advice about fishing regulations.
Accept any gifts or direct payment in any form from the vessel operator, owner, or crew.
Participate in commercial fishing activities during the trip such as dressing fish shucking scallops, or standing wheel watch.
Hinder or slow fishing operations unless necessary to obtain critical discard or incidental take information.
Use personal recording devices, such as camcorders, cameras, cell phones, and diaries.
Use the vessel's communication equipment for personal purposes.
Discuss the observed trip with anyone other than program staff.
Handle the Emergency Position Indicating Radio Beacon (EPIRB) in any manner, including removing housing.

The captain's legal responsibilities include, but are not limited to:

Description
Ensure the vessel has a current United States Coast Guard (USCG) CFVSE decal and other essential non-expired safety devices, provide the monitor with a safety orientation, and maintain a wheel watch throughout the trip.
Cooperate with the monitor in the performance of the monitor's duties.
Provide the monitor with living quarters, meals, and amenities comparable to a crew member.
Allow the monitor access to areas of the vessel and gear necessary to conduct their duties.
Assist the observer in obtaining EPIRB expiration dates that are mandatory for the Pre-Trip Vessel Safety Checklist (PTVSC).
Allow the monitor access to communication and navigation equipment as necessary to perform their duties.
Provide true vessel locations by latitude and longitude upon request by the monitor.
Provide the observer with VTR Serial Numbers and Vessel Monitoring System (VMS) Fishing Activity Codes if requested.
Notify the monitor when commercial fishing operations are to begin and end.
Bring aboard marine mammals, sea turtles and sea birds that were killed during fishing operations if requested by the monitor.
Provide refrigerated storage space for monitor-collected specimens within reason.

It is illegal for captains and crew to:

Description
Assault, harass or sexually harass, intimidate or attempt to influence observers.
Interfere with or impede observer duties.
Ask observers to stand watch or help with fishing operations.
Fish without an observer or official waiver once selected by NMFS to carry a monitor/observer.

Observers should bring the following, along with other scientific gear:

Description
CPR / First Aid cards.
Personal identification (picture ID, letter of introduction, and CAC) and proof of insurance.
Immersion suit, Personal Flotation Device (PFD), and satellite communication device.
Appropriate clothing, such as boots, raingear and gloves.
Catch sampling equipment, including: a length-frequency board for finfish and scallops; volumetric measuring cup for scallop meats; spring and motion-compensating marine platform scale; thermometer; scientific caliper and tape measure; buckets and/or baskets; and NMFS-issued camera, tablet, logs, manuals, and field guides.

Upon completion of a trip, observers should provide the captain with:

Description
Data Release Form to request a photocopy of the monitor's trip logs.
Fishermen's Comment Card with pre-paid postage.

For acceptance into a FSB training program, candidates must meet requirements around education, medical/physical conditions, non-conflict of interest communication, citizenship, and a background check.

Callout text can go here Lorem ipsum dolor sit amet, consectetur adipiscing elit. Suspendisse urna ex, sollicitudin bibendum placerat eget, sodales ac enim. In vita

How to become an observer

Currently there are three different types of observer training programs in the Northeast: NEFOP, ASM, and IFS. The FSB administers training courses for all three programs:

- **NEFOP Observers:** Collect catch, gear and biological data over a range of commercial fisheries and gear types from Maine to North Carolina. Some gear types covered include: gillnet, bottom trawl, midwater trawl, purse seine, clam dredge, lobster and fish pot, longline and more.
- **At-Sea Monitors:** Collect catch, basic gear and biological data on commercial groundfish vessels that are part of sectors in the Northeast. ASMs primarily observe on gillnet, bottom trawl and longline gear types.
- **IFS Observers:** Collect catch, gear and biological data on Atlantic sea scallop dredge and scallop trawl vessels in the Northeast and Mid-Atlantic.

There are also several other observer programs under development, including Industry-Funded Monitoring (IFM) for Atlantic herring, and electronic monitoring (EM) and/or dockside monitoring in the groundfish and mid-water trawl fisheries (herring and mackerel).

In order to qualify for acceptance into a FSB training program, candidates must meet requirements around education, medical/physical conditions, non-conflict of interest, communication, citizenship, and a background check. Other program standards, including, physical standards and standards of conduct are described in Section 3. A complete list of the minimum eligibility standards can be found on page 31.

In addition to minimum eligibility standards, the amount of training, and type of duties for each of the observer programs vary slightly. All observers and monitors identify and record all species caught, are trained in sub-sampling methodology, and receive advanced training in vessel safety. However, there are differences between programs, which are described in this table. The main difference between observers and ASM monitors is that monitors collect a reduced set of data, thereby reducing training time, and some gear requirements.

Requirements for the three observer programs in the Northeast

Requirements	ASM Monitor	NEFOP Observer	IFS Observer
Bachelor's Degree	No (HS diploma or equivalency)	Yes	Yes
NMFS Training Duration	12 days	16 days	14 days
Data Collection	Basic and focused	Advanced and diverse (more logs/sheets, higher complexity, greater variety)	Advanced and diverse (more logs/sheets, higher complexity, greater variety)
Biological Sampling	Length frequencies of certain key species only (few physical samples)	High degree and diversity of catch sampling, including collection of biological samples and necropsies of mammals, turtles, birds, fish and crustaceans	High degree and diversity of catch sampling, including collection of biological samples and necropsies of mammals, turtles, birds, fish and crustaceans
Amount of Gear Issued	45 items	85 items	90 items
Supplemental Research Projects	No	Yes	Yes

Regional Administrators and Science Directors may waive the education and experience requirements of this section if an observer candidate has acquired the required skills to be considered eligible for observer training through a NMFS authorized alternative training program. Please review this NMFS Policy Directive #04-109-01 for more information, including waivers or exceptions to certain standards.

Training

This section provides a high-level overview of training, and Section 3 provides detailed information on the various training programs to become a certified observer. Selected candidates that meet the minimum eligibility criteria will be accepted into the appropriate training program(s) at FSB. Trainings occur throughout the year, and range from 12 to 16 days, depending on the program. Candidates are expected to obtain passing scores on written and practical exams, as well as partake in training trips aboard fishing vessels prior to completing their certification(s). Topics covered in trainings include, but are not limited to:

- Safety and survival training
- Fish identification
- Gear type identification/characteristics
- Methods for catch estimation
- Maintenance of sampling equipment
- Electronic data submission
- Collection of biological samples

National minimum eligibility standards for marine fisheries observers

Quality observer data are essential for management decisions. Therefore, observers must meet minimum eligibility standards to help ensure professionalism, provide quality assurance, prevent conflicts of interest, and promote agency credibility.

The minimum eligibility standards for individuals admitted to and completing observer training are outlined below. For the actual detailed standards, refer to the NMFS Policy Directive, "*National Minimum Eligibility Standards for Marine Fisheries Observers*", included in Appendix A3.

Education / Experience

1. A bachelor's degree from an accredited college or university with a major in one of the natural sciences and a minimum of 30 semester hours or equivalent in the biological sciences (ASM is an exception to this, and requires a high school diploma);
2. At least one undergraduate course in math or statistics; and
3. Experience with electronic data entry.

85%

Training

Observer candidates must complete required observer training by passing, with an overall score of 85% or greater, which is based on exams and performance within the program they are being trained in.

Conflict of Interest

An observer may not:

1. Have a direct financial interest, other than the provision of observer services, in the fishery;
2. Solicit or accept, directly or indirectly, any gratuity, gift, favor, entertainment, loan, or anything of monetary value from anyone who either conducts activities that are regulated by NMFS, or has interests that may be substantially affected by the performance or nonperformance of the observer's official duties;
3. Serve as an observer on any vessel or at any processor owned or operated by a person who previously employed them in another capacity (e.g., as a crew member); and
4. Solicit or accept employment as a crew member or an employee of a vessel or processor while employed by an observer provider.

Physical/Medical Condition

An observer must be physically capable of serving as an observer and performing all required observer duties. An observer must have no condition that could present a safety or health risk to the observer or to others in the environment in which an observer must operate. A licensed physician must complete and sign the Physical/Medical Condition Examination Form before a candidate begins training.

Communication Skills

Observer candidates must be able to communicate clearly and concisely in English, both verbally and in writing.

Citizenship or ability to work legally in the U.S.

All observer candidates must be a U.S. citizen, or a non-citizen who has a green card, TN authorization, H1 visa, or valid work visa, and a social security card.

Security background checks

In addition to the minimum eligibility standards, a low risk background security check must be completed in order to work as a contractor for the Federal Government. Observer candidates must pass a background check in order to continue with the program. The following steps are taken after passing a background check:

- An FSB Trusted Agent (sponsor) will establish sponsorship of the applicant (observer) with NMFS and verifies the applicant(s) needs for logical or physical access to a Department of Defense network or facility, both initially and ongoing through semi-annual verifications.
- An FSB Trusted Agent initiates the process of registration for an application for a government credential (CAC).
- On the first day of training, observers fill out the required paperwork (OF-306, Declaration of Federal Employment) and the Security Worksheet. Fingerprints are collected and sent to the Western Region Security Office.
- Notification of Foreign National – service providers must inform NMFS no later than 30 days prior to training start date.
- CAC approval – observers must carry their CACs at all times while observing. Until a CAC is issued, observers must bring a Letter of Introduction from the Center Director and a driver's license.
- When an observer leaves the program, the CAC must be returned to a Trusted Agent or representative.

Standard materials to apply as an observer

Once observer candidates have met all the qualifications and completed background checks, the following information must be submitted by service providers to NMFS/NEFOP prior to the beginning of the proposed training class: a list of proposed candidates; resumes; college transcripts, three reference checks, and documentation of past performance with NOAA Fisheries (if applicable). All observer candidates must complete a basic CPR/first aid course prior to the start of a NMFS/NEFOP Observer Training class. NMFS may reject a candidate for training if the candidate does not meet the minimum qualification requirements as outlined by NMFS/NEFOP minimum eligibility standards for observers as described above. Once a candidate package is accepted by FSB, individuals may be added to the class roster for a training.

How to become an approved observer service provider

Each FSB program has slightly different protocols for becoming a service provider.

Northeast Fisheries Observer Program (NEFOP)

As described in the introduction (*How we provide observer coverage, page 3*), NEFSC partners with private contractors to supply NEFOP observer support services. A.I.S., Inc. (AIS) currently holds the NEFOP Indefinite Delivery Indefinite Quantity (IDIQ) contract. For more information on the NEFOP contract, please contact Katherine McArdle at (508) 495-2377, or visit the NEFOP webpage.

At-Sea Monitoring (ASM)

In general, sector at-sea monitoring provider applications for the next one or two fishing years (May 1 - April 30) are due in October of the previous year. Applications must include a cover letter, along with the information and statements outlined in the request for proposal, and identified in the regulations.

FSB reviews applications in accordance with the monitoring provider standards [50 CFR 648.87(b)(4)]. For currently operating ASM providers, the review will also include an evaluation of past performance relative to the ASM operational standards [§ 648.87(b)(5)], to determine whether to approve a company for the upcoming fishing year(s).

Approvals cover one or two fishing years, and final decisions will be published in the Federal Register in November.

Requested documents must be submitted by October 1 to:

National Marine Fisheries Service
Sustainable Fisheries Division
Attn: Kyle Molton
55 Great Republic Drive
Gloucester, MA 01930

A full listing of ASM requirements can be found at **50 CFR 648.87(b)(4)** and **50 CFR 648.87(b)(5).**

The service providers listed in the table on *page 34* have been approved to supply ASM service for the 2019 fishing year. Independent third-party monitoring of sector at-sea catch is required under existing groundfish fishery regulations. For more information, visit the Greater Atlantic Regional Fisheries Office (GARFO)'s website and review the Federal Register notice.

Industry-Funded Scallop (IFS) Observer Program

For detailed information regarding the requirements for observer IFS service providers, please see regulations **648.11(h)** (Observer service provider approval and responsibilities) of the Code of Federal Regulations (CFR) 648; Fisheries of the Northeastern United States. A summarized list of information provided in the CFR includes contents of applications, application evaluation process, responsibilities of observer service providers, provider conflict of interest, and the process of removal if service providers do not meet the requirements provided. For more information on becoming an IFS provider, please contact Chad Keith at charles.keith@noaa.gov or (508) 495-2067.

The service providers listed in the table below have been approved to supply IFS services. Independent third-party monitoring of at-sea catch is required under existing fishery regulations.

Insurance requirements

All service providers must comply with insurance requirements and other criteria outlined in federal regulations and/or identified in their contracts. AIS currently holds the federal contract with FSB. Appendix A4 provides an example of insurance coverage and frequently asked questions from AIS. This document outlines the federal contract requirements plus the additional coverage that AIS has on their own, to protect observers and their company.

Other service providers have requirements as approved vendors. However, as they are not under a federal contract, they must meet criteria outlined in the federal regulations.

Current list of approved observer service providers

Service Provider	Website	Telephone	NEFOP	ASM	IFS
AIS Inc.	aisobservers.com	(508) 990-9054	x	x	x
East-West Technical Services	ewts.com	(860) 910-4957		x	x
Fathom Research LLC	fathomresearchllc.com	(508) 990-0997		x	x
Atlantic Catch Data	atlanticcatchdata.ca	(902) 749-5107			

*Notes: These providers are approved for 2019.
FSB updates the specific observer program web pages each year with the current list of providers.

Section 3.
Becoming a certified Northeast observer

To be accepted into a Fisheries Sampling Branch (FSB) observer training program, candidates must meet requirements around education, medical/physical conditions, non-conflict of interest, communication, citizenship, and a background check. Once these conditions are met, candidates may enroll in a comprehensive training program that includes time in the classroom and at sea. Once certified, all observers must maintain compliance with rigorous program standards.

Training

NOAA Fisheries observer safety training standards

NOAA Fisheries has established minimum national safety training standards to prepare observers for the hazards associated with commercial fishing operations. The purpose of these standards is to establish national safety training standards for what NOAA Fisheries considers to be the core curriculum topics for observer safety training.

NOAA Fisheries regional observer trainers, in coordination with NOAA Fisheries, National Observer Program and the Alaska Marine Safety Education Association, developed these training standards. The standards also include competency in safety skills by observer candidates, minimum qualifications for NOAA Fisheries observer safety trainers, requirements for ongoing professional development and maintenance, and frequency of refresher safety training for active observers and observer safety trainers. This policy further establishes standards for the use of checklists that trainers should follow when teaching skills that may pose a safety risk to observer candidates or trainers, as well as minimum safety equipment that observers must have before deployment. This policy directive, "National Observer Safety Training Standards" is available online.

Fisheries Sampling Branch observer training standards

Observers and observer candidates are required to maintain the Fisheries Sampling Branch (FSB) training standards, including current and future training sessions for the entirety of their FSB observer career.

The following training standards apply to all FSB observer programs and must be met and maintained during all training sessions, lectures, workshops and activities.

Attendance and conduct

1. Attend all training classes, activities and be on time for all sessions.
2. Participate in discussions and exercises.
3. Be alert during training sessions.
4. Complete all homework and readings as assigned.
5. Communicate with trainers, staff, classmates, and guest speakers in a respectful and professional manner.
6. Do not take part in any illegal activities.
7. Do not attend any part of training sessions under the influence of drugs or alcohol. Excessive alcohol use after training hours may violate Standards of Conduct outlined in the Program Standards.
8. Follow all rules established by the training program.
9. Wear a seatbelt whenever a passenger in a government or driver in a personal vehicle while attending training.
10. Submit a signed copy of the Training Standards and the Program Standards the first day of training.

Performance

To successfully pass any FSB training program the observer candidate must:

1. Receive an overall grade of at least 85%. Grading will be calculated using the table below.
2. Receive an individual minimum score on the following exams:
   - Incidental Take ID Exam: >85%
   - Safety Exam & Practical
     - Part 1: Safety Written Exam: >85%
     - Part 2: Safety Practical: Pass
   - Fish ID Exam:
     - Open Book Practical: >80%
     - Closed Book Practical: >80%
3. Combined Open Book & Closed Book Average: >85%
4. Turn in all homework completed and **on time**; late homework will be penalized as follows:
   - A 50% deduction on late assignments; and
   - NO credit given on assignments turned in > 24 hours late; buy, these assignments must still be turned in.
5. Successfully complete all training sessions and workshops.
6. Possess current CPR and First Aid certification obtained *prior to the start of training.*
7. Successfully complete the certification training trips as outlined in the FSB Observer Program Certifications document.
8. Adhere to any special accommodations or remediation plans as documented on the FSB Student Training Accommodation Policy and/or the FSB Remediation Policy.

Training standards not met and/or maintained is grounds for removal from any or all FSB observer certification programs.

Training Certifications	Fish ID Exams: Open Book and Closed Book Practical	Incidental Take ID Exam	Course Exam(s)	Safety Written Exam	Homework and Quizzes	Performance, Attitude, and Participation
Initial Training: ASM, HVF IFM, IFS, and NEFOP*	30%	15%	30%	10%	10%	5%
Cross Training: ASM, IFS, and NEFOP	30%	15%	40%	-	10%	5%
ASM Recertification	30%	55%		-	10%	5%
ASM Recertification II	30%	65%		-	-	5%
Specialized Trainings: IFS and NEFOP	-	-	85%	-	10%	5%
Safety II & III	Pass/Fail					

*ASM: At-Sea Monitoring, HVF: High Volume Fisheries, IFM: Industry-Funded Monitoring, NEFOP: Northeast Fisheries Observer Program, IFS: Industry-Funded Scallop

Training standards not met and/or maintained is grounds for removal from any or all FSB observer certification programs.

Observer training certifications

Prospective observers may apply elect to take training courses for any of the three observer programs: Northeast Fisheries Observer Program (NEFOP), At-Sea Monitoring (ASM), and Industry-Funded Scallop (IFS), or multiple programs through cross training. Each program has its own certification and training process, and applicants are evaluated and approved by FSB staff prior to the start of each training class. Certain companies are approved to provide services for one or more programs, so observer candidates should select the appropriate service provider for the program(s) they are interested in.

Applicants should be in contact with their observer service provider prior to training for expectations, prerequisites, and logistical information needed for training. All FSB observer programs require first aid and CPR certification. Refer to Section 2 of this handbook for more information on qualifications and for a list of current service providers.

During training, observer candidates are educated in many disciplines including, but not limited to, safety procedures and protocols, conflict resolution training, fish/sea bird/protected species identification, biological sampling, fishing operations/gear, data collection and data submission requirements. FSB has a thorough training and certification process supported by an effective curriculum and number of standards and policies to inform observer candidates of expectations and promote successful candidates.

Upon successful completion of the training course, including any training trips occurring during training, and other associated requirements (e.g., meeting and maintaining the FSB Training and Program Standards, achieving a minimum passing score, successfully passing the background security check), the candidate will be approved to begin the certification trip process.

Refer to Appendix A5 for more information on the specific certification process for the NEFOP, ASM, and IFS programs, as well as cross training, and safety certification.

Training courses

Each FSB training program offers welcome packets for observer candidates starting a training program. The contents of the welcome packets for the NEFOP, ASM, and IFS programs are summarized on page 39 and can be requested by contacting FSB on: NEobserver.info@noaa.gov. Appendix A6 includes handouts on 'What to Expect in Training' for each program, and a list of species for NEFOP.

Training agendas

Each FSB observer program has a specific agenda for each day of the training program, and includes information on what the presentation or activity is, who is presenting, what gear to bring, and homework. One example of an agenda for the NEFOP training program is included in Appendix A7. Contact Tania.lewandowski@noaa.gov for examples of agendas for the ASM and IFS programs.

Training welcome packet contents

Description	ASM	IFS	NEFOP
Training standards	•	•	•
Program-specific standard	•	•	•
Pre-training checklist	•	•	•
Handout on what to expect during training (including a table of the training topics)	•	•	•
Handout on observer duties	•	•	•
Information on dispute resolution style	•	•	•
Background security packet instructions	•	•	•
Flescher fish guide	•	•	•
List of fish species and protected species	•	•	•
Pre-Trip Notification System (PTNS) instructions	•	-	-
Information sheets on sector-specific in ormation and regulations, including: an introduction to ASM and sector management, why accurate fishery reporting is important, how members of the fishing industry and the public can get information from the Greater Atlantic Regional Fisheries Office (GARFO) sector vessel groundfish requirements and other background information, Sector US/ Canada Management Areas and Special Access Program, Standardized Bycatch Reporting Methodology (SBRM), and 8 things NEFOP does for you.	•	-	-

Skills checklist

Each FSB observer program has a training skills self-checklist that is utilized by the observer candidate and their mentor to track knowledge and skills required to be a successful observer. Observer candidates are expected to track their own progress during their respective training program. Appendix A8 includes a checklist for each of the training programs.

Training Mentoring Program

The **Goal** of the Training Mentoring Program is to advise and provide support to new observer candidates on how to improve data collection and reporting techniques by providing professional guidance during initial certification training.

The **Purpose** of this Program is to allow an observer candidate to receive constructive advice and performance feedback on how to successfully complete training and how it may affect their ability to collect unbiased and accurate data in accordance with FSB protocols. The environment during the mentoring process should be comfortable, private, casual, and professional. This process also allows for communication to occur that may help identify and mitigate possible data collection issues (both on an individual and cadre' level) with training, debriefing and operational staff.

FSB is planning to expand this Program to continue beyond training and have mentors available throughout an observer's career. Appendix A9 includes an overview of this Program and mentoring forms for each FSB observer program, to be completed by assigned instructors following each meeting with candidates.

Training trips

Dependent upon the certification, candidates participate in one or two trips on commercial fishing vessels under the guidance of FSB training staff. The training trips offer a hands-on experience on how to apply sampling skills, as well as reinforce vessel safety and shipboard etiquette. Candidates collect the required suite of data on a Pre-Trip Vessel Safety Checklist (PTVSC), collect gear characteristics, record haul or tow location information, weather variables, and practice their species identification and biological sampling of the catch. They also estimate the amount of catch being brought onboard, using various catch estimation techniques, including actual weights, tally counts, basket sampling, and volume to volume. Candidates must also complete all required logs and electronic uploads as part of the training exercise.

Training trip evaluation

Trainers complete a trip evaluation form to assess how well the observer candidate performed their duties on the vessel during a training trip. Observer candidates are working in small groups on these trips. Refer to Appendix A10 for a copy of the Trip Evaluation Form, which is typically filled out electronically.

After the training course: Certification trips and evaluation

Certification trips

Upon completion of the training, each observer candidate is required to complete a series of certification trips before final certification is awarded. The number of certification trips required will be dependent upon the training program and certification type. These trips should be single day trips and preferably not in special access areas or special management programs, which may require more detailed and time sensitive reporting.

A trip trainer may be required for at least one of the certification trips. Trip trainers are experienced observers certified by FSB to accompany observer candidates. The purpose of the trip trainer is to evaluate how well the candidate performs in the field, and how well they can complete the observer tasks without assistance.

All certification trips are edited as a priority and debriefed immediately, typically on the day the trip is received by FSB staff. The observer candidate cannot redeploy until the Data Editor Lead has sent out an email to the observer candidate and service provider approving them for their next trip. Once all certification trips are successfully completed, the Data Editor Lead will review the data and, if approved, the observer candidate will become an FSB certified observer. Once certified, the observer can redeploy without further approval on the approved gear type(s).

The first certification trip must be taken within 2 months of the completion of the training course. No more than 2 months can elapse between certification training trips, unless there are extenuating circumstances, which must be communicated to and approved by the program Contracting Officer's Technical Representative (COTR) in advance. No more than 6 months can elapse between training and final program certification. If these timelines are not met, the candidate will not become certified and will not continue with the program. An additional certification trip may be required if data quality is not acceptable by FSB standards. If the additional trip is not acceptable by FSB, the candidate will not become certified.

The trainer candidate must be proficient in FSB data collection protocols, and capable of successfully instructing and evaluating observer candidates on their certification trips.

Certification trip evaluation

For NEFOP trips only, observers are evaluated on their first certification training trip to see how well they perform on their own, and to document areas where they might need additional assistance from their debriefer. This evaluation is conducted by a certified trip trainer. Refer to Appendix A11 for the FSB Certification Training Trip Evaluation Sheet.

How to become a certified trip trainer

At least one of an observer candidate's certification trips must be taken with a certified trip trainer. The purpose of the trip trainer is to evaluate the candidate's performance and aptitude with regard to FSB observing and sampling protocols. Each trip trainer must be certified by an FSB staff member prior to taking observer candidates on trips. The trainer candidate must be proficient in FSB data collection protocols, and capable of successfully instructing and evaluating observer candidates on their certification trips. The trainer must meet minimum levels of field work and data quality standards to maintain their trip trainer certification.

Expectations, qualifications and the certification process are detailed in Appendix A12, FSB Trip Trainer Certification Standards and Evaluation Sheet.

Program standards

All three FSB observer programs share overarching program standards. Both observer candidates and observers are required to maintain the FSB Program Standards described below (including current and future training sessions) for the entirety of their FSB observer career.

Physical standards

All observer candidates must be certified by a licensed physician to be physically fit to work as an observer on domestic commercial fishing vessels. The physician must understand the observers' job and working conditions. Physical considerations include, but are not limited to, the candidate's ability to:

1. swim 100 meters (tested during safety training);
2. swim 25 meters in an immersion suit (tested during safety training);
3. tread water for three minutes (tested during safety training);
4. don an immersion suit in 60 seconds or less (tested during safety training);
5. perform various water survival skills i.e. boarding life raft, cold water skills, etc. (tested during safety training);
6. climb a ladder;
7. properly lift and carry 50 pounds;
8. manage chronic motion sickness; and
9. live in confined quarters.

Observers are required to agree and abide by the physical standards, as well as disclose of existing medical conditions, through signing the Physical Standards form included in Appendix A13.

Safety training

Observers are required to sign a form acknowledging the inherent risks associated with the use of safety and survival equipment. The Safety Training Acknowledgement of Risk form is included in Appendix A13.

Standards of conduct

Observers work in a self-supervised capacity and must maintain high standards of conduct. Observers are required to follow the outlined standards of conduct at all times. Accordingly, observers:

1. Must maintain a professional, respectful, and objective demeanor at all times.
2. Must be able to work independently, while following technical instructions.
3. Must be able to get along well with others.
4. Must be able to collect and record data in an unbiased manner.
5. Must not have ever been decertified as an observer, due to problems with data quality or standards of conduct, from any observer program. Observer's references of previous employment shall be verified by the observer provider, as a qualifying requirement.
6. Must not provide false statements to the government. Any observer or observer candidate involved in falsification of data or false statements shall be removed from all FSB programs.

FALSIFICATION OF DATA is defined as:
The act of deliberately or knowingly fabricating data collected during observed fishing trips this includes intentional recording of inaccurate data, intentional omission or deletion of data, intentional plagiarism, or, in general, the selective alteration of data.

7. While employed as an observer, maintain professional relations with fishing industry members. Personal relationships with fishing industry members may lead to behaviors which violate the Standards of Conduct.
8. Must wear appropriate work and field attire during all trainings and while working in the capacity as an FSB observer.
9. Must demonstrate respect and the ability to follow confidentiality policies.
10. Must not solicit or accept, directly or indirectly, any gratuity, gift, favor, entertainment, loan, or anything of monetary value from anyone who conducts fishing or fishing related activities that are regulated by the National Marine Fisheries Service (NMFS), or who has interests that may be substantially affected by the performance or nonperformance of the official duties of an observer.
11. Must not engage in any use or distribution of illegal substances.
12. Must not consume alcohol during training, debriefings, or up to six hours prior to deployment when working in the capacity as an observer.
13. May be subject to random drug testing by their employer or by the United States Coast Guard (USCG) as a result of an investigation. Observers should not volunteer or agree to submit to a drug test at the request of a fishing vessel owner or operator.
14. Must complete their own trip paperwork and submit associated electronic data to NMFS within the appropriate time frame.
15. Shall arrive one hour prior to the scheduled departure time (see Late Observer Policy in Appendix B5).
16. Shall not sleep overnight onboard a vessel at dock nor be onboard alone without a vessel representative.
17. May only sign authorized NMFS documents while employed as an FSB observer.
18. May not work, collect data, or take samples for any program not approved by NMFS while working in the capacity as an FSB observer.
19. Must submit all data and samples collected with the correct trip number to FSB within the appropriate time frame.
20. Must sign and adhere to the Training Standards.
21. Must sign and adhere to the Physical Standards and Acknowledgement of Risk.
22. Must sign and adhere to the Standards of Conduct (Appendix A13).
23. Must sign and adhere to the Statement of Non-Conflict of Interest.
24. Must sign and adhere to the Statement of No Fisheries Related Convictions.
25. Must sign and adhere to NMFS FSB Confidentiality Agreement (provided during training).

Per Observer Standards of Conduct, observers are **not permitted to sign *any* documents not authorized by NMFS.**

Conflict of interest

Observers must read and sign the Statement of Non-Conflict of Interest form (Appendix A13). The form includes the following definitions: Conflict of Interest: participation in activities or relationships with persons, resulting in the impairment or possible impairment of a person's objectivity in performing the contract work. Direct Financial Interest: any source of income to, or capital investment or other interest held by an individual, partnership, or corporation or an individual's spouse, immediate family member or parent that could be influenced by performance or non-performance of observer or observer provider duties.

By signing the form, an observer:

1. Must not have a direct or indirect interest (financial or otherwise) in the fishery the observer is covering, managed under Federal regulations, including, but not limited to:
    a. any ownership, mortgage holder, or other secured interest in a vessel or processor involved in the catching, taking, harvesting or processing catch;
    b. any business selling supplies or services to any vessel or processor in the fishery the observer is covering;
    c. any business purchasing raw or processed products from any vessel or processor in the fishery the observer is covering;
    d. any groundfish sector or sector manager;
    e. advocacy groups;
    f. research institutions; and
    g. consultant groups.
2. Must not have any close family members including but not limited to spouse, parent, child, or siblings or other members of their household with a direct or indirect interest in the fishery the observer is covering, as defined above (a-g).
3. May not serve as an observer on any vessel or at any shore-side facility owned or operated by a person who previously employed the observer.
4. May not solicit or accept employment as a crew member or an employee of a vessel or shore-side facility in a commercial fishery while assigned as an observer to any vessel or shore-side owned by the assigned vessel's owner.
5. Must perform one's duties as an observer without regard to any preference by representatives of fishing vessels.
6. Must not solicit or accept, directly or indirectly, any gratuity, gift, favor, entertainment, loan, or anything of monetary value from anyone who conducts fishing or fishing related activities regulated by NMFS, or who has interests that may be substantially affected by the performance or nonperformance of the official duties of an observer.
7. Must not, in any way, misuse his/her position, including, but not limited to improper use or disclosure of information, aiding in a known violation, falsification of data, or failure to report complete and accurate data.

Fisheries-related convictions

Observers must sign a Statement of No Fisheries Related Convictions form (Appendix A13) attesting that they have not pleaded guilty to, or have been found guilty of, any fisheries related offenses against NOAA law; have not forfeited bond or collateral; and do not have any criminal charges pending for any commercial fisheries related violation of state or federal law or regulation.

Section 4.
Information for certified Northeast observers

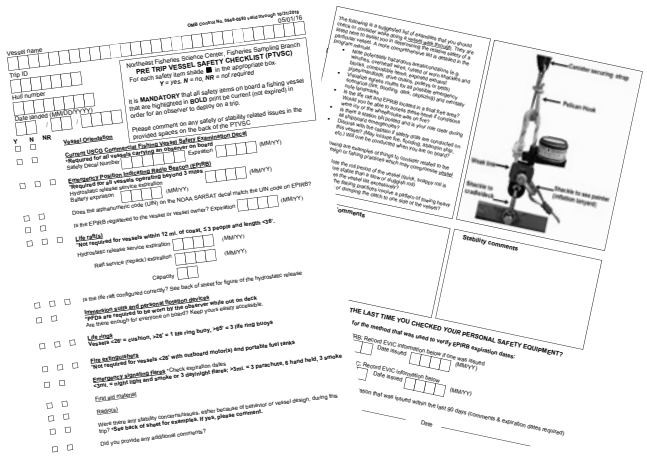
Certified observers must adhere to and keep up-to-date with a multitude of program standards, including safety protocols, rigorous data quality requirements, regulations, information technology, and confidentiality. In addition, new observer programs that include electronic monitoring (EM) are continually being researched and developed in this digital age, and the Fisheries Sampling Branch (FSB) ensures certified observers can integrate existing standards with these new programs.

Safety

Pre-Trip Vessel Safety Checklist

Observers are required to fill out a Pre-Trip Vessel Safety Checklist (PTVSC) before deploying on a fishing vessel. The purpose of the PTVSC is to improve safety at sea for all observers, increase personal safety awareness, and provide accurate, vessel specific safety information to the Fisheries Sampling Branch (FSB). It includes equipment from first aid materials and personal flotation devices (PFDs) to emergency signaling flares. Refer to Appendix A14 for a copy of the PTVSC form.

These data are closely reviewed by FSB staff by a process which includes comparing data collected from previous trips and performing random vessel checks in the field. Refer to Appendix A15 for the memo, "Informational Reminders for Completing the Pre-Trip Vessel Safety Checklist, Emergency Position Indicating Radio Beacons (EPIRBs), EPIRB Visual Inspection Cards (EVICs), life rafts and Safety Deficiency Reporting (SDR) procedures. This memo provides information on how to properly record information on the PTVSC and also includes copies of the following official documents:



- Pre-Trip Vessel Safety Checklist,
- EPIRB Visual Inspection Card (EVIC)
- SDR letter/Office of Law Enforcement (OLE) Corrective Measures Letter

NMFS Office of Law Enforcement Safety Deficiency Reporting (SDR) letter

Observers are not permitted to sail on vessels without completing the entire PTVSC or with expired or insufficient safety equipment. If safety deficiencies are identified and cannot be addressed in a timely manner, observers should: not deploy on the trip, contact their Area Coordinator, fill out two copies of the SDR letter, and follow other protocols as outlined in the memo (Appendix A16), which also includes a copy of the SDR letter. This letter is also referred to as an OLE Corrective Measures Letter.

Vessel safety gear expiration

Federal regulations require that a vessel's safety gear, as checked on the PTVSC, needs to be "current" for the entirety of a trip. Appendix A17 includes a memo, "Vessel Safety Gear Expiration Reminder" with more details on the internal policies and regulations.

Proper usage of valise rafts

United States Coast Guard (USCG) regulations state that "A valise-packed inflatable life raft may be carried in addition to the vessel's installed life raft to meet the aggregate capacity to accommodate the total number of individuals on board the vessel when the addition of a National Marine Fisheries Service (NMFS) observer on board the vessel causes the number of persons to exceed the capacity of the vessel's life raft."

A valise packed life raft CANNOT be used in place of a vessel's life raft. For example, if a vessel's raft is out for service, you CANNOT substitute a valise raft. A second example, if a vessel's raft is out of service date, you CANNOT use a valise packed life raft as a substitute, even though the vessel life raft is on board.

When CAN valise packs be used? When an observer's presence exceeds the number of allowable people as delineated by a vessel's in-service life raft. A summary of this policy and the USCG implementing regulations, is included in Appendix A18.

DO NOT use a valise-packed life raft in place of a vessel's life raft. For example:

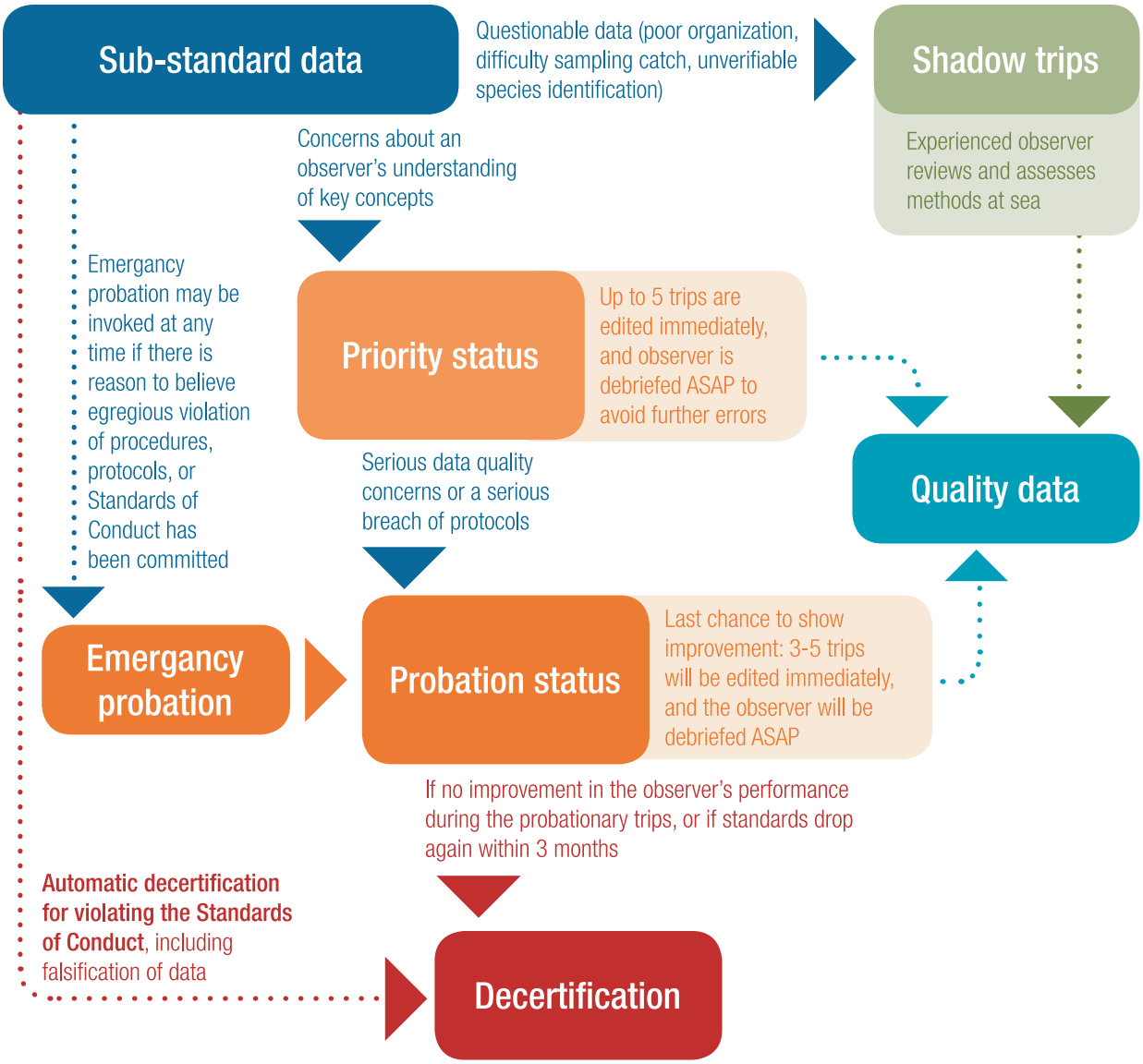
- If a vessel's raft is out for service, you **CANNOT** substitute a valise raft.
- If a vessel's raft is on board but is out of service date, you **CANNOT** use a valise packed life raft as a substitute.

YOU CAN use a valise-packed life raft when an observer's presence exceeds the number of allowable people, as delineated by a vessel's in-service life raft.

Data Quality

Data quality monitoring and improvement measures

FSB considers data quality a critical component of the mission of all observers and FSB observer programs. Poor quality data may result in unreliable or biased estimates of fishery activity and reflects negatively on the program. The Data Quality Lead, debriefers, and other FSB staff are tasked with ensuring that all data collected by FSB observers is of the highest quality possible. When an observer's data collection or performance does not meet FSB standards, a series of actions may be taken.



A detailed overview of the data quality monitoring and improvement measures is described below:

- Shadow Trips: If an observer's data quality is questionable (e.g., poor organization, difficulty sampling catch, unverifiable species identification), a shadow trip may be requested. The Data Quality Lead will communicate the need for a shadow trip to the observer service provider, and assist in scheduling the trip. An experienced FSB staff member would accompany the observer on a trip (typically a single-day trip on a specified gear type) to review and assess their methods. Refer to the Shadow Trip Program document for more details.

- Priority Status: Priority status is used when there are concerns about an observer's understanding of key concepts. It is an opportunity to provide feedback to the observer before the error is repeated on subsequent trips. Priority status must be approved by the lead debriefer, who will communicate with the observer and service provider about the reason(s) for priority status and the expected length of priority status. If trip-by-trip reviews are required, the observer may not redeploy on another trip until the priority trip has been fully edited and debriefed. Trips will be edited immediately, and the observer will be debriefed as soon as possible. The lead debriefer will send out status emails after each trip, as well as the final notification when an observer goes off priority status. Priority status may apply to only specific trip types or circumstances (e.g., gear type, trip duration, incidental take of a protected species, etc.). In those cases, the observer may redeploy on back-to-back trips until the specified trip type or circumstance occurs.

If, at the end of the priority period (a maximum five trips), the observer has not rectified the issues noted, or has another egregious error, the observer will be reevaluated and may be recommended for probation status. If the observer successfully completes their priority trips with no further problems, they may resume taking trips in the standard manner. If the issues noted are repeated within three months from the completion of their priority trips, the observer will be reevaluated and may be recommended for probation status.

- Probation: Probation status is used when there are serious data quality concerns or a serious breach of protocols. Probation status is the last chance for an observer to show improvement before decertification. Probation status must be approved by the Data Quality Lead, who will write a specific plan for the probation period. The plan must be approved and signed by the Branch Chief, and electronic and hard copies will be submitted to the observer service provider. A minimum of three trips will be planned, and specific trips (e.g., gear type, trip duration) or other measures (e.g., trip-by-trip approval, submitting notebooks, in-person debriefings) may be required. If the probation plan requires trip-by-trip reviews, the observer may not redeploy on another trip until the probation trip has been fully edited and debriefed. Trips will be edited immediately, and the observer will be debriefed as soon as possible. The Data Quality Lead will send out status emails after each trip, as well as the final notification at the completion of the probation period.

If, at the end of the probation period, the observer has not met the requirements of the probation plan, the probation period may be extended (maximum five trips), or the observer may be recommended for decertification. That determination will be made by the Data Quality Team, and all recommendations for decertification must be approved by the Branch Chief. If the observer successfully completes their probation trips with no further problems, they may resume taking trips in the standard manner. If the issues noted are repeated within three months from the completion of their probation trips, the observer will be reevaluated and may be recommended for decertification.

An emergency probation may be invoked at any time if there is reason to believe some egregious violation of procedures, protocols, or Standards of Conduct has been committed. This action will be carried out by the Branch Chief following discussions with the Data Quality Team, including the Data Quality Lead. The Data Quality Lead will notify the Observer's Contracting Officer's Technical Representative (COTR), the observer provider Program Manager, and the observer of their decision in writing. Typically, this is a short-term probation pending an investigation as to the nature of the offense.

- Decertification: If there is no discernible improvement in the observer's performance during the probationary trips, the observer will be decertified by the Branch Chief. Decertification will be communicated verbally and in writing by FSB staff to the Observer Contract COTR, the observer service provider Program Manager, and the observer.
  - An observer will automatically be decertified for failure to conform to the Standards of Conduct signed during observer training. Providing false statements to the

government is illegal. An observer will be decertified if they falsify data. Falsification is defined as: *The act of deliberately or knowingly fabricating data collected during observed fishing trips, this includes intentional recording of inaccurate data, intentional omission or deletion of data, intentional plagiarism, or, in general, the selective alteration of data.*

- The decertification procedure is subject to appeal in writing from the observer to the Branch Chief. The Branch Chief's determination of decertification is final. Decertification would disqualify an observer from re-applying to work as an FSB observer in any program.

Gear Certification Program

FSB observers carry a number of critical gear items on every deployment, such as safety equipment, sampling tools, and electronic devices. Because of the harsh working conditions at sea, gear must continually be updated, maintained, and replaced. Equipment that does not meet minimum standards can negatively affect the quality of data collected and compromise observer safety.

The Gear Certification Program outlines the proper maintenance and storage of observer gear. Following these guidelines will significantly extend the usability of the equipment, reducing cost to FSB and the observer providers, as well as minimizing the time observers spend getting new equipment.

FSB staff will review and verify observer gear whenever possible. Observers should bring all issued gear every time they come to the Observer Training Center (Tech Park) for gear certification.

Service providers are responsible for all NMFS-issued gear distributed to their observers. Should gear become lost, stolen, or damaged, proper documentation is required utilizing the Gear Damage/ Loss Report.

Observers are expected to carry and use their issued field gear on all deployments. This gear may be issued by NMFS or by the observer provider company. Lack of proper equipment can result in significant data loss. A list of equipment that is considered 'critical gear' is included in the Gear Certification Program Memo in Appendix A19.

Also refer to Appendix A19 for a full copy of the Gear Certification Program Memo, the Gear Damage/Loss Report, and the Observer Gear Certification Self-Check Worksheet.

Species Verification Program

Species verification is a critical component of data quality. Incorrect identification can cause significant problems for fisheries management. In a continuous effort to improve data quality, FSB requires a minimum compliance rate of 85% for all observers, for each quarter.

Under the Species Verification Program (SVP), observers are required to submit photographs or samples from encountered species from a list of 30 species each quarter (refer to Appendix A20 for the species list). Percent compliance is calculated as the number of species correctly submitted (verified) divided by the number of species encountered during the quarter. Photographs or samples that are unidentifiable (e.g., blurry photographs, missing identifying characteristics) or incorrect are not counted towards the percent compliance.

Each quarter, FSB will send an electronic summary to each observer with his or her history for that quarter. These summaries will be computed seven days after the end of the quarter, to account for late photo/sample submissions. Photographs and samples submitted more than seven days late will **not** be counted toward the observer's compliance for that quarter, but will be reviewed for accuracy and used to evaluate trip data. Refer to Appendix A20 for further protocols for incorrect submissions, consequences of low compliance, and a list of required species.

Media and information technology

NOAA Email and Mobile Device Management (MDM) Policies

Acceptable use and abuse policies of your NOAA email account

NOAA provides observers an email account to facilitate communication during their position as a fisheries observer. This email account is considered government property. There should be no expectation of privacy or personal ownership of any transmitted or received email via this account.

When using the email system, observers must follow NOAA's Acceptable Use Policy to ensure that the email system is not misused. For example, observers must not:

- represent themselves as another person;
- transmit or store material that would be considered inappropriate, offensive or disrespectful to others;
- harass other employees;
- provide information about, or lists of, company employees to non-NOAA employees;
- participate in activities that interfere with their job or the jobs of other employees;
- interfere with the operation of NOAA's Unified Messaging System;
- violate any law or the rights of any person;
- lobby, endorse, or promote affiliation with a particular political party or person;
- originate or forward chain letters;
- transmit or store threatening, obscene, or harassing messages; or
- generate messages for personal gain.

For the full list of prohibited email uses, see the NOAA's Acceptable Use Policy.

Accessing your NOAA email

NOAA email is provided and hosted by Google. While access is similar to personal Gmail accounts, there are some considerations and restrictions to take into account when accessing a NOAA-provided email account.

- **Only a web browser may be used to access a NOAA email on a personal device** (e.g. a mobile phone, tablet, or personal computer). NOAA email accounts may not be accessed using the Gmail app, or any other application that utilizes POP or IMAP configuration.
- Automatic forwarding from a NOAA email account to another non-NOAA email account is not allowed.

For a complete description of NOAA's email policies, please see the NOAA Unified Messaging System Policy.

Additional usage policy responsibilities can be reviewed at NOAA Rules of Behavior.

MaaS360 (MDM) compliance

The tablet lock screen password is required to be changed every 90 days to comply with MDM policy. A notification will pop up on the tablet that your lock screen password has expired. Tap on the notification and a prompt will pop up to change your lock screen password. The old password will need to be confirmed prior to setting a new one.

Rules governing usage of your NOAA provided mobile electronics can be reviewed at NOAA Mobile Device Management Policy.

MaaS360 App Catalog

The App Catalog in MaaS360 contains approved apps that are available to download to your tablet. **No other apps should be downloaded to your tablet.** If there are apps that you are interested in to help with your job as an observer, please submit an email to an FSB Tech Support staff member with details from the Google Play Store. If applicable, we will forward the request onto Headquarters and ask for approval and inclusion in the MaaS360 App Catalog.

Electronic Devices and Media Confidentiality Agreement

Electronic Devices are defined as any hardware issued to you by the FSB. Media is defined as any photos, videos, communication, recordings or any other type of data associated with the electronic devices issued to you by the FSB.

- All Media originating from any electronic devices issued to you by the FSB is considered property of the U.S. Government under this agreement.
- Electronic devices issued to you are not permitted for personal use.
- Electronic devices issued to you cannot be connected to any personal devices (e.g. cameras, phones, tablets, etc.).
- Personal devices cannot be used to collect media at any time during your deployment.
- Media cannot be shared with anyone outside of the FSB.
- Media cannot be downloaded or transferred to any personal or public devices.
- Media cannot be used on any social media services (e.g. Facebook, Twitter, Instagram, etc.).
- Precautions must be taken to ensure media security when using any public access points, such as Wi-Fi.

- Precautions must be taken to protect all usernames and passwords associated with your issued accounts.
- Precautions must be taken against loss, theft or damage to electronic devices or accessories issued to you.
- Precautions must be taken to avoid collecting any media that identifies any vessels or crew members.
- Media can only be used with software approved by the FSB.

Observers are required to sign this confidentiality agreement, which is included in Appendix A21.

Observer Gear Usage Policy

Observers are expected to carry and use their issued field gear on all deployments. This gear may be issued by NMFS or by the observer provider company. Lack of proper equipment can result in significant data loss.

On every trip, the following pieces of equipment are considered "critical gear":

- Safety gear, including survival suit, personal locator beacon, PFD, and satellite communication device.
- **Charged digital camera**—Bringing an uncharged camera does NOT constitute being prepared for the trip. Cameras must be charged and ready to use at all times during an observed trip.
- Android tablet Caliper (required on trawl, pot/trap, and dredge gears; strongly recommended on others.
- Length Frequency board(s) and strip(s).
- Spring scales and Marel scale (with backup batteries).
- Incidental take kits, fully stocked.
- Regulatory permits, forms to be given to captain (data release, OLE letters, etc.)—the rest of the Regulatory Compliance Folder is recommended but not critical.
- Observer identification (Common Access Card, CAC).

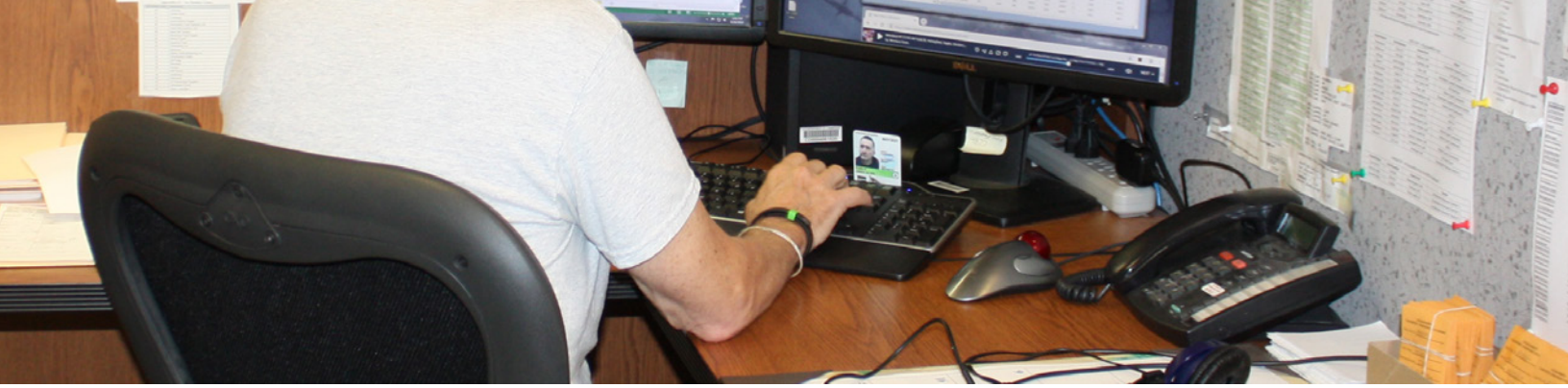
If any critical gear was not brought on an observed trip, the observer must inform FSB as soon as possible after the trip lands. FSB will evaluate reasons for not bringing equipment on a case-by-case basis. Refer to Appendix A19 for more information on protocols following "acceptable" and "unacceptable" excuses for not bringing the equipment.

Non-disclosure statement

Observers are required to complete a Data Access Agreement form to access the Northeast Fisheries Science Center (NEFSC) network. Refer to Appendix A22 for this form, which must be signed to grant network access.

Department of Commerce Likeness and Profile Release

Observers can *voluntarily* agree to grant the Department of Commerce full rights to use their name, image, likeness, portrait, or voice in all forms, in all manners, and in all media as part of the activities of the NOAA Fisheries, NEFSC, and FSB. Refer to Appendix A23 for this release form, which must be signed to grant permission to these rights.



Annual IT security awareness and privacy online training

After observers have been issued a noaa.gov e-mail address, they are required to complete the online IT Security Awareness Course within 72 hours. This course must be completed annually to maintain access to a noaa.gov e-mail account. Observers must follow the steps below in order to complete this course:

1. LOG ON at https://campus.noaasecure.us
2. You will be redirected to a page offering: login with [Username ID & Password] or [PIV or CAC Card]. **Choose [Login with UserID].**
3. Sign in using your new NOAA email (without the @noaa.gov) and (email) Password.
4. Select [NOAA-2019 – IT Security Awareness and Privacy Training]
5. Tap on [1.0 IT Security Awareness and Privacy Training]:
   - Use the embedded Video Player to watch the course instructions.
   - Use the [forward] button to continue to each section (may take several seconds to advance).
   - You must go through each of the five characters (seven questions each) to complete the course.
   - You must achieve an 80% to receive the Certificate.
6. Once you have completed Part 1 (the Questions), complete Part 2 (RoB Section; Rules of Behavior Agreement).
   - Then in the **left margin**, a *new* blue menu box will appear that says PRINT CERTIFICATE. Certificate is Blue/White with your NAME in large print and is titled "Certificate of Completion".
7. TAKE A SCREEN SHOT of the certificate.
   - **Windows:** Either [PrtScn] (whole screen) or [Alt] & [PrtScn] (Active Window) .
   - **Mac:** [Command] & [Shift] & [3] (whole screen) OR [Command] & [Shift] & [4] (draw a box and select) .
   - **Tablet:** Hold down the POWER button and the HOME button for 2 seconds *[Sound and Outline box indicate the screenshot has been taken and is located in Gallery]* or use Karate Chop—L to R on screen.
8. ADD THE IMAGE to a file:
   - **Windows:** You can PASTE (Crtl + V) in Paint and then save.
   - **Mac:** Already created a file, so you can go to the Clipboard instead if you hold [Control] as well as above key combo when taking screenshot.
   - **Tablet:** Either: a) Select image in Gallery and use the Share button (3 dot/dash icon) and select Gmail—the image should auto attach—then just address to Charles.Dunlap@noaa.gov. and send; or b) from PDF viewer (Adobe), Tap the Share button and Select Gmail > Address > Send.
9. Send either the PDF or a PNG image of the Certificate to Charles.Dunlap@noaa.gov.

Regulations

Observer regulations and resources

FSB observer programs must comply with multiple laws and regulations. The primary legislation includes: Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Endangered Species Act (ESA), and the Marine Mammal Protection Act (MMPA). The primary implementing regulations include: MSA Observer Health and Safety Regulations, Sector Monitoring Regulations (Code of Federal Regulations [CFR] 648.87), Multispecies (Groundfish) Fishing Year Regulations and all relevant Framework Adjustments or Amendments, Amendment 13 to the Atlantic Sea Scallop Fishery and Atlantic Sea Scallop Fishing Year Regulations (specifications and management measures), and the MMPA annual List of Fisheries (LOF). Appendix A24, Fisheries Sampling Branch Observer Regulations and Resources, contains information on each of these laws and regulations.

Appendix A24 also contains information on the International Convention for the Prevention of Pollution from Ships (MARPOL), other observer resources, field diary instructions, USCG information (Enforcement Boarding Report), and health and wellness resources.

Observer permits and handouts

During training, observers receive a folder with outreach materials, resources, and permits that they are required to bring aboard every trip. The contents of this folder include the following:

Permits that must be carried on all trips

1. NMFS Permit No. 20197: Sea Turtles and Memo (1)
2. Federal Fish and Wildlife Permit: Highly Migratory Birds (1)
3. NEFSC Memo: Marine Mammals and Highly Migratory Species (1)
4. Updated Biological Sampling Protocols for Atlantic Sturgeon (1)

Offer every trip

1. Observer Duty Sheets (NEFOP / IFS / ASM) (10)
2. Trip Data Release Form (10)
3. Fisherman's Comment Card (3)

Safety deficiency reporting, EVIC and safety resources

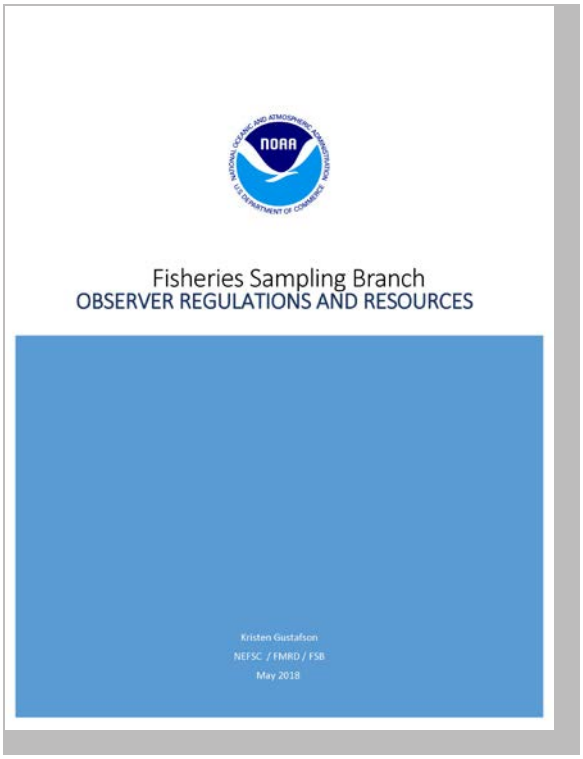
1. OLE Safety Deficiency Letter and pre-addressed envelopes (4)
2. EVIC (EPIRB Visual Inspection Card) (10)
3. Federal Requirements for Commercial Fishing Vessels (USCG pamphlet) (1)
4. Safety Decal with Contact Information (3)

Observer resources

1. Harassment Warning (1)
2. NEFOP Contact Info Sheet for Observers (1)
3. Bed Bug Exposure Protocol Guide (1)
4. Letter of Introduction (upon successful completion of observer training)

Vessel selection (NEFOP only)

1. Vessel Selection Letter (1)
2. NEFOP Seaday Schedule (1)
3. Vessel Selection Q & A (3)
4. Fleet Specific Seaday Info Sheets
5. NEFOP Seaday Schedule Vessel Selection Protocols



Enforcement boarding report instructions

The USCG and other enforcement agencies periodically board fishing vessels to inspect them for fisheries and safety violations. If the USCG boards the vessel you are on, introduce yourself and show them your ID. Remain available, but in the background. Do not remove yourself completely from the scene unless asked to do so. Do not join in any discussions between boarding party members and vessel personnel unless asked to do so. Please cooperate and provide assistance if requested. More detailed information on what to include in the report is included in Appendix A24.

Incident reporting instructions

Observers must document details of any incident that occurs during the course of observer duties. Notes should be recorded contemporaneously in a field diary and then a written statement in the form of an Incident Report should be submitted. All incidents must be reported within 12 hours after the incident occurred or within 12 hours of landing, depending on which is applicable.

The incident report is found on the Observer Web Portal: https://fish.nefsc.noaa.gov/fsbportal/.

To submit an incident report on the portal, follow the instructions on the screen and click submit once you have completed your report. An FSB staff member will be assigned to each report and will update the status of the report after it has been submitted. The status of the report will continually be updated on the Observer Portal until no further action is warranted/possible, at which time a "Closed" status will be assigned to the report. Please note, these reports serve as a written affidavit of the incident, therefore, it is essential that the individual reporting the event complete the report. No other parties (program manager, area coordinator, etc.) should complete this report on behalf of an observer or monitor. Please note, all incidents, including mishaps (minor sprains, strains, cuts, abrasions) and serious injuries must be reported.

Types of incidents that should be reported:

- Captain not showing to a vessel for a pre-arranged trip
- Difficulty in setting up a trip
- Any concerns about safety
- Injuries
- Discarding of legal sized groundfish
- Failure to provide equal accommodations
- Gear theft or tampering

- Gear theft or tampering
- Harassment, interference or intimidation
- Refusals
- Safety deficiencies
- Failure to provide reasonable assistance
- Suspected MARPOL violations

Information to include in an incident report

When writing a statement, be as detailed as possible and include:

- Who was involved? Include names of people involved or even nicknames or their position on the vessel if you didn't get a name.
- Include a detailed account of what occurred (reference your notes!) and anything that led up to the incident occurring.
- Include direct quotes when recounting conversations if possible.
- Details regarding the timing of the incident including haul numbers, dates and times
- Where were you when the incident occurred? On deck, in the wheel house, working up the catch next to the checker-pen on the starboard side, etc.
- Why did the incident occur? Were there any events that happened leading up to the incident that caused it to happen?
- Where there any witnesses to the incident?
- Did you put the offender on notice?
- Include how an event made you feel.
- Write in the first person.

Do not include subjective opinions; describe the situation with enough detail so that the reader can make their own assessments.

Refer to Appendix A24, *Fisheries Sampling Branch Observer Regulations and Resources*, for more information about MARPOL and field diary instructions.

The Paperwork Reduction Act Statement

Information collected through the Observer Program will be used to: (1) monitor catch and bycatch; (2) understand the population status and trends of fish stocks and protected species, as well as the interactions between them; (3) determine the quantity and distribution of net benefits derived from living marine resources; (4) predict the biological, ecological, and economic impacts of existing management actions and proposed management options; and (5) ensure that the observer programs can safely and efficiently collect the information required for the previous four uses. In particular, the Observer Program provides information that is used in analyses that support the conservation and management of living marine resources and that are required under MSA, ESA, MMPA, the National Environmental Policy Act (NEPA), the Regulatory Flexibility Act (RFA), Executive Order 12866 (EO 12866), and other applicable law. Most of the information collected by observers is obtained through "direct observation by an employee or agent of the sponsoring agency or through non-standardized oral communication in connection with such direct observations".

Under the Paperwork Reduction Act (PRA) regulations at 5 CFR 1320.3(h)(3), facts or opinions obtained through such observations and communications are not considered to be "information" subject to the PRA. The public reporting burden for responding to the questions that observers ask and that are subject to the PRA is estimated to average 74 minutes per trip, including the time for hearing and understanding the questions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. However, depending on the fishery and trip duration, the public reporting burden can range from 4-250 minutes per trip. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Amy Martins, National Marine Fisheries Service, Northeast Fisheries Science Center, Fisheries Sampling Branch, 166 Water Street, Woods Hole, MA 02543-1026. Providing the requested information is mandatory under regulations at 50 CFR 600.746 for the safety questions and at 50 CFR §600.725, §600.746, §648.11; 16 U.S. Code (USC) 1387 §118; 16 USC 1531 *et seq*., 16 USC 742a §222 for the other questions. All information collected by observers will be kept confidential as required under Section 402(b) of the MSA (18 USC 1881a(b)) and regulations at 50 CFR Part 600, Subpart E. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid Office of Management and Budget Control Number.

Electronic Monitoring policies and procedures

Groundfish

Background

In 2010, NMFS implemented Amendment 16 to the Northeast Multispecies Fishery Management Plan (FMP), and established annual catch limits (ACLs) and accountability measures for each stock in the fishery. Amendment 16 included a requirement for groundfish sectors to implement and fund an At-Sea Monitoring (ASM) program. The amendment also included a provision that allows sectors to use electronic monitoring (EM) to satisfy this monitoring requirement, provided NMFS deems the technology sufficient for catch monitoring. However, NMFS has yet to approve EM as a suitable alternative to ASM because outstanding issues must be resolved to ensure that the cameras used to replace human observers provide a comparable level of catch information for the purposes of science and catch accounting.

Over the last decade, several pre-implementation projects have been completed in the Greater Atlantic Region in an effort to resolve the outstanding issues that serve as barriers to implementation. From 2004-2006, the Cape Cod Commercial Hook Fishermen's Association and Archipelago Marine Research Ltd. tested EM systems on longline and gillnet vessels and compared EM and observer data.

Beginning in 2010, the NEFSC and Archipelago conducted a more comprehensive study in three phases. Phase one identified baseline metrics for detecting fishing events, counting fish, and identifying species. Phase two addressed issues such as weight estimation and expanded species identification methods through catch handling. Phase three tested catch handling methods to simulate an operational EM program.

In 2015, NMFS released Regional Electronic Technology Implementation Plans that laid out a roadmap for implementing EM and electronic reporting (ER), which is still under development.

Current status

NMFS Greater Atlantic Region remains committed to advancing EM as an option and is working collaboratively with industry and other stakeholders to test the tool's viability for the groundfish fishery. NMFS has partnered with The Nature Conservancy, Gulf of Maine Research Institute (GMRI), Maine Coast Fishermen's Association, the Cape Cod Commercial Fishermen's Alliance (Alliance), and over 20 fishermen in a variety of groundfish sectors to test an audit model. This pre-implementation project is in its second year. More recently, NMFS has partnered with the Environmental Defense Fund, GMRI, and several fishermen to develop a pre-implementation project testing a maximized retention model.

Pre-implementation project: audit-model

The first EM model being tested for the groundfish fishery is the audit model. A traditional audit model uses EM to verify discards that the captain reports on a vessel trip report. This pre-implementation project differs from the traditional model in that it does not use the captain's reported discards. Instead, the project uses the vessel's actual discards as seen in the video footage and reported by the EM service provider. During the first year of the project (2016), participating vessels ran cameras on a percentage of trips. In year two (2017), the vessels were running cameras on 100 percent of trips and generated more data than in the previous year.

NEFSC is leading the effort to develop performance standards, data reporting protocols, and best practices for an operational EM program. As part of this effort, NEFSC conducts a secondary review of all video footage to evaluate vendor performance and data quality; provides instruction to EM service providers, both via trainings and through the creation of an instructional EM data collection manual; and collaborates with project partners to develop at-sea catch handling protocols. This work supports NMFS' efforts to improve the functionality of EM, and to pursue the possible future implementation of an audit model. NMFS and our project partners intend to start leveraging lessons learned and testing a traditional audit model in fishing year 2019.

Internally, NMFS is taking steps in anticipation of testing a traditional audit model in the upcoming fishing year. The Greater Atlantic Regional Fisheries Office (GARFO) and NEFSC are conducting a joint analysis to develop recommendations for the primary video footage review rate. Because the EM dataset is limited in size, GARFO and NEFSC are using haul-level electronic Vessel Trip Reporting (eVTR) data collected through the region's Study Fleet program as a proxy to complete the analysis. Once complete, this analysis will establish a methodology for selecting video review rates that will allow NMFS to be confident that the catch data are accurate and complete. The initial review rate may be adjusted in the future as the EM program becomes operational and additional data become available. The analysis and final report documenting the methodology are scheduled for completion in calendar year 2019.

Pre-implementation project: maximized retention model

The other EM model being tested in the groundfish fishery is the maximized retention model. Unlike the audit model, maximized retention does not require fishermen to follow catch handling protocols at-sea. Instead, vessels fishing under a maximized retention program are required to retain all catch of allocated groundfish, including undersized fish that they would normally discard. Cameras run on 100 percent of trips and the video footage is used to verify that vessels do not discard fish at sea. All catch is assessed shoreside via an accompanying dockside monitoring program with a three-pronged objective; to verify dealer-reported landings, to collect biological samples, and to inspect fish holds. This EM model is well-suited to high-volume, trip-boat vessels that cannot reasonably follow catch handling protocols at sea given the large quantities of catch. This project is intended to test the feasibility and affordability of operationalizing EM for this type of vessel.

Regulatory actions

The New England Fishery Management Council (NEFMC or Council) is in the process of developing Amendment 23 to the Northeast Multispecies FMP. The stated purpose of the amendment is to implement measures to improve reliability and accountability of catch reporting and to ensure a precise and accurate representation of catch, including landings and discards. The Council has completed an initial round of scoping and is currently developing a range of alternatives to be considered in this action. This includes a suite of EM alternatives. This action is expected to be implemented during the 2019 fishing year.

Amendment 23 was initiated in 2015 following NMFS' announcement that the agency had exhausted all funding to cover seaside ASM costs and, therefore, those cost responsibilities would be transferred to industry. This prompted both industry and the Council to start exploring more cost-effective monitoring alternatives. The ongoing EM projects being conducted in the groundfish fishery are intended to provide additional insights into operational EM programs and inform future decision-making at the Council level.

Midwater trawl vessels in the Atlantic herring and mackerel fisheries

Background

In August, 2016, GARFO and NEFSC, in cooperation with EM service provider, Saltwater Inc., implemented a project evaluating the utility of EM to monitor catch retention and identify discard events in the Atlantic herring and mackerel midwater trawl fisheries. Saltwater, in coordination with NMFS, installed EM systems on the 11 vessels that fished predominantly with midwater trawl gear over the course of the project. The goals of this project were to evaluate the range of information that could be gathered from EM to support program management and monitoring goals, verify and categorize discard events, determine roles and responsibilities for an EM operational program, explore how EM data could be integrated into other reporting requirements, and refine EM cost estimates.

Over the course of this 17-month project, EM data was collected, reviewed, and synthesized on 190 trips. The final report provides a project overview, data analysis and a summary of findings, a summary of lessons learned, and an estimate of costs and cost drivers. Project findings will help inform the implementation of the Industry-Funded Monitoring (IFM) Omnibus Amendment and potentially approve an EM and portside program in this fleet.

Regulatory actions

At its April 2017 meeting, the NEFMC took final action on the IFM Amendment, which would result in increased monitoring coverage for Federally permitted Atlantic herring Category A & B vessels. As part of this action, NEFMC provided options for herring midwater trawl vessel coverage, allowing them to meet additional IFM Amendment monitoring requirements by utilizing either EM with corresponding portside sampling coverage or by selecting ASM coverage.

In April 2018, the NEFMC approved the IFM amendment, which added EM and portside sampling as a monitoring option for the herring mid-water trawl fishery. The rulemaking for the IFM amendment is scheduled to be completed in 2019. The Council agreed with NMFS that EM/portside implementation requires flexibility to accommodate management needs and the herring fleet, and recommended initial implementation through an Experimental Fishing Permit (EFP). The EFP would exempt vessels from using human at-sea monitors, while providing incentives for industry to choose EM/portside by allowing vessels to fish in groundfish closed areas. Additionally, the IFM amendment requires that vessels choose one monitoring type and does not allow purse seine vessels to use EM/portside. The EFP would allow vessels that use mid-water trawl and purse seine gear to choose EM/portside. NEFMC may consider establishing EM and portside sampling requirements in regulation when it revisits IFM requirements, two years after implementation of the IFM Omnibus Amendment.

Section 5. Visiting the Observer Training Center

The Fisheries Sampling Branch (FSB) Observer Training Center is located in the Falmouth Technology Park Facility. For safety and security, staff, contractors, observers, and providers visiting this facility are expected to understand and comply with the requirements associated with a Federal building.

General information and operation

While information in this section is geared towards employees and contractors working at the Fisheries Sampling Branch (FSB), observers will attend training classes here as well as utilize the facility to meet with a FSB staff member, resolve an issue with gear, etc. Members of the fishing industry may also visit the FSB on occasion.

The **Observer Training Center** (Falmouth Technology Park Facility, or 'Tech Park') is considered a Federal Facility and is leased through a General Services Administration (GSA) contract with the Marine Biological Laboratory (MBL). The facility is subject to the same rules and security as Federal Buildings and is under the U.S. Department of Homeland Security for Federal Protective Service. The facility is under 24/7 video surveillance. No firearms are allowed on the premise. Solicitors are prohibited. Visitors must request access and log in at the front desk, showing identification. Sorry, no pets allowed.

General business hours

Business hours are weekdays, Monday through Friday, from 8:00 a.m. to 4:30 p.m..

Contacts

The Facility Director and Chief of the FSB, Amy Martins, can be contacted on her office line (508) 495-2266 or cell phone (508) 989-5319.

If there are any issues with the parking lot or facility, contact the watch staff from MBL on (508) 289-7217.

In case of an emergency:
Dial 8 for an outside line, and then 911.

In case of a threat or suspicious activity:
Department of Homeland Security's Federal Protective Service provides law enforcement and security services. If there is a threat (e.g. active shooter) or to report suspicious activity at the Tech Park Facility, call **Homeland Security on +1 (877) 437-7411** (dial 8 for an outside line first).

Meeting rooms

There are two meeting rooms available to be reserved:

- **Conference Room** – Has a capacity of 23 attendees (12 chairs fit comfortably around the table and 11 side chairs are around the perimeter of the room). The room has the following equipment: InFocus projector, white board, flipcharts, Polycom conference phone system, and Wi-Fi.
- **Training Room** – Has a capacity of 33 (18 chairs comfortably around tables in U design and 15 chairs are on the side). The room has the following equipment: InFocus projector, white board, flipcharts, Polycom conference phone system, and Wi-Fi.

To reserve rooms, contact the FSB Administrative Assistant on (508) 495-2338.

Emergency closing

In the event that physical conditions, or other circumstances make it difficult to provide a safe or productive work environment, Tech Park may close its facilities. Examples of such circumstances include severe weather or environmental conditions, utility, equipment or system failures, or other conditions which directly affect the Tech Park facility or the surrounding community. When there is an emergency closure, employees will be notified via one or more of the following methods:

- in person by facilities department personnel in the event of a power outage,
- voice mail,
- text messaging,
- e-mail, or
- employee emergency voice mail message, IRIS.

Inclement weather procedure

1. In case of inclement weather, the Woods Hole Laboratory (including Tech Park Facility) may implement a full day closure, delayed opening, or early closing.

2. All decisions regarding closures will be made by the Woods Hole Laboratory Director (or Acting Director) in conjunction with Operations, Management and Information (OMI) leadership and facilities staff.

3. On the first (and only the first) day of any weather event, we will follow decisions by the Falmouth Public School system. If the Falmouth Public School system is closed for the day, the Woods Hole Laboratory and Tech Park Facility will also be closed. If the Falmouth Public School system has a delayed opening, the Woods Hole Laboratory and Tech Park Facility will announce a specific opening time (often, but not always 10:00 a.m.). If the Falmouth Public School system announces an early closing, leadership will announce a closing time.

4. Following the first day of a weather-related closure, the Woods Hole Laboratory and Tech Park Facility will make closure decisions independently of the Falmouth Public School system until the Laboratory is reopened. This includes cases where multiple day closures are triggered by a single weather event or the area experiences multiple weather events over a short period of time. Laboratory and Tech Park Facility staff should prepare for the prospect that the lab may be open when other facilities including school systems remain closed.

5. Notifications regarding delayed openings, early closures or complete closures will be made through the IRIS system and through a voicemail message on the main phone line (508) 495-2000 by 7 a.m. Falmouth Public School system announcements are made through a number of local radio and television stations. During public school holidays, staff should rely solely on the IRIS and voice mail messages.

6. Some Woods Hole Laboratory and Tech Park staff live outside the Woods Hole/Falmouth area. In cases where the Laboratory and Tech Park Facility are open but weather conditions where an individual staff member lives are significantly different from the Woods Hole/Falmouth area, supervisors should provide reasonable flexibility relative the use of leave (annual leave, comp time, credit time) or changes in telecommuting schedules. Supervisors should afford the same reasonable flexibility in cases where the Laboratory or Tech Park Facility are open, but the school system where a staff member's children attend remains closed or is unexpectedly closed.

7. When the Woods Hole Laboratory and Tech Park Facility are closed, have a delayed opening or closed early, staff should not be at either facility to allow facilities staff to evaluate conditions and address safety concerns. Specific exceptions are granted to the Northeast Fisheries Science Center (NEFSC) leadership, facilities staff, and staff responsible for caring for live animals associated with the aquarium or research.

Safety and security

Emergency evacuation and shelter-in-place procedures

Decision to evacuate

If a fire, explosion, spill of hazardous materials, accident, or natural disaster should occur, and there is imminent danger to the safety of personnel, the fire alarm system should be used. Pull the switch at one of the fire alarm pull boxes located at each exit in the Tech Park building. If there is no imminent danger to the safety of personnel, then the location and nature of the event should be reported to the Officer-in-Charge at extension 2266 or his/her alternate and the Emergency Coordinator (Jack Emberg at extension 2219). They will determine if an evacuation of the facility is necessary, and alert the proper emergency units (Falmouth Fire Department 8-911).

Tech Park floor plan evacuation routes and emergency equipment

Emergency evacuation procedure

During an evacuation of the facility, employees shall be directed, by floor wardens, away from the event toward the nearest exit. Time permitting, every attempt should be made to close windows and doors, to turn off electrical equipment, turn off gas and contain hazardous chemicals. Floor wardens should check each office to ensure all personnel have left the building. Employees should follow designated escape routes as indicated on posted floor plans, or follow directions of floor wardens. Once outside the building, employees must assemble in the designated assembly site (a rock with #25 on it located at the entrance to Tech Park Facility) for a head count and await further instructions.

Emergency drills (fire shelter-in-place, etc.) and **Homeland Security inspections** are conducted regularly.

Shelter-in-place procedure

Sheltering in place is a technique/precaution that emergency services and public safety personnel recommend. It is designed for those situations in which it is safer for employees to remain in the building than to evacuate.

Generally, shelter-in-place means to simply stay indoors. You want to stay indoors and stage in a place to await further instructions. During extreme circumstances, sheltering in place could also include additional precautions, such as turning off fans, air conditioning, and forced air heating systems to reduce any potential for air contamination in the event of a chemical or biological release. Instructions to shelter-in-place are usually implemented for events that have a relatively short duration, of hours, not days or weeks. There is little danger that the room a person occupies will run out of oxygen in a few hours. If certain air handling systems are turned down or shut down, it may make the facility slightly uncomfortable, but it will not become a life-threatening situation.

Should an incident occur, information and instructions will first be provided by management staff and then by local authorities. It is important to realize that it will not be business as usual, and safety personnel will need to immediately respond to and implement the instructions provided by local and/or state and federal authorities. Following their instructions during and after emergencies regarding shelter-in-place or an evacuation is imperative.

Designated shelter-in-place locations at the Tech Park Facility have signage above the doors and include:

- Rm #122, Conference Room
- Rm #117, Gear Room
- Rm #121, Training Supply

Note: Emergency drills (fire, shelter-in-place, etc.) and Homeland Security inspections are conducted regularly.

Injuries

In case of emergency, dial 8 for an outside line then 911.

AED and medical emergencies

The Tech Park has a Life Pak CR Plus AED and First Aid Kit located in the main lobby.

Accident, illness and mishap reporting

All work-related mishaps that result in an employee injury or illness, or any work-related mishap or near miss, including those that do not require first aid or medical attention, must be reported within 24 hours of occurrence to the FSB Branch Chief, Amy Martins. The Branch Chief is responsible for completing the *Confidential NMFS Mishap Report* (Appendix A25) and for submitting it to the NOAA Fisheries Deputy Assistant Administrator for Operations. Please do not delay reporting simply to gather all items of the report; it is acceptable to only include items 1–4 in the initial report, as long as item 5 can be added as investigations occur and as details become known.

NEFSC Safety & Wellness Advisory Team

Mission: To research and advise the NEFSC on matters of observer safety and wellness. To evaluate current safety, health, and wellness policies, suggest changes when pertinent, and to recommend new policies.

Goals:

- Promote a safer and healthier environment for observers to work in.
- Make recommendations to NEFSC and FSB to monitor the progress of any resulting recommendation(s).
- Recognize contributions of work in support of promoting a safe working environment for our region's observers.
- Support open communication in an atmosphere of honesty, trust, and respect.

Objectives: To provide guidance that will help ensure the well-being and safety of observers, at all times, through open communication, training and state-of-the-art-technology.

Duties and responsibilities: The Safety & Wellness Advisory Team (SWAT) shall be responsible for developing and recommending the requirements to fulfill the purpose and objectives of the National Observer Program Advisory Team's national safety standards; developing and reviewing proposals on observer safety initiatives; developing seminars/workshops and sponsoring forums and panel discussions to address specific safety issues; developing, coordinating, and planning special programs; reviewing and monitoring safety policies and programs, which may affect NOAA Fisheries observers; developing safety training classes for observer programs; developing and maintaining mechanisms to document Observer Program related injuries and illnesses; and developing and maintaining mechanisms to enforce safety related policies for FSB.

Security

It is our responsibility as an agency of the Federal Government to assure the physical protection of our facility and the safety of our employees and visitors. The first line of security within our building is to channel all access through entry control points where identity verification card readers can be used for screening of a Common Access Card (CAC). These readers "authenticate" individuals seeking entry, i.e., they verify that the individuals are indeed authorized to enter. The personnel who require access to our building include three groups – Federal employees, contract personnel, and visitors.

Visitor sign-in procedures

Before admittance **all visitors** must adhere to the following security protocols:

1. State reason for visit and who they are meeting (visitors should have an appointment).
2. Present a photo ID:
   - All federal employees and contractors: CAC ID
   - All other visitors: valid photo ID
3. Present a valid ID, sign in to the Visitor Log Book, and obtain a visitor badge (if visitor does not have a CAC ID).
4. Be escorted to the person(s) meeting with / or person contacted via phone to come to receive visitor at the front desk.
5. Sign out in the Visitor Log Book and return visitor badge before leaving.

Parking

There are designated parking areas for handicap vehicles, the Branch Chief, government-owned vehicles, and visitors; in addition, there are unmarked parking spaces. Please **park in the unmarked parking spaces** which are located along the front, both sides and the back of the facility. Please do not park in the parking spaces designated for the Marine Biological Laboratory located on the side and in the back parking lot of the facility.

FISHERIES
OBSERVER

Section 6.
Frequently asked questions

The Fisheries Sampling Branch (FSB) fields many questions from observers, prospective observers and providers about details of the observer programs. Following are some of the most common queries, along with FSB responses.

1. Why do observers sample catches at sea?

Landings from commercial fishing trips have been sampled in Northeast ports for more than 100 years. However, identifying the species and numbers of fish landed and sold in our ports is only part of the story. Managing fisheries and the effects of fishing on the ecosystem requires information not only about what is landed, but also about what is not landed. We also need to know when and where, and in some cases, how these fish are caught. The objectives of the Fisheries Sampling Branch (FSB) are to collect operational fishing data, biological data and economic data from the various fisheries. Additionally, in support of the Marine Mammal and Protection Act (MMPA) and the Endangered Species Act (ESA), the observers monitor interactions with protected and endangered species to ensure continued survival of these animals.

2. How do observers estimate takes of protected species?

Marine mammals, sea turtles, and sea birds are protected under a variety of federal statutes intended to reduce the risk of harm to these animals by fishing and other human activities at sea. Chief among these statutes are the MMPA, ESA, and the Migratory Bird Treaty Act. FSB monitors marine fisheries to identify those that take protected species or sea birds, and if necessary, help develop ways to reduce these takes.

Monitoring efforts in the Northeast region have been concentrated in several fisheries: groundfish gillnet in the Gulf of Maine, gillnet fisheries in the mid-Atlantic, swordfish longline, pelagic drift-net, and pelagic pair-trawl. Fishery observers document each take of a protected species during a fishing trip as well as other catch and discard information when possible. Total takes of protected species can be estimated from the samples obtained on observed trips in a particular fishery and expanded to the whole fleet. The selection of which fishing vessels to cover is made based on historic information of takes in the area, the type of fishing gear used, the season and amount of fishing effort in the area.

Note: The term "take" is defined in the MMPA as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal. It has a similar meaning under the ESA, which applies to all wild plants and animals, including those in the ocean.

The term "take" is defined in the MMPA as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal. It has a similar meaning under the ESA, which applies to all wild plants and animals, including those in the ocean.

3. How do observers measure gear performance and characteristics?

When fishery observers are deployed aboard commercial vessels, they take detailed measurements of various attributes of the fishing gear including how it is rigged and deployed. These measurements are important for two reasons:

First, by documenting variables such as mesh size, number of hooks, time of trawl tow, hanging dimension (e.g., square vs. diamond mesh) etc., in relation to catch attributes (e.g., quantity, species composition, size distribution of catch) it is possible to conduct statistical analyses of the factors that result in high (or low) rates of discard, species mix, changes in catch rate, etc.

Second, gear performance observations, when collected over time, can be used to better calibrate catch-per-unit-effort abundance measures. For example, if the average size of nets, duration of tow, ground-cable length, etc., change over time, these may have a direct effect on catch per day fished by the fleet (even for similarly sized vessels). Given sufficient information, these factors can be included in stock assessment analyses to provide a more complete and accurate picture of fishing intensity and effectiveness.

4. How do observers estimate discards of fishery resources?

Catches brought aboard fishing vessels are typically sorted by marketable species and sizes, and the rest of the catch is thrown back, or discarded. In most of the Northeast commercial fisheries the discarded animals are dead. Discarding may occur for a number of reasons; fish may be smaller or larger than the allowable legal size, fish with little market value, species that can't be legally possessed (e.g., marine mammals and protected fish species) and those marketable fish for which the vessel has already caught its legal limit for the trip. To get an accurate picture of the status of a fish stock, and the influence of fishing on the ecosystem, it is important to gather biological information not only about what and how much is landed and removed from the ecosystem, but also about what is not landed.

Accompanying fishermen on regular commercial trips is the most reliable method of acquiring data on the quantity and species composition of discards, as well as information on the specific reasons why animals are discarded and under what conditions discarding occurs. With these data, it is possible to more completely understand the effects of fishing on the whole stock, and to better estimate the potential biological and economic benefits of changes in methods of managing the fishery such as minimum legal sizes and trip quotas for individual species.

5. How do observers get biological information about catch?

Biological samples form the basis of what we know about how fish populations change over time. Examples include weights and lengths of individual fish, reproductive status, and collecting hard parts (scales, otoliths, and/or vertebrae) for aging. These data are collected annually from fish collected during scientific surveys conducted by the Northeast Fisheries Science Center (NEFSC). Information about these scientific surveys can be seen at the NEFSC Ecosystems Survey Branch website. These data are collected independently of the commercial fisheries, and also through the FSB Observer Program from the discarded, as well as retained, portion of a vessel's catch. The resulting data allow scientists to characterize catch by species, size, age, gender, and frequency, and then use that information, in conjunction with that from other data sources, to compile a picture of the entire population.

6. What experiments and experimental fisheries do observers monitor?

The fishing industry is always looking for methods to reduce the incidental catch of unwanted species, including protected species. Conducting and evaluating the performance of novel or experimental gear is another responsibility of fishery observers. Sometimes it is possible to reduce unintended catch during fishing operations by changing the way gear is constructed and/or used. To properly evaluate new gear types and methods, an experimental version must be tested under a variety of conditions likely to be encountered during a typical commercial trip. Testing not only demonstrates what effects are achieved, but also whether the gear can be safely and efficiently used.

Experimental fisheries typically occur when, in order to gather needed data, an experiment must be conducted using gear or methods that would otherwise be prohibited by existing regulations. For example, an experimental fishery occurred in Cape Cod Bay where small mesh nets were rigged to catch whiting, but avoid bycatch of groundfish such as cod, haddock, and flounder. The experiment was carefully monitored and eventually became an exempted fishery; one that has less than five percent catch of regulated groundfish.

7. What about the economics of fishing?

What is the economic health of a fishery? Revenue data (e.g., landed value) collected from fishermen and dealers in the ports provide the income side of the economic equation. However, data on the costs of fishing are equally important. Fishery observers solicit information from participating vessel owners and captains regarding the costs of items used on a trip (e.g., ice, fuel, gear, and bait), and fixed costs (e.g., repairs, electronics, and insurance).

The intent of these studies is to better understand the economic health and efficiency of fishing. This information is extremely important in the fishery management process, because it allows quantitative analyses of economic impacts of various management options. Federal

rules require that the economic benefits of regulation exceed the costs of such measures. Net economic benefits to the nation comprise benefits and costs to the producers (e.g., fishermen), and benefits and costs to the consumers. The FSB Observer Program provides an important source of contact with knowledgeable individuals in the industry best able to provide these data.

8. How is international fishing in U.S. waters monitored?

During the 1970s and early 1980s, international vessels were allowed within the U.S. Economic Exclusionary Zone (EEZ), better known as the 200-mile limit. Under these agreements, the international vessel operator paid a set fee per ton of fish landed, and assumed the costs of providing 100% U.S. fishery observer coverage on their vessels. The fishery observers collected information similar to that presently obtained from domestic trips through the FSB Observer Program.

U.S. law still provides ways for fishery managers to allow international vessels to fish in the U.S. EEZ when there is a surplus of fish not likely to be taken by domestic fleets. At present, there is little international fishing activity in federal waters off the Northeastern U.S., but there is growing interest in joint ventures with U.S. companies for underutilized fish resources, particularly those with established international markets. When these fishing operations do occur with international partners in the EEZ, the FSB Observer Program continues to monitor them.

9. How can someone request observer data for research or analysis?

Observer data is an important fishery dependent tool and source of information for a number of groups involved in the monitoring and management of commercial marine fishery resources. As such, FSB receives many requests each year from federal, state, industry and non-governmental individuals interested in acquiring data for various analyses. Assisting National Marine Fisheries Service (NMFS) users with access and providing data to those without direct access, within the appropriate confidentiality laws and guidelines, is an important mission of the FSB. Haul level observer data is considered confidential under the Magnuson-Stevens Fishery and Conservation Act (MSA) and can only be obtained by specific parties. Most often, aggregated summary data are provided to end users who are not authorized to receive confidential data. The process of requesting data is informal whereby an inquiry can be made to the Branch Chief, Amy Martins, via email or phone to initiate discussions on specific project data needs and availability. More info can be found on the NEFSC website.

FISHERIES
OBSERVER

FISHERIES
OBSERVER
LYBRAND / TROLL

NOAA Fisheries, Northeast Fisheries Science Center
Fisheries Sampling Branch
Observer Training Center at Tech Park
25 Bernard East Saint Jean Drive, East Falmouth, MA 02536
(508) 495-2130 or (508) 495-2000
neobserver.info@noaa.gov