National Observer Program
FY 2005 Annual Report

December, 2006

Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

Executive Summary

The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) utilizes data from a variety of sources ranging from fishery-independent stock assessment surveys to commercial and recreational fishery data to support its science-based stewardship of the nation's living marine resources. Of these sources, data collected by fisheries observers placed on board commercial fishing vessels through NMFS observer programs are considered one of the best sources for data used in fisheries conservation and management.

In FY 2005, NMFS fisheries observer programs continued to provide the high quality biological information on fish, marine mammals, sea turtles, and sea bird populations relied upon by the agency to manage the nation's marine resources. Reducing fisheries bycatch[1] is identified in the agency's governing statutes as an important conservation and management priority for NMFS. The data collected by fisheries observers are the primary source of information on fisheries bycatch. National highlights in FY 2005 included releasing the NOAA Technical Report "*Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs,*" which contained extensive contributions from NMFS observer programs. In addition, NMFS observer programs contributed to agency goals by providing valuable information used in stock assessments, quota monitoring, take reduction plan development, and other aspects of fisheries management.

NMFS deploys approximately 600 observers annually to collect biological and economic data in more than 40 fisheries nationwide. To carry out this work, observer programs utilize funding from a variety of sources. In FY 2005, federal commercial fisheries observer programs received federal and industry funding totaling approximately $44,691,000 for observer coverage and program infrastructure. This report contains a summary of budget and activities for NMFS observer programs in FY 2005.

[1] Bycatch is defined as the discarded catch of living marine resources and the unobserved mortality due to encounters with fishing gear that occurs during the course of fisheries operations (NMFS *Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring*, 2004).

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All cover photos were provided by NMFS regional fisheries observer program staff and fisheries observers except whale's tail (LR corner) provided by NOAA's Marine Sanctuary Program, through the NOAA photo library service.

1. Introduction

NMFS utilizes fishery observers to collect data from U.S. commercial fishing and processing vessels, as well as from some shore side processing plants. NMFS has been using fisheries observers since 1972 to collect high quality data on commercial fishing activities. Today, there are fisheries observer programs in all six NMFS fisheries management regions (visit the National Observer Program website at: www.st.nmfs.gov/st4/nop/index.html)

1.1 Program Structure

Each of the six NMFS Regions (Northeast, Southeast, Northwest, Southwest, Alaska, and Pacific Islands) is responsible for the administration of observer programs in their area (Figure 1). The authorization for each observer program is derived from one or more federal mandates. For example, the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires Fisheries Management Plans (FMPs) for all U.S. fisheries in federal waters and provides fisheries management councils and the Secretary of Commerce with the authority to require "that one or more observers be carried on board a vessel of the United States engaged in fishing for species that are subject to the plan, for the purpose of collecting data necessary for the conservation and management of the fishery" (16 U.S.C. §1853 (b)(8)). The Marine Mammal Protection Act (MMPA) also authorizes the placement of observers on board vessels engaged in commercial fishing operations which frequently take[2] marine mammals (16 U.S.C. §1383(e)). Under the Endangered Species Act (ESA) Section 7, federal agencies cannot carry out programs (such as authorizing marine fisheries) that jeopardize the continued existence of threatened and endangered species. Although there is no direct ESA requirement to monitor fisheries for interactions with endangered or threatened species, observer data help fisheries managers develop regulations that are necessary to reduce impacts on protected species. On a global scale, international agreements identify the agency's stewardship role in leading collaborative efforts to conserve and protect marine resources.

The NMFS' Office of Science and Technology coordinates observer programs at a national level through the National Observer Program (NOP). In addition to handling program administration, budgeting, and planning, the NOP works on issues of national policy and observer data quality standards. The NOP also provides regional observer programs with a forum to increase communication. Representatives from all regional programs and most NMFS offices participate in the National Observer Program Advisory Team (NOPAT), which serves as an advisory board. The NMFS Science Board (comprised of the six NMFS Science Center directors and the director of the Office of Science and Technology, who serves as the Board's chair) approves NOPAT recommendations, with final decisions made by the Director of the Office of Science and Technology, Chief Science Advisor, and Assistant Administrator for Fisheries, when necessary.

[2] "Take" of a marine mammal is define as: "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal" (16 U.S.C. 1362)

Regional programs are responsible for the day-to-day operation of fishery observer programs. Program scientists determine the appropriate sampling protocols and necessary observer coverage levels for each fishery. In general, regional programs work with private contracting companies to recruit and deploy observers. In some cases, fishing industry representatives contract directly with a company to provide observer coverage. The North Pacific Groundfish Observer Program (NPGOP), for example, is funded annually in part by fishing industry members. The NMFS Alaska Fisheries Science Center administers this program and receives the data for real-time management of the groundfish fishery. These data are also made available by the program to industry members. Regardless of an observer program's funding structure, all new observers are provided with training in species identification, sampling methods, and safety. Following a fishing trip, observers are debriefed and the trip's data are quality checked before being entered into a database system and made available to regional fisheries biologists.

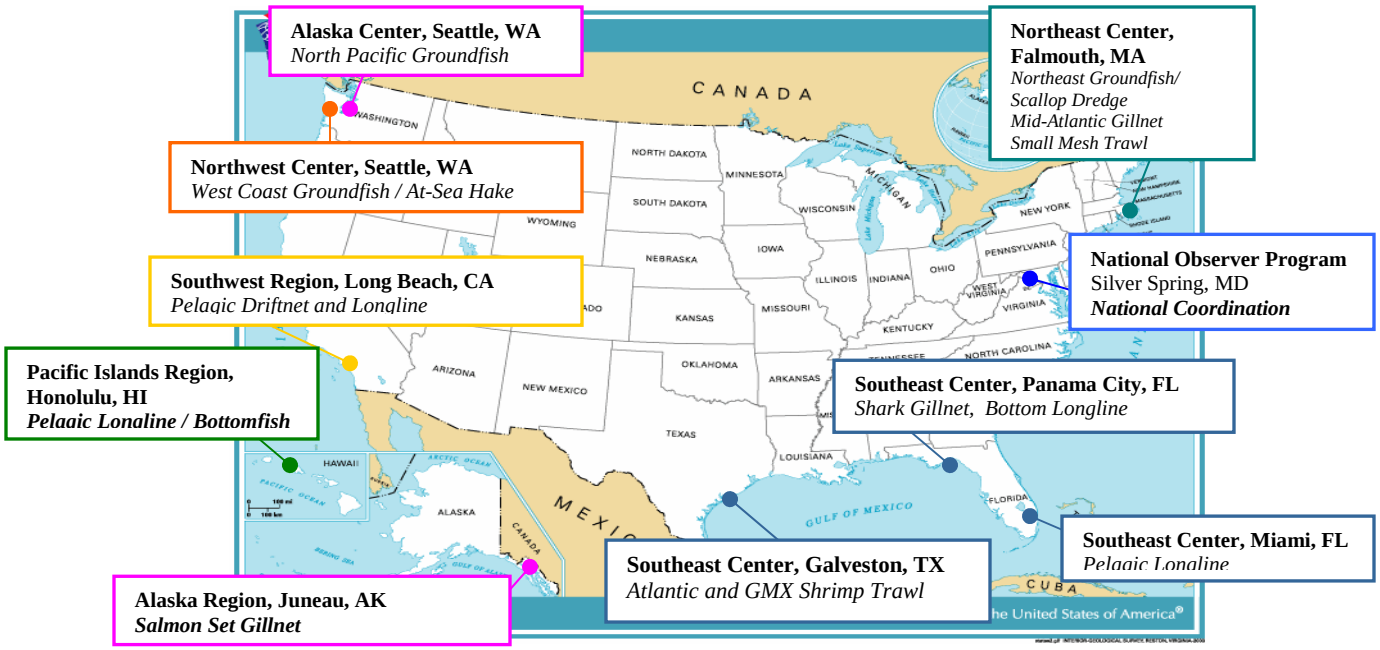

Figure 1. Map of U.S. commercial fishery observer program offices located at NMFS Regional Offices ("Region") and Science Centers ("Center").

1.2 Use of Observer Data in Fisheries Management

Fisheries observers are trained biological technicians who collect data to support a wide range of conservation and management activities. The information compiled by observer programs supports the management and conservation of fisheries, protected resources, and ecosystems throughout the U.S. Observer data are also increasingly relied upon to monitor compliance with fisheries regulations. Information collected by fisheries observers is used for a wide range of assessment and monitoring purposes, including the following examples.

- In some fisheries, the amount of a specific fish species that can be caught is specified by a "total allowable catch" (or TAC) level. Observer data are used to project total catches for these species and to monitor the level of fishing activity.

- For many fisheries, estimates of fishing mortality and/or protected species interaction rates based on observer data are used for monitoring fishery performance and developing stock assessments.

- For rebuilding species, such as New England groundfish, preseason target catch numbers are provided to the management team. After the fishing season has passed, observer data are evaluated to determine total mortality and correspondingly adjust the next season's targets.

- Observer data on marine mammal bycatch is used by NMFS Take Reduction Teams when developing federally mandated Take Reduction Plans (TRPs) to assist in the recovery or prevent the depletion of certain strategic marine mammal stocks.

1.3 Funding History for Observer Programs

Although NMFS has utilized fishery observers to collect data since 1972, the Office of Science and Technology's NOP was not established until 1999. Prior to 1999, the majority of funding for regional observer programs was provided through indirect sources, such as Congressional allocations supporting fisheries management and protected resource legislation. Beginning in the early 1990's, industry funds were also used to support observer programs; the amount of industry funding has remained relatively stable. In 1999, the first Congressional funds were appropriated for a dedicated national observer program budget line and the NOP was established to coordinate U.S. observer program activities. In general, funding for observer programs has increased over time. The number of fisheries observed has increased as programs obtain the means to develop observer programs for new or experimental fisheries while maintaining established monitoring programs (Figure 2).

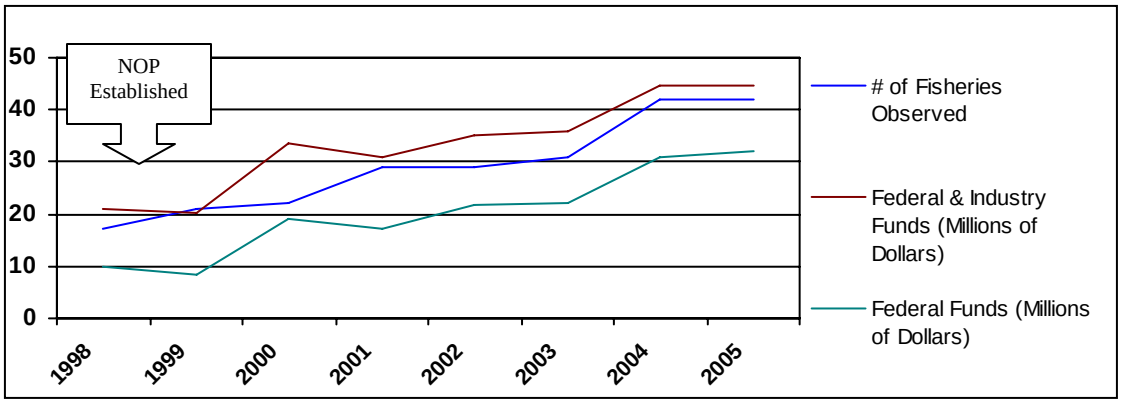

Figure 2. Historical overview of funding and coverage levels for U.S. observer programs

2. FY 2005 Budget Summary

In FY 2005, federal commercial fisheries observer programs received approximately $44,691,000 for observer coverage and program infrastructure (Figure 3), including $564,000 for the coordination activities of the NOP. This funding enabled regional observer programs to provide coverage for more than 64,000 days at sea in 42 fisheries (refer to Appendix I for a detailed breakdown of funding and coverage levels by program). The industry-provided portion of total funding was approximately $13,200,000 in FY 2005. Industry funding was used to place observers on fishing vessels in the Northwest (at-sea hake) and Alaska (groundfish).

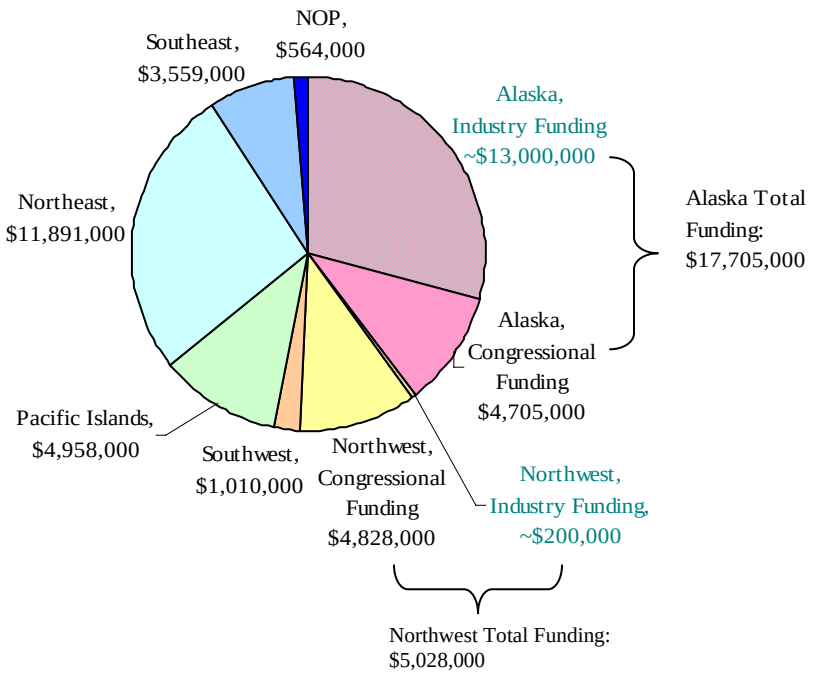

Figure 3. Total Regional and National Funding FY 2005. Totals include Congressional appropriations and other federal funds, national competitive funds, and industry funds for all observer programs in each region.

The majority of funding for observer programs comes from Congressional appropriations. In FY 2005, Congressional funding for observer programs totaled $31,491,000. Observer programs receive federal funds in several different ways. The primary sources of funding for most regional observer programs are dedicated Congressional budget lines (Figure 4). All regions have at least one dedicated budget line supporting observer program activities except the Southwest, which has never had a dedicated budget line for observer programs. It is important to note that an observer program may be funded by more than one budget line, and a single budget line may support observer program activities in more than one region.

Many observer programs are funded through a combination of federal funding sources in order to maintain sufficient coverage and infrastructure. In addition to direct budget lines, observer programs may receive funding from federal appropriations supporting the Endangered Species Act, Marine Mammal Protection Act, American Fisheries Act, and the Magnuson-Stevens Act. These "other Federal funds" contributed a total of $4,268,000 to observer programs in FY 2005.

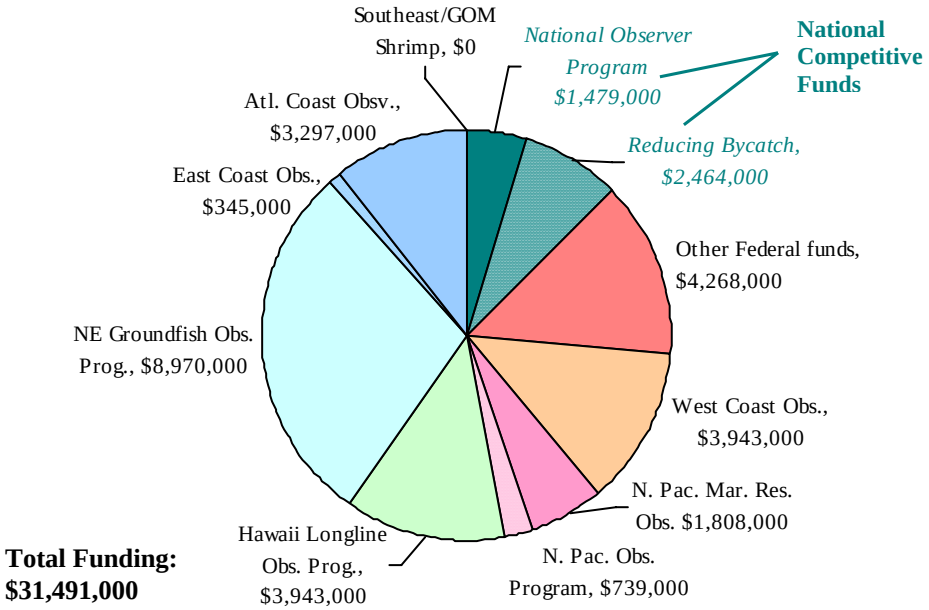

Figure 4. Congressional budget lines supporting observer programs, FY 2005. Other Federal funds (red pie slice) include monies appropriated by Congress to support the Endangered Species Act, Magnuson-Stevens Act, etc.

The NMFS Office of Science and Technology receives Congressional funding to provide a third source of support for National and Regional observer program activities through the National Observer Program and Reducing Bycatch budget lines. The Reducing Bycatch line is split between the Office of Science and Technology for observer activities and the Office of Sustainable Fisheries for bycatch technology research. The NOP's portion of the Reducing Bycatch line and the National Observer Program line comprised the National Competitive Funds for FY 2005. Competitive funds are allocated each year through the NOP National Competitive Funding process. National and Regional programs submit proposals to the NOPAT, which then evaluates and ranks the proposals based on technical merit. Final funding decisions are made by the Director of the Office of Science and Technology and the NMFS Chief Science Advisor, with additional input from the NMFS Science Board. Funds allocated through this process in FY 2005 totaled $3,943,000 and supported activities at the national level and in five of the six regions (Figure 5).

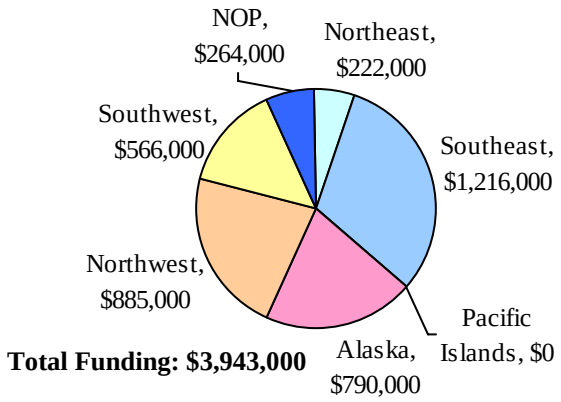

Figure 5. FY 2005 National Observer Program Funding: allocation of national competitive funds to regional and national observer programs.

3. FY 2005 National Observer Program Activities

The NOP is supported by a permanent allocation of $100,000 from the Reducing Bycatch budget line to provide staff support and program infrastructure. The NOP also participates in the competitive funding process, submitting proposals for activities that support priority national projects on a wide range of topics. In FY 2005, the NOP was awarded $264,000, which included the permanent $100,000 allocation. Funding for specific activities of the National Observer Program was also provided through the following Congressional budget lines: $150,000 MMPA; $150,000 Sustainable Fisheries. The following section highlights some of the NOP's activities in FY 2005.

3.1 Reducing Bycatch and Discards

In 2004, NMFS released a report titled *Evaluating Bycatch: A National Approach to Standardized Bycatch Monitoring Programs*, which contained extensive contributions from NMFS observer programs. In FY 2005, the NOP began work on a follow-up report that will expand upon the 2004 report by providing an analysis of bycatch and discard in U.S. commercial fisheries. This report will also include sections on the background of bycatch in commercial fisheries by region, the impacts of bycatch and discards on fisheries and habitat, costs associated with bycatch and discards, and possible suggestions for methods to reduce discards in the future. A draft framework document for the report was developed by the NOPAT and subsequently approved by the NMFS Science Board.

3.2 Performance Based Contract Template

NMFS contracts with private companies to provide observer coverage. These companies provide the personnel, material, equipment, services, and facilities necessary to complete quality environmental, biological, and fisheries operations data collection, data analysis, and information dissemination. In response to recommendations made by the Office of the Inspector General, the NOP contracted with FunctionalIT to assist in the development of a standardized performance-based Request for Proposal (RFP) template

to be used to procure observer services. The template was completed, reviewed, and accepted by the NOPAT and Science Board in FY 2005. As a follow up to the template, an observer contracting workshop will be held in 2006 for contracting officers and observer programs managers to review and revise the template. The workshop will also focus on building consensus for all regional observer programs to utilize this standard RFP in all future observer contracts to ensure consistency in regional requirements and facilitate more timely issuance of observer contracts.

3.3 Fishery Observer Compensation Act

In FY 2005, the NOP continued working on draft legislation for the Fisheries Observer Compensation Act. Preferred Insurance Capital Consultants, LLC was hired to perform a cost analysis of modifying existing legislation to cover observers. FOCA provides for adequate workers' compensation coverage to marine fisheries observers in the event they are injured or killed on the job while onboard commercial fishing vessels. Among other things, FOCA will ensure that redundant or unnecessary coverage for NOAA Fisheries contracted observers is not required by observer service providers. The Act also limits vessel owners' and government liability associated with the deployment of observers and ensures first party compensation under the Longshore and Harbor Workers Compensation Act.

3.4 Observer Recruitment & Retention

In FY 2005, the NOP contracted with the Association for Professional Observers (APO) to document recruitment and retention methods for observers in regional programs. This project was in response to an Office of the Inspector General recommendation to minimize turnover of observers and improve the quality of information collected. In FY 2006, the NOPAT will review the recommendations in the APO report and develop a framework to evaluate the relationship between observer retention and data quality.

3.5 Observer Safety Training

In April 2005, the NOP contracted with the Alaska Marine Safety Education Association to conduct a 24-hour Marine Instructor Safety Training refresher course in Seattle, WA. Funding for the course allowed eight observer safety trainers from three regions to participate and update their U.S. Coast Guard approved safety instructor certifications. The refresher training is a continuation of the agency's efforts to standardize observer safety training.

4. Regional Observer Program Activities

Observer programs are administered by NMFS Regional Offices and Science Centers around the country. The funding received by each program is used to administer existing programs as well as to develop observer programs for new or experimental fisheries, and perform outreach to industry members and the public. Research priorities and observer coverage levels are determined by the regional programs. Coverage levels are influenced by available funding, the number of active participants in the fishery, fishing conditions, and program goals. For some fisheries, certain mandated coverage goals must be met.

4.1 Northeast

In FY 2005, the Northeast Fisheries Observer Program (NEFOP) was allocated a total of $11,891,000. Over 11,000 sea days were observed through six monitoring programs: New England Groundfish Trawl and Sink Gillnet Fisheries; Mid-Atlantic Coastal Gillnet Fisheries; NE and Mid-Atlantic Small Mesh Trawl Fisheries; Mid-Atlantic Illex squid trawl; NE and Mid-Atlantic Large Mesh Trawl Fisheries; and the Atlantic Sea Scallop Dredge Fishery (see Appendix I for details). In addition to providing data on gear performance and characteristics and monitoring experimental fisheries, in FY 2005 fisheries observers in the Northeast monitored protected resources bycatch reduction measures and collected bycatch and discard data that allowed portions of George's Bank closed to groundfishing to be opened for a limited sea scallop fishery. The Northeast observer program also provided 50 percent coverage for many of the Special Access Programs of Amendment 13 to the Northeast Multispecies Fisheries Management Plan (FMP).

<u>FY 2005 Program Highlights</u>

Northeast Court Ordered Groundfish Coverage

Nineteen groundfish stocks are managed under the Northeast Multispecies Fishery Management Plan, which is designed to end overfishing and rebuild overfished groundfish stocks. Under the court order, five percent of trips taken by commercial vessels in all groundfish fisheries must carry an observer. In FY 2005, the NE Groundfish Trawl Observer Program provided the necessary coverage: over 11,000 days of at-sea observation. The data collected through this program are used by fisheries managers to monitor groundfish population sizes and to implement bycatch quotas to ensure that rebuilding goals are met. For example, total Georges Bank cod catch in the U.S./Canada Area is reported daily by vessels and by fishery observers when they accompany the trip; the amounts of kept and discarded cod reported are counted towards the cod quota for this fishing area.

Emergency Haddock Bycatch Measures in the Atlantic Herring Fishery

Regulations established under the Northeast Multispecies FMP prohibit vessels fishing for Atlantic herring from possessing or landing any groundfish species, including haddock. Area 3 (Georges Bank) landings decreased in the summer of 2004 as midwater trawl vessels elected to stop fishing for herring due to an increased occurrence of prohibited juvenile and young haddock bycatch. This prompted the New England

Fishery Management Council (NEFMC) to develop an Emergency Action that authorized the possession of up to 1,000 pounds of haddock incidentally caught by vessels fishing for herring. This Emergency Action was implemented in June of 2005 and is set to expire in June of 2006. The NEFMC is currently working with NMFS and other stakeholders to develop replacement measures that will enable herring fishing to continue as the haddock population size increases. The proposed measures rely on observer monitoring of haddock bycatch in the fishery and the use of observer data to implement a haddock bycatch cap.

Re-opening of Scallop Fishing in Groundfish Closure Areas

Northeast multispecies fishery regulations designed to protect rebuilding stocks apply to all fisheries and gears that are capable of catching groundfish species, including scallop dredge fishing. Areas of Georges Bank have been closed to scallop fishing in the past decade, resulting in abundant sea scallop growth. In 2004, NMFS announced that restricted scallop fishing would be allowed in previously closed portions of George's Bank, contingent upon fishing limitations and observer presence. In FY 2005, the Atlantic Sea Scallop Dredge observer program monitored bycatch and discards of groundfish to ensure that scallop dredging operations would not threaten recovering groundfish populations. The fishing ground opened as a result of these regulations produces the largest and most valuable catches of sea scallops in the U.S.

Monitoring Scallop Dredge Interactions with Sea Turtles

In addition to collecting data related to groundfish stocks, the Sea Scallop observer program also monitors the fishery for interactions with endangered and threatened sea turtles. From 2001-2002, observers on board scallop vessels fishing in two recently opened areas recorded high amounts of sea turtle bycatch. In response, observer coverage of the sea scallop fishery was expanded. In 2004, several changes in the fishery, including time and area closures and the voluntary use of an experimental bycatch reduction device, may have contributed to lower levels of sea turtle bycatch recorded by observers. Based on these data, NMFS proposed a rule in May 2005 requiring the use of this gear modification by sea scallop dredge fishermen in times and areas where sea turtle interactions are most likely to occur. The regulation requiring this gear modification will be finalized in 2006. The Atlantic Sea Scallop observer program will be essential in monitoring its effectiveness.

Observer measuring the length of a dogfish (photo credit: Northeast Regional Observer Program).

4.2 Southeast

In FY 2005, Southeast Regional observer programs were allocated $3,559,000. A total of 2,687 sea days were observed by four programs: the Southeast and Gulf of Mexico Shrimp Otter Trawl; Atlantic, Gulf of Mexico, and Caribbean Pelagic Longline Fishery; Southeast Shark Gillnet; and Atlantic and Gulf of Mexico Directed Large Coastal Shark Bottom Longline Fishery (see Appendix 1 for details). With FY 2005 funds, the Southeast Region implemented a pilot observer program for the sink gillnet shark fishery, provided 100 percent observer coverage of the shark gillnet fishery during right whale calving season, and supplied valuable information to fisheries managers on bycatch in the shrimp trawl fishery.

FY 2005 Program Highlights:

Bycatch Monitoring of Finfish in the Southeast Shrimp Trawl Fishery

The Southeastern Shrimp Trawl Fishery is the most valuable fishery in the region and in many years, the most valuable fishery in the U.S. However, bycatch of many important commercial and recreational finfish species in this fishery is of great concern. Onboard fishery observers represent the best method for collecting bycatch data from the shrimp fishery. In FY 2005, the Southeast Fishery Science Center (SEFSC) Shrimp Trawl Observer Program monitored finfish discards, protected species bycatch, and tested the effectiveness of bycatch reduction devices (BRDs) in reducing catch of finfish while retaining shrimp during commercial shrimping operations in the Gulf of Mexico and along the east coast of the U.S. Currently, shrimp fishermen participate only voluntarily in the observer program. Due to high levels of bycatch in this fishery, amendments to the Gulf of Mexico (Amendment 13) and South Atlantic (Amendment 6) Shrimp Fishery Management Plans have been proposed. These amendments would make observer coverage mandatory.

Emergency Measures in the Southeast Shrimp Trawl Fishery

During FY 05, major hurricanes made landfall in the Gulf of Mexico and severely impacted coastal habitats important to protected species as well as devastated the fishing industry. Every state along the Gulf coast was affected. Due to excessive debris on shrimping grounds out to 50 nautical miles off Alabama, Mississippi, and most of Louisiana, NMFS published an emergency authorization for shrimp trawlers to use limited tow times, as an alternative to deploying turtle excluder devices (TEDs). This allowed continued protection of threatened and endangered sea turtles while enabling fishermen to continue fishing without damaging gear. During this time, observers in the Southeast and Gulf of Mexico Shrimp Otter Trawl observer program continued to monitor fishing activities.

Initiation of a Pilot Observer Program for Sink Gillnet Directed Shark Fishery

The Southeast Shark Gillnet Fishery observer program provides 100 percent observer coverage during North Atlantic right whale calving season as mandated by the Atlantic Large Whale Take Reduction Plan regulations and under an ESA Section 7 Biological Opinion. A lower level of coverage is maintained throughout the rest of the year in order to monitor the impact of the fishery on other marine mammal and sea turtle populations. Starting in 2005,this program was expanded to include a pilot program for

monitoring vessels with active directed shark permits that fish using sink gillnet gear. This program will provide information on directed shark landings and the impact of the fishery on shark populations.

4.3 Northwest

In FY 2005, the Northwest Regional observer program received $5,028,000 in funding, including approximately $200,000 in industry funding to support monitoring the at-sea hake fishery (see Appendix 1 for details). A total of 6,184 sea days were observed by the following observer programs: the West Coast Groundfish Limited Entry Trawl; Longline, Pot and Open Access Fisheries; selective trawl Exempted Fishing Permits; State-managed fisheries; Shore-based Hake Mid-Water Trawl Fishery; and the At-Sea Hake Mid-Water Trawl. Yearly observer program data reports and summary analyses for trawl, fixed gear, and near-shore fisheries are made available on the Northwest Fisheries Science Center's webpage (http://www.nwfsc.noaa.gov/).

FY 2005 Program Highlights

New Management Strategies in the Northwest Groundfish Fishery

Prior to 2001, fishery managers were dependent primarily on landing records (fish tickets) to manage west coast groundfish stocks. While fish tickets provided information on retained catch, they did not include information on discard at sea, including discards of several overfished stocks. Managers used data from previous discard studies that were limited in temporal and geographic scope in combination with fish tickets to manage over 80 groundfish species within the West Coast Groundfish FMP. In 2001, observers began collecting data on discards in this fishery. This data has allowed fisheries managers to tailor time and area closures and to reduce bycatch of overfished stocks. The observer program has increased the number of observed groundfish fleets since its inception in 2001, collecting data on the nearshore rockfish fleets and California halibut fleet in addition to the limited trawl and fixed gear fleets. In FY 2005, observer bycatch data aided managers in setting limits to stay within rebuilding plans for overfished stocks. With the benefit of observer data, managers were able to adjust depth based closed areas (Rockfish Conservation Area) on a seasonal basis to allow fishing in depths when and where bycatch was less prevalent.

Electronic Monitoring

The Northwest Region was one of several regions in FY 2005 to experiment with the use of electronic monitoring in one of its fisheries: the shore-based hake fishery. Electronic monitoring systems that collect location and fishing operations information were deployed aboard the catcher vessels participating in the shore-based hake fishery to test whether the systems can be economically applied to confirm maximum retention of catch. Initial analysis indicates positive results from the project.

4.4 Southwest

Southwest Region observer programs monitor several large fisheries along the Pacific coast. In FY 2005, Southwest Observer Programs were able to provide observer coverage for the California/Oregon Pelagic Drift Gillnet Fishery, California Pelagic Longline Fishery, California Coastal Pelagic Purse Seine Fishery, California Highly Migratory Species Purse Seine Fishery, and Pacific Albacore Troll Fishery using $1,000,000 received through the competitive funding process (see Appendix I for details). FY 2005 coverage of the fisheries in this region totaled 499 observed days at sea.

FY 2005 Program Highlights:

California/Oregon Drift Gillnet Fishery

The California/Oregon Drift Gillnet Fishery has a mandated observer coverage level of 20 percent (of the fishing fleet) under the MMPA due to the fishery's level of interactions with marine mammals. In 2005, the Southwest Region met this goal, and in addition was able to conduct studies on finfish bycatch.

California Coastal Pelagic Purse Seine Fishery

The Coastal Pelagic Purse Seine fisheries observer program, initiated in 2004, collects data that are used by the program to develop improved bycatch assessment methodologies for the fishery. The bycatch data compiled through this observer program were shared with the Pacific Fishery Management Council in 2005. Data obtained from observer coverage in the coastal pelagic purse seine fishery were used to make amendments to the Coastal Pelagic Species FMP.

California longline fishery observer with swordfish (Southwest Region Fisheries Observer Program); Observer recording data during a Southern California coastal pelagic purse seine trip targeting squid (Brian Davies, fisheries observer).

4.5 Alaska

Alaskan fisheries are covered by two primary observer programs: the Alaskan Marine Mammal Observer Program (AMMOP), which provides observers for salmon set gillnet fisheries, and the North Pacific Groundfish Observer Program (NPGOP), which covers the Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Trawl, Longline, and Pot Fisheries. Total funding for both programs in FY 2005 was $17,705,000; including approximately $13,000,000 of industry funds for the NPGOP (see Appendix I for details). A total of 35,683 sea days were observed by NPGOP, which included 100 percent observer coverage for vessels larger than 125 feet. AAMOP, which collects data on incidental take of marine mammals and seabirds, targeted 669 permitted fishing vessels in FY 2005. Of the nine MMPA Category II[3] fisheries in Alaska, five have been observed by the AMMOP, including the Prince William Sound drift and set net gillnet fisheries (1990-1991), the Alaska Peninsula drift gillnet fishery (1990), the Cook Inlet drift and set gill net fisheries (1999-2000), and the Kodiak set gillnet fishery (2002 and 2005). Data collected during these rotational observation periods are used in marine mammal stock assessments and are used to determine the impact of the fishery on specific marine mammal populations.

<u>FY 2005 Program Highlights:</u>

NPGOP

Over a period of several years, NMFS has developed an electronic data reporting system whereby NPGOP observers dispersed across a broad geographic range in Alaska enter their data at sea and send it to NMFS daily. This information forms the foundation for catch and bycatch information for NMFS fisheries managers tracking a complex suite of fishery quotas. For example, estimates of halibut bycatch are based on data collected by onboard observers and effective management of the halibut bycatch caps in groundfish fisheries depends on these data being timely and of high quality. In addition, this real time system is also available to the industry members with legal authority to access the information. All data collected by fisheries observers are available to the vessel's owner or their designates through a secure web application in the same time frame it is available to managers. This has several positive effects: it improves data quality as industry members inform the program of any potential errors, it enables industry members to address bycatch issues as they occur (by moving away from high bycatch areas, for example), and it makes NMFS closure decisions more transparent because the industry and NMFS have access to the same data.

Several non-NMFS agencies also rely extensively on these observer data for management and assessment of marine resources, including the International Pacific Halibut Commission, the United States Fish and Wildlife Service, the Alaska Department of Fish and Game, and the North Pacific Fisheries Management Council. The International Pacific Halibut Commission, for example, uses observer data as part of the halibut stock assessment process.

[3] A MMPA Category II fishery is a commercial fishery that causes occasional incidental mortality and serious injury of marine mammals.

AMMOP

The AMMOP collects data to assess the levels and nature of marine mammal and seabird interactions with near-shore commercial salmon fisheries in Alaska. In 2002, the Program began a study of the Kodiak set gillnet fishery in Alitak Bay, which was completed in 2005. Professional observers gathered data on marine mammal-fisheries interactions around Kodiak Island through the set gillnet fishing season. This study provided information to researchers updating marine mammal stock assessment reports and monitoring fisheries bycatch.

Aerial view of Kodiak Island with set gillnet visible in lower right hand corner (photo credit: Amy Van Atten, Northeast Fisheries Science Center- photo from the Alaska Marine Mammal Observer Program website)

4.6 Pacific Islands

The $4,943,000 in funding received in FY2005 for NMFS Pacific Islands fishery observers was spilt between two programs: the Hawaii Pelagic Longline and the Hawaii Bottom Longline (see Appendix I for details). In addition, the region developed a new observer program, the American Samoan Pelagic Longline Observer Program, which is scheduled to begin observer coverage in 2006. All of these programs focus on monitoring interactions between commercial fisheries and sea turtle (e.g. loggerhead, leatherback, and green sea turtles), sea bird, and marine mammal species. Data collected by observers are sent to the Pacific Islands Regional Office and the Pacific Islands Fisheries Science Center so that researchers can calculate official bycatch and discard estimates for marine mammals and sea turtles (released in quarterly reports), produce technical reports, and analyze biological samples. In FY 2005, the Hawaii Pelagic Longline Observer Program and Hawaii Bottom Longline Program covered over 10,626 days at sea, including 100 percent coverage of pelagic longline trips targeting swordfish.

FY 2005 Program Highlights

New Observer Program in American Samoa

The American Samoa Longline Limited Access Program was established under Amendment 11 to the Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region. This limited entry permit system was established to aid in the effective management of pelagic fisheries around American Samoa, helping the industry avoid a ‘‘boom and bust’’ cycle of fishery development that could disrupt community participation and limit opportunity for substantial participation in the fishery by indigenous islanders. The final regulations implementing the program were published in the Federal Register on May 24, 2005, and the program will begin observer coverage of longline vessels in 2006 to collect baseline information on fishery bycatch and discard rates. Vessels longer than 40 feet will be required to carry a NMFS observer if requested. Observers will monitor the longline fishery for catch and bycatch information, particularly interactions with sea turtles and other protected species.

Improving the Quality and Availability of Observer Data

In FY 2005, Observer Program staff participated in the development and implementation of a plan to coordinate the collection, management, and dissemination of data on U.S. fisheries for tunas, billfishes, and other highly migratory species in the Pacific. Program staff also participated in the Highly Migratory Species Data Standards Working Group, which facilitates the standardization of collection, processing, management and dissemination of data for the Region in compliance with the National Data Quality Act.

5. Goals for FY 2006

In FY 2006, NMFS observer programs will continue to provide high quality biological information on fish, marine mammals, sea turtles, and sea bird populations which is relied upon by the Agency to manage the nation's living marine resources. National and regional observer programs will work to enhance data collection methods, strengthen relationships with the commercial fishing community and other stakeholders, and to collaborate on high level projects, such as the National Bycatch Report. More information on NMFS observer programs can be found on the National Observer Program website: http://www.st.nmfs.gov/st1/nop/index.html.

Photos (clockwise from top right):
Observer safety training: man overboard drill (photo credit: NMFS observer program staff); Measuring a sea turtle (photo credit: Southeast Fisheries Observer Program); Hauling in a Turtle Excluder Device (TED) (photo credit: Southeast Region Shrimp Observer Program); Hake catch (photo credit: West Coast At-Sea Hake Fisheries Observer program).

APPENDIX A: NOAA Fisheries Observer Programs Funded in FY 2005

Fishery(ies) observed	Fleet size	Authority to place observers	Season of operation	Funding amount and source(s)	Program duration	Target % coverage and sea days; # of observers	Actual % coverage and sea days; # of observers
PACIFIC OCEAN							
North Pacific Groundfish Observer Program, Alaska Fisheries Science Center, 7600 Sand Point Way, NE, Seattle, WA 98115-0070 Program Manager: William Karp, 206/526-4194, bill.karp@noaa.gov, website: http://www.afsc.noaa.gov/refm/observers/							
Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Trawl, Longline and Pot Fisheries	350 vessels/ 20 shore plants	MSFCMA (50CFR679.50)	year-round	Industry approx. $13,000K; NMFS $4,112K ($1,808K North Pacific Marine Resources Observers; $739K North Pacific Observer Program; $230K American Fish Act; $903K MSA Implementation; $197K Reducing Bycatch; $235K Observer Account)	1973 to present	100% vessels >125 ft; 30% vessels 60-124 ft; plants 30 or 100%; approx. 350-400 observers provide the coverage through industry funding	100% vessels and plants - actual coverage is 100%; 30 % vessels and plants - actual coverage of this group is unknown.* In total, we obtained 35,683 observer days** by 366 distinct observers.
Alaska Marine Mammal Observer Program, Alaska Regional Office, P.O. Box 21668, Juneau, AK 99802-1668 Program Manager: Bridget Mansfield, 907/586-7642, bridget.mansfield@noaa.gov, website: http://www.fakr.noaa.gov/protectedresources/observers/mmop.htm							
Kodiak Alitak Bay Region Salmon Set Gillnet	188 set net permits	MMPA Cat. II (50CFR229)	Jun-Sep	NMFS $593K (Reducing Bycatch)	1999 to present	target 5%; 600+ permit samples 13 observers	Actual % is N/A, (effort data are still being analyzed); 669 permit sampled; 13 observers

Fishery(ies) observed	Fleet size	Authority to place observers	Season of operation	Funding amount and source(s)	Program duration	Target % coverage and sea days; # of observers	Actual % coverage and sea days; # of observers
West Coast Groundfish Observer Program, Northwest Fisheries Science Center, 2725 Montlake Blvd East, Seattle, WA 98112-2097 Program Manager: Jonathan Cusick, 360/332-2793, jonathan.cusick@noaa.gov, website: http://www.nwfsc.noaa.gov/research/divisions/fram/observer/							
West Coast Groundfish Limited Entry Trawl, Longline, Pot and Open Access Fisheries	Limited entry: 181 trawl, 199 longline, 32 trap vessels; other directed fisheries: approx. 1,000	MSFCMA (50CFR660)	year-round	NMFS $4,806K ($3,943 West Coast Observers; $863K National Observer Program)	2001 to present	Limited entry: target 10-20% and 3,000 sea days; approx. 40 observers	Limited entry trawl ~25%; limited entry fixed gear ~20%; ~3,400 sea days; 43 observers
Exempted Fishing Permits (EFP)	California-designed selective trawl EFP	MSFCMA	Oct-Dec	Included in above	2004	100% coverage and 45 sea days	100% coverage; 48 sea days; observers included in number above
State managed fisheries - including Oregon pink shrimp, California Halibut and Spot Prawn	TBD	MSFCMA (50CFR660)	year-round	Included in above	2003	% coverage TBD, 1,000+ sea days (the 40 observers from above also cover these fleets)	Actual % is N/A; sea days included in total number above; 43 observers from above also cover these fleets
Shore-based Hake Mid-Water Trawl Fishery	26 vessels	MSFCMA (50CFR660)	Jun-Aug	Included in above	2004	100% vessels covered; 1,520 days covered w/ electronic monitoring (EM) as pilot program	100% of vessel trips with EM; 2,236 deployment days; no human observers on vessels.

Fishery(ies) observed	Fleet size	Authority to place observers	Season of operation	Funding amount and source(s)	Program duration	Target % coverage and sea days; # of observers	Actual % coverage and sea days; # of observers
At-Sea Hake Mid-Water Trawl Fishery	5 motherships (derby), 7 factory trawlers (coop), native quota	MSFCMA (50CFR660)	May-Oct	Industry approx. $200K NMFS $22K (Reducing Bycatch)	1975 to present	100% coverage; ~450 days; approx. 34 observers	100% of vessels with two observers; ~500 sea days; approx. 30 obs
Southwest Region Observer Program, Southwest Regional Office, 501 West Ocean Blvd, Long Beach, CA 90802-4213 Program Manager: Lyle Enriquez, 562/980-4025, lyle.enriquez@noaa.gov, website: http://swr.ucsd.edu/hcd/fishobs.htm							
California/Oregon Pelagic Drift Gillnet Fishery	60 vessels	MMPA Cat. I (50CFR229)	May-Jan	NMFS $435K ($410K MMPA Protection; $25K Economics)	1990 to present	target 20% and 350 sea days; 12 observers	20% actual coverage; 262 sea days, 11 observers
California Pelagic Longline Fishery	5 vessels	MSFCMA (50CFR660)	Dec-Jun	NMFS $341K (Reducing Bycatch)	2001 to present	target 100% and 300 sea days; 4 observers	50% actual coverage; 16 sea days; 1 observer
Southern California Tuna Purse Seine Fishery	5 vessels	MSFCMA (50CFR660)	Jun-Jul	NMFS $10K (Reducing Bycatch)	new in 2004	target 33% and 15 sea days; 2 observers	20% estimated coverage; 15 sea days, 2 observers
California Coastal Pelagic Species Purse Seine Fishery	70 vessels	MMPA Cat. II (50CFR229)	Jan-Dec	NMFS $115K (Reducing Bycatch)	new in 2004	target 10% and 150 sea days; 10 observers	Coverage not yet estimated/calculated, 150 sea days, 12 observers
Pacific Albacore Troll Fishery	800 vessels	MSFCMA (50CFR660)	May-Nov	NMFS $100K (Reducing Bycatch)	new in 2004	target <1% and 300 sea days	<1% actual coverage; 56 sea days; 3 observers

Fishery(ies) observed	Fleet size	Authority to place observers	Season of operation	Funding amount and source(s)	Program duration	Target % coverage and sea days; # of observers	Actual % coverage and sea days; # of observers
Hawaii Fisheries Observer Program, Pacific Islands Regional Office, 1601 Kapiolani Blvd, Honolulu, HI 96814-4700 Program Manager: John Kelly, 808-944-2202, john.d.kelly@noaa.gov, website: http://swr.nmfs.noaa.gov/pir/index.htm							
Hawaii Pelagic Longline Fishery	164 vessels with permits (112 active)	MSFCMA (50CFR660)	year-round	NMFS $4,943K ($3,943K Hawaii Longline Observer Program; $1,000K Sea Turtle funds)	1994 to present	Tuna: target 20% coverage; 463trips Swordfish: target 100% coverage; 99 trips; approx. 30 observers	Tuna; actual 26.1% coverage; 7,099 sea days Swordfish: actual 100% coverage; 3,294 sea days; 30 observers
American Samoan Pelagic Longline Fishery	46 vessels with permits	MSFCMA (50CFR660) in Jan 2005	year-round	see above	2006	target 20% coverage; 0 trips	No trips completed in 2005
Hawaii Bottom Longline Fishery	9 vessels with permits	MSFCMA (50CFR660)	year-round	see above	2003 to present	target 22%; coverage: 24 trips; 2 observers;	Actual 21.1% coverage; 233 sea days; 2 observers

ATLANTIC OCEAN, GULF OF MEXICO, CARIBBEAN							
Fishery(ies) observed	**Fleet size**	**Authority to place observers**	**Season of operation**	**Funding amount and source(s)**	**Program duration**	**Target % coverage and sea days; # of observers**	**Actual % coverage and sea days; # of observers**
Northeast Fisheries Observer Program, Northwest Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543-1097 Program Manager: David Potter, 508/495-2258, david.potter@noaa.gov, website: http://www.nefsc.noaa.gov/femad/fsb/							
New England Groundfish Trawl and Sink Gillnet Fisheries (also shrimp trawl, bottom longline/tub, herring mid-water pair trawl, whiting trawl)	approx. 1200 trawl vessels and 250 gillnet vessels	MSFCMA (50CFR648); MMPA Cat. I (50CFR229)	year-round	NMFS $9,720K ($8,970K New England Groundfish Observers; $750K MMPA Protection)[1]	1990 to present	target 10% and 8,783 sea days; approx. 76 observers trained for NE and Mid-Atlantic	5% A-days, 50% B-Days of actual coverage; 8900 days; 105 observers
Mid-Atlantic Coastal Gillnet Fisheries (includes monkfish, dogfish, and several state fisheries)	>655 vessels	MMPA Cat. II (50CFR229)	year-round	NMFS $450K (MMPA Protection)	1994 to present	target 4% and 400 sea days; see above for # of observers	Actual coverage % unknown^; 400 sea days; 105 observers
NE and Mid-Atlantic Small Mesh Trawl Fisheries (Squid, Mackerel, Butterfish)	719 permits	MMPA Cat. I (50CFR229.7), MSFCMA (50CFR648)	year-round	NMFS $315K (Atlantic Coast Observers)	2001 to present	<1% coverage and 317 sea days; see above for # of observers	<1% coverage; 320 sea days; 105 observers
Mid-Atlantic Illex squid trawl	Vessels (unknown)	MSFCMA (50CFR648); MMPA Cat. I (50CFR229)	year-round	NMFS $222K (Reducing Bycatch)	2004 to present (?)	<1% coverage and 22 sea days see above for # of observers	<1% coverage; 91 sea days; 105 observers
NE and Mid-Atlantic Large Mesh Trawl Fisheries (summer flounder, bluefish, monkfish, dogfish)	620 vessels (2,138 permits)	MSFCMA (50CFR648)	year-round	NMFS $546K (Atlantic Coast Observers)	1998 to present	<1% coverage and 473 sea days; see above for # of observers	<1% coverage; 490 sea days; 105 observers

Fishery(ies) observed	Fleet size	Authority to place observers	Season of operation	Funding amount and source(s)	Program duration	Target % coverage and sea days; # of observers	Actual % coverage and sea days; # of observers
Atlantic Sea Scallop Dredge Fishery	250 vessels with permits, 185 active	MSFCMA (50CFR648)	year-round	NMFS $638K (Atlantic Coast Observers)	1999 to present	target 5% and 709 sea days; see above for # of observers	Actual coverage % unknown^; 1180 sea days; 105 observers
Southeast Shrimp Trawl Observer Program, Southeast Fisheries Science Center Galveston Laboratory, 4700 Avenue U, Galveston, TX 77551-5997 Program Manager: Liz Scott-Denton, 409/766-3571, Elizabeth.Scott-Denton@noaa.gov, website: http://galveston.ssp.nmfs.gov/galv/research/management.htm#observer_program							
Southeast and Gulf of Mexico Shrimp Otter Trawl Fisheries (including Rock Shrimp and Calico Scallop fisheries)	Approx. 5,000 USCG doc. vessels, unknown no. of state vessels, 411 rock shrimp vessels, 25 calico scallop vessels	voluntary	year-round	NMFS $1,207K ($222K Atlantic Coast Observers; $369K Reducing Bycatch; $616K National Observer Program)	1992 to present	<1% and 1,000 sea days; approx. 7 observers	<1% coverage and 1040 sea days; 7 observers
Atlantic Pelagic Longline Observer Program, Southeast Fisheries Science Center, 75 Virginia Beach Dr, Miami, FL, 33149-1003 Program Manager: Dennis Lee, 305/361-4247, dennis.lee@noaa.gov, website: http://www.sefsc.noaa.gov/							
Atlantic, Gulf of Mexico, Caribbean Pelagic Longline Fishery	125-150 active vessels	MSFCMA (50CFR635), MMPA Cat. I (50CFR229), ATCA	Year-round	NMFS $1,628K ($1,283K Atlantic Coast Observers; $345K East Coast Observers)	1992 to present	target 5-8% and 990 sea days; approx. 10 observers	Coverage ranged from 5-9% observing 1250 seadays; 10 observers. (Includes regular coverage and special CRP project)

Fishery(ies) observed	Fleet size	Authority to place observers	Season of operation	Funding amount and source(s)	Program duration	Target % coverage and sea days; # of observers	Actual % coverage and sea days; # of observers
Southeast Shark Driftnet Observer Program, Southeast Fisheries Science Center Panama City Laboratory, 3500 Delwood Beach Rd, Panama City, FL 32408 Program Manager: John Carlson, 850/234-6541, john.carlson@noaa.gov							
Southeast Shark Gillnet Fishery	4-23 vessels with directed shark permits	MMPA Cat. II (50CFR229), MSFCMA (50CFR635)	year-round	NMFS $293K (Atlantic Coast Observers)	1998 to present	Nov-Mar 100%, Apr-Nov 38%; target 224 sea days; approx. 6 observers	Coverage at 100% and 38%, respectively; 4 observers; approx. 250 observer days***. Coverage also expanded in 2005 (30 sea days) to include all vessels that have an active directed shark permit and fish with sink gillnet gear.
Shark Bottom Longline Observer Program, Southeast Fisheries Science Center Panama City Laboratory, 3500 Delwood Beach Rd, Panama City, FL 32408 Program Manager: John Carlson, 850/234-6541, john.carlson@noaa.gov website: www.sefscpanamalab.noaa.gov/shark/observersBLL.htm							
Atlantic and Gulf of Mexico Directed Large Coastal Shark Bottom Longline Fishery	251 directed shark permits (as of Oct 2002)	MSFCMA (50CFR635)	3 seasons - Jan-April, May-Aug Sep-Nov	NMFS $431K; ($231K Reducing Bycatch, $200K Sustainable Fisheries)	1994 to present	Target 3.9% target 240 sea days; approx. 6 observers;	Program recently transferred to SEFSC in July 2005 and actual % is N/A, (effort data are still being analyzed); 5 observers; 117 sea days for 2nd and 3rd season.

National Observer Program: Office of Science and Technology, 1315 East West Highway, Silver Spring, MD 20910 Director: Dr. Lisa Desfosse, 301/713-2367, lisa.desfosse@noaa.gov website: http://www.st.nmfs.gov/st1/nop/
Funding from the National Observer Program and Reducing Bycatch budget lines is allocated through the Office of Science and Technology to support regional and national observer program activities. Specific allocations to regional observer programs are indicated in the funding levels listed above for specific regional fisheries. The total national funding levels for FY2005 for these two budget lines are $1,479K for the National Observer Program and $2,464 for Reducing Bycatch (observer portion). Funding for specific activities of the National Observer Program was provided through the following funding sources: $150K MMPA; $150K Sustainable Fisheries; $264K Reducing Bycatch.

TOTAL OBSERVER PROGRAM FUNDING FY2005	**$44,691K**
TOTAL INDUSTRY FUNDING FY2005	**$13,200K**
ACTUAL OBSERVER DAYS FY2005	**Approx. 64,824**
TOTAL NUMBER OF OBSERVERS FY2005	**Approx. 644 observers**

[1] A subset of the funds supported New England groundfish management requirements.

* Data to assess the current actual coverage in the 30% fleet is not available and compliance with this requirement has been an enforcement function. For the most recent assessment of compliance in this sector of the fleet see http://www.nmfs.noaa.gov/ole/enfreports/Council_Dec01.pdf.

** The North Pacific Groundfish Observer Program uses observer days rather than observer sea days, because their coverage regulations require observers to be stationed at shoreside plants as well as on vessels.

*** The Southeast Shark Gillnet Fishery Observer Program uses observer days rather than observer sea days because coverage during the right whale calving season (i.e. 100% coverage) requires observers to be stationed at ports where vessels are active to maintain 100% coverage.

^ Until the total effort can be determined in the Northeast fisheries, the actual percentage of observer coverage is unknown.