U.S. National Observer Program and Regional Electronic Technology Implementation Plans for 2016 -2018

NOAA FISHERIES
Office of Science and Technology
Silver Spring, MD

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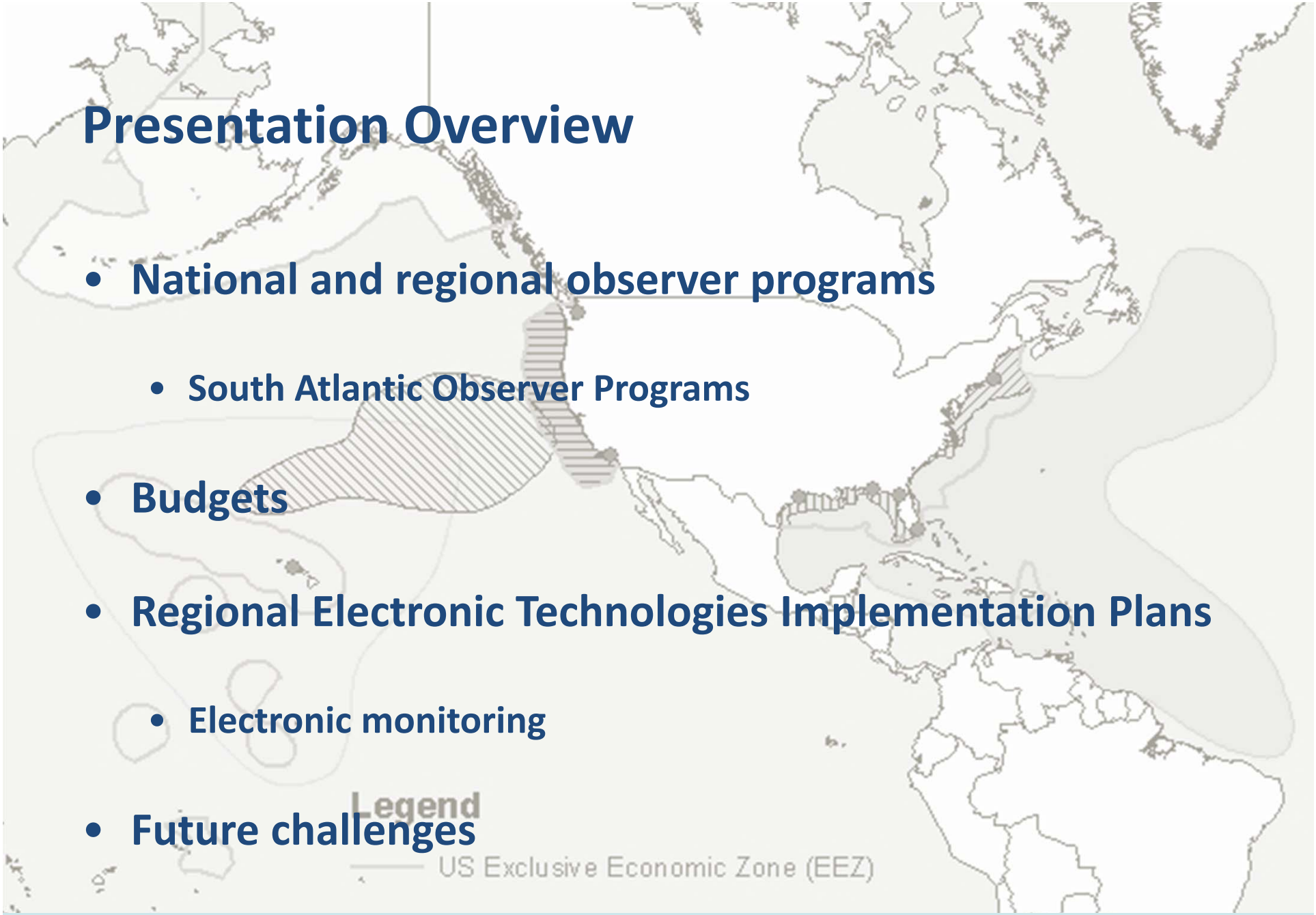
National Observer Program

September 17, 2015

Presentation Overview

- National and regional observer programs
  - South Atlantic Observer Programs
- Budgets
- Regional Electronic Technologies Implementation Plans
  - Electronic monitoring
- Future challenges



National Observer Program (1999)

Mission

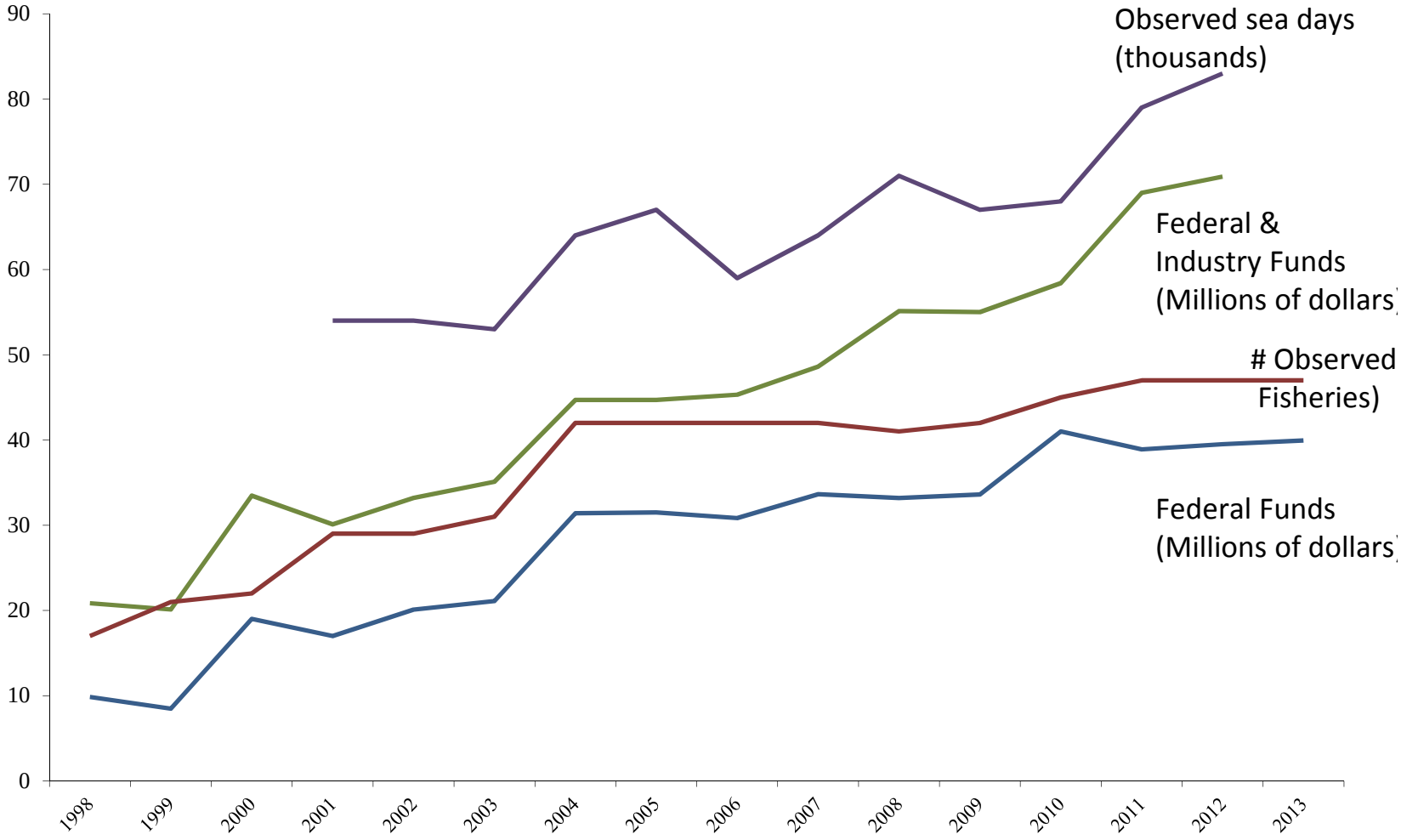
Provide a formalized mechanism for NOAA Fisheries to address observer issues of national importance and to develop policies and procedures to ensure that NOAA Fisheries observers and observer programs are fully supported. The policies must reflect the diverse needs of regional observer programs while enhancing data quality and achieving consistency in key areas of national importance.

Objectives

- **Coordinate the National Observer Program Advisory Team.**
- **Communicate and advocate the mission of the National Observer Program and each regional observer program.**
- **Develop and support national standards and policies to create high quality, cost effective, efficient, and productive observer programs.**
- **Characterize and qualify the activities and resources of NOAA Fisheries observer programs and advocate for full support**

Deploys 900 observers / 79,000 sea days / 48 fisheries

National Observer Program Budget



FY 2015 Observer Budget

($ in Thousands)	FY 2015 Available
PPA: Observers and Training:	
Atlantic Coast Observers	$3,334
East Coast Observers	$333
Hawaii Longline Observer Program	$3,775
North Pacific Observer Program	$5,566
NE Fisheries Observers	$8,226
National Observer Program	$12,305
S. Atlantic/Gulf Shrimp Observers	$1,751
West Coast Observers	$4,807
Subtotal, Observers/Training PPA	**$40,097**
PPA: Reducing Bycatch - Observers Portion Only	**$651**
Total Observers Funding	**$40,748**

FY 2015 Enacted amount for Observers and Training is $43.0 million. FY 2015 Available funding shown above include reductions for Hollings Rescission, Prior year De-obligations, and HQ administrative costs.

FY 2015 Observer Budget by Region

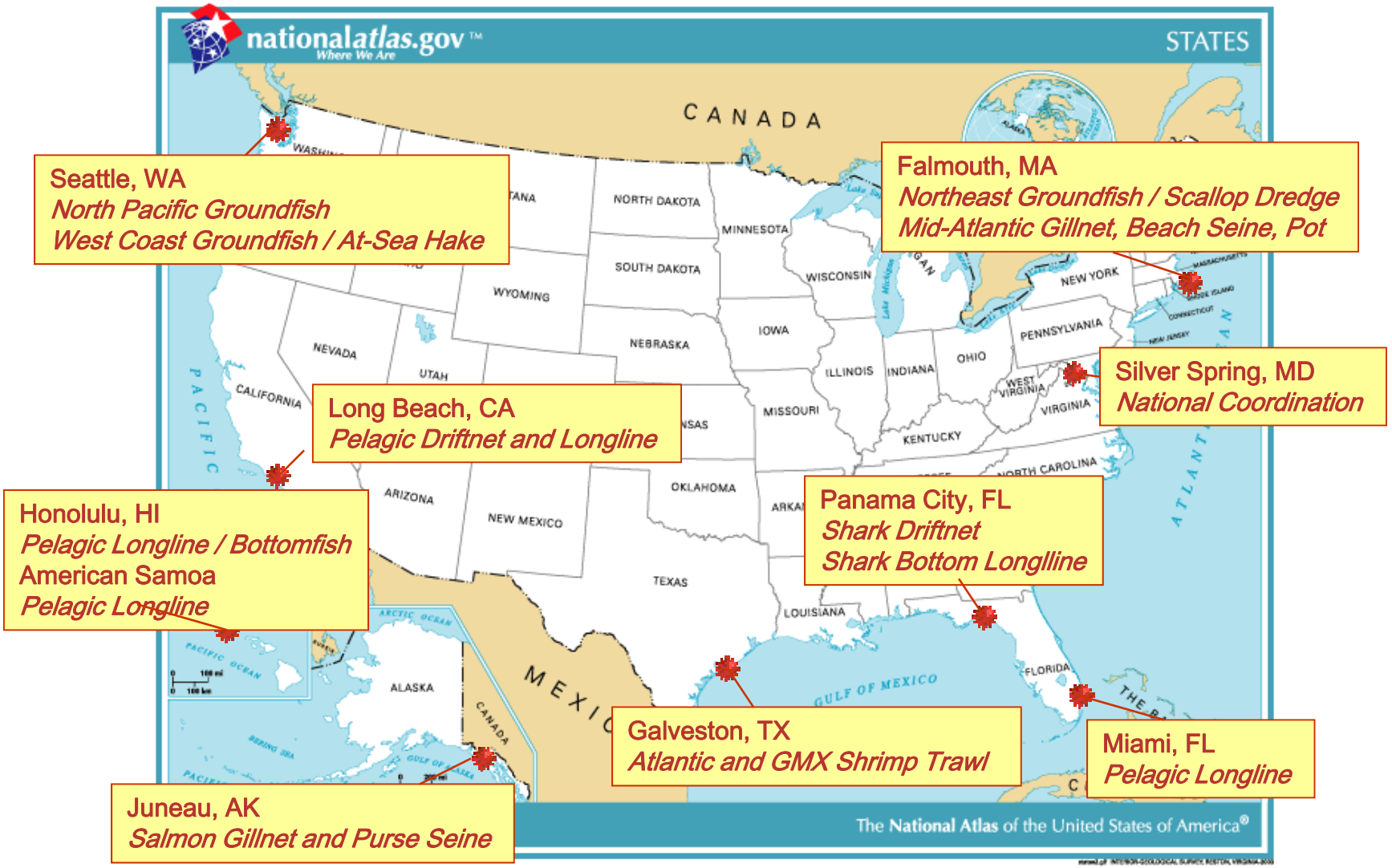
($ in Thousands)	FY 2015 Available	North East	South East	West Coast	North West	Alaska	Pacific Islands	Sci. & Tech.
PPA: Observers and Training:								
Atlantic Coast Observers	$3,334	$1,473	$1,812	$0	$0	$0	$0	$49
East Coast Observers	$333	$0	$333	$0	$0	$0	$0	$0
Hawaii Longline Observer Program	$3,775	$0	$0	$0	$0	$0	$3,775	$0
North Pacific Observer Program	$5,566	$0	$0	$0	$0	$5,566	$0	$0
NE Fisheries Observers	$8,226	$8,226	$0	$0	$0	$0	$0	$0
National Observer Program	$12,305	$5,039	$1,036	$1,039	$958	$1,556	$2,085	$592
Electronic Monitoring/Reporting	*[$900]*	*[$0]*	*[$56]*	*[$174]*	*[$200]*	*[$375]*	*[$95]*	*[$0]*
S. Atlantic/Gulf Shrimp Observers	$1,751	$0	$1,751	$0	$0	$0	$0	$0
West Coast Observers	$4,807	$0	$0	$0	$4,807	$0	$0	$0
Subtotal, Observers/Training PPA	**$40,097**	**$14,738**	**$4,932**	**$1,039**	**$5,765**	**$7,122**	**$5,860**	**$641**
PPA: Reducing Bycatch - Observers Portion	**$651**	**$94**	**$94**	**$94**	**$94**	**$94**	**$94**	**$87**
TOTAL	**$40,748**	**$14,832**	**$5,026**	**$1,133**	**$5,859**	**$7,216**	**$5,954**	**$728**

FY 2015 Enacted amount for Observers and Training is $43.0 million. FY 2015 Available funding shown above include reductions for Hollings Rescission, PY De-obligations, and HQ administrative costs.

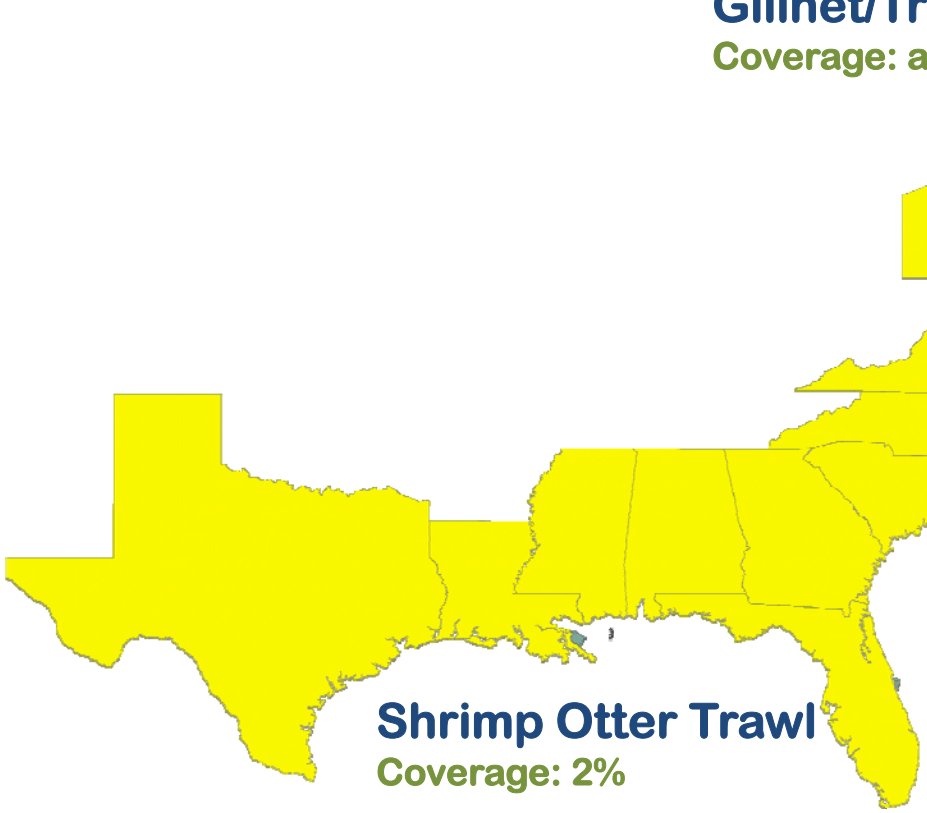
Responsibilities of Regional Observer Programs

- Sampling protocols and coverage levels
- Safety training
- Observer deployment
- Observer debriefing
- Data management
- Data analysis

Location of Regional Programs



Atlantic Ocean and Gulf of Mexico 2013 coverage



NE Groundfish Gillnet/Trawl
Coverage: approx. 8%

NE Scallop Dredge
Coverage: 5-20% based on permit type & area fished

Mid-Atlantic Large and Small Mesh Trawl
Coverage: approx. <8%

Herring Trawl (incl. Pair Trawl)
Coverage: 20%

Mid-Atlantic Coastal Gillnet/Pot/Seine
Coverage: <8%

Shrimp Otter Trawl
Coverage: 2%

Atlantic Pelagic Longline
Coverage: 10%

Atlantic Shark Bottom Longline
Coverage: approx. 5%

S Atlantic Shark Driftnet
Coverage: 38%

3 South Atlantic Fishery Observer Programs

- **Southeast Gillnet**
- **Shark Bottom Longline**
- **Mid-shelf and deepwater reef fish**

Southeast Gillnet Fishery Observer Program

Administered by SEFSC-Panama City Laboratory

- Relatively small boats: 25 – 40 ft. length
- Vessels fish North Carolina to Texas
- Trips are usually overnight
- Most vessels change species targeted and gear type frequently: sharks, mackerel, bluefish, croaker, dogfish
- Gear:
  - Drift, Strike and Sink

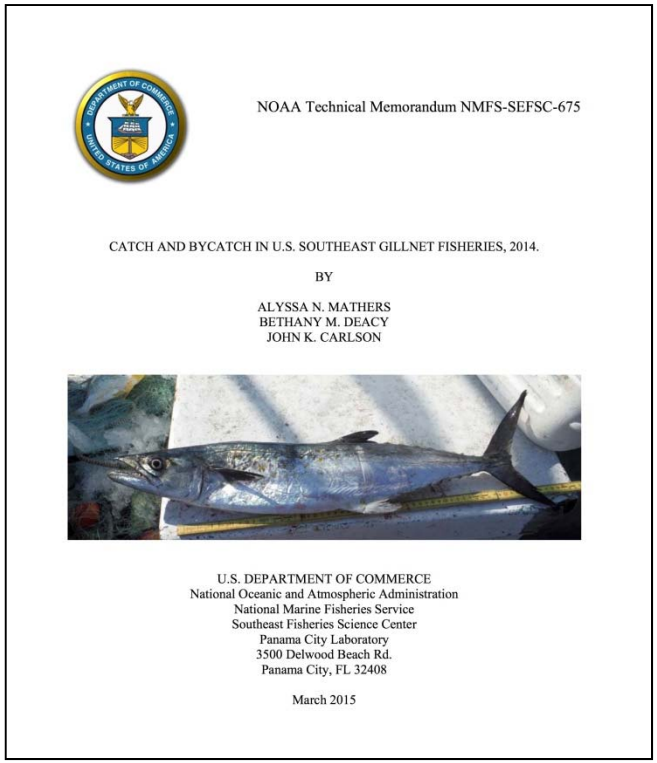
Southeast Gillnet Fishery Observer Program (cont.)

Goals

- Vessels are selected for coverage by randomly choosing vessels from a pool of vessels each quarter based on
  - Reported using gillnets in the same season of the previous year
  - Target coverage 8-10%
- Provide estimates of sea turtle or marine mammal interactions occurring within all gillnet fisheries in the southeast US
- Collect data on catch and bycatch of all species of fish, shark, and protected resources
  - Bioprofile samples taken on select species

Southeast Gillnet Fishery Observer Program (cont.)

Annual reports describing effort distribution, catch and bycatch available at:



NOAA Technical Memorandum NMFS-SEFSC-675

CATCH AND BYCATCH IN U.S. SOUTHEAST GILLNET FISHERIES, 2014.

BY

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March 2015

http://www.sefsc.noaa.gov/labs/panama/ob/gillnet.htm

Shark Bottom Longline Fishery Observer Program

Administered by SEFSC-Panama City Laboratory

- Vessels fish North Carolina to Louisiana
- Trips are 1-3 days in length
- Target large coastal sharks (e.g. blacktip, bull, sandbar sharks)
- Longline characteristics vary but gear normally consists of about 8-24 km of longline and 500-1500 hooks

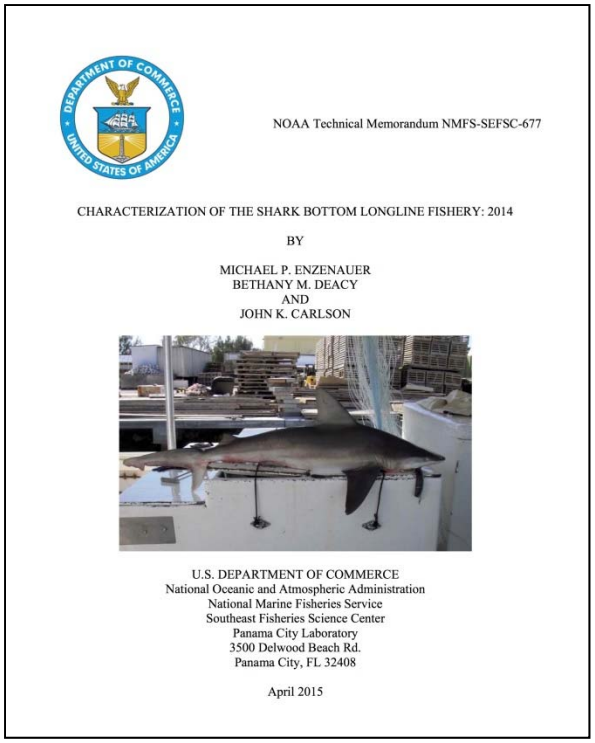
Shark Bottom Longline Fishery Observer Program (cont.)

Current Goals of Observer Program

- Vessels are selected for coverage by randomly choosing vessels from a pool of vessels each quarter based on
  - Reported using longline and target shark in the same season of the previous year
  - Target coverage 5-10%
- Shark Research Fishery– 5-10 vessels, 100% coverage, allowed to harvest sandbar shark
  - Research Fishery also functions to conduct gear modification experiments to reduce bycatch with aid of industry
- Provide estimates of sea turtle or marine mammal interactions
- Collect data on catch and bycatch of all species of shark, fish and protected resources
  - Bioprofile samples taken on select species

Shark Bottom Longline Fishery Observer Program
(cont.)

Annual reports describing effort distribution, catch and bycatch available at:



NOAA Technical Memorandum NMFS-SEFSC-677

CHARACTERIZATION OF THE SHARK BOTTOM LONGLINE FISHERY: 2014

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http://www.sefsc.noaa.gov/labs/panama/ob/bottomlineobserver.htm

Characterization of the southeastern U.S. Atlantic mid-shelf and deepwater reef fish fisheries

- Gulf and South Atlantic Fisheries Foundation administers a voluntary reef fish observer program to characterize catch and discards within the snapper-grouper vertical hook-and-line fishery
    - vessels not randomly sampled
    - no biological samples collected

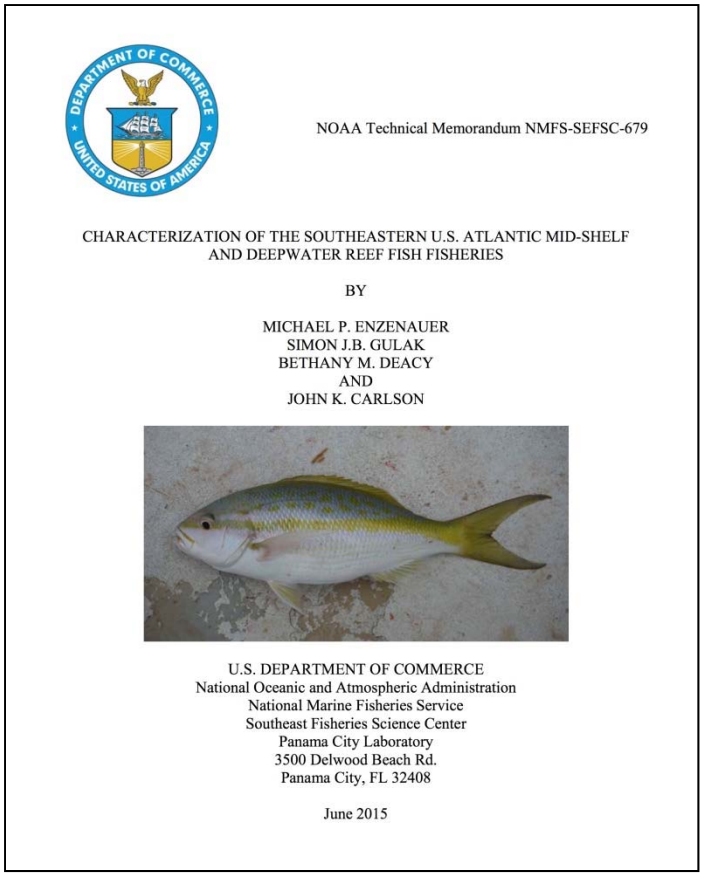
- Need for 1) more information about mid and deepwater species and 2) better on-board documentation of composition and disposition of commercial catch and biological sampling as needed for assessments

Characterization of the southeastern U.S. Atlantic mid-shelf and deepwater reef fish fisheries (cont.)

- From Feb 2014-Jan 2015, a MARFIN award allowed for the initial placement of SEFSC observers with an overall target of 62 sea days randomly spread throughout the fishery
- Program was not funded past one year.

Characterization of the southeastern U.S. Atlantic mid-shelf and deepwater reef fish fisheries (cont.)

- A total of 27 trips on 15 vessels with a total of 408 vertical line and trolling hauls were observed
- Mean sampling rate for biological samples (otoliths and gonads) averaged ~4.0 samples per sea day for vermillion snapper, red porgy, red snapper, gag grouper, and gray and yellowtail snapper.
- Funding sought for 2016 from the Atlantic Coastal Cooperative Statistics Program



NOAA Technical Memorandum NMFS-SEFSC-679

CHARACTERIZATION OF THE SOUTHEASTERN U.S. ATLANTIC MID-SHELF AND DEEPWATER REEF FISH FISHERIES

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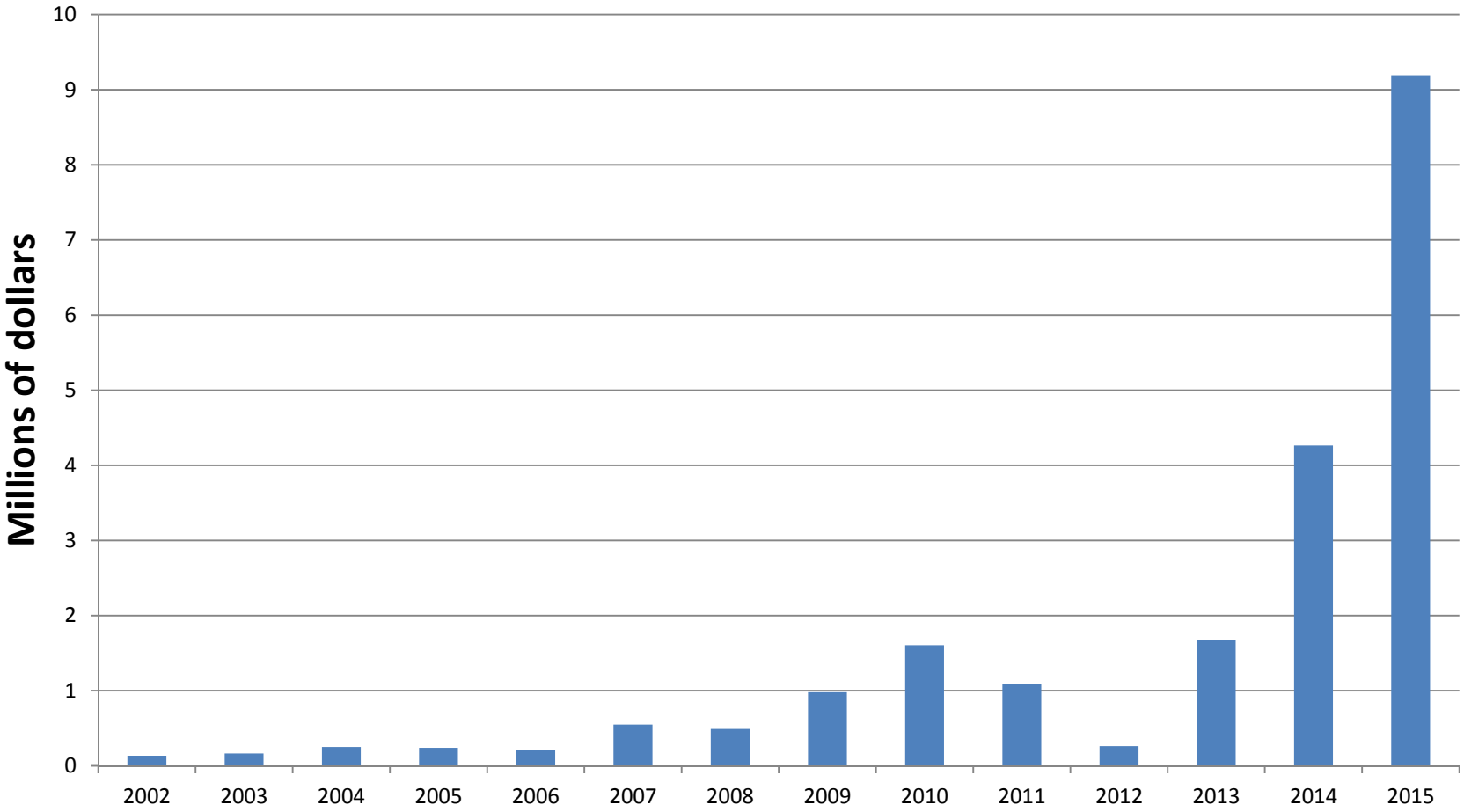
Regional Electronic Technologies Implementation Plans

Electronic Reporting (ER) & Electronic Monitoring (EM)

	Pacific Islands	Alaska	West Coast	Southeast	Greater Atlantic	Atlantic Highly Migratory
ER in place						
new ER in next 2 years			all fisheries			
future ER for observers						
EM in place		4 fisheries				
New EM in next 1-2 years			Groundfish 2015		Groundfish 2016	
New EM in 3-5 years		Small boat / fixed gear 2018	Groundfish 2016, Drift Gillnet Fishery 2018	Shrimp to monitor for sawfish 2018	Herring & Makcerel 2017	
VMS in place						
Future VMS plans						
Private angler recreational fishing			2018-2020			
For-hire fishery			2018-2020			
Cost estimates						
Costs addressed generally						
Cost share components			groundfish FMP	shrimp ER		
Fishery dependent data modernization				future plan	2017	
ER for biological data						

Electronic Technologies Budget (all sources)



Overview of Electronic Monitoring

EM (video monitoring) purposes include:

- **Compliance monitoring** – are regulations being followed (fishery and protected species)
- **Management** – data to support real-time management (individual vessel quotas, catch limits)
- **Scientific data collection** – assessments, socioeconomic, ecological and ecosystem research, bycatch reporting

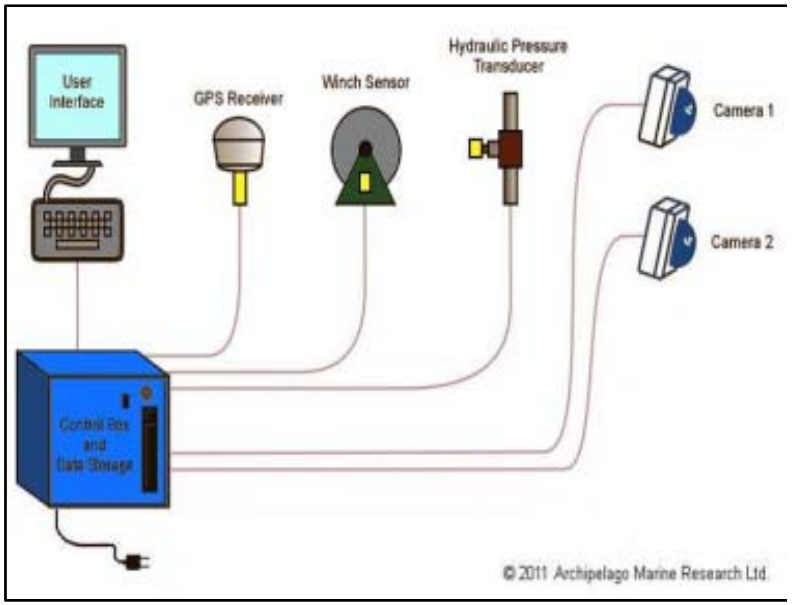
NOAA Fisheries has funded
> 30 EM pilot projects.

5 EM programs ~ implemented:

Atlantic HMS and 4 Alaska groundfish fisheries

3 EM programs ~ pre-implementation

Northeast, West Coast, and Alaska



EM Lessons Learned (So Far . . .)

- Potential Benefits
  - Suitability across a wide range of vessel sizes
  - Compliance tool for monitoring requirements or prohibitions
  - Fully integrated data collection tools that can create a profile of fishing activity at sea
  - Potentially lower costs (*yet to be determined*)
  - 24/7 operation on many vessels
- Challenges
  - Species identification
  - Estimating weights of discarded species
  - Archiving and storing huge amounts of data
  - Costs and time delays associated with analysis of EM data
  - Regulatory and operational constraints, including enforcement

Future Challenges

- Flat federal budget does not allow for increased observer coverage.
- Pressure to implement electronic monitoring programs.
- Lack of consistency in industry funding of observer programs (and possibly electronic monitoring) around the United States.

Thank You!

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