Atlantic Fleet Training and Testing (AFTT) Supplemental Environmental Impact Statement (SEIS)/ Overseas Environmental Impact Statement (OEIS) Brief

South Atlantic Fishery Management Council Habitat Advisory Panel

Nov 2, 2023

Overall Classification:

Agenda

Navy At-Sea Environmental Planning

- Overview of Navy environmental planning compliance

AFTT Environmental Compliance History

- Environmental compliance from 2009 to present

Upcoming AFTT Supplemental EIS/OEIS

- Proposed Action/Purpose and Need
- Analysis Overview and Activities

Mitigation

- Procedural & Geographic mitigation
- Monitoring Program

AFTT Habitats and Seafloor Resource Areas

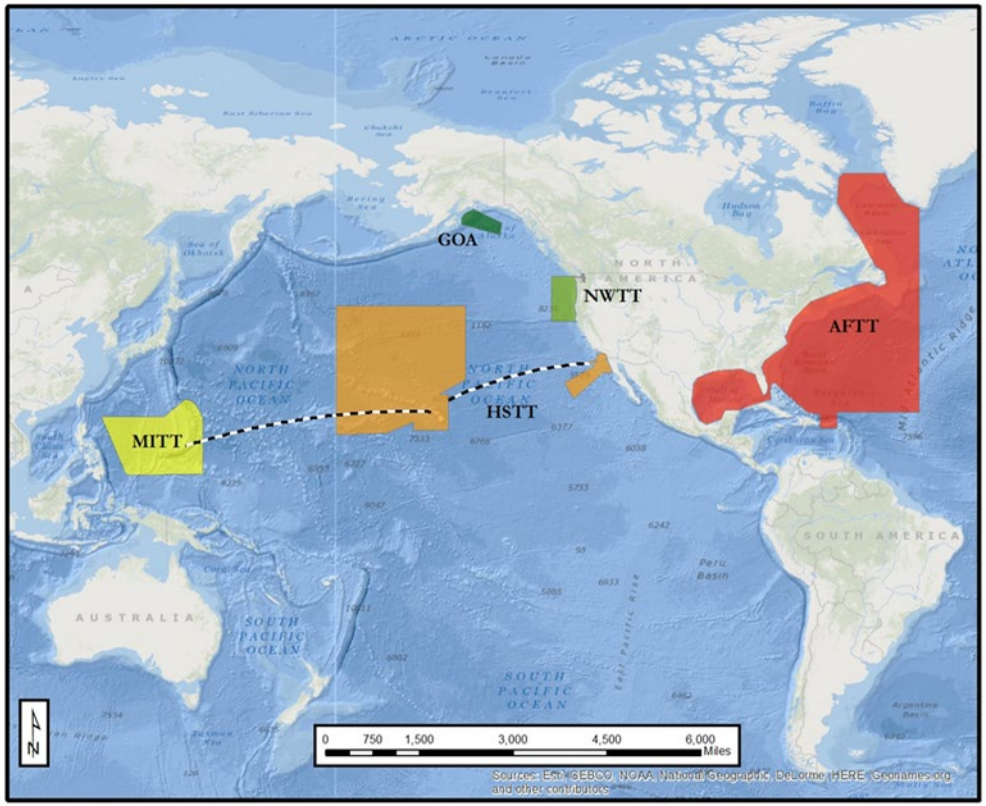
- Habitat Mitigations
- Protective Measures Tool

Public Engagement Next Steps

At-Sea Environmental Planning

The Navy is committed to the National Environmental Policy Act (NEPA) process and complies with all applicable federal, state, and local environmental laws and regulations such as:

- Marine Mammal Protection Act
- Endangered Species Act
- Magnuson Stevens Fishery Conservation & Management Act
- National Marine Sanctuaries Act
- Coastal Zone Management Act
- National Historic Preservation Act



At-sea compliance occurs in both the Atlantic and Pacific Oceans

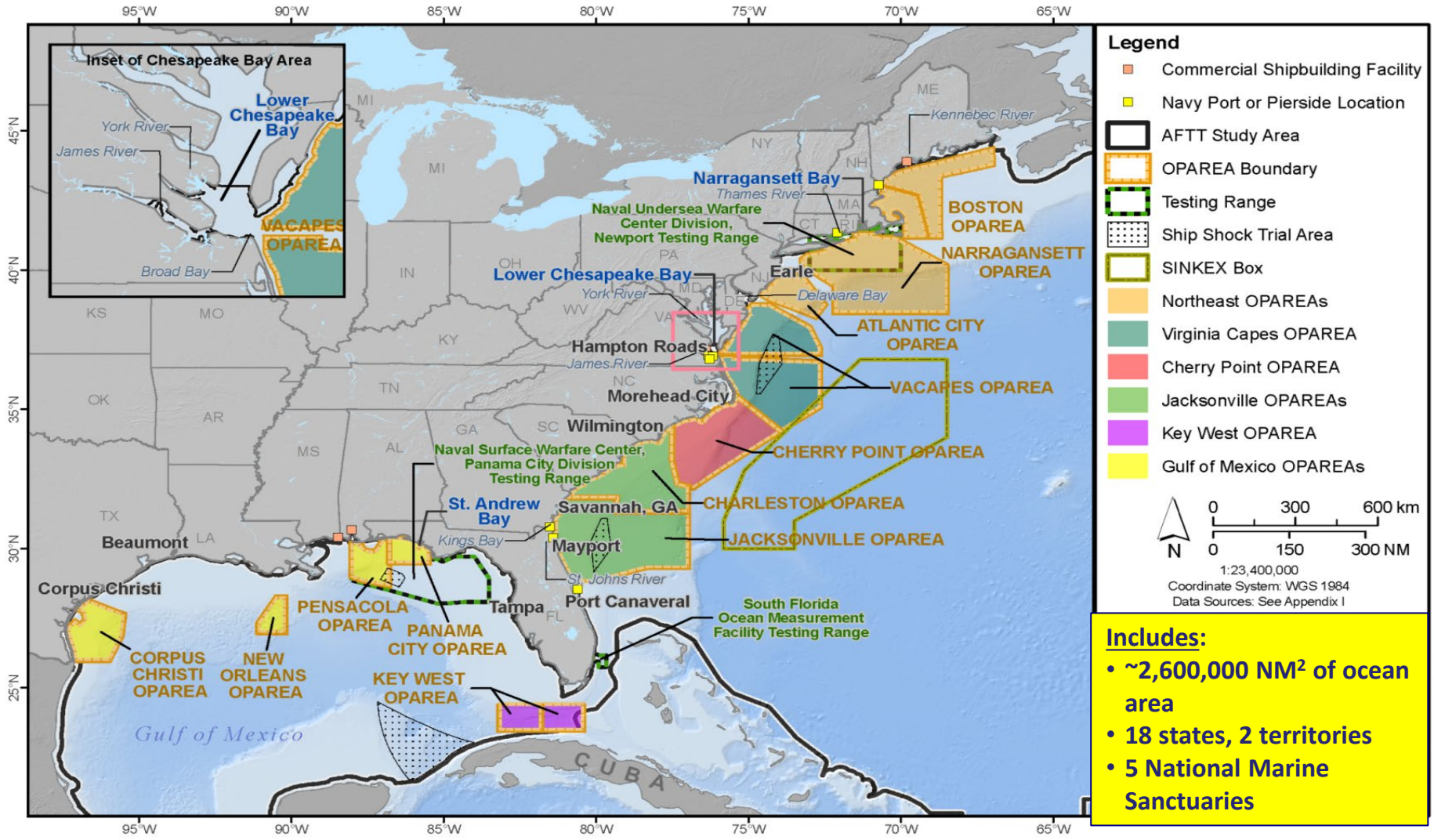
At-Sea Environmental Planning

Navy's compliance program evaluates the impacts of military readiness activities on the environment and minimizes effects on protected resources while supporting military readiness

Complying with environmental regulations requires balancing readiness and environmental impacts

Environmental compliance supports the Navy's continued access to at-sea and near shore training areas and ensures a prepared Navy

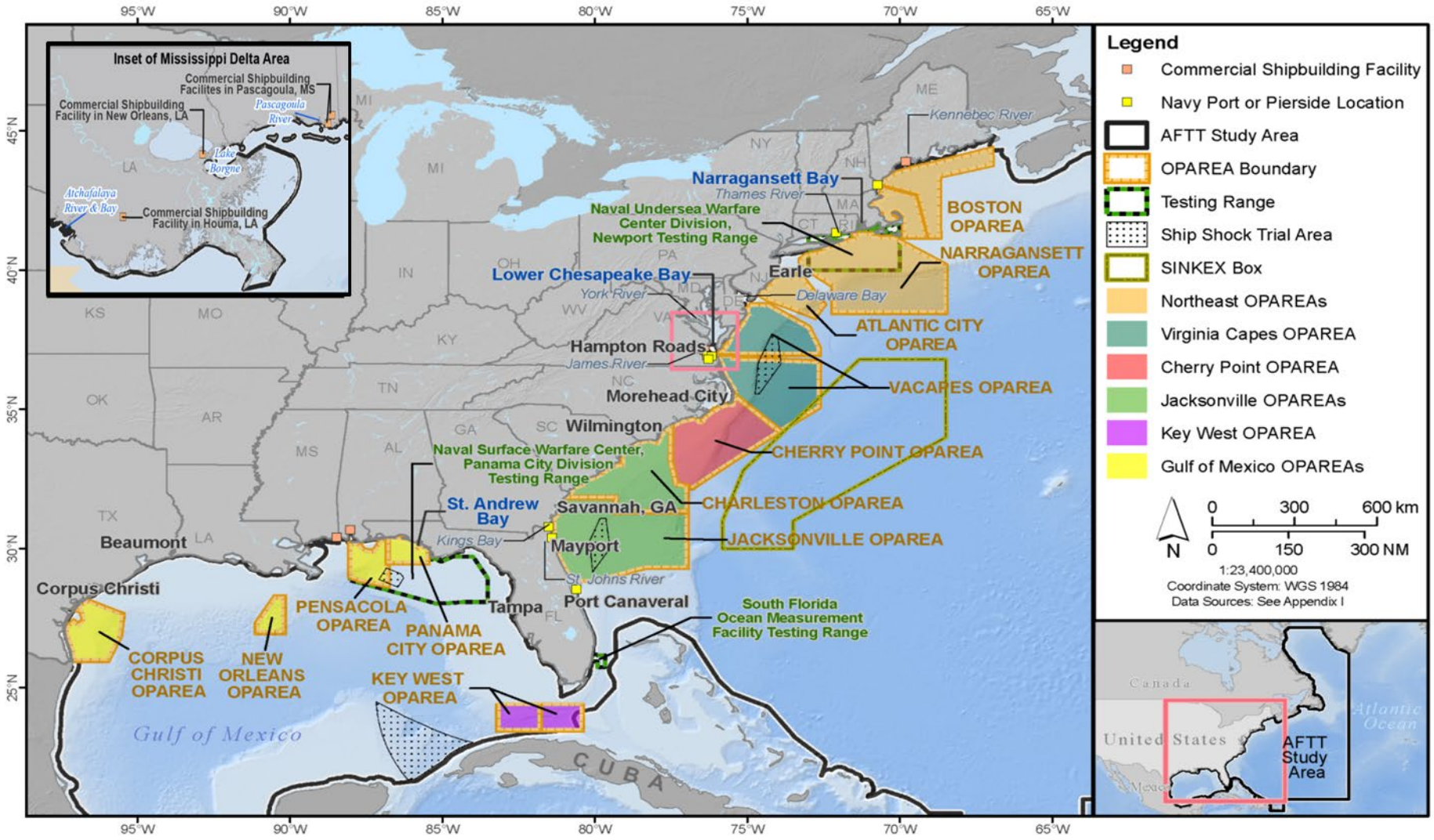
AFTT Study Area



Includes:

- ~2,600,000 NM² of ocean area
- 18 states, 2 territories
- 5 National Marine Sanctuaries

AFTT Study Area



AFTT Compliance History

- Navy training and testing must comply with NEPA, MMPA, ESA, and other environmental statutes, such as NMSA
- Phases I & II MMPA permits effective for five years; Phase III permit and beyond extended to seven years per NDAA FY19

2009-2013	2013-2025	2025-2032
Phase I: 7 EISs	**Phase II & III: 1 AFTT EIS**	**Phase IV: 1 AFTT SEIS**

Permitted
• Sonar (14 sources)
  ○ Mid-frequency
  ○ High-frequency
• Explosives (10 sources)
	Permitted
	• Sonar (300+ sources)
	  ○ Low-frequency
	  ○ Mid-frequency
	  ○ High-frequency
	• Explosives (30+ sources)
		• Supplemental EIS
		  ○ Narrowed focus to permitted activities and significant changes, including sonar and explosives

Phase I (2009-2013)

Navy's first comprehensive analyses for training:

- Atlantic Fleet Active Sonar Training (AFAST)
- 5 individual Operating Area (OPAREA) EISs
- Construction of Undersea Warfare Training Range (USWTR)
- NAVSEA testing at Panama City

Phase II (2013-2018) & III (2018-2025)

Consolidated 7 separate EISs into 1 EIS covering all Atlantic Fleet training and SYSCOM testing requirements.

- Incorporated new and relevant science
- Improved marine mammal and sea turtle density information
- Improved acoustic effects model and revised exposure criteria

Phase IV (2025-2032)

Leverage efficiencies gained in Phases II and III.

- Supplemental analysis
- Incorporated new and relevant science
- Improved marine mammal and sea turtle density information
- Improved acoustic effects model and revised exposure criteria

Proposed Action/Purpose & Need

Proposed Action

- Continue training and testing activities in the AFTT Study Area for the reasonably foreseeable future

Purpose and Need

- **Navy**
  - To maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas consistent with 10 Section 8062 of the United States Code
- **NMFS**
  - To evaluate the Navy's Proposed Action pursuant to NMFS's authority under the MMPA, and to make a determination whether to issue incidental take regulations and Letters of Authorization, including any conditions needed to meet the statutory mandates of the MMPA

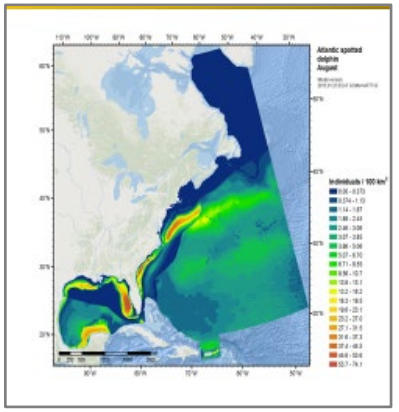
The Notice of Intent is scheduled to be published in the Federal Register on November 17, 2023

- The Draft SEIS/OEIS will be published and out for comment in Fall 2024

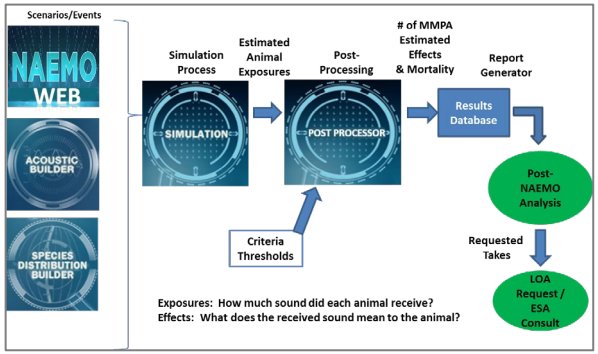
AFTT Analysis Overview

Requirements/Activity Data

Environmental Inputs



Navy Acoustic Effects Model (NAEMO)



Modeling

Document Development

Stressor Identification

(Resource dependent)

Types of Activities Analyzed

Primary Mission Area	Activities
Air Warfare	Air combat maneuvers, Gunnery exercises, Missile exercises
Amphibious Warfare	Amphibious raid/humanitarian assistance operations, Amphibious assault, Amphibious vehicle maneuvers
Surface Warfare	Bombing exercises, Gunnery exercises, Laser targeting, Maritime security operations, Missile exercises
Anti-Submarine Warfare	Torpedo exercises, Submarine tracking exercises
Electronic Warfare	Counter targeting - chaff & flare, Electronic warfare operations
Expeditionary Warfare	Dive & salvage operations, Maritime security operations, Underwater construction team training
Mine Warfare	Mine laying, Civilian port defense, Mine countermeasures, Explosive Ordnance Disposal
Other Training Activities	Precision anchoring, Search & Rescue, Submarine navigation, submarine sonar maintenance
RDT&E	Acoustic & Oceanographic Research
All	Vessel movements associated with training & testing, RDT&E, maintenance, deployment transits

Stressors & Resources Analyzed

Stressors

Acoustics
- Sonar & other transducers
- Pile driving
- Vessel noise

Explosives
- Explosions in air
- Explosions in water

Energy
- Electromagnetic devices

Physical Disturbance & Strike
- Vessels & In-water devices
- Military expended materials
- Seafloor devices

Entanglement
- Wires & Cables
- Decelerators & Parachutes

Ingestion Stressors
- Military expended materials – munitions
- Military expended materials – other than munitions

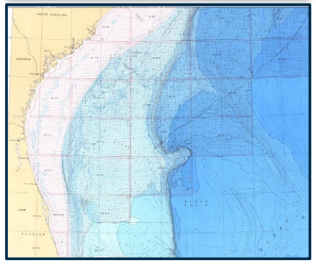
Biological Resources

- Vegetation
- Invertebrates
- Habitats
- Marine Mammals
- Birds & bats
- Reptiles
- Fishes

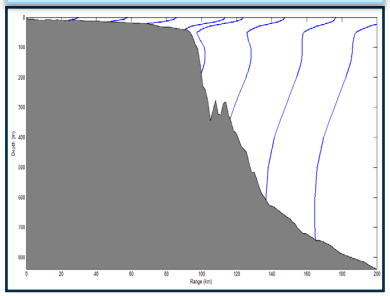
Environmental Inputs

WIND SPEED
Surface Roughness

Bathymetry

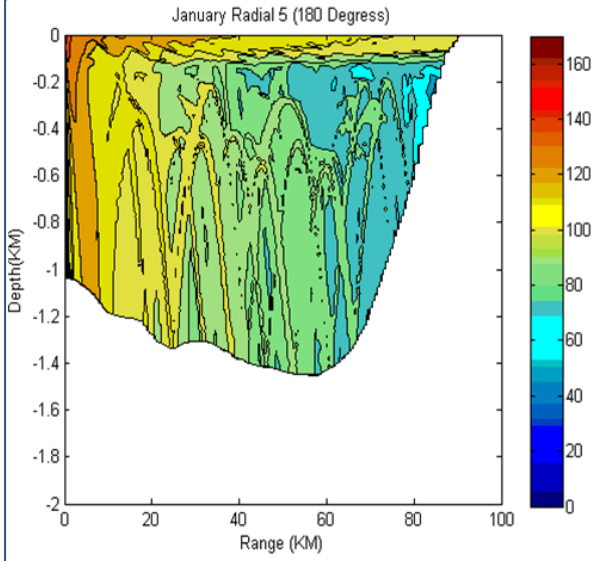


Sound Speed Profile

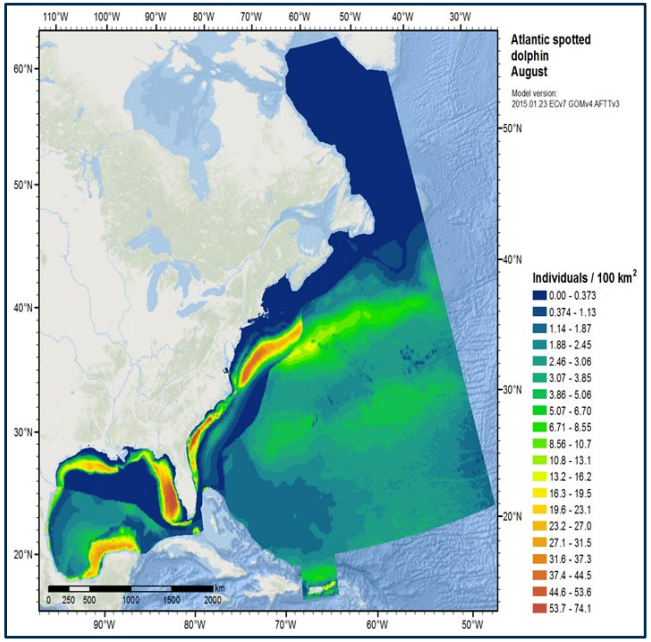


BOTTOM PROPERTIES
Frequency dependent

Sound Propagation



Density Layer



Physical Data

Biological Data

NAEMO Model

Activity Data Inputs

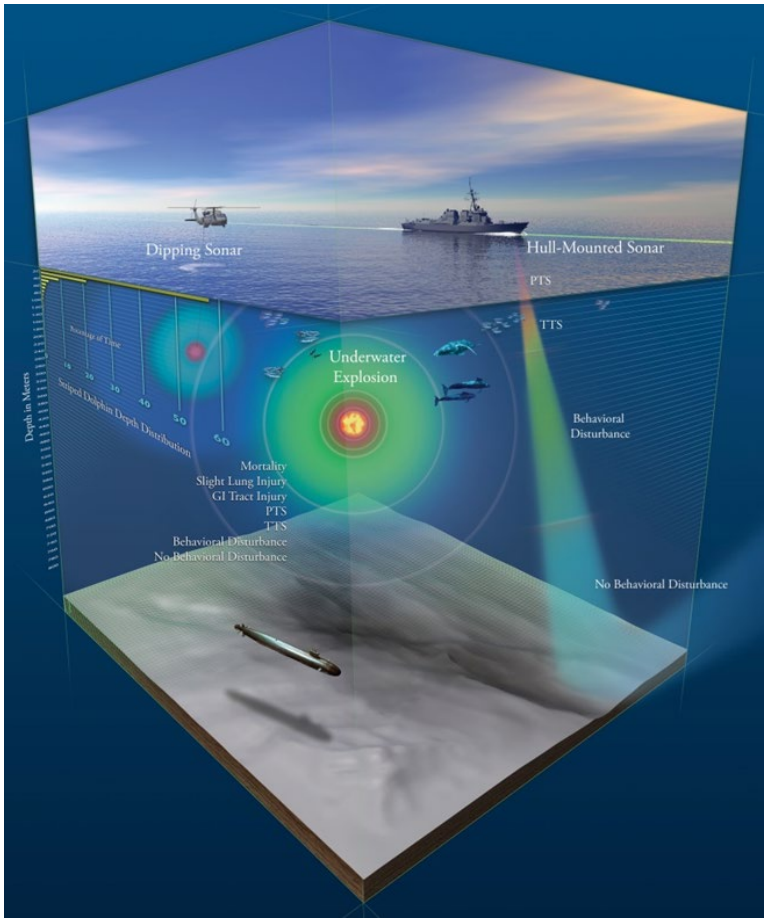
ACOUSTIC BUILDER

SPECIES DISTRIBUTION BUILDER

SIMULATION

Results

ACOUSTIC EFFECTS ANALYSIS



AFTT Research & Monitoring

Research

- The Navy is a world leader in marine mammal research, investing over $20 million in research and monitoring each year
- Key research goals include understanding the effects of sound on marine mammals, the development of improved protective measures, and improved tools to model and estimate potential impacts
- The data obtained from theses programs ultimately ensures the Navy is able to meet specific requirements for analysis, monitoring, and reporting on military readiness activities involving active sonar and underwater explosives, and to comply with the ESA and MMPA
- The Navy's research and monitoring efforts provide key contributions not only to the scientific community's understanding of marine mammals, but to sea turtles, fishes, corals, ocean bottoms, and marine habitats as well

Navy Marine Species Monitoring Program

- Mission: monitor and assess the effects of Navy training and testing activities on protected marine species in compliance with MMPA/ESA permits and authorizations
- Focus areas: species distribution, abundance, habitat use, ecology and behavioral response
- For more info: https://www.navymarinespeciesmonitoring.us/

AFTT Monitoring Projects

- **Behavioral Response Study:** Assess the responses of beaked & pilot whales to mid-frequency tactical sonar
- **North Atlantic right whale monitoring:** Assess occurrence & seasonal distribution in the mid-Atlantic region
- **Baleen whale monitoring:** Assess occurrence, habitat use, & baseline behavior of baleen whales in the mid-Atlantic region, especially in response to ship traffic
- **Sea turtle tagging:** Telemetry tagging of sea turtles to improve density estimates & habitat models through collection of habitat use & availability bias data
- **Rice's whale in the Gulf of Mexico:** Developing automated call detectors & analyzing passive acoustic data collected from the core habitat
- **Passive acoustic monitoring (PAM) and analysis:** Joint project with NMFS, using high frequency acoustic recording package (HARP) PAM buoys deployed at 16 locations along the Atlantic continental shelf break to assess occurrence, habitat associations, density, & vocal activity of marine mammals

AFTT Mitigation

Mitigation Measures

Before and during training & testing events, the Navy implements protective measures, developed in coordination with regulators including NMFS, to reduce the potential for our activities to impact marine species

Lookouts

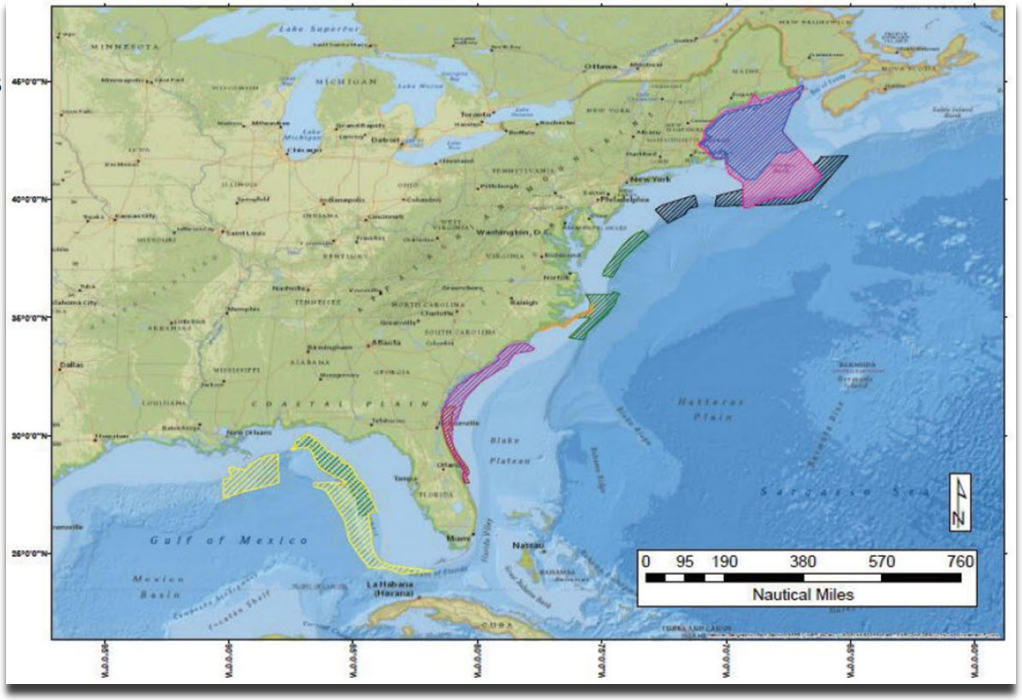
- Responsible for visually observing mitigation zones to meet Navy's mitigation requirements
- The number of Lookouts designated for each training & testing activity is dependent upon the number of personnel involved in the activity & the number & type of assets available

Procedural Mitigation Zones

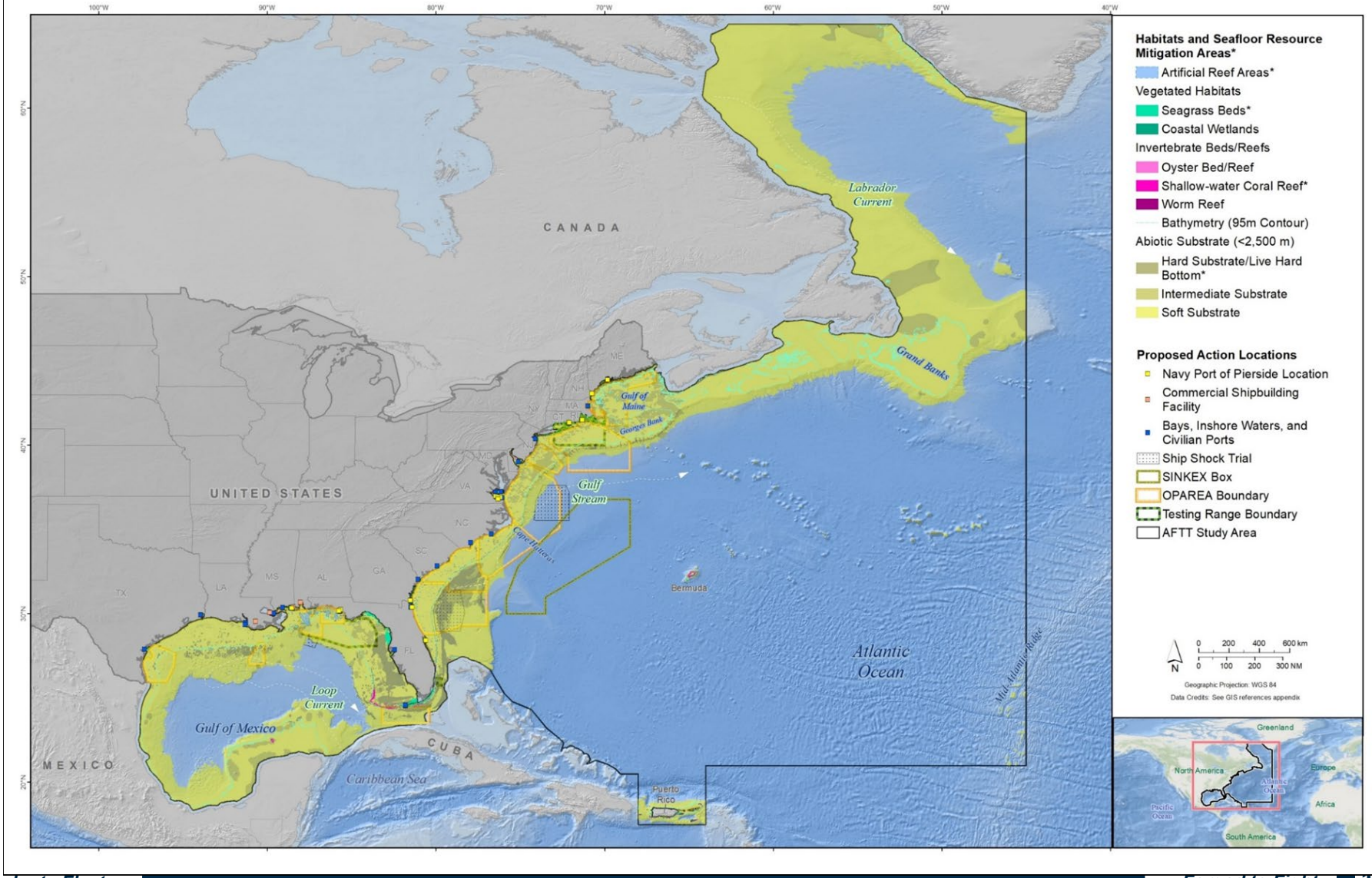
- Areas where training & testing activities will be halted, powered down, or modified to protect biological resources from impacts
- Vary depending on activity

Geographic Mitigation Areas

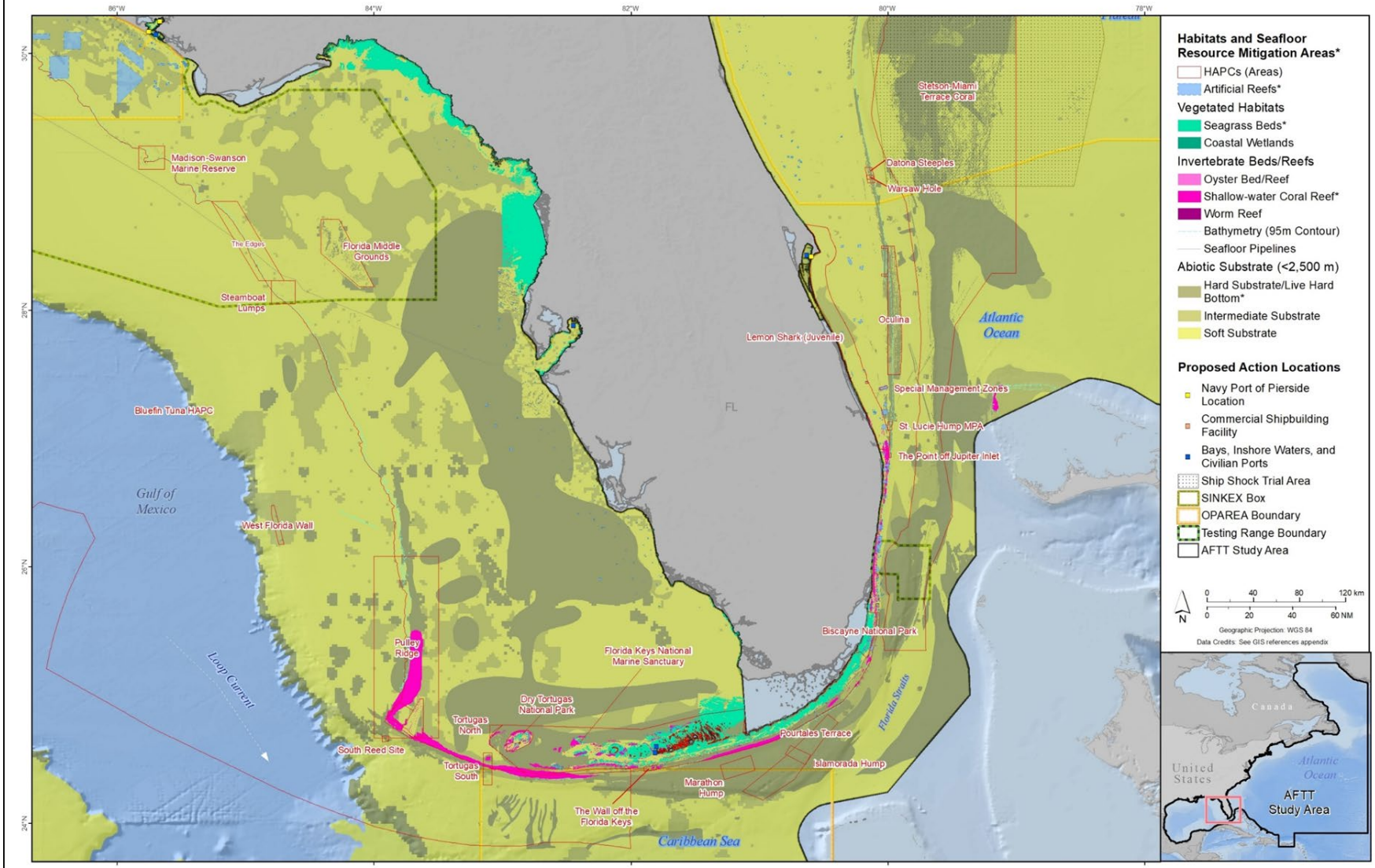
- Locations where mitigation measures are implemented to avoid or reduce potential impacts on biological or cultural resources that are not observable by Lookouts from the water's surface
- These areas are developed specifically for a species or habitat
- Example:
  - Avoiding training and testing with explosives as well as minimizing active sonar within the North Atlantic right whale Critical Habitat off the Southeast U.S. during calving season (15 November to 15 April)



AFTT Habitats and Seafloor Resources Areas



Florida Habitats and Seafloor Resources Areas



Artificial Reef, Live Hard Bottom, Submerged Aquatic Vegetation, and Shipwreck Mitigation Area

Stressor or Type	*Mitigation Requirements*
Explosives	The Action Proponent will not detonate explosives on or near the seafloor (e.g., explosive bottom-laid or moored mines) within a horizontal distance of 350 yd from artificial reefs, live hard bottom, submerged aquatic vegetation, and shipwrecks, except in designated locations where these resources will be avoided to the maximum extent practical (e.g., Truman Harbor, Demolition Key)
Physical disturbance and strike	The Action Proponent will not set vessel anchors within the anchor swing circle radius from artificial reefs, live hard bottom, submerged aquatic vegetation, and shipwrecks (except in designated anchorages) The Action Proponent will not place non-explosive seafloor devices (that are not precisely placed) within a horizontal distance of 350 yd from artificial reefs, live hard bottom, submerged aquatic vegetation, and shipwrecks (except as described above for vessel anchors, the bullet below for precisely placed seafloor devices, and as described in Table C-9 for the South Florida Ocean Measurement Facility) The Action Proponent will not position precisely placed non-explosive seafloor devices directly on artificial reefs, live hard bottom, submerged aquatic vegetation, or shipwrecks. The Action Proponent will avoid positioning precisely placed non-explosive seafloor devices near these resources by the largest distance that is practical to implement based on mission requirements (up to 350 yd)

The mitigation is designed to protect the critical ecosystem functions, socioeconomic value, and cultural importance of artificial reefs, live hard bottom, submerged aquatic vegetation (which is Essential Fish Habitat in the Study Area), and shipwrecks throughout their entire known ranges or known locations of occurrence in the Study Area. The mitigation will also protect organisms associated with these seafloor habitats and artificial structures, including invertebrates, fishes, and sea turtles that use them for sheltering, resting, feeding, or other important life processes.

Navy Cherry Point Sandbar Shark and Sea Turtle Mitigation Area

Stressor or Type	*Mitigation Requirements*
Explosives	From March 1 to September 30, the Action Proponent will not detonate explosive mines during mine neutralization events involving divers, and will avoid detonating all other types of in-water explosives (including underwater explosives and explosives deployed against surface targets) to the maximum extent practical.

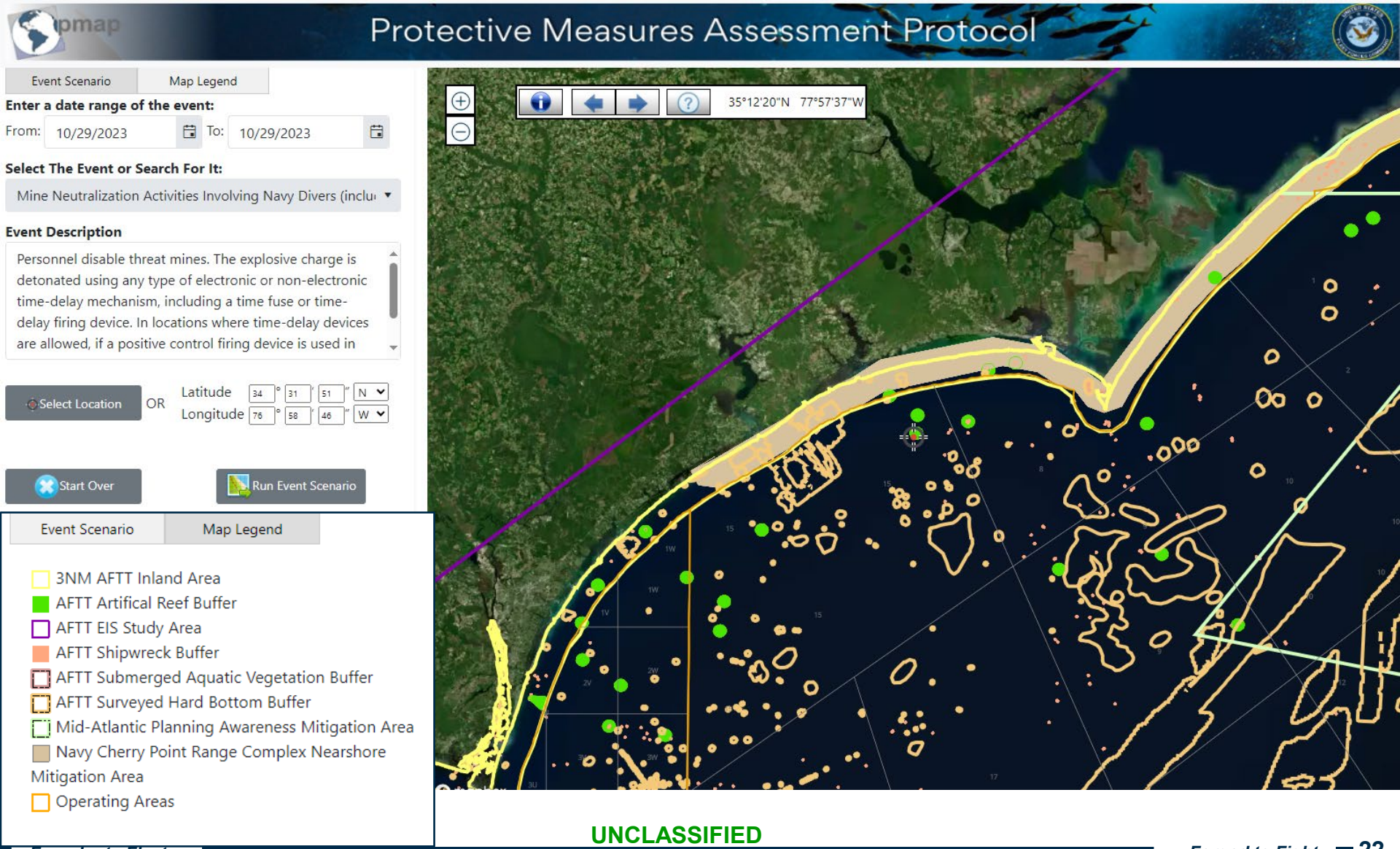
- Mitigation is designed to avoid exposure of in-water explosives on ESA-listed green, Kemp's ridley, loggerhead, and leatherback sea turtles during transit to and from nesting beaches. Nesting season typically lasts in this area from April to September for green and loggerhead sea turtles, and from March to September for leatherback sea turtles.
- The mitigation area completely encompasses the Habitat Area of Particular Concern for sandbar sharks along Cape Hatteras National Seashore, which provides important reproduction habitat (e.g., nursery and pupping grounds).

Key West Range Complex Seafloor Mitigation Area

Stressor or Type	Mitigation Requirements
Physical disturbance and strike	The Action Proponent will operate surface vessels in waters deep enough to avoid bottom scouring or prop dredging, with at least a 1-foot clearance between the deepest draft of the vessel (with the motor down) and the seafloor at mean low water

- The mitigation area is bound by the 30-meter depth contour, consistent with the deepest potential seagrass depth within the Key West Range Complex. Seafloor resources outside of these water depths would be at no risk of prop dredging or bottom scouring based on the deepest drafts of the surface vessels used in the Study Area.
- The mitigation will ensure that surface vessels and their propelors do not come into contact with shallow-water coral reefs, artificial reefs, live hard bottom, submerged aquatic vegetation, and shipwrecks, which will prevent direct physical strike and disturbance (including prop dredging and bottom scouring).
- The mitigation is designed to protect the critical ecosystem functions, socioeconomic value, and cultural importance of shallow-water coral reefs, artificial reefs, live hard bottom, submerged aquatic vegetation (which is Essential Fish Habitat in the Study Area), and shipwrecks throughout their entire known ranges or known locations of occurrence in the Key West Range Complex.
- The mitigation will also protect organisms associated with these seafloor habitats and artificial structures, including invertebrates, fishes, and sea turtles that use them for sheltering, resting, feeding, or other important life processes.

Protective Measures Tool



Public Engagement Next Steps

Milestone	Date
Notice of Intent Published in Federal Register	November 17, 2023
Notice of Availability (NOA) of Draft EIS/OEIS Published in Federal Register	September 23, 2024
Public Comment Meetings • Virtual • Live (potential locations) ❑ Northeast ❑ Mid-Atlantic ❑ Florida ❑ Gulf of Mexico	Begin October 7, 2024
60-Day Public Comment Period	September 23 to November 22, 2024
NOA of Final EIS/OEIS	August 19, 2025
NOA of Record of Decision	October 3, 2025


UNITED STATES
FLEET FORCES COMMAND