Essential Fish Habitat (EFH) Consultation Process for the Atlantic Fleet Training and Testing (AFTT) Environmental Impact Statement (EIS)

Presenter:
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Agenda

- AFTT EIS Background
- AFTT Study Area
- Mitigation Development
- EFH and AFTT Consultation Process
- AFTT Mitigation Areas in Study Area
- AFTT OPAREAs in Study Area
- EFH Conservation Recommendations
- Mitigations that Benefit EFH
- Monitoring Projects

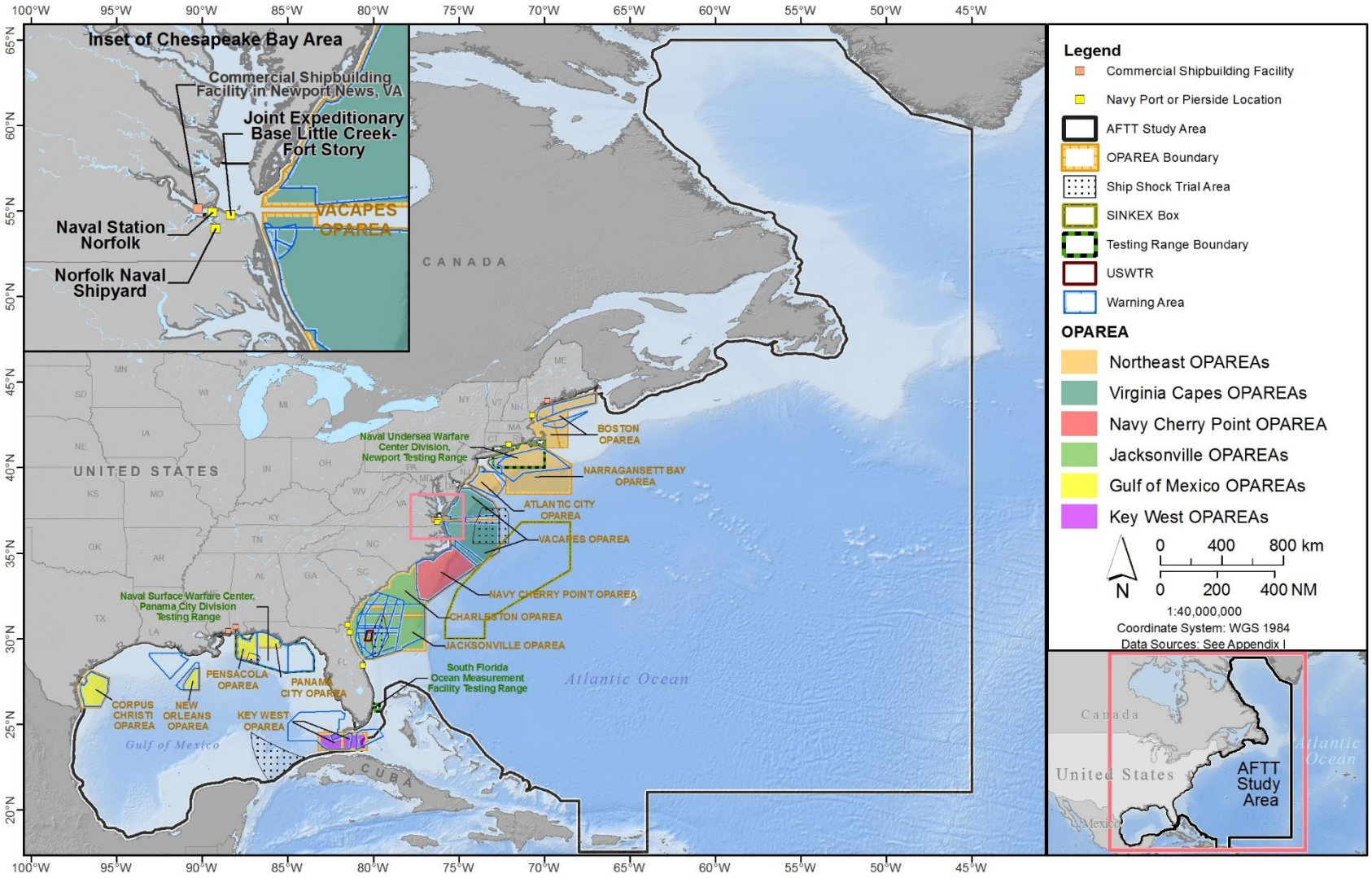
AFTT EIS Background

- **Action Proponents**
  - **Naval Sea Systems, Naval Air Systems, and Office of Naval Research**
    - Design, build, deliver and maintain ships and systems
    - Provide full life-cycle support of naval aviation aircraft, weapons and systems
    - Provide technology solutions
    - Deliver and sustain communications and information capabilities
  - **U.S. Fleet Forces Command**
    - Train, certify and provide combat-ready Navy forces to Combatant Commanders

- **Proposed Action**
  - Conduct military training and testing activities in the AFTT Study Area
- **Purpose and Need**
  - The purpose of the Navy's proposed action is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas, consistent with Title 10 Section 5062 of the United States Code

Maintain training sea space, flexibility, and permit capacity to support realistic at-sea training scenarios while complying with applicable environmental requirements

AFTT Study Area



EFH Consultation Process

The agency provides notification of the action to National Marine Fisheries Service (NMFS)

The agency submits an EFH Assessment (EFHA) to NMFS

NMFS reviews the EFHA

NMFS provides EFH Conservation Recommendations to the agency, if necessary

Federal agencies must respond in writing describing measures they will implement to conserve EFH, or explain why they will not be adopting the EFH Conservation Recommendations

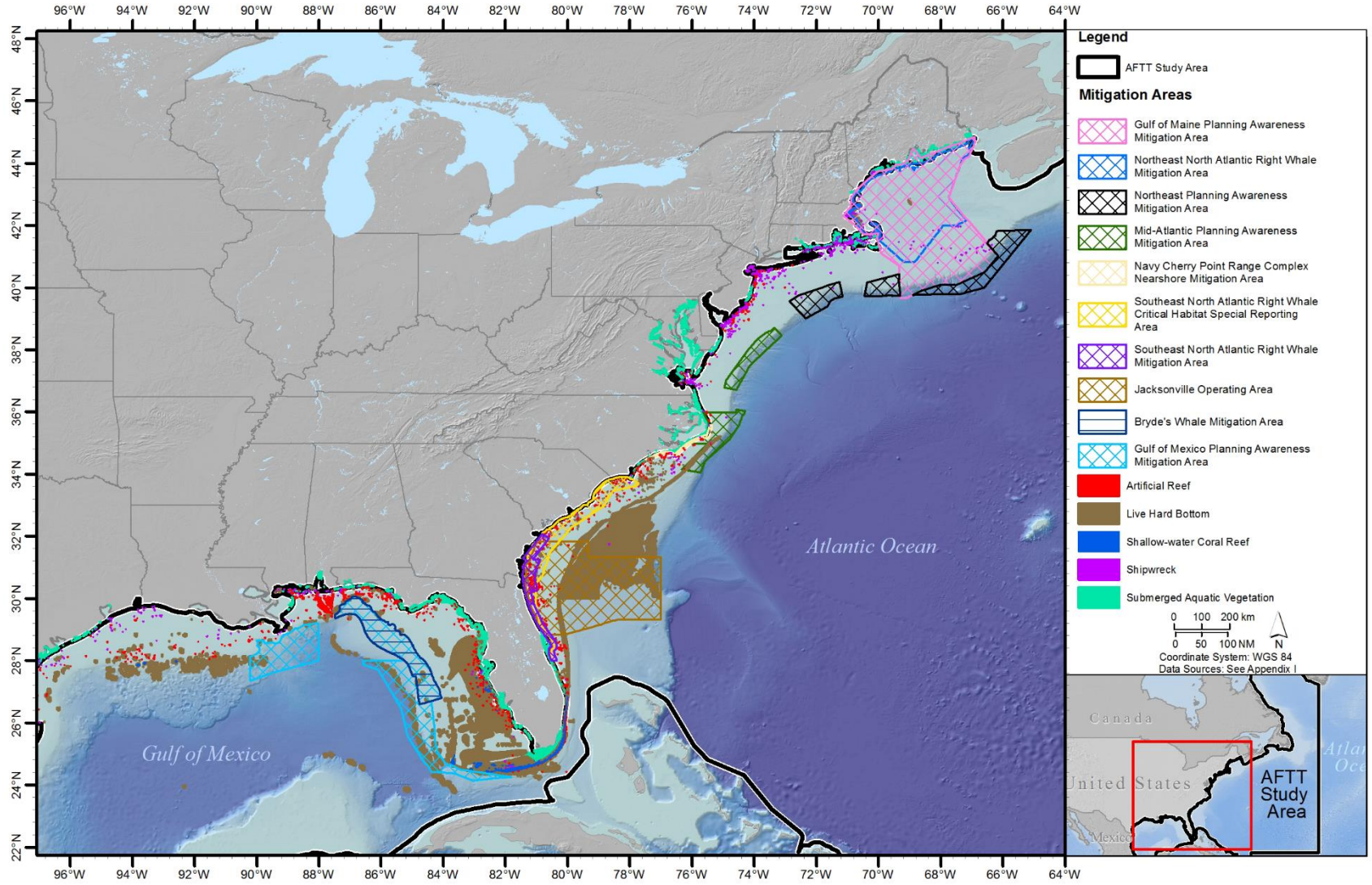
Mitigation / Conservation Recommendation Development

- The AFTT Proposed Action includes agreed upon mitigations as outlined in previous permits and consultations
- Additional mitigation measures were evaluated using a two-step analytical approach
  - Scientific basis: An effectiveness assessment to determine if the measure was effective at reducing/avoiding impacts
  - Operational feasibility: Assessment of the impacts to safety, practicality and impacts to the military readiness activity from the proposed mitigation measure
- Types of Mitigation
  - Mitigation zones (an area around the activity)
  - Mitigation areas (e.g. North Atlantic right whale, planning awareness areas, etc.)
- In addition to the suite of mitigations, standard operating procedures (SOPs) that have a secondary benefit of mitigating impacts were identified
  - These SOPs include watchstanders (including lookouts), area clearance, and animal strike avoidance

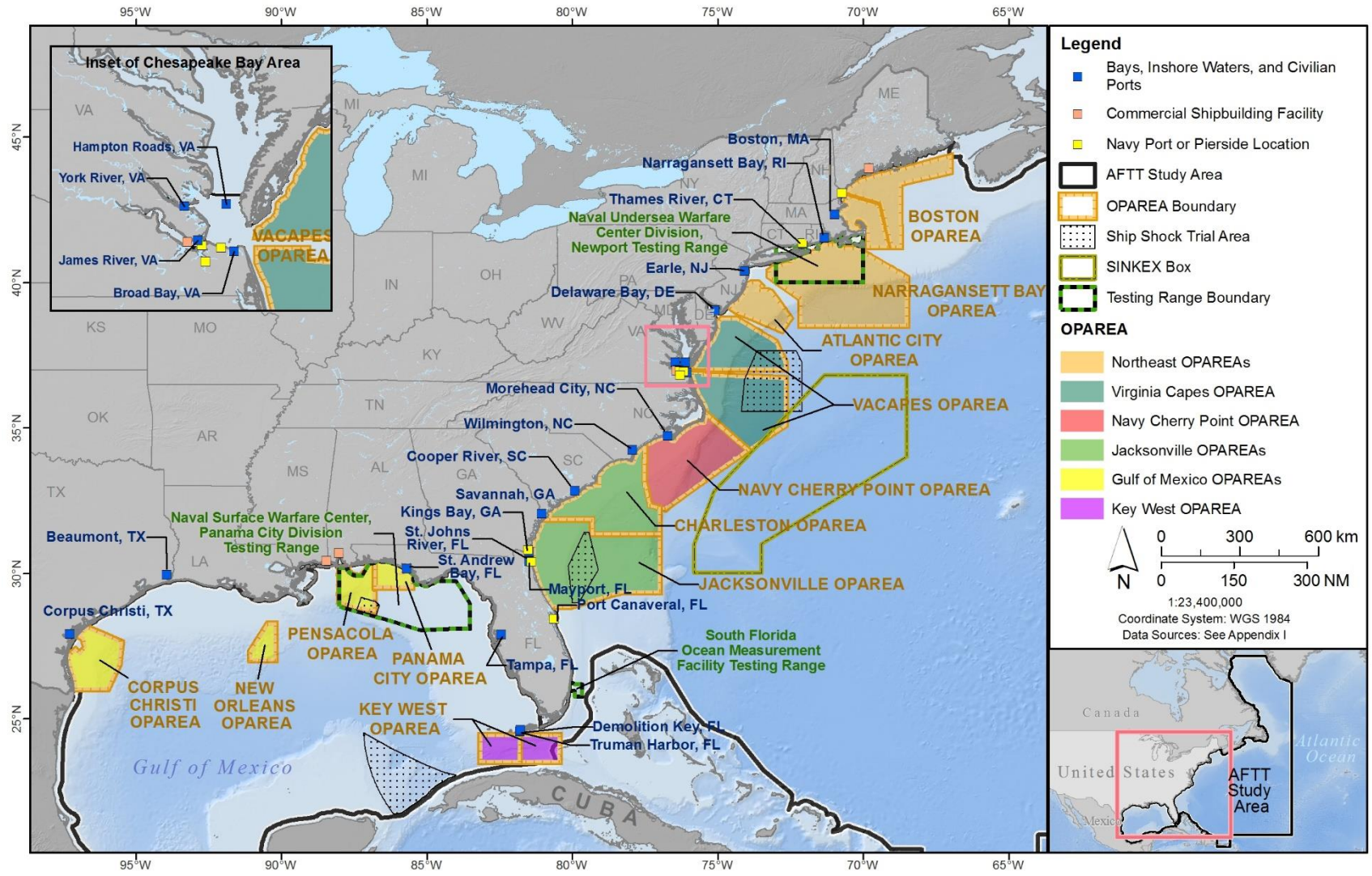
AFTT and EFH Consultation Schedule

Milestone	Date
Notice of Intent	Nov 2015
Draft EIS published/public comment period	30 Jun - 29 Aug 2017
Draft EFH assessment reviewed by NMFS	4-22 Dec 2017
EFH assessment submitted to NMFS to initiate consultation	12 Feb 2018
EFH Conservation Recommendations to Navy	30 May 18
EFH Conservation Recommendations accepted	6 Aug 18
Letter from NMFS concluding consultation	24 Aug 18
Final EIS Published	15 Sept 18
EIS Record of Decision signed	19 Oct 18

Summary of Mitigation Areas in the AFTT Study Area



OPAREAs in the Study Area



AFTT EFH Consultation Process:
Navy Mitigation Measures as part Proposed Action

NMFS identified Navy mitigation measures included as part of the Proposed Action that also helped to avoid and minimize adverse effects to EFH and adopted these measures as EFH conservation recommendations:

- The Navy will avoid conducting precision anchoring (except in designated anchorages) within the anchor swing circle of known mapped shallow coral reefs, live hardbottom, artificial reefs and shipwrecks
- The Navy will not conduct explosive mine countermeasure and neutralization activities or explosive mine neutralization activities involving Navy divers within a 350-yard radius of live hard bottom, artificial reefs, and ship wrecks
- Within a 350-yard radius of shallow-water coral reefs, the Navy will not conduct explosive or non-explosive small-, medium-, and large-caliber gunnery activities using a surface target; explosive or non-explosive missile and rocket activities using a surface target; explosive or non-explosive bombing and mine laying activities; explosive or non-explosive mine countermeasure and neutralization activities; and explosive or non-explosive mine neutralization activities involving Navy divers. The Navy will also not place mine shapes, anchors, or mooring devices on the seafloor within a 350-yard radius of shallow-water coral reefs
- Within the Gulf of Maine Planning and Awareness Area and North Atlantic Right Whale Critical Habitat Unit 1, the Navy will not conduct explosive or bomb exercise activities, will conduct torpedo exercise activities during daylight only, minimize the use of sonar to the extent practicable, limit speed during torpedo exercises, avoid major training exercises, and cap annual hull mounted mid frequency active sonar to 200 hours/year

The Gulf of Maine Planning and Awareness Area and North Atlantic Right Whale Critical Habitat Unit 1 encompass areas designated EFH and Habitat Area of Particular Concern (HAPC) for various federally managed species

EFH Consultation Process:
NMFS Conservation Recommendations to Navy

In addition to adopting the Navy's mitigation measures as EFH conservation recommendations, NMFS also recommend the following additional EFH conservation recommendations be incorporated into the Navy's Proposed Action:

- ✓ **Avoid conducting precision anchoring within the anchor swing circle of known submerged aquatic vegetation (SAV) ~~which is designated EFH-HAPC for summer flounder, and is an important habitat for myriad commercially and recreationally important species~~**
- ✓ **Avoid conducting explosive mine countermeasure and neutralization activities or explosive mine neutralization activities involving Navy divers within a 350-yard radius of known areas of SAV**
- ✓ **To the maximum extent practicable, avoid and minimize explosive or non-explosive small-, medium-, and large-caliber gunnery activities using a surface target; explosive or non-explosive missile and rocket activities using a surface target; explosive or non-explosive bombing and mine laying activities; explosive or non-explosive mine countermeasure and neutralization activities; and explosive or non-explosive mine neutralization activities involving Navy divers in sandbar and sand tiger shark EFH-Habitat Area of Particular Concern from May 15 to September 15 of any given year**
- ✓ **The Navy should ensure training activities involving boats occur in waters with at least one foot of clearance between the bottom of the vessel and any seagrass or coral colonies present**
- X **Include "large schools of fish" into the procedural mitigation buffer zones/distances for the following activities: explosive torpedoes, explosive medium- and large-caliber projectiles, explosive missiles and rockets, and explosive bombs**

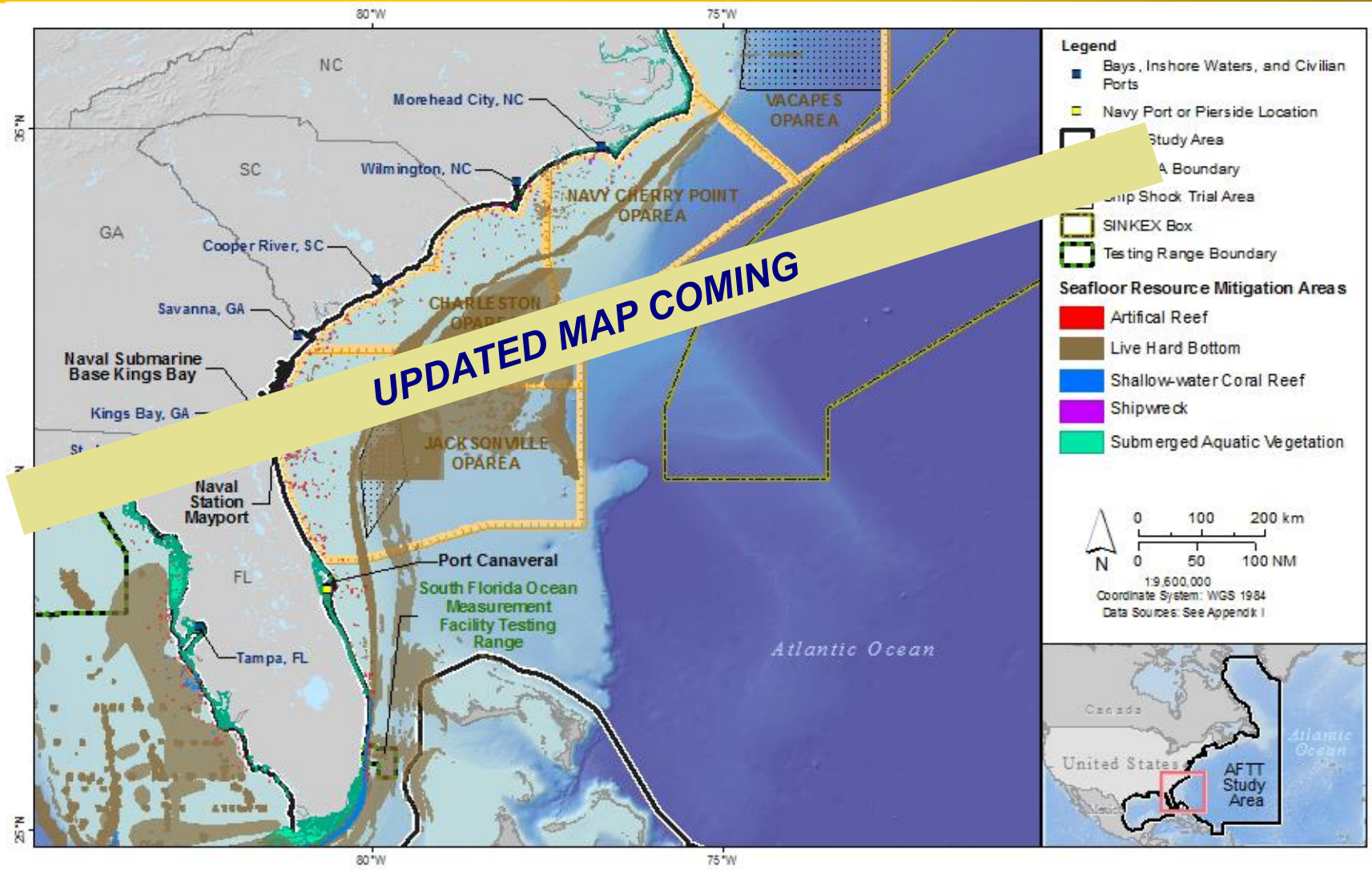
Mitigation Areas for Shallow-water Coral Reefs

- The Navy will not conduct precision anchoring (except in designated anchorages) within the anchor swing circle
- Within 350-yards the Navy will not:
  - Conduct explosive or non-explosive mine countermeasure and neutralization activities, explosive or non-explosive mine neutralization activities involving Navy divers, explosive or non-explosive small-, medium-, and large-caliber gunnery activities using a surface target, explosive or non-explosive missile and rocket activities using a surface target, or explosive or non-explosive bombing or mine laying activities within 350-yards
  - Place mine shapes, anchors, or mooring devices on the seafloor

- Within the Key West Range Complex, vessels will operate within waters deep enough to avoid bottom scouring or prop dredging, with at least a 1-ft. clearance between the deepest draft of the vessel (with the motor down) and the seafloor at mean low water

- Within the South Florida Ocean Measurement Facility Testing Range, the Navy will implement additional measures for shallow-water coral reefs, such as using real-time positioning and remote sensing information to avoid shallow-water coral reefs during deployment, installation, and recovery of anchors and mine-like objects, and during deployment of bottom-crawling unmanned underwater vehicles

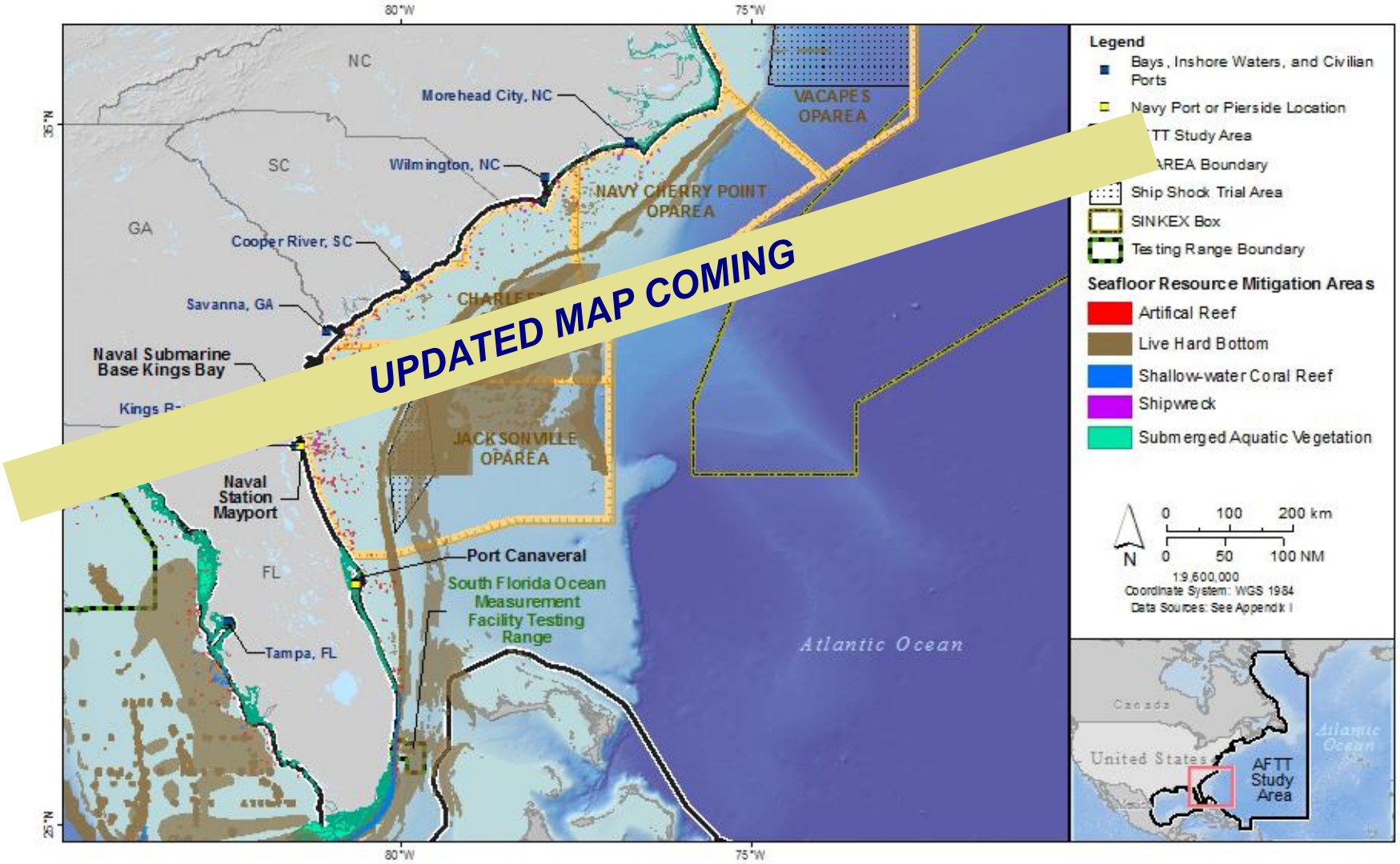
Mitigation Areas for Shallow-water Coral Reefs



Mitigation Areas for Live Hard Bottom, Artificial Reefs, Submerged Aquatic Vegetation, and Shipwrecks

- The Navy will not conduct precision anchoring (except in designated anchorages) within the anchor swing circle
- Within 350-yards, The Navy will not:
  - Conduct explosive mine countermeasure and neutralization activities, or explosive mine neutralization activities involving Navy divers (except in designated places such as Truman Harbor and Demolition Key, where these resources will be avoided to maximum extent practicable)
  - Place mine shapes, anchors, or mooring devices on the seafloor (except in designated locations)
- Within the Key West Range Complex, vessels will operate within waters deep enough to avoid bottom scouring or prop dredging, with at least a 1-ft. clearance between the deepest draft of the vessel (with the motor down) and the seafloor at mean low water
- Within the South Florida Ocean Measurement Facility Testing Range, the Navy will implement additional measures for live hard bottom, such as using real-time positioning and remote sensing information to avoid live hard bottom during deployment, installation, and recovery of anchors and mine-like objects, and during deployment of bottom-crawling unmanned underwater vehicles

Mitigation Areas for Live Hard Bottom, Artificial Reefs, Submerged Aquatic Vegetation, and Shipwrecks



Southeast North Atlantic Right Whale Mitigation Area (November 15 – April 15)

- **The Navy will report the total hours and counts of active sonar and in-water explosives used in the mitigation area in its annual training and testing activity reports**
- **The Navy will not use active sonar except as necessary for navigation training, object detection training, and dipping sonar**
- **The Navy will not expend explosive or non-explosive ordnance**
- **Vessels will obtain the latest North Atlantic right whale sightings data; will implement speed reductions after they observe a North Atlantic right whale, if within 5 NM of a sighting reported within the past 12 hours, and when operating at night or during periods of reduced visibility; and will minimize north-south transits to the maximum extent practicable**

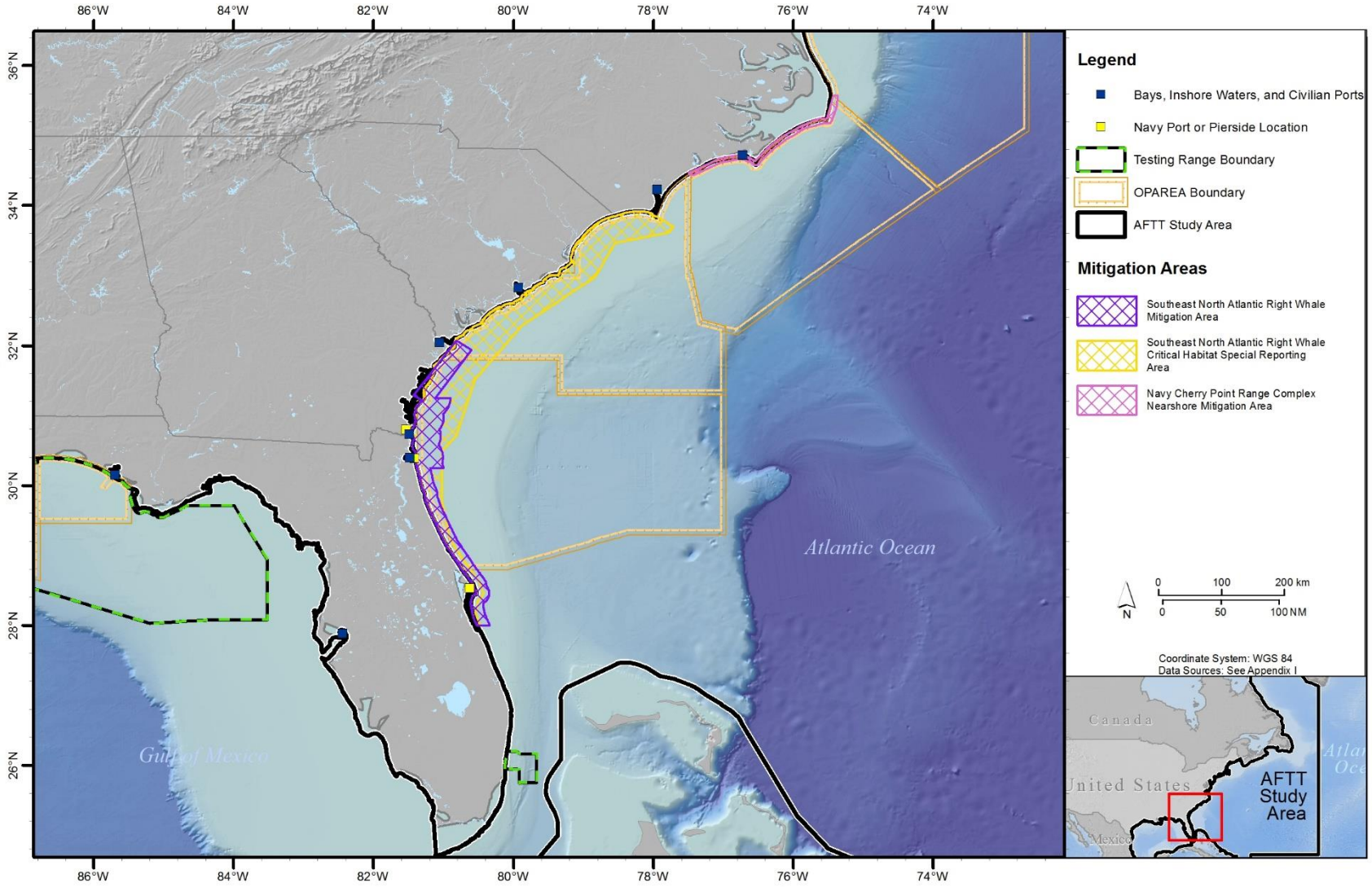
Navy Cherry Point Range Complex Nearshore Mitigation Area (March 1 – September 30)

In previous consultation, Navy had a mitigation measure to not conduct explosive mine neutralization activities involving divers within 3.2 nautical miles of an estuarine inlet and within 1.6 nautical miles of the shoreline from March through September for nesting sea turtles; this was transitioned into a mitigation area to protect sandbar shark habitat as well

- **The Navy will not conduct explosive mine neutralization activities involving Navy divers in the mitigation area**
- **To the maximum extent practicable, the Navy will not use explosive sonobuoys, explosive torpedoes, explosive medium-caliber and large-caliber projectiles, explosive missiles and rockets, explosive bombs, explosive mines during mine countermeasure and neutralization activities, and anti-swimmer grenades in the mitigation area**

Additionally, within the Study Area, any activity involving active sonar; anti-swimmer grenades; line charge testing; and explosive: torpedoes, medium- and large-caliber gunnery, missiles and rockets, and mine neutralization and countermeasures; must be delayed or moved if floating vegetation is within the mitigation zone (size dependent on activity) prior to beginning the activity

Navy Cherry Point Nearshore Mitigation Area (Mar1 –Sep 30) and Southeast North Atlantic Right Whale Mitigation Area (Nov 15–Apr 15)



Current Monitoring Projects in AFTT Study Area

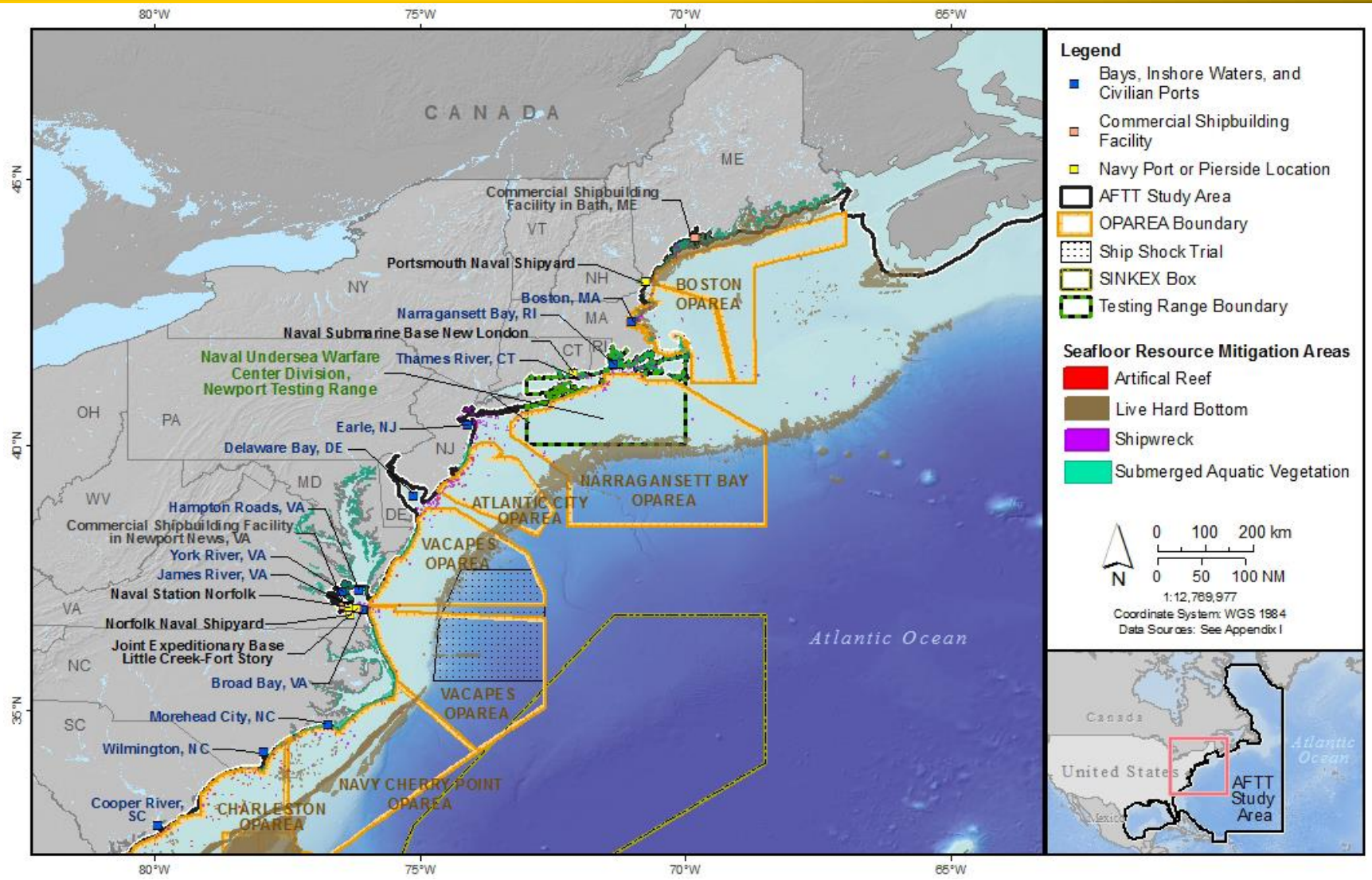
- Humpback whale surveys
- Harbor seal tagging in Chesapeake Bay
- Vessel surveys and tagging in Jacksonville OPAREA
- Vessel surveys and tagging along the Continental Shelf Break (Virginia/North Carolina)
- North Atlantic right whale tagging
- Baseline monitoring for marine mammals on the east coast (passive acoustic monitoring)
- Behavioral Response Studies

https://www.navymarinespeciesmonitoring.us/

Questions?

http://aftteis.com

Seafloor Resources Mitigation Areas in the Northeast



Status of Consultations

Consultation	Start/Completion Date	Notes
Marine Mammal Protection Act (MMPA)	Jun 2017/Nov 2018	• Final Rule scheduled to be published on 13 Nov authorizing 5-year Letters of Authorization (LOAs) for training and testing activities • Critical that Final Rule is effective by 14 Nov
Endangered Species Act (ESA)	Oct 2017/Nov 2018	• NMFS: Biological Opinion for sea turtles, fish, corals, and endangered marine mammals is scheduled to be issued 30 Oct; Incidental Take Statement (ITS) scheduled for 13 Nov • USFWS: Concurrence for American crocodile, manatees, seabirds, and bats was received on 27 Jun
National Marine Sanctuaries Act	✓ Oct 2017/Aug 2018	• Concurrence letter received from NOAA Office of National Marine Sanctuaries (ONMS) 22 May 2018; Resolved Navy concern with ONMS 5-year limit on the consultation. Finalized consultation on 17 Aug
Essential Fish Habitat (EFH)	✓ Oct 2017/May 2018	• Consulted with two NMFS regional offices. EFH conservation recommendations accepted (6 Aug 18); NMFS concluded consultation 24 Aug 18; Navy responded 29 Aug 18
National Historic Preservation Act	✓ Mar 2018/Aug 2018	• Consulted with 18 states on 12 Mar; Initially received 11 concurrences; 4 concurrences by default (did not respond within the statutory response period); 1 request for additional info (GA), 2 non-concurs (AL, TX); Concurrences have since been received from all states
Coastal Zone Management Act (CZMA)	✓ Jan 2018/Aug 2018	• Consulted with 18 states and completed in Aug 2018; 11 provided concurrence; 4 provided concurrence by default; NY requested additional information & then agreed to close out (same as Phase II); DE provided conditional concurrence & concurred on modified Navy condition; and *GA provided an objection. Navy proceeding over GA objection; No further response from GA*

Resources Analyzed
Impact Summary

Human Resource	Stressors	Impact
Public Health and Safety	Underwater energy, in air energy, physical interactions, secondary stressors (sediments & water quality)	• Because of the Navy's standard operating procedures, impacts on public health and safety would be unlikely
Socioeconomic Resources	Accessibility, airborne acoustics, physical disturbance and strike	• Impacts would be short term and temporary; therefore, impacts on socioeconomic resources would be negligible
Cultural Resources	Explosives and physical disturbance and strikes	• No known adverse effects on submerged prehistoric sites and submerged historic resources
Physical Resource	**Stressors**	**Impact**
Air Quality	Criteria air pollutants	• The activities analyzed are not expected to produce emissions in quantities that violate air emission standards
Sediments and Water Quality	Explosives and explosives byproducts, chemicals other than explosives, metals, other military expended materials	• Impacts are within applicable standards, regulations, and guidelines and do not change existing conditions
Habitats	Explosives and physical disturbance and strike	• Possible impact on marine habitats by localized disturbance to sea bottom; would not diminish the ability of soft shores, soft bottoms, hard shores, hard bottoms, or artificial substrates to function as habitat
Biological Resource	**Stressors**	**Impact**
Vegetation	Explosives, physical disturbance and strike, and secondary stressors	• Potential impacts not expected to result in detectable changes to marine vegetation growth, survival, or propagation and not expected to result in population-level impacts
Invertebrates	Explosives, acoustics, energy, physical disturbance and strike, entanglement, ingestion, and secondary stressors	• Activities may adversely affect elkhorn, staghorn, pillar, rough cactus, lobed star, mountainous, and boulder star coral

Resources Analyzed
Impact Summary (Cont.)

Biological Resource (Continued)	Stressors	Impact
Fishes	Acoustics, energy, physical disturbance and strike, entanglement, ingestion, and secondary stressors	• Potential impacts are short-term behavioral and physiological responses; some stressors may result in injury or mortality to a small number of individuals (no ESA-listed fish); no population-level impacts are anticipated • Activities may adversely affect Atlantic sturgeon, smalltooth sawfish, Atlantic salmon, Gulf sturgeon, oceanic whitetip shark, scalloped hammerhead shark, and giant manta ray
Birds and Bats	Acoustic, explosives, physical disturbance and strike, and ingestion	• Impacts to seabirds and bats would be short term and temporary
Reptiles	Explosives, acoustics, energy, physical disturbance and strike, entanglement, ingestion, and secondary stressors	• All five species of sea turtles in the Study Areas are ESA-listed species • Activities may adversely affect green turtle, hawksbill turtle, Kemp's ridley turtle, loggerhead turtle, and leatherback turtle
Marine Mammals	Explosives, acoustics, energy, physical disturbance and strike, ingestion, entanglement, and secondary stressors	• Acoustic and explosive stressors would impact individual marine mammals; no marine mammal populations would be adversely affected • Sonar and other active acoustic sources, explosives sources, and vessel strikes may affect some ESA-listed marine mammals • Remaining stressors are not expected to result in mortality or Level A or B harassment; some stressors may affect ESA-listed marine mammals • Some stressors would impact individuals of certain marine mammal species, but are not expected to decrease the overall fitness of any marine mammal population • Activities may adversely affect blue, fin, Bryde's, North Atlantic right whale, sei, and sperm whale

Procedural Mitigation

- **Environmental Awareness & Education**
  - **Afloat Compliance Training, Marine Species Awareness Training, Protective Measures Assessment Protocol, and the Sonar Positional Reporting System**
- **Active sonar**
  - **Hull mounted mid-frequency active sonar and low-frequency active sonar > 200 dB: 1000/500 yd power down, 200 yd shut down**
  - **All other active sonar sources: 200 yd shut down**
  - **Mitigation zones based on predicted permanent threshold shift (PTS) zones**
- **Other acoustic and explosive sources**
  - **Some mitigation zones revised based on operational practicality assessment due to increase in PTS ranges; no longer practical to mitigate to PTS for all sources**
- **Strike avoidance**
  - **Vessels: 500 yd for whales, 200 yd for other marine mammals, avoid sea turtles**
  - **Towed in-water devices: 250 yd for marine mammals, avoid sea turtles**
  - **Non-Explosive Practice Munitions: 200 yd for gunnery, 900 yd for missiles and rockets, 1,000 yd for bombing**