



Renewable Energy Mapping and Planning Activities in the South Atlantic

March 2, 2015

South Atlantic Fisheries Management Council
St. Simons Island, Georgia

Brian Krevor, Environmental Protection Specialist

Office of Renewable Energy Programs
Bureau of Ocean Energy Management



Outline

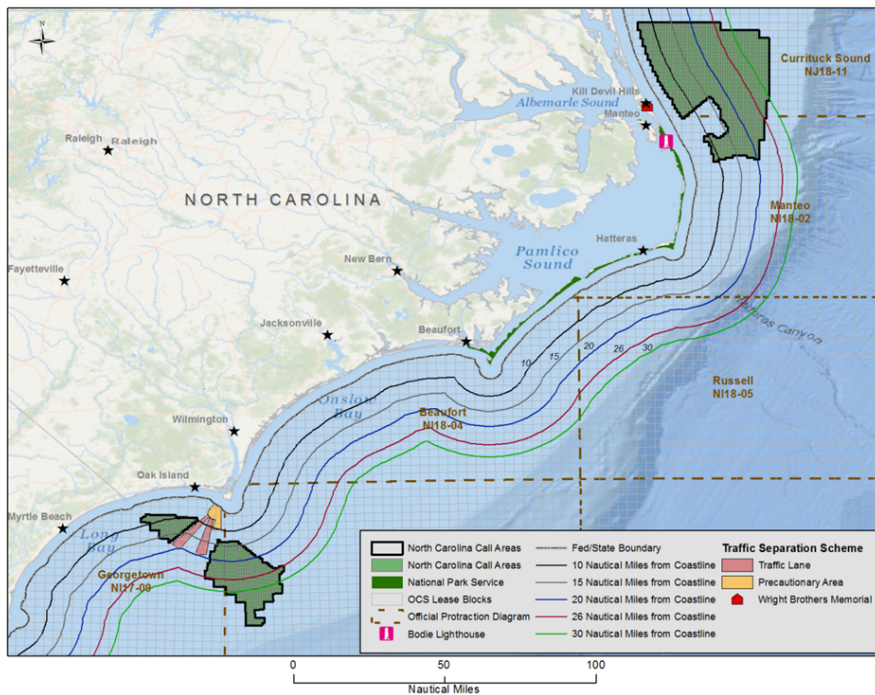
- South Atlantic Overview
- North Carolina
 - Planning Process
 - NEPA Process
- South Carolina Planning Efforts
- BOEM Studies Efforts



South Atlantic Overview

State	Milestones
North Carolina	<ul style="list-style-type: none">• WEAs Announced – August 11, 2014• EA Published – January 22, 2015 Next Steps: Finalize Environmental Review, Lease Sale
South Carolina	<ul style="list-style-type: none">• Third Task Force Meeting – September 23, 2014 Next Steps: Publish Call for Information and Nominations
Georgia	<ul style="list-style-type: none">• EA for Interim Policy Lease – April 1, 2014 Next Steps: Finalize Environmental Review, Issue Interim Policy Lease
Florida	<ul style="list-style-type: none">• Interim Policy Lease Issued to FAU – June 1, 2014• First Task Force Meeting – December 11, 2014

North Carolina Planning Efforts

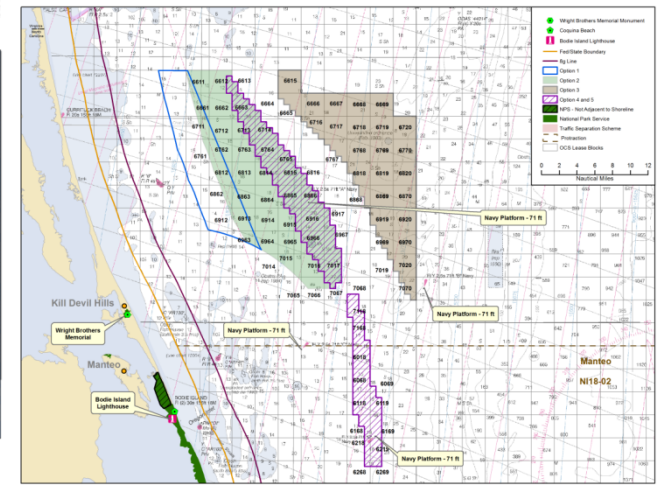
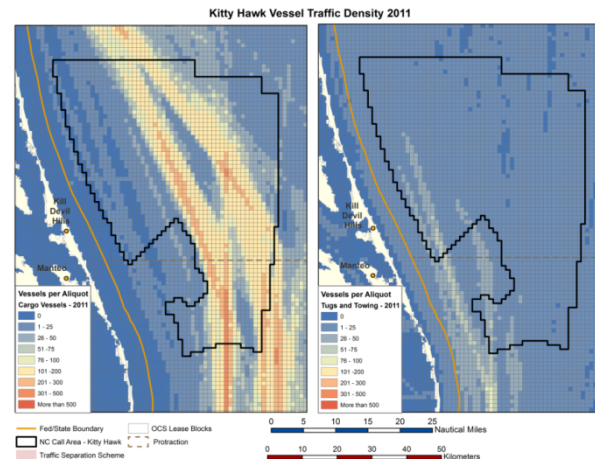
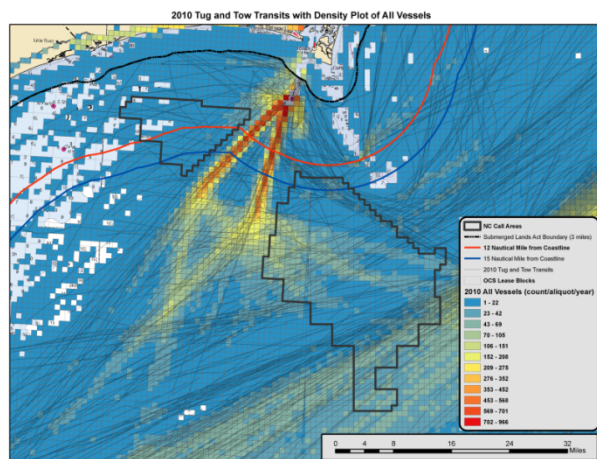


- Call published in December 2013
- Key issues to resolve:
 - Visual impacts from NPS lands
 - Vessel traffic/navigational safety

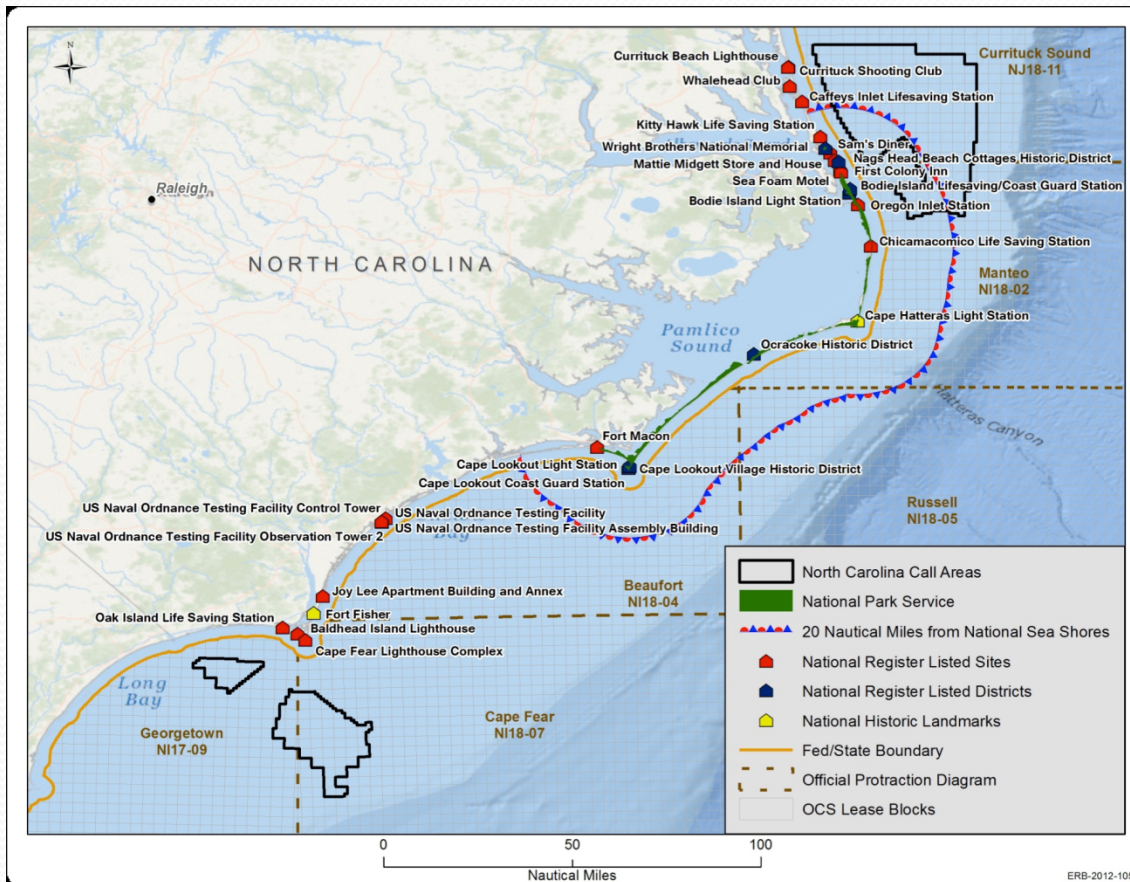


North Carolina Planning Efforts:

- Maritime stakeholder meetings held:
 - December 2012 Norfolk, VA
 - June 2013 Norfolk and Arlington, VA
- September 2013 questionnaire/survey effort lead by the USCG
 - 100 members

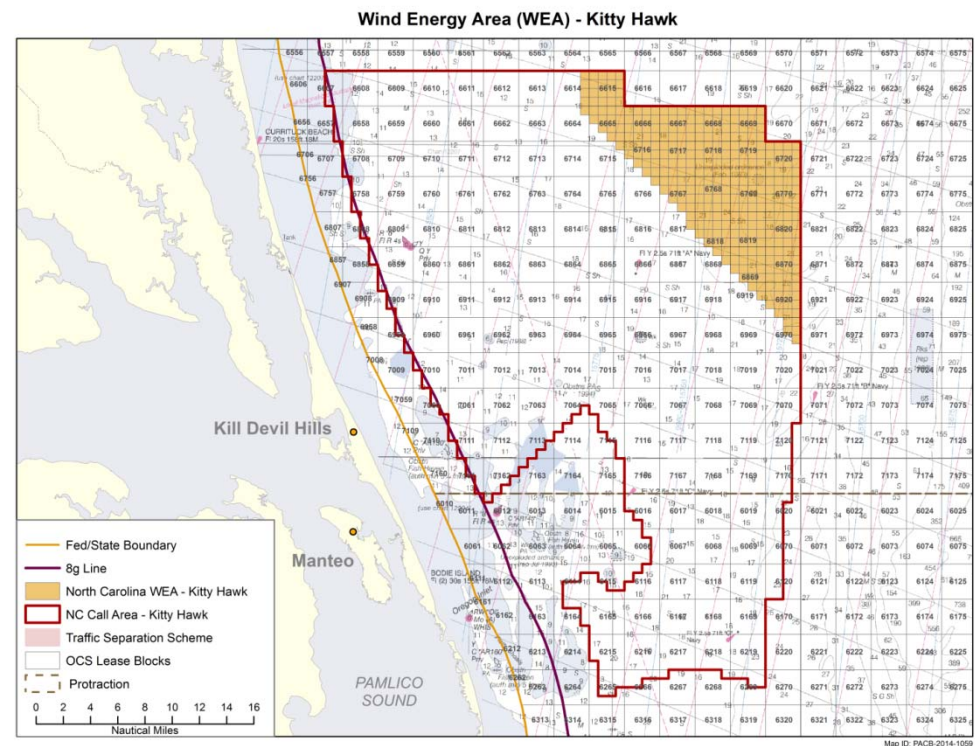
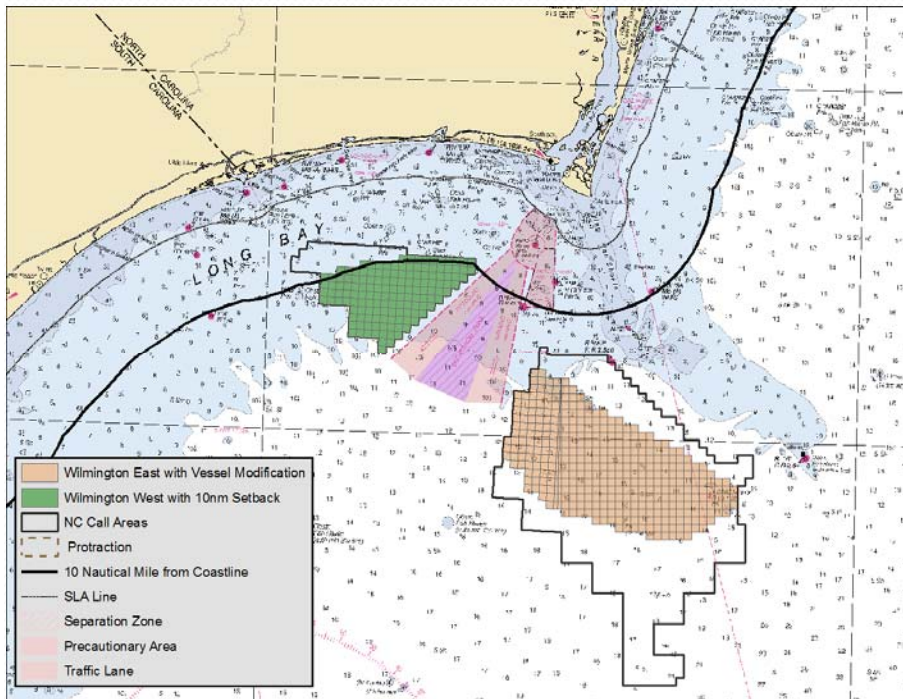


North Carolina Planning Efforts



- North Carolina Visual Simulation Study
- Public open houses
- Meetings with NPS

North Carolina Planning Efforts: Wind Energy Areas



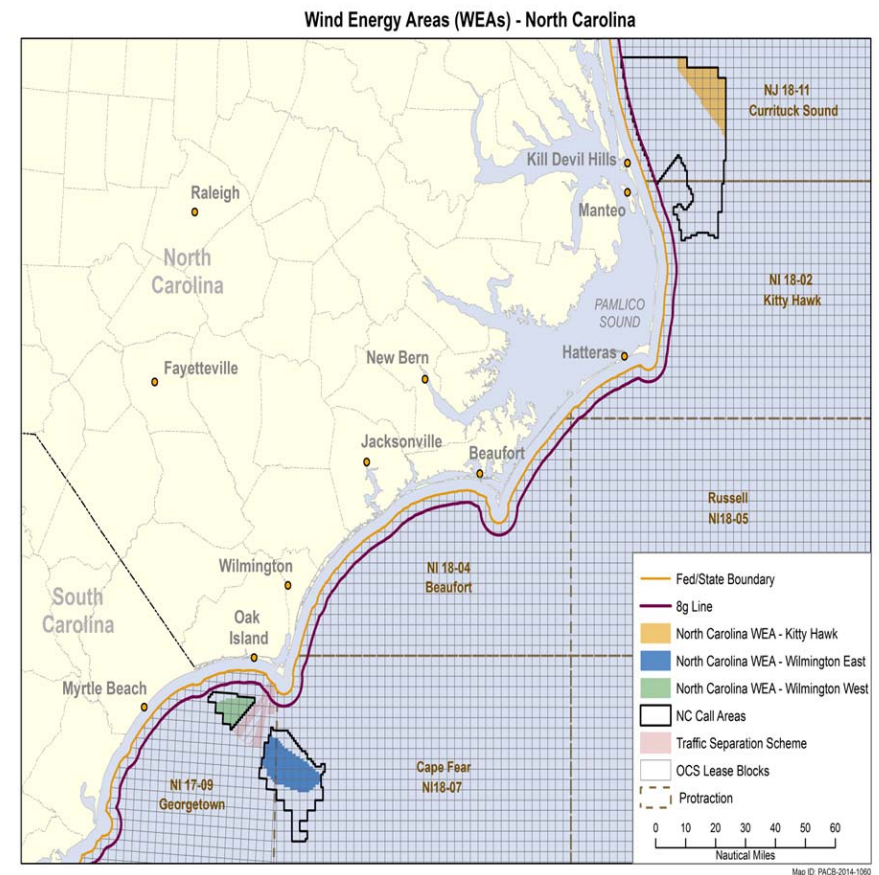


North Carolina Environmental Assessment (EA)

- The National Environmental Policy Act (NEPA) was established by Congress in 1969.
- Two primary purposes of NEPA:
 - Informed decisions
 - Public involvement
- North Carolina EA published January 22, 2015
 - Public meetings held in Kitty Hawk, Wilmington, and Carolina Shores, NC
 - 30-day public comment period ended on February 23, 2015

North Carolina EA: Proposed Action (Alternative A)

- Lease issuance of all three Wind Energy Areas (WEAs)
- Associated site characterization surveys (e.g., shallow hazards, geological, geotechnical, archaeological, and biological surveys)
- Subsequent site assessment activities (e.g., construction and operation of meteorological towers and/or buoys)





North Carolina EA: Alternatives Considered

Alternative B	Removal of Wilmington West WEA due to migrating North Atlantic right whales
Alternative C	Prohibits high resolution geological and geophysical survey activities from November 1 - April 30 due to migration patterns of North Atlantic right whales
Alternative D	No action

Impact Producing Factors

- Vessel Traffic
- Noise (Pile Driving, Surveys)
- Vessel Collisions/Allisions
- Bottom Disturbance
- Emissions and Discharges
- Lighting
- Severe Storms
- Visual and Aesthetic Interference





Environmental and Socioeconomic Resources Considered

- Physical
 - Air Quality
 - Water Quality
- Biological
 - Marine Mammals
 - Sea Turtles
 - Fish and Essential Fish Habitat (EFH)
 - Coastal Habitats
 - Benthic Resources
 - Avian and Bat Species
- Socioeconomic
 - Aesthetics and Visual Resources
 - Commercial and Recreational Fishing
 - Cultural Resources
 - Military Uses
 - Environmental Justice
 - Land Use and Coastal Infrastructure
 - Tourism and Recreation
 - Demographics and Employment



North Carolina EA: Standard Operating Conditions

- Appendix B of the EA
- Based on previous and ongoing consultations with NOAA NMFS and FWS
- Part of the proposed action or “in place”
- Developed to reduce or eliminate the potential for environmental risks
- Enforced through lease stipulations or terms and conditions of plan approval
- Include vessel strike avoidance measures, protected species observers (PSO), exclusion zones, and ramp up requirements

North Carolina EA: Next Steps

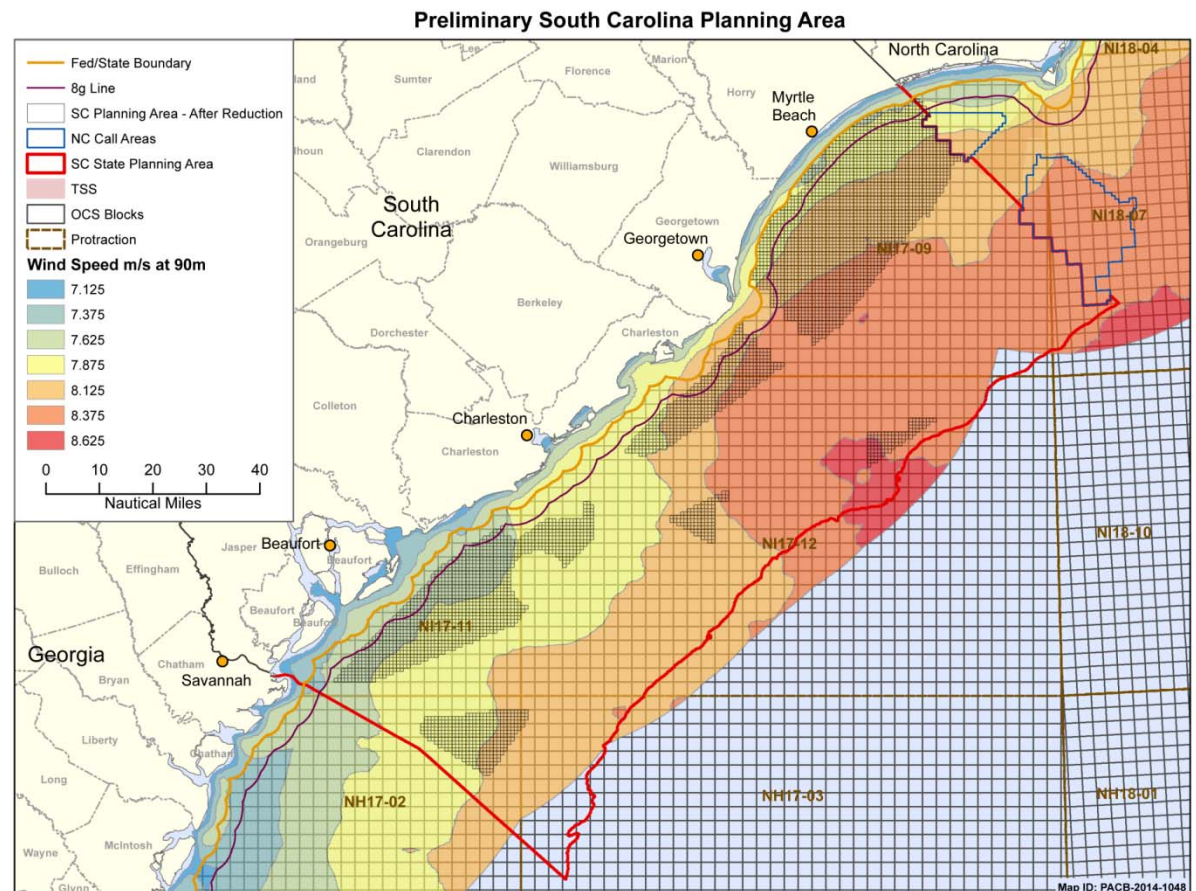
Based on the nature and extent of comments received, we may:

- Publish a Finding No Significant Impacts (FONSI);
- Revise the EA; or
- Determine that an Environmental Impact Statement (EIS) is required.



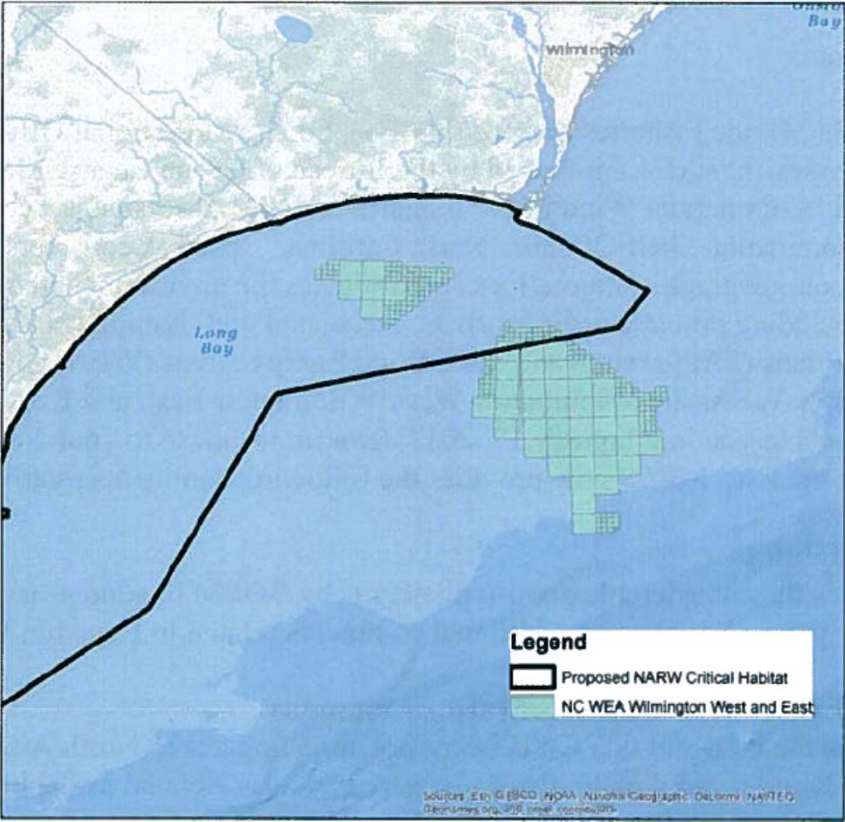
South Carolina Planning Efforts

- Three task force meetings held
- Areas removed for conflicts with military uses and navigational safety





Proposed North Atlantic Right

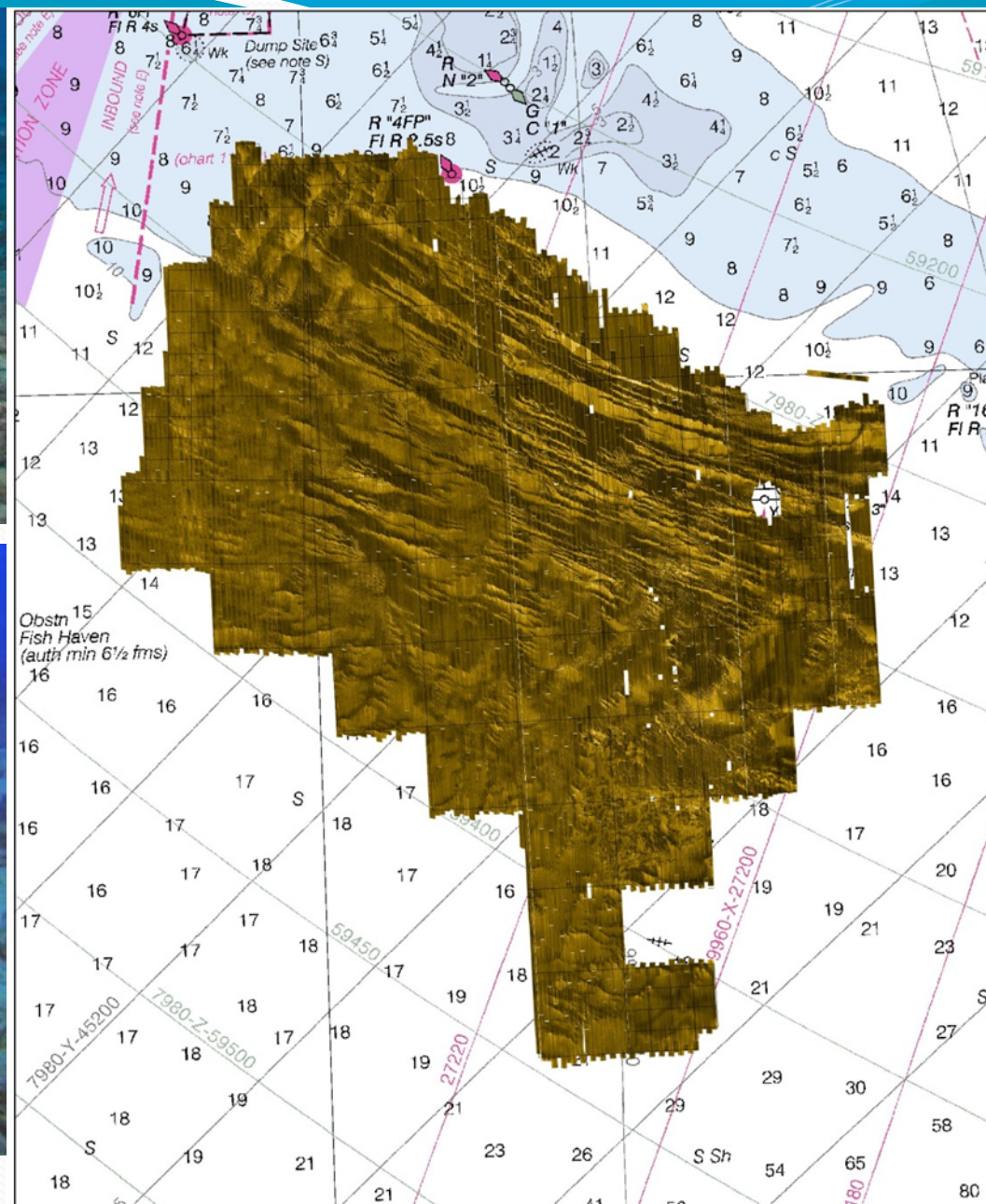
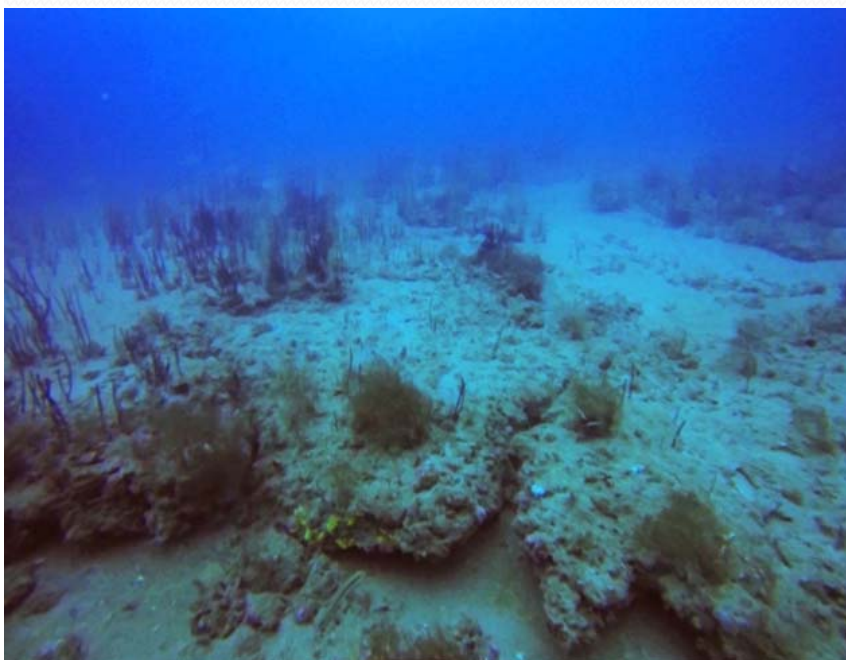
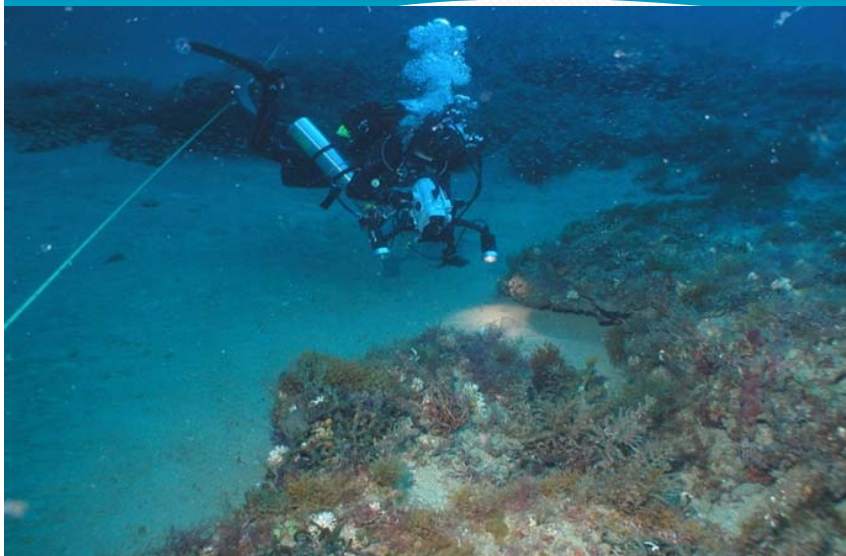


- On February 20, 2015, NOAA NMFS proposed the expansion of critical habitat for North Atlantic right whales
- 60-day public comment period
- Proposed Southeastern U.S. Calving Critical Habitat

Recent Study Highlights

- Collaboration in Wilmington-East Call Area
 - UNC Institute of Marine Sciences
 - Geodynamics
 - NOAA's Center for Coastal Habitat & Fisheries Research
 - BOEM
- Main Objectives:
 - To obtain spatially explicit information on where wind energy development can avoid known stakeholder conflicts (fishing, diving, and ecotourism)
 - To obtain spatially explicit information about the seafloor in Wilmington-East
 - To better understand the ecology of these benthic habitats and value to fishes for marine spatial planning

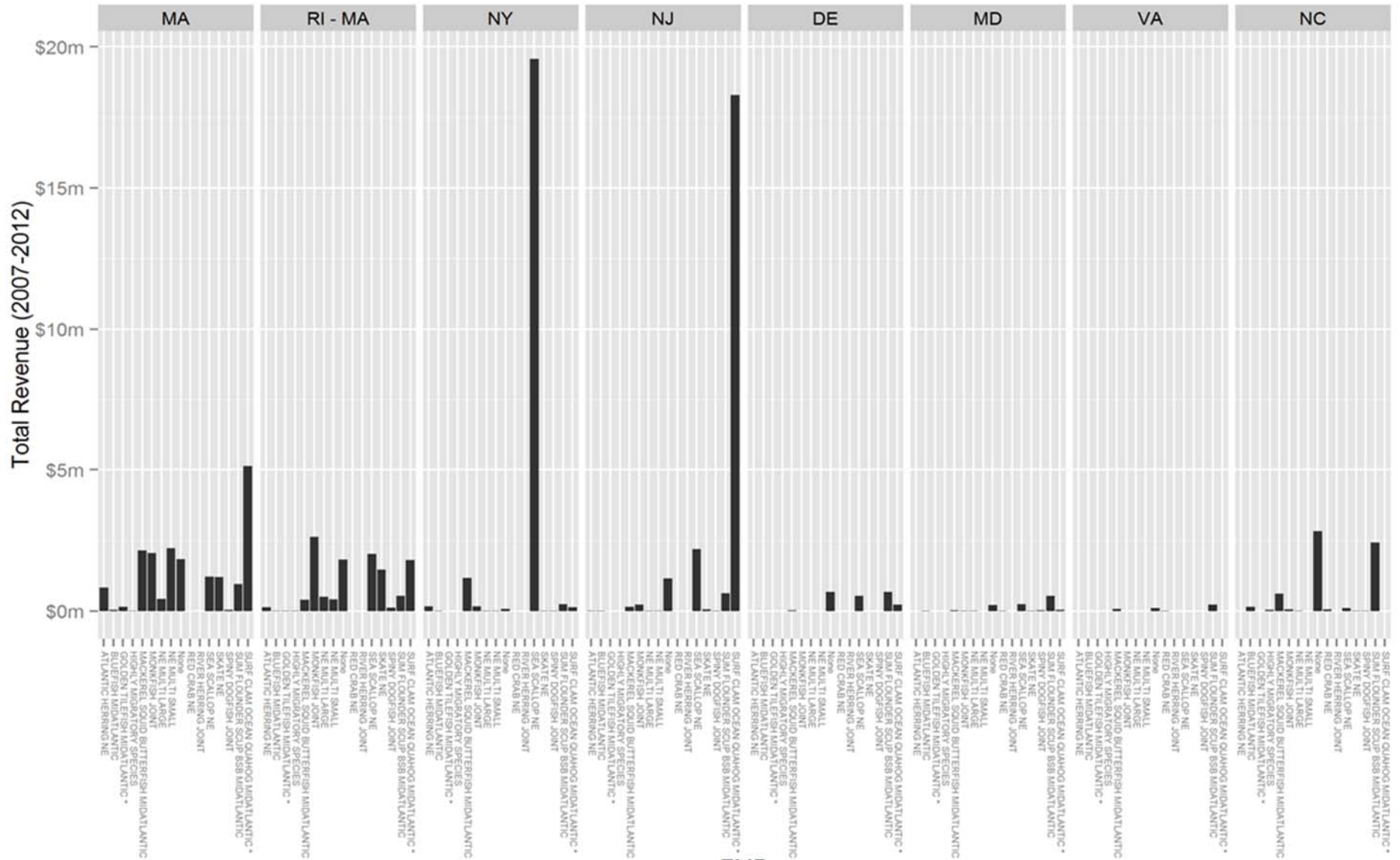






Recent Study Highlights

- Socio-Economic Impact of OCS Wind Development on Fishing
 - An inter-agency agreement with NEFSC Woods Hole.
 - Uses combination of dealer and VTR reports to obtain a spatially-explicit revenue model.
 - Provides detailed “exposure” of revenue obtained from wind energy areas.
 - Covers Massachusetts to North Carolina.



FMP



Other Studies: Biological

- Use of Northeast Coastal Ocean Forecast System in Offshore Wind Energy Resource Planning (Southern New England/Mid-Atlantic) - UMass
- EMF impact studies are continuing:
 - EMF model-based assessment and literature review is completed.
 - Atlantic EMF study (Long Island Sound) on elasmobranch (sharks, rays and skates) and American lobster movement and migration. – URI/Cranfield University
- Effects of Pile Driving Sounds on Auditory and Non-Auditory Tissues of Fish.
- Assessing Potential Impacts of Offshore Wind Farm Development on Fisheries Resources(Southern New England)- Commercial Fisheries Research Foundation
- Benthic Habitat Assessment (Southern New England/Mid-Atlantic) – NEFSC Sandy Hook
- Lobster Cooperative Ventless Trap Study (Southern New England) - URI



Other Studies: Socioeconomic

- Development of Mitigation Measures to Address Potential Use Conflicts Between the Wind and Commercial Fishing Industries (nine workshops from Maine to NC)
- Collaborative Fisheries Planning for Virginia's Offshore Wind Energy Area - Virginia Department of Environmental Quality
- Digitization of 1976 Anglers Guide to the United States Coast



Questions?

Brian Krevor, Environmental Protection Specialist

Brian.Krevor@boem.gov

703-787-1346