

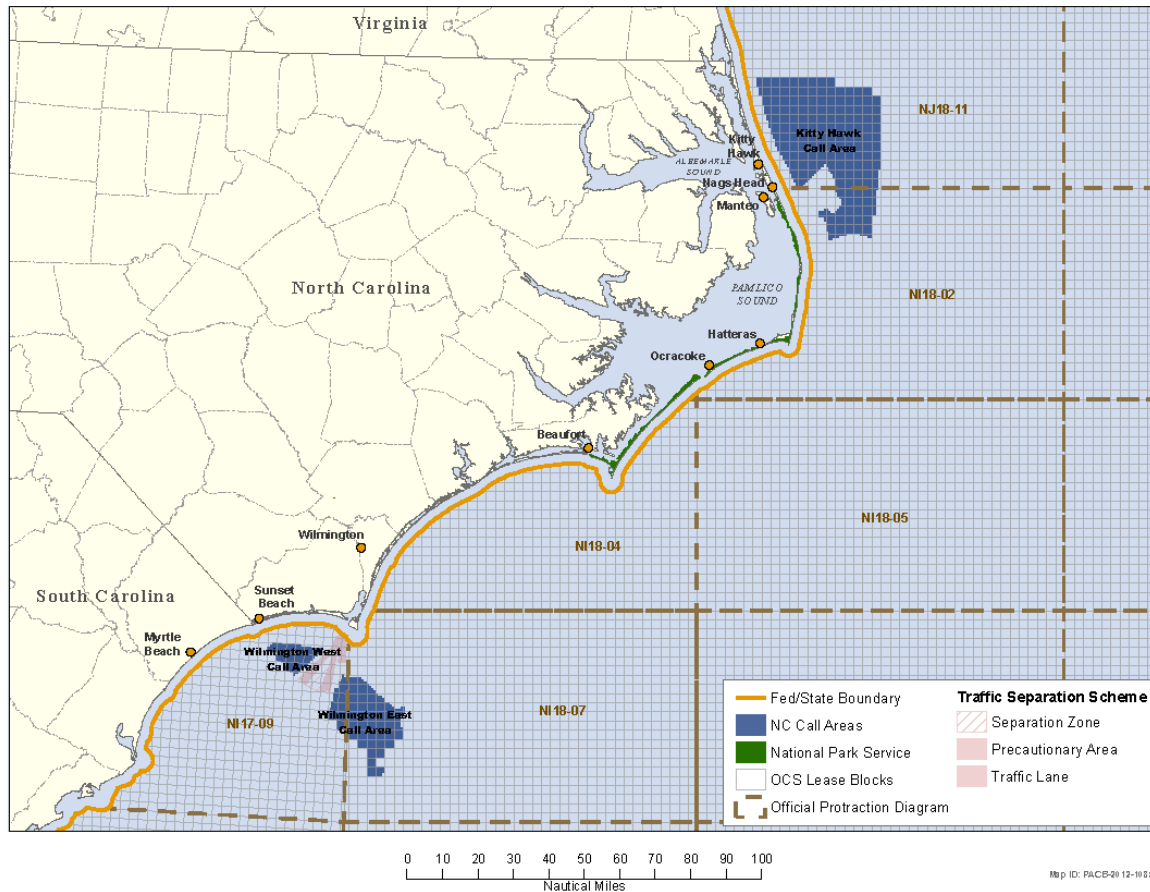
# North Carolina Outer Continental Shelf Planning for Offshore Wind

BUREAU OF OCEAN ENERGY MANAGEMENT

PUBLIC INFORMATION MEETING

JANUARY 9, 2013

# Development of the North Carolina Call Areas



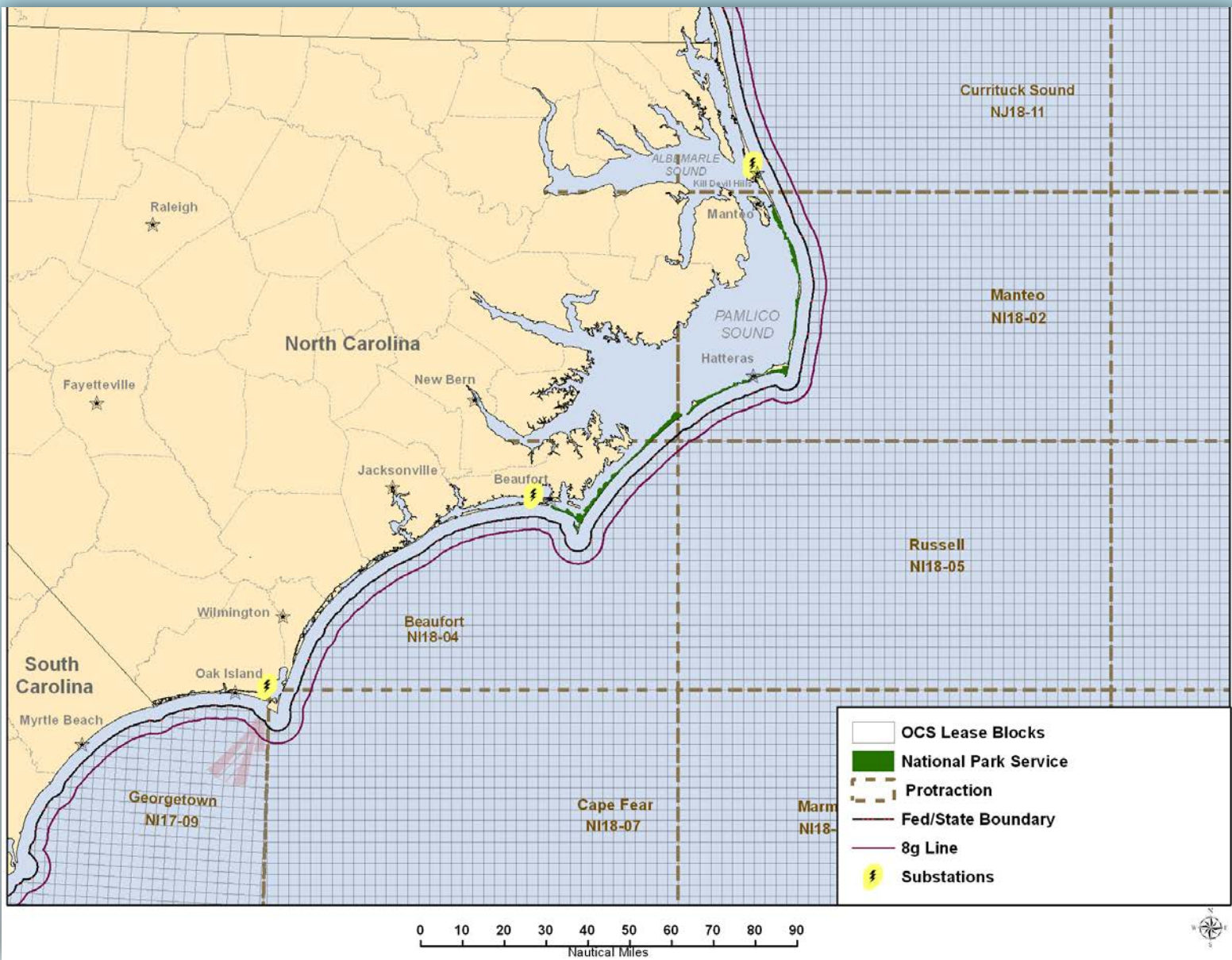
Federal , State and  
NGO Initiated  
Studies

Lessons Learned  
From the  
Delineation of  
Other Call Areas

BOEM North  
Carolina Renewable  
Energy Task Force  
Dialogue

Analysis of  
Available Data

Motivated Partners



	A	B	C	D		A	B	C	D	
	E	F	G	H		E	F	G	H	
	I	J	K	L		I	J	K	L	
	M	N	O	P		M	N	O	P	
	6629					6630				
	A	B	C	D		A	B	C	D	
	E	F	G	H		E	F	G	H	
	I	J	K	L		I	J	K	L	
	M	N	O	P		M	N	O	P	
	6679					6680				
	A	B	C	D		A	B	C	D	
	E	F	G	H		E	F	G	H	
	I	J	K	L		I	J	K	L	
	M	N	O	P		M	N	O	P	

### 1 OCS Block

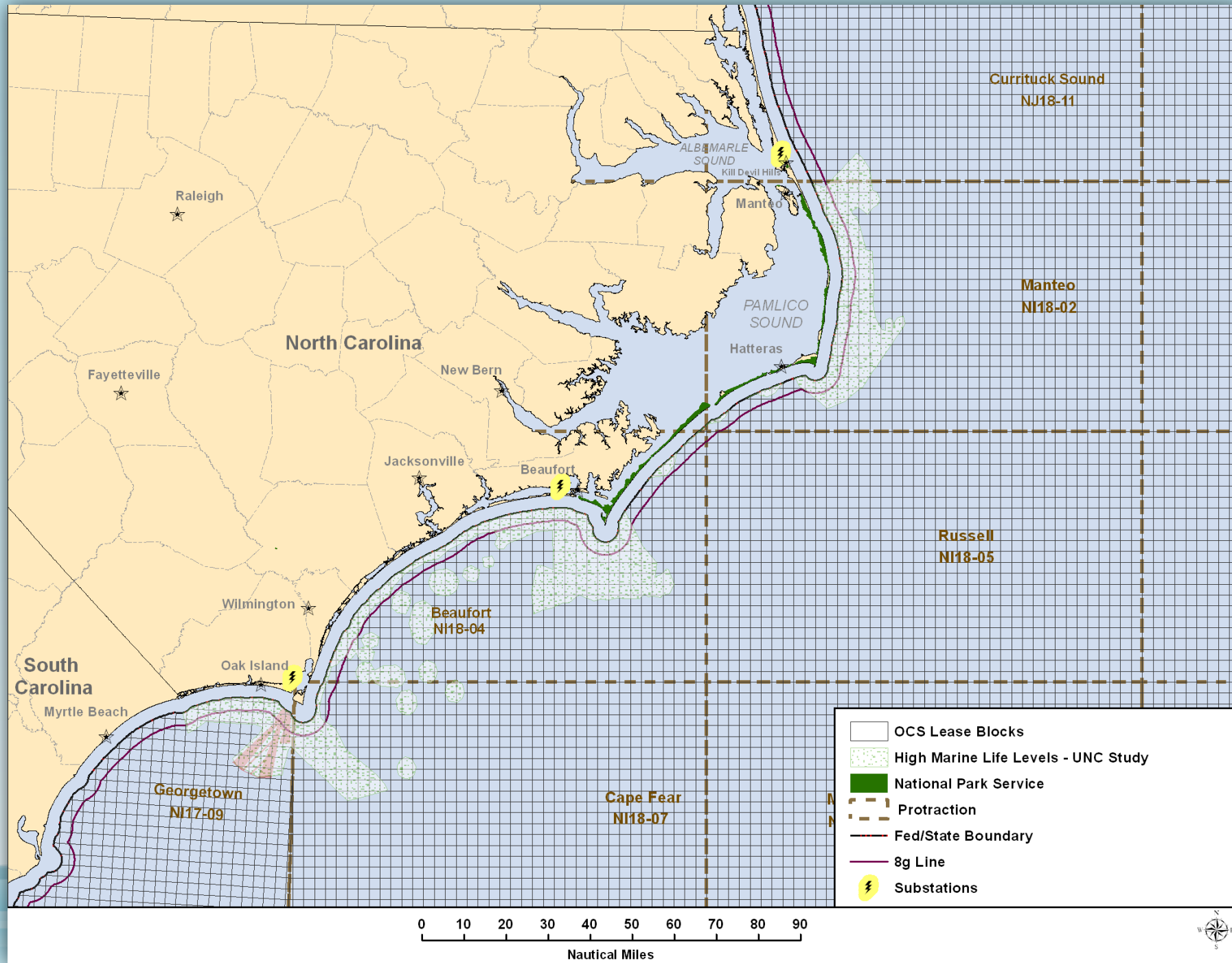
- 4800 meters x 4800 meters
- 3204 hectares

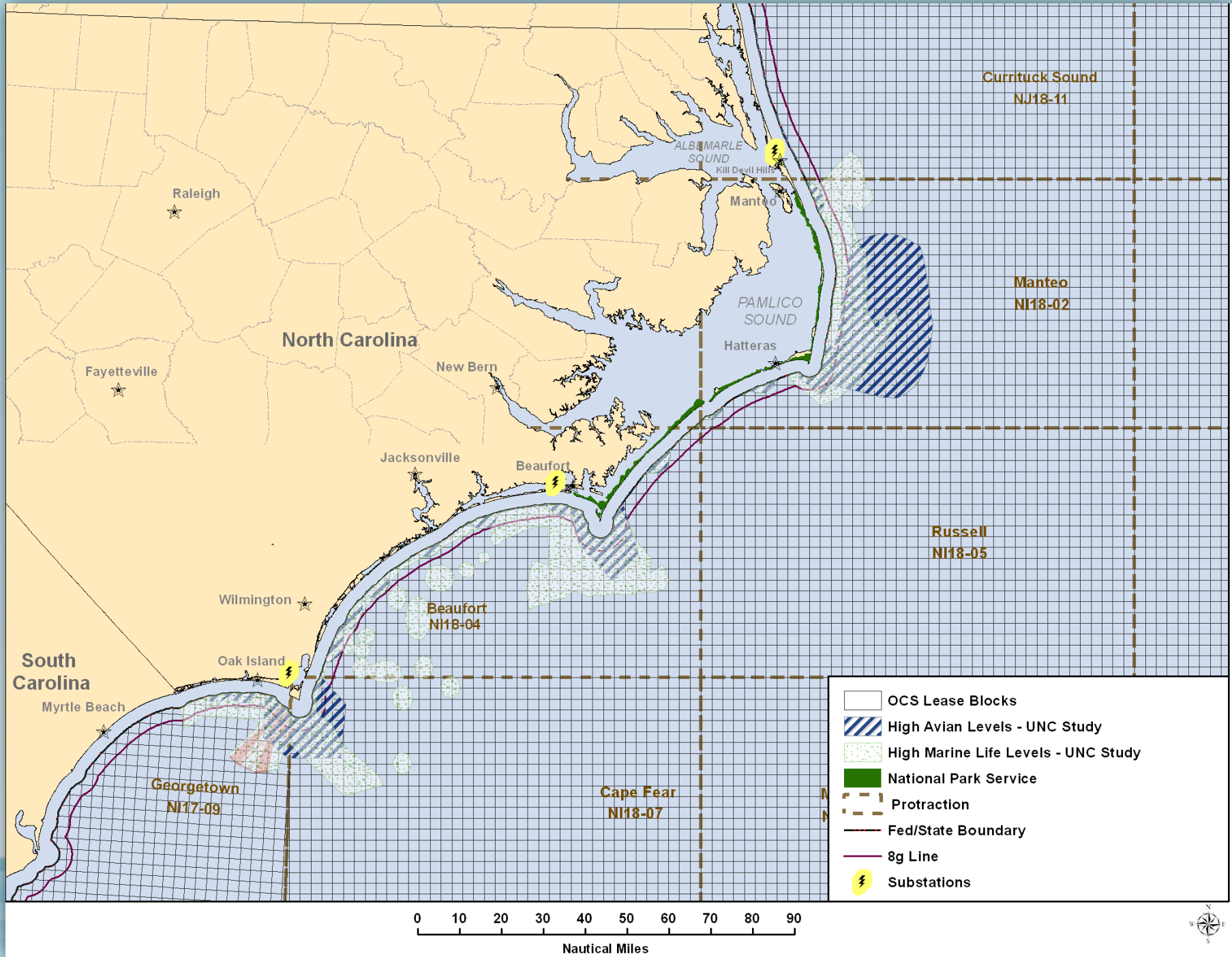
### 1 Aliquot = 1/16 of an OCS Block

- 1200 meters x 1200 meters
- 144 hectares

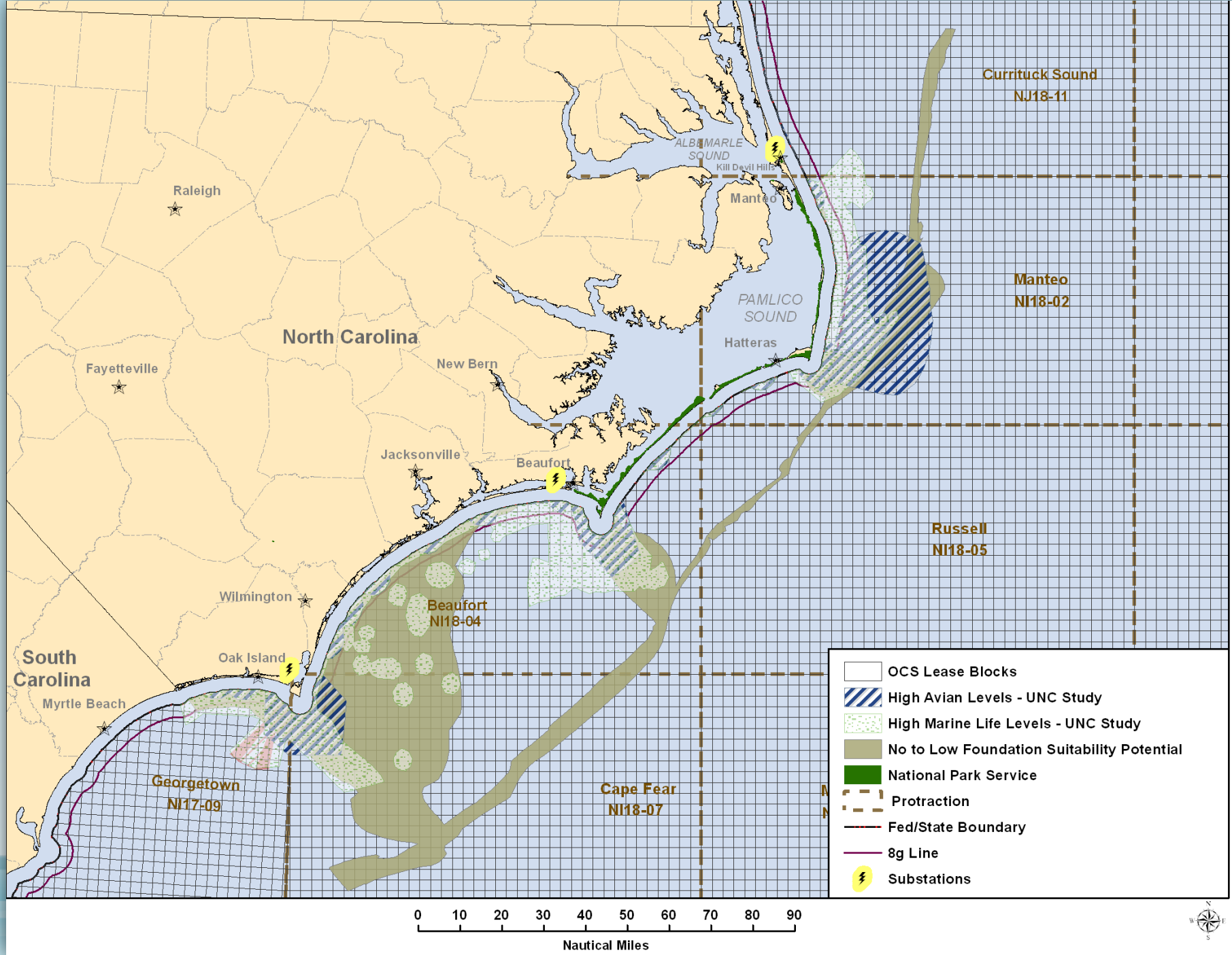
### Federal/State Boundary (SLA)

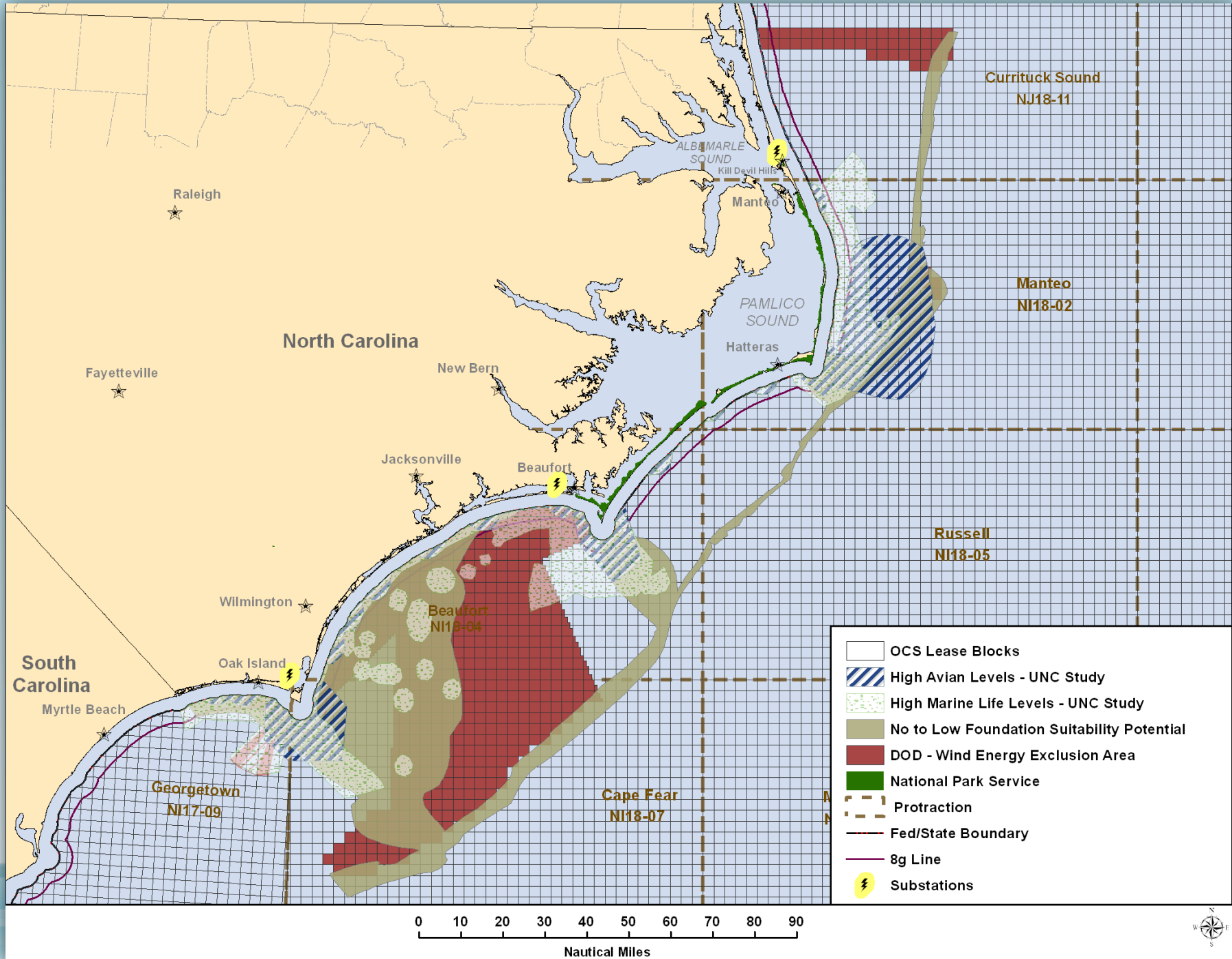
- 3 statute miles from the coastline



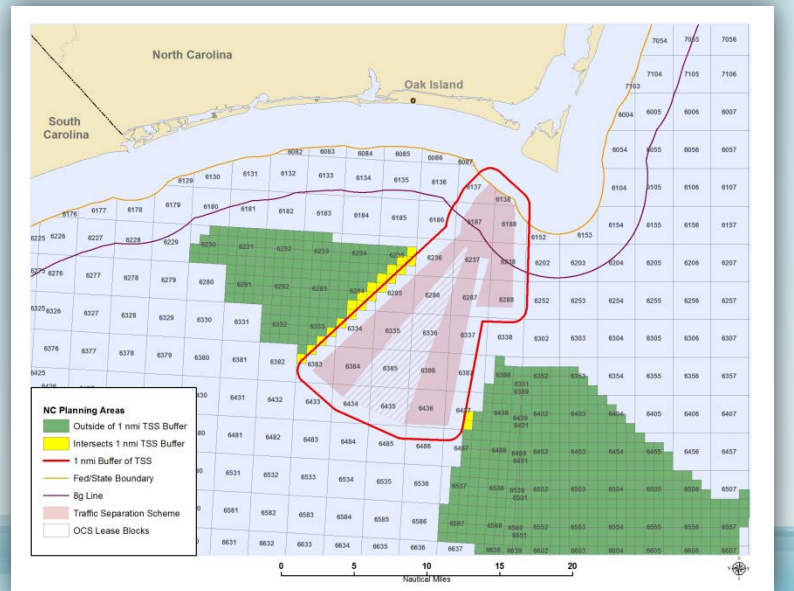
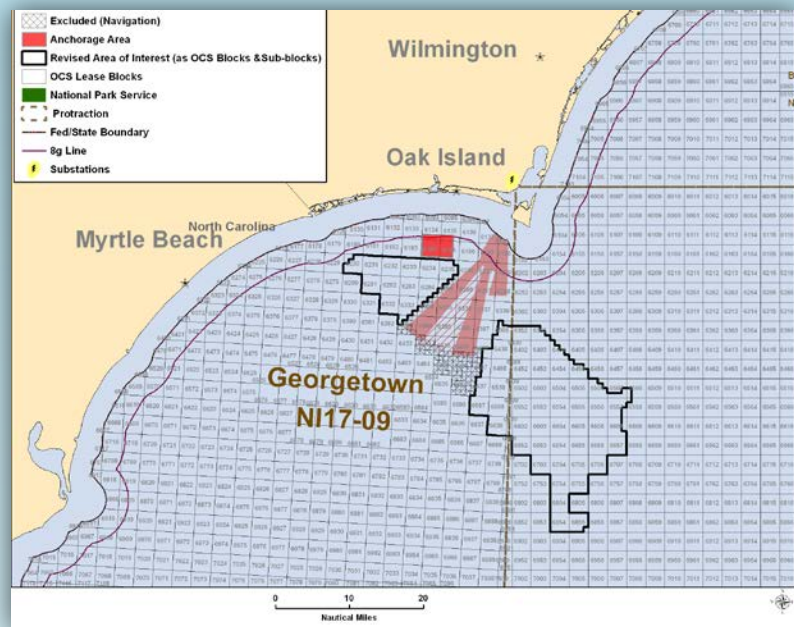
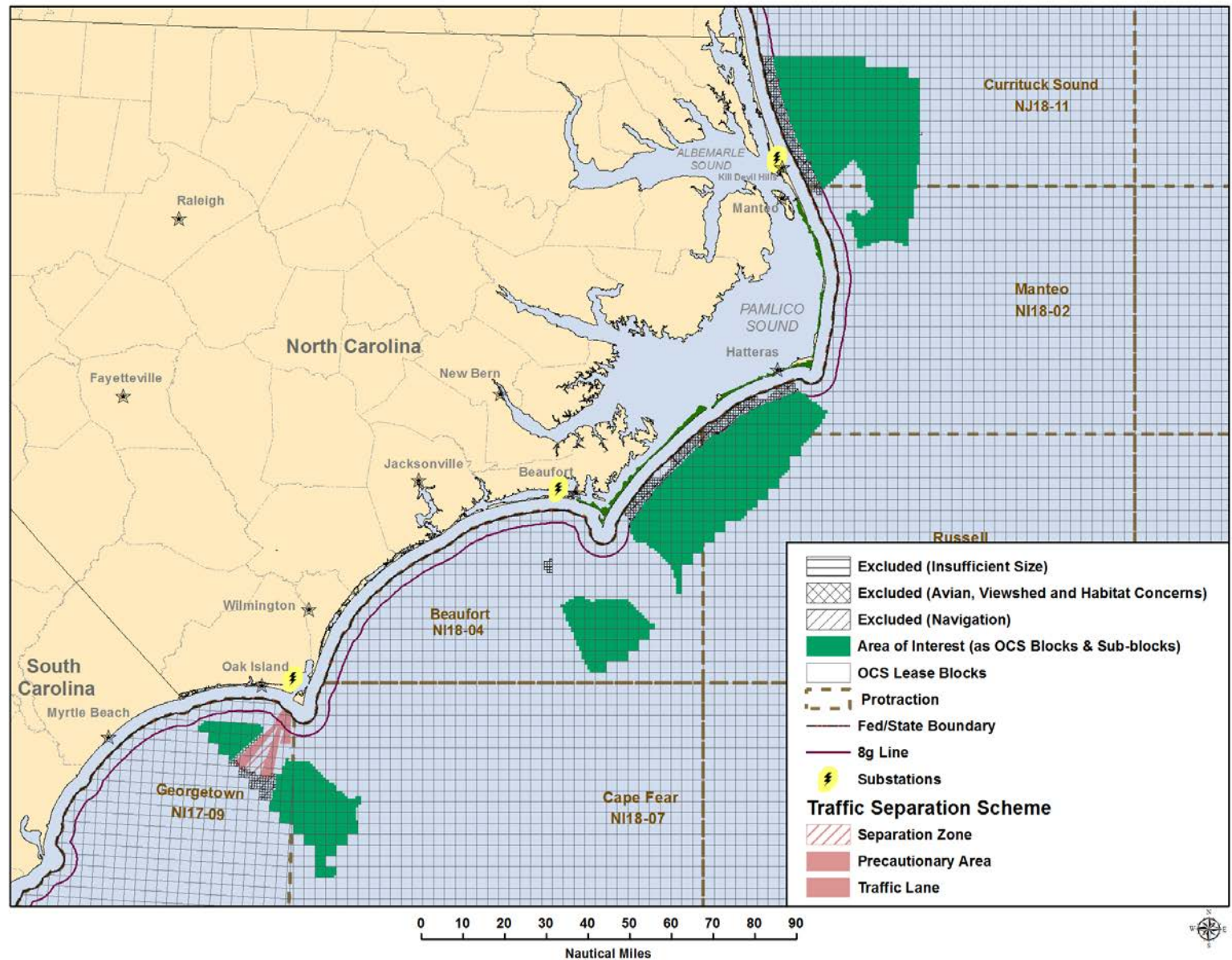






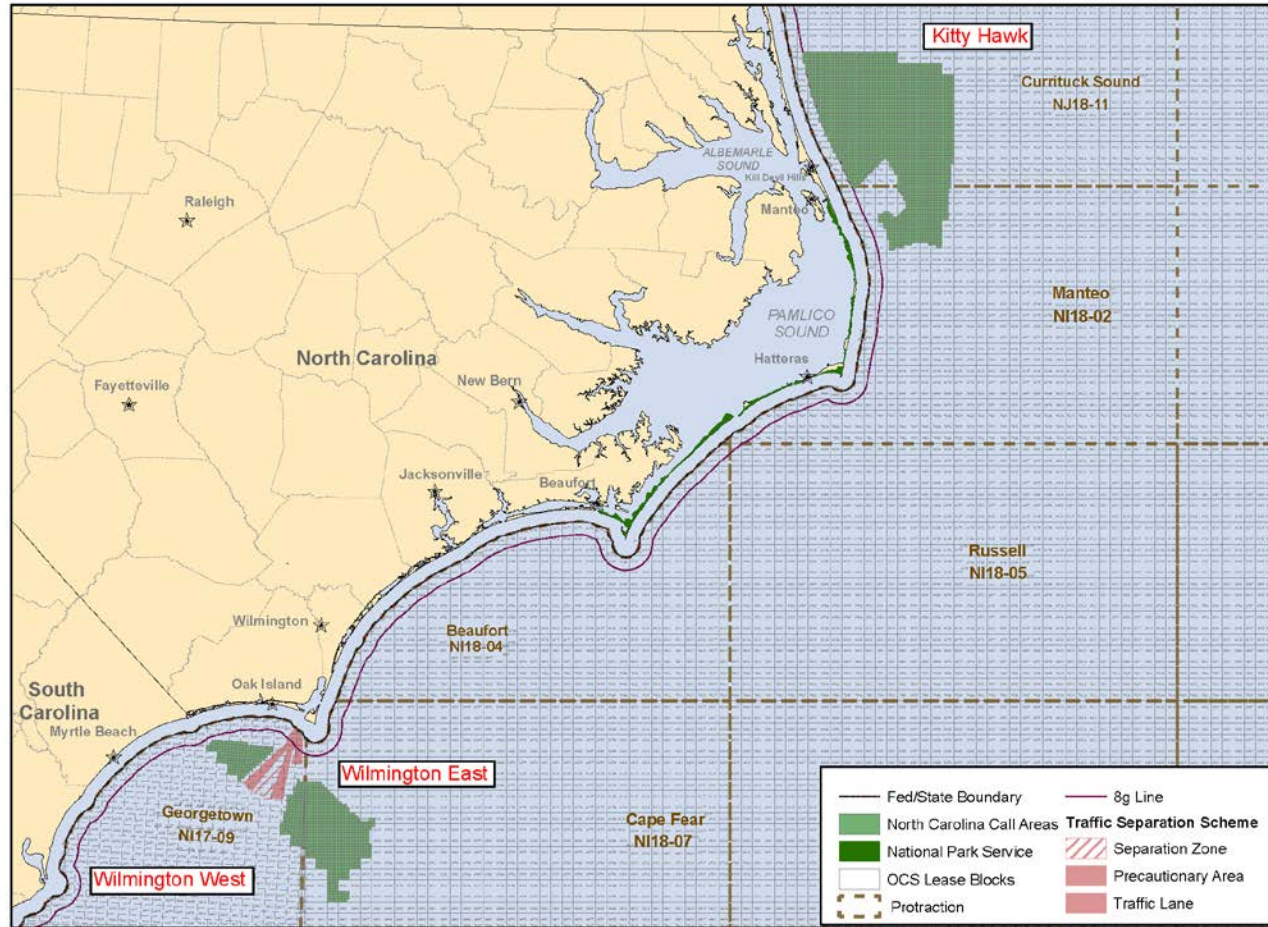






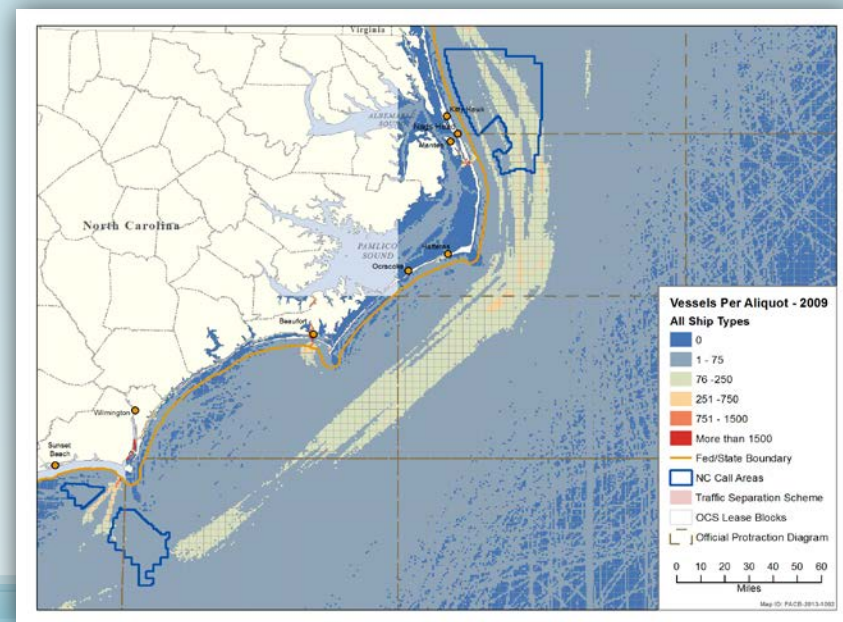
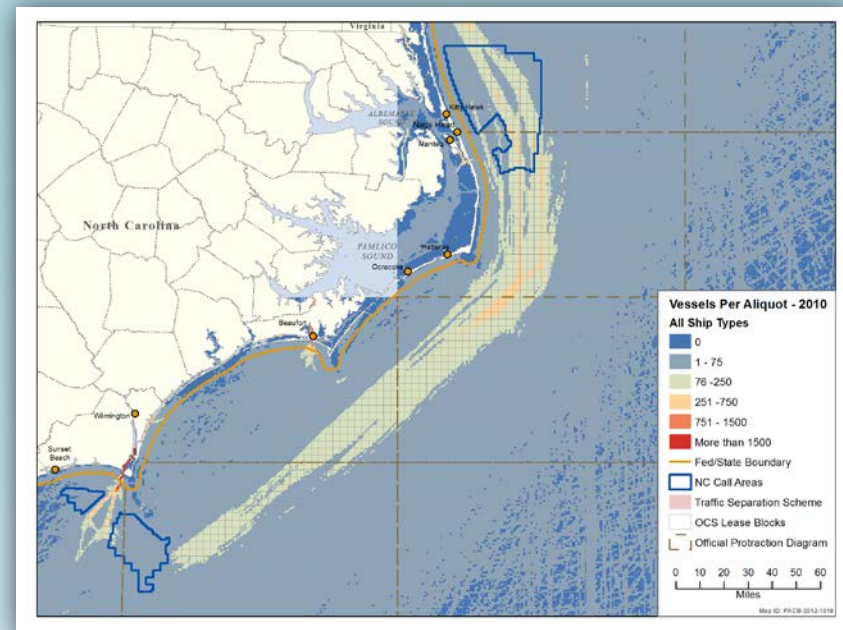
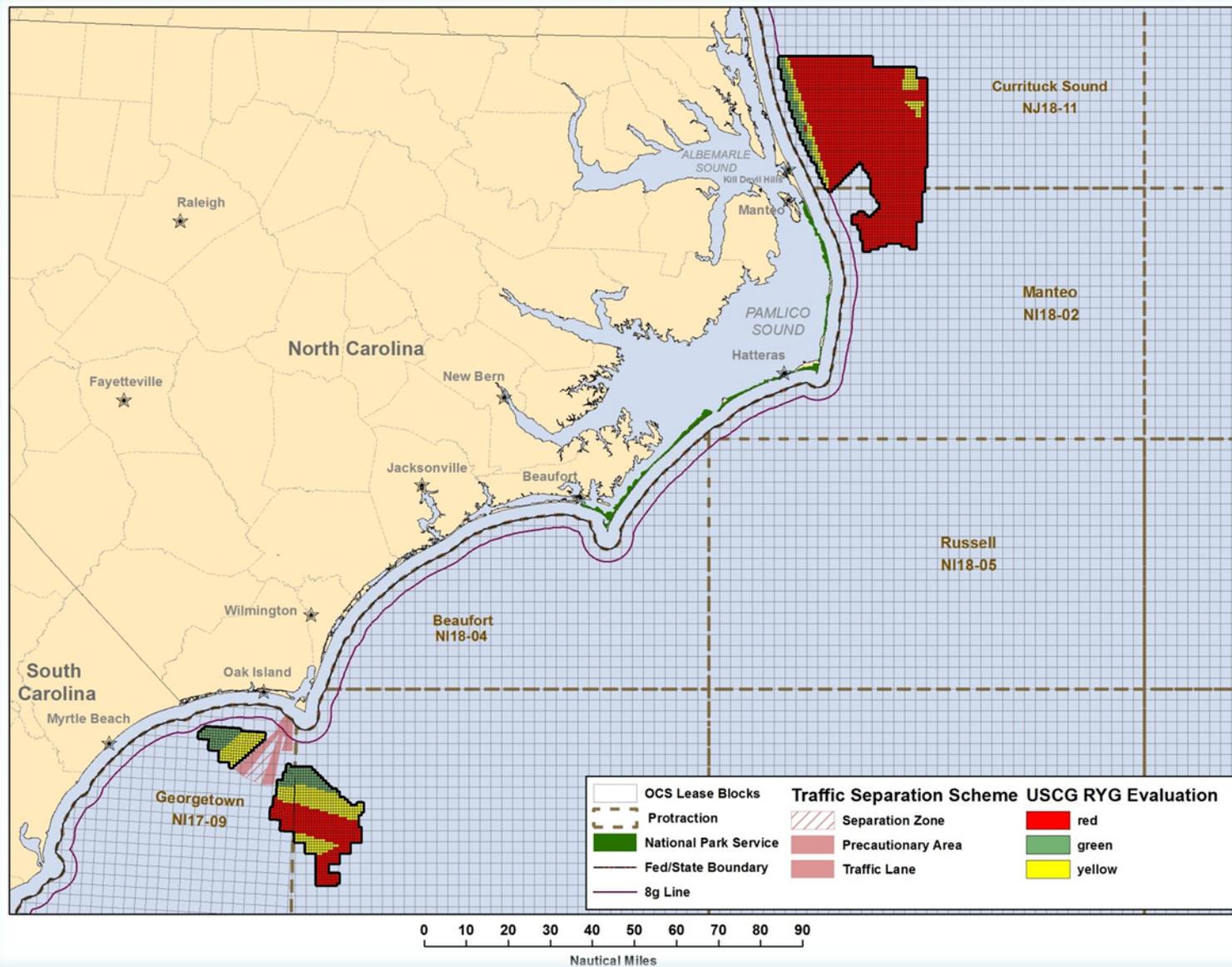


# North Carolina Call Areas



Area	Size (hectares)	Number of Blocks	Distance to Shore (nmi)
Wilmington - East	111,984 327 nmi	51 Full 15 Partial	7
Wilmington - West	26,784 78 nmi	6 Full 8 Partial	13
Kitty Hawk	355,284 1,036 nmi	138 Full 36 Partial	6
All Areas Combined	494,016 1,441 nmi	195 Full 60 Partial	N/A

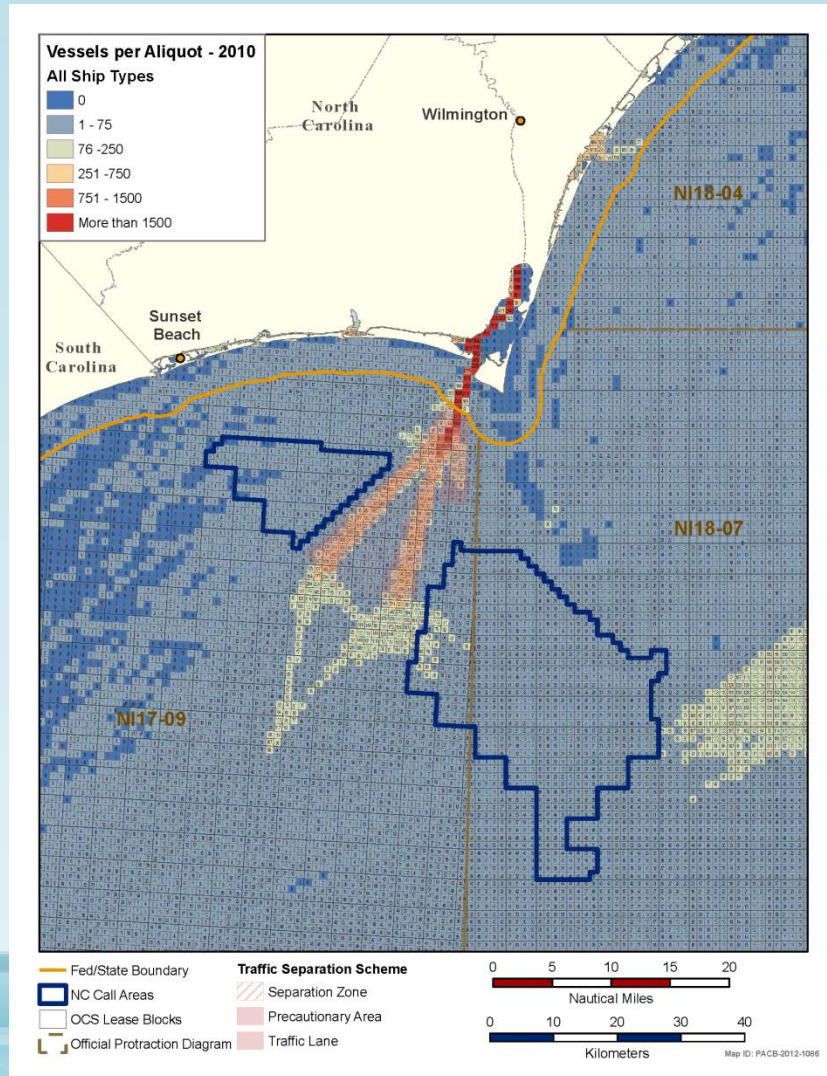




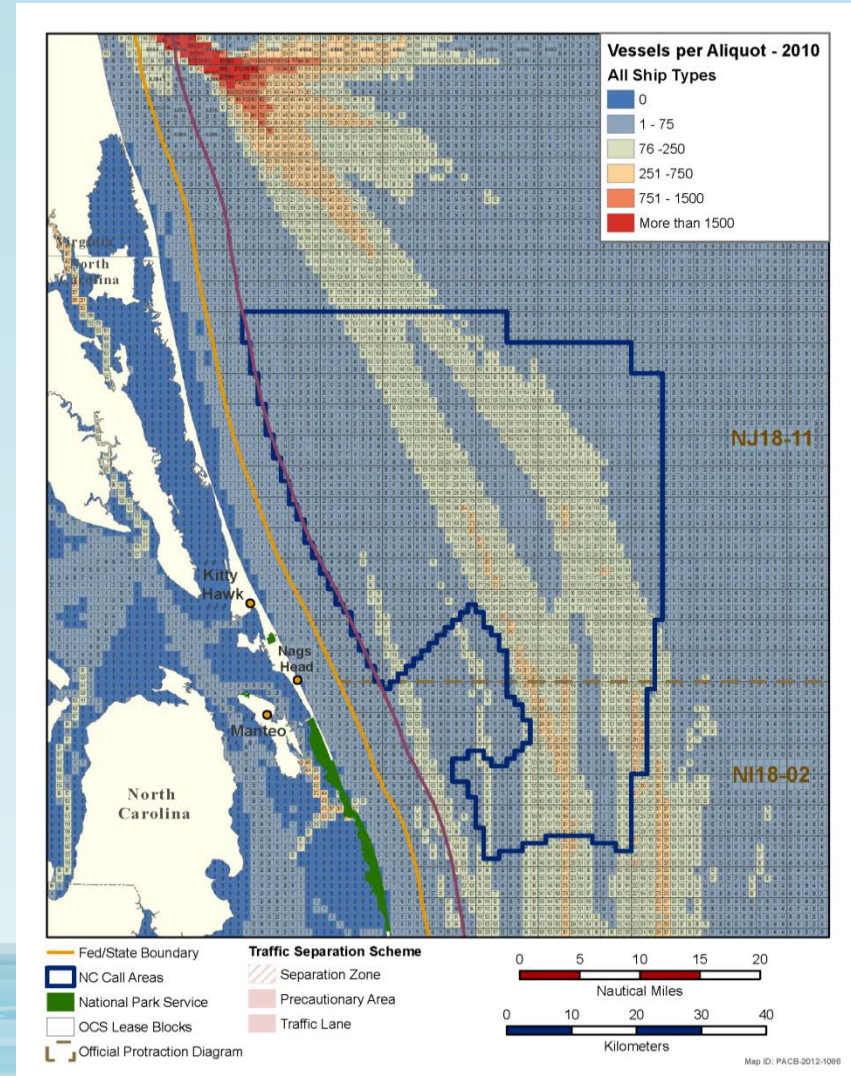


# Vessel Traffic Concerns

## Wilmington: West & East

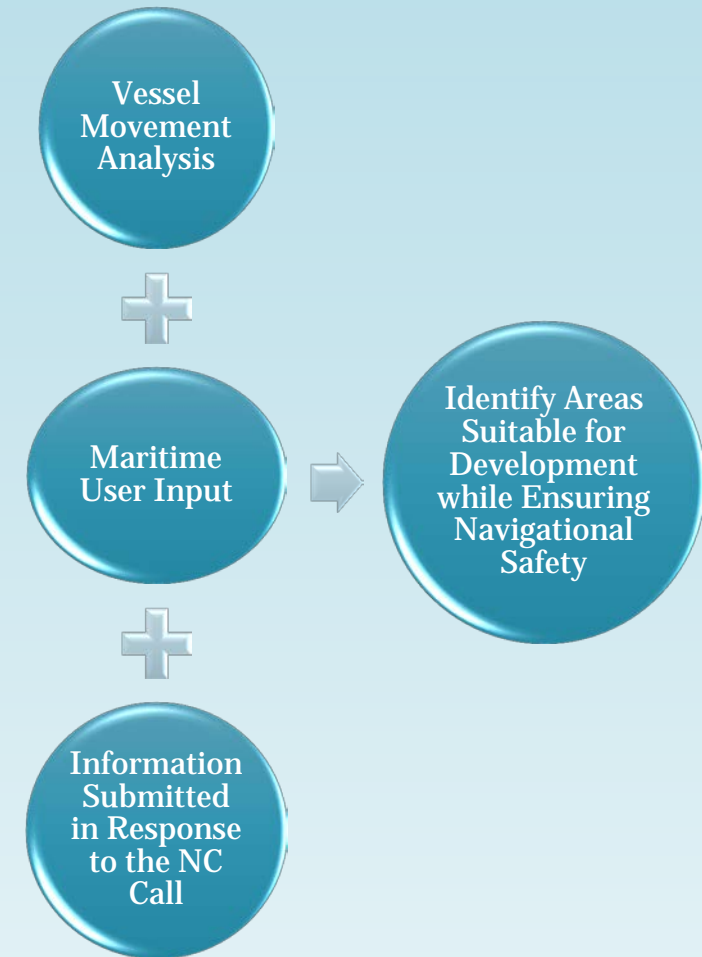


## Kitty Hawk



# Maritime Working Group (MWG)

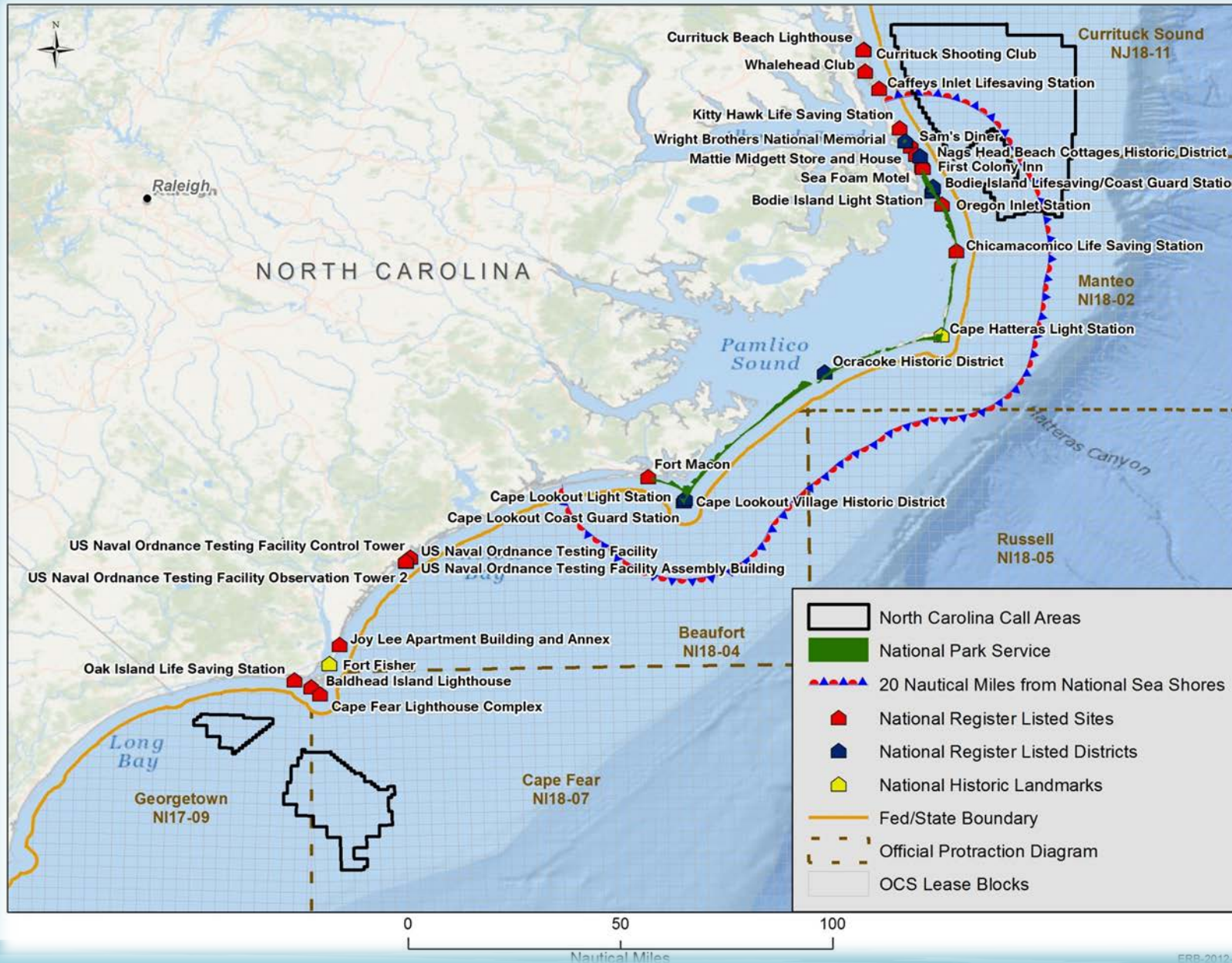
- Combing Quantitative Analysis and Applied Knowledge to Find Practical Solutions
- Participants include: USCG, Port Authorities, Department of Defense, Various Maritime Organizations, Pilots, Captains, etc., with knowledge of the Areas in question
- First Meeting Held in Norfolk, VA on December 5
- Focusing on:
  - Deepwater Vessels (Tankers and Cargo Vessels)
  - Towing and Tug Vessels





# North Carolina Visualization Study to Assist in Assessing Visual Impacts

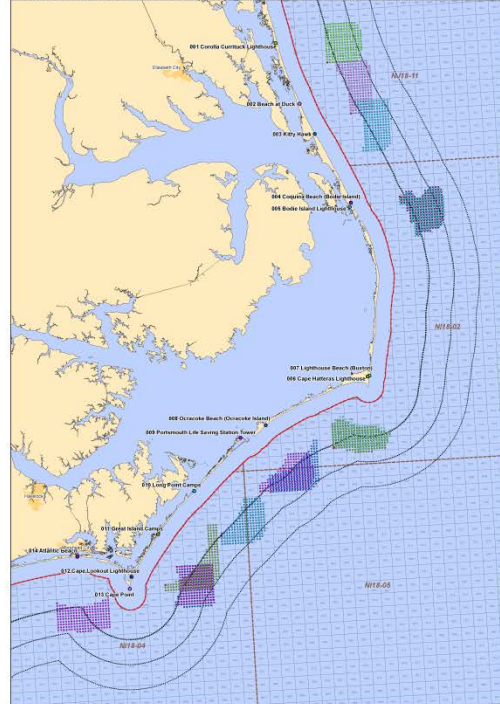
- Conducted in Partnership with the National Park Service
- Contracted to Mangi Environmental Group and its subcontractors T.J. Boyle Associates and LPES, Inc.
- Create and develop photo documentation, photomontages and videos to provide an accurate representation of the appearance of offshore wind facilities from various locations under various lighting conditions.
- 18 Different Locations
- 4 Lighting Conditions
- 3 Distances (10 nmi, 15nmi and 20nmi)
- Two Turbine Models (3.6 M and 7MW)



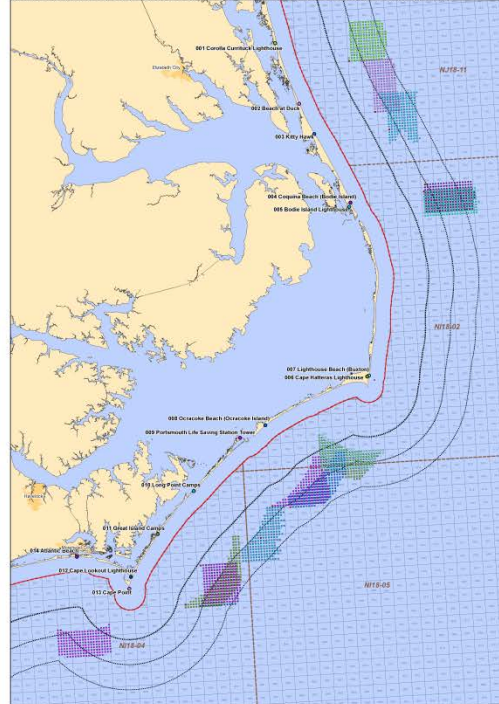


# Visual Simulation Locations & Configurations

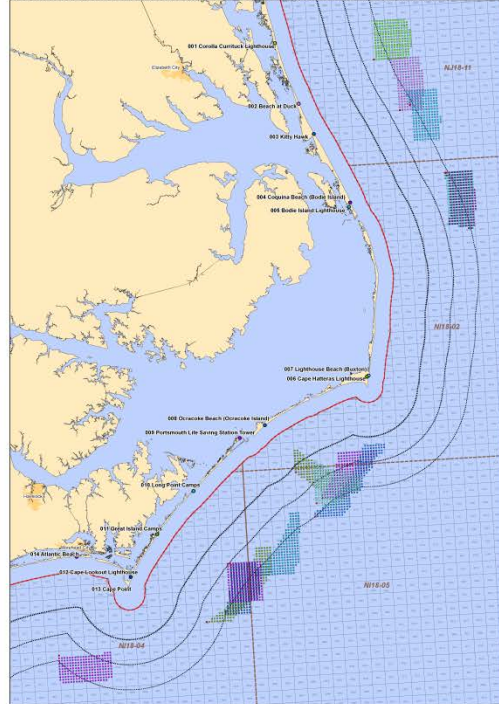
Nearest wind turbines at 10 nm, northern North Carolina



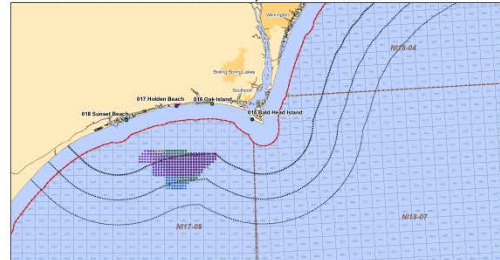
Nearest wind turbines at 15 nm, northern North Carolina



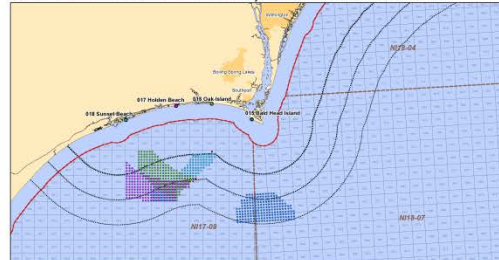
Nearest wind turbines at 20 nm, northern North Carolina



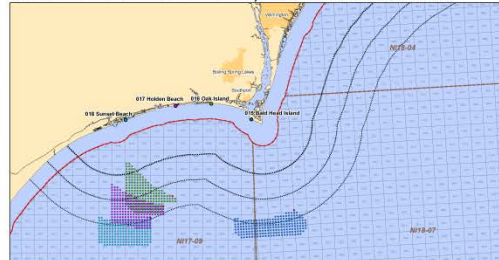
Nearest wind turbines at 10 nm, southern North Carolina



Nearest wind turbines at 15 nm, southern North Carolina



Nearest wind turbines at 20 nm, southern North Carolina



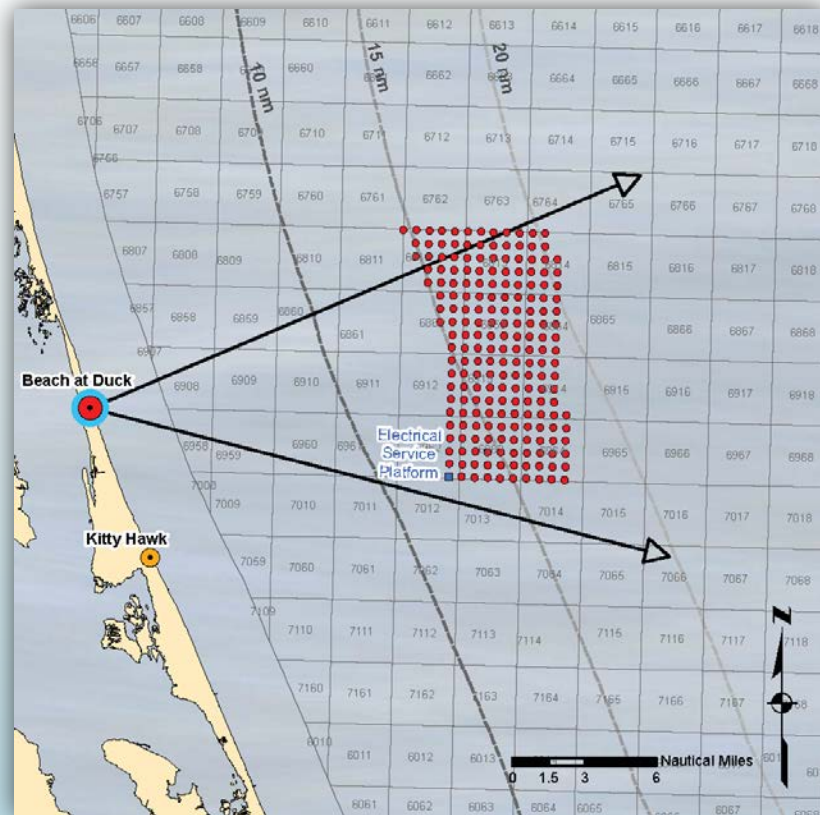
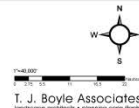
Visualization Study for Offshore North Carolina  
Project Location Map  
June 2012



## Legend

- Substation
- Wind Turbine
- Viewpoint Location
- Protraction Block Boundary
- OCS Block Boundary
- City
- Submerged Lands Act Boundary

Site	Latitude (degrees)	Longitude (degrees)	Site	Latitude (degrees)	Longitude (degrees)
001 Corolla Curlew Lighthouse	36.376960	-76.630630	007 Lighthouse Beach	35.253880	-75.521500
002 Beach at Duck	36.170360	-75.740270	008 Ocracoke Beach	34.897960	-76.738200
003 Kitty Hawk	36.067520	-75.690240	009 Portsmouth Life Saving Sta. Tower	35.086960	-76.057530
004 Curlew Beach	35.632440	-75.557370	010 Long Point Camps	34.698978	-76.255153
005 Bodie Island Lighthouse	35.618022	-75.563265	011 Great Island Camps	34.761233	-76.403660
006 Cape Hatteras Lighthouse	35.250530	-75.528860	012 Cape Lookout Lighthouse	34.622760	-76.524520
			013 Cape Point	33.913960	-78.181360
			014 Bald Head Island	33.857910	-78.002625
			015 Oak Island	33.910173	-78.304547
			016 Hidden Beach	33.666875	-78.506475



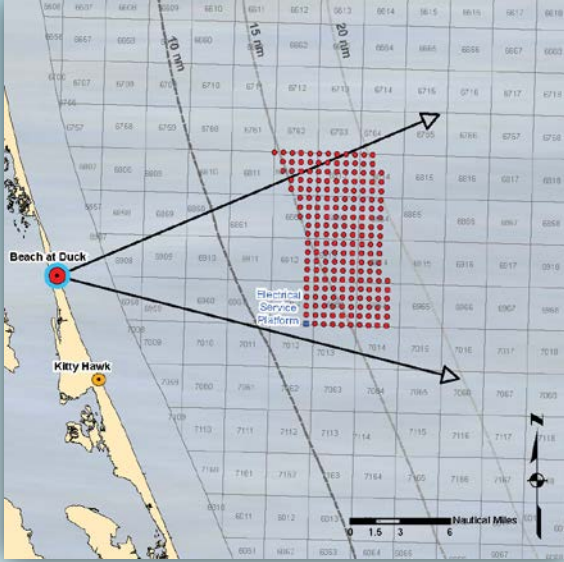
PANORAMA



Simulation location within the panorama view (190° X 60°)  
from the Beach at Duck site

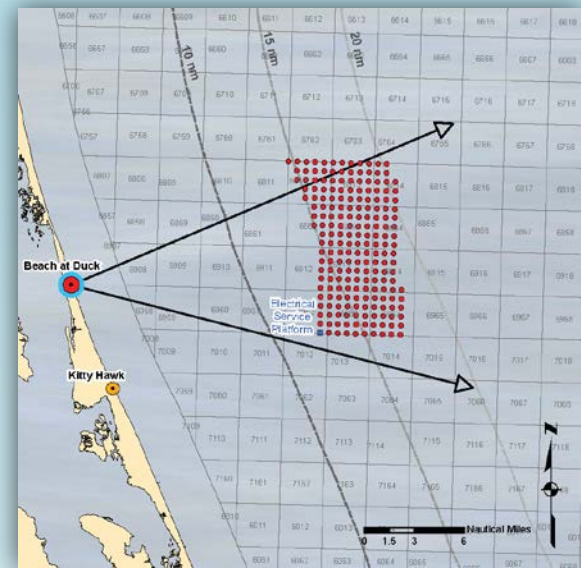
T. J. Boyle Associates  
landscape architects • planning consultants





# Beach at Duck

Late Afternoon  
Siemens SWT 3.6-107  
10 nmi from Shore  
200 WTGs



# Beach at Duck

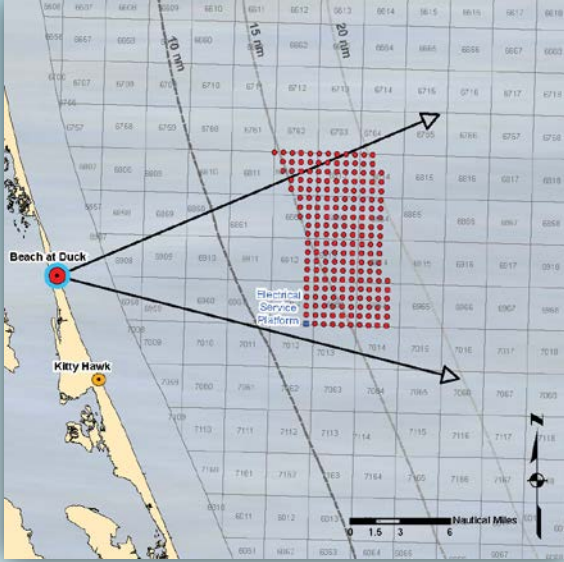
Late Afternoon

Siemens SWT 3.6-107

20 nmi from Shore

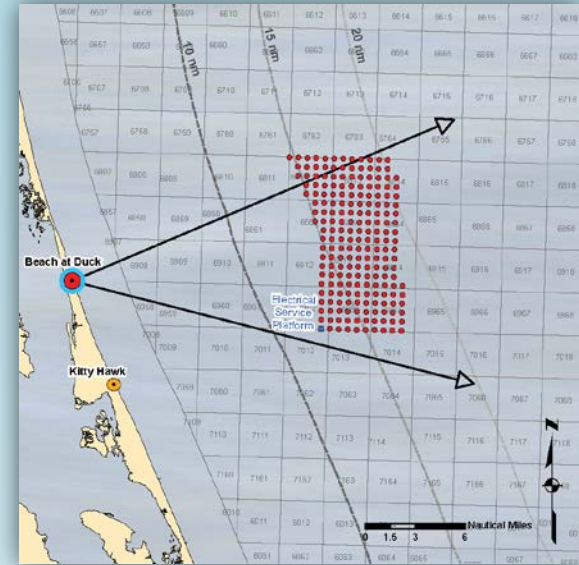
200 WTGs





# Beach at Duck

Late Afternoon  
Vestas V164-7.0 MW  
10 nmi from Shore  
200 WTGs



# Beach at Duck

Late Afternoon

Vestas V164-7.0 MW

20 nmi from Shore

200 WTGs

# Call Comments Due January 28

- The Call is available online at:
  - <http://boem.gov/Renewable-Energy-Program/State-Activities/North-Carolina.aspx>
- You may submit comments to [www.regulations.gov](http://www.regulations.gov). In the entry entitled “Enter Keyword or ID,” enter “BOEM 2012-0088”. Then click search and follow the instructions.
- You may send comments by regular mail or hand deliver to:

Program Manager  
Office of Offshore Renewable Energy Programs  
Bureau of Ocean Energy Management  
381 Elden Street, HM 1328  
Herndon, Virginia 20170

# Thank You!