Center for Wind Energy at JMU

Data Citations for Offshore Map Data Viewer.

1. **90 M Wind Speeds**
   http://www.nrel.gov/gis/data/GIS_Data_Technology_Specific/United_States/Wind/metadata/atlantic_coast_metadata.htm
   Description:
   Annual average offshore wind speed for the Atlantic Coast (Connecticut, Delaware, Georgia, Massachusetts, Maine, Maryland, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, South Carolina, and Virginia) at a 90 meter height.
   Purpose:
   Provide information on the wind resource development potential for the Atalntic Coast (Connecticut, Delaware, Georgia, Massachusetts, Maine, Maryland, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, South Carolina, and Virginia).
   Supplemental_Information:
   The offshore wind speed estimates are a combination of several datasets. Data for Georgia, Maine, Massachusetts, and New Hampshire were produced by AWS Truepower for offshore mapping projects using their MesoMap system and historical weather data. The offshore wind resource data for Connecticut, Delaware, Maryland, New Jersey, New York, Rhode Island, North Carolina, South Carolina and Virginia were also produced by AWS Truepower, but as part of onshore wind mapping projects. Speed data for these states were interpolated to 90-m height and extrapolated to 50 nautical miles by NREL. All raster datasets had a 200 m spatial resolution with projections including UTM zones 17, 18 and 19, WGS 84. This shapefile was generated from the merged raster datasets and then projected to Geographic Decimal Degrees, datum WGS 84.
2. **Wrecks and obstructions**
   https://coast.noaa.gov/arcgis/rest/services/MarineCadastre/NavigationAndMarineTransportation/MapServer/1
   Description: In 1981, NOAA's National Ocean Service (NOS) implemented the Automated Wreck and Obstruction Information System (AWOIS) to assist in planning hydrographic survey operations and to catalog and store a substantial volume of reported wrecks and obstructions that are considered navigational hazards within U.S. coastal waters. As part of the hydrographic survey planning process, these records are reviewed and those records which require additional field investigation are assigned to specific field units for verification. The results of these investigations eventually become part of the AWOIS record so that a permanent history of a wreck or obstruction is always available. AWOIS is not a comprehensive record of wrecks in any particular area. There are wrecks in AWOIS that do not appear on the nautical chart and there are wrecks on the nautical chart that do not appear in AWOIS. Updates to AWOIS are ongoing; however, it will never completely address every known or reported wreck. For more information regarding this data and the definitions of the symbols please reference the publication link under additional information.

3. **Coastal power plants**

https://hifld-dhs-gii.opendata.arcgis.com/datasets/3d6829f8fa3e4405b2170331dbf1c316_0

<origin>Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office for Coastal Management (OCM)</origin>
<pubdate>20160316</pubdate>
<title>Coastal Energy Facilities in the United States for 2012.</title>
<pubinfo>
<pubplace>Charleston, SC</pubplace>
<publish>NOAA's Ocean Service, Office for Coastal Management (OCM)</publish>
</pubinfo>
<onlink>ftp://ftp.coast.noaa.gov/pub/MSP/CoastalEnergyFacilities.zip</onlink>

<onlink>https://coast.noaa.gov/arcgis/rest/services/MarineCadastre/OceanEnergy/MapServer/</onlink>
<onlink>http://marinecadastre.gov/data/</onlink>
<onlink>https://coast.noaa.gov/</onlink>

4. **Critical Habitat**

https://hifld-dhs-gii.opendata.arcgis.com/datasets/6c7503314ed14bc6b25a55f4f90741f3_10

<origin>Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office for Coastal Management (OCM)</origin>
<pubdate>20160316</pubdate>
<title>Critical Habitat Designations in the United States as of January 2016.</title>
<pubinfo>
<pubplace>Charleston, SC</pubplace>
<publish>NOAA's Ocean Service, Office for Coastal Management (OCM)</publish>
</pubinfo>
<onlink>ftp://ftp.coast.noaa.gov/pub/MSP/CriticalHabitatDesignations.zip</onlink>

<onlink>https://coast.noaa.gov/arcgis/rest/services/MarineCadastre/PhysicalOceanographicAndMarineHabitat/MapServer/10</onlink>
<onlink>http://www.marinecadastre.gov/data/</onlink>
<onlink>https://www.coast.noaa.gov/</onlink>
<onlink>http://www.nmfs.noaa.gov/pr/species/criticalhabitat.htm</onlink>

5. **SBALP Tower Locations**

Data created by the Center for Wind Energy at JMU, SBALP program. Tower locations, tower attributes, wind data, site summary reports. Contact CWE for more information, 540-568-8770

6. **Wind speed 5ms and above**

AWS TruePower Data Layer. Extracted wind speeds 5 meters/second and greater. AWS layer is not free to the public.

7. **Disposal Sites**

<origin>Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office for Coastal Management (OCM)</origin>
<pubdate>20160914</pubdate>
<title>Ocean Disposal Sites</title>
<pubinfo>
<pubplace>Charleston, SC</pubplace>
<publish>NOAA's Ocean Service, Office for Coastal Management (OCM)</publish>
</pubinfo>
<onlink>ftp://ftp.coast.noaa.gov/pub/MSP/OceanDisposalSites.zip</onlink>

<onlink>https://coast.noaa.gov/arcgis/rest/services/MarineCadastre/NavigationAndMarineTransportation/MapServer</onlink>
<onlink>http://www.marinecadastre.gov/data/</onlink>
<onlink>https://www.coast.noaa.gov/</onlink>

8. **NDBC Buoys**

http://www.ndbc.noaa.gov/?lat=35.891568&lon=-78.815625&zoom=3&type=oceans&status=r&pgm=NDBC%20Meteorological%2FOcean&op=C-MAN%7CMoored%20Buoys&ls=n

9. **Airports**

https://hifld-dhs-gii.opendata.arcgis.com/datasets/cfaa29fda4e94c4187af4ece285e24d5_0

DESCRIPTION
The Airports database is a geographic point database of aircraft landing facilities in the United States and U.S. Territories. Attribute data is provided on the physical and operational characteristics of the landing facility, current usage including enplanements and aircraft operations, congestion levels and usage categories. This geospatial data is derived from the FAA's National Airspace System Resource Aeronautical Data Product.

10. **Bathymetric Contours**

https://hifld-dhs-gii.opendata.arcgis.com/datasets/de3fd8ac24204d02ba24970862d60663_7
Bathymetric contours extracted from the Coastal Relief Model. Coastal bathymetric depth, measured in meters at depth values of: -10, -20, -30, -40, -50, -60, -70, -80, -90, -100, -150 -200, -400, -600.