Ports Cargo Volumes
Northeast United States
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Prepared for:
Northeast Regional Ocean Council (NROC)

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1. INTRODUCTION

This data represents the cargo volume (metric tons/year) by port in the northeast United States and was created for the Northeast Ocean Planning Baseline Assessment. Cargo volume data was acquired from the US Army Corps of Engineers, 2013 Waterborne Commerce Statistics of the United States and categorized by 'Petroleum and Petroleum Products' and 'Other'. Port location data was acquired from National Geospatial-Intelligence Agency (NGA) World Port Index.

2. PURPOSE

This data was prepared for the Northeast Ocean Planning Baseline Assessment.

3. SOURCES AND AUTHORITIES

- US Army Corps of Engineers, 2013 Waterborne Commerce Statistics of the United States, http://www.navigationdatacenter.us/wcsc/wcsc.htm
- National Geospatial-Intelligence Agency (NGA) World Port Index http://msi.nga.mil/NGAPortal/MSI.portal?_nfpb=true&_pageLabel=msi_portal_page_62&pubCode=0015

4. DATABASE DESIGN AND CONTENT

Native storage format: ArcGIS File Geodatabase – simple feature class

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Uniquely identifies a feature	Object ID	*
2	PORT_NAME	Name of port	string	254
3	COUNTRY	Country the feature is found within	string	254
4	Shape	Geometric representation of the	geometry	*

		feature		
5	Port	Name of port with state abbreviation	string	255
6	PetroleumAndProducts	Volume (metric tons/year) of petroleum & petroleum products	double	*
7	Other	Volume (metric tons/year) of other cargo	double	*
8	Total	Volume (metric tons/year) of petroleum & petroleum products and other cargo	double	*

Feature Class Name: PortsCargoVolumes
Total Number of Unique Features: 12

5. SPATIAL REPRESENTATION

Geometry Type: Simple Point

Projected Coordinate System: Web Mercator Auxiliary Sphere
Reference System: Geographic Coordinate System
Horizontal Datum: World Geodetic System 1984
Ellipsoid: World Geodetic System 1984

XY Tolerance: 0.001

Geographic extent: -73.55 dd to -68.916667 dd, 41.033333 dd to 44.45 dd

6. DATA PROCESSING

Processing environment: ArcGIS 10.3.1, Windows 7 Professional, Intel Core i5-4590 CPU

	Process Step Description
1	US ports service layer *US_ports* was added to ArcMap from ArcGIS Online. This layer represents the National Geospatial-Intelligence Agency (NGA) World Port Index. Description: http://msi.nga.mil/NGAPortal/MSI.portal?_nfpb=true&_pageLabel=msi_portal_page_62&pubCode=0015 Feature service url: http://services3.arcgis.com/N2cjIoVJvUn451AH/arcgis/rest/services/US_ports/FeatureServer
2	Ports of interest were selected out using: A SELECT * FROM US_ports WHERE:

	PORT_NAME = 'SALEM' OR PORT_NAME = 'BOSTON' OR PORT_NAME = 'NEW BEDFORD' OR PORT_NAME = 'FALL RIVER' OR PORT_NAME = 'PROVIDENCE' OR PORT_NAME = 'NEW LONDON' OR PORT_NAME = 'NEW HAVEN' OR PORT_NAME = 'BRIDGEPORT' OR PORT_NAME = 'STAMFORD' OR PORT_NAME = 'SEARSPORT' OR PORT_NAME = 'PORTLAND' OR PORT_NAME = 'PORTSMOUTH'
3	The selected features from the US_ports service layer was exported to a feature class within a file geodatabase
4	Unnecessary fields were deleted. See below for a list of deleted fields.
5	Fields were added. See below for a list of added fields.
6	In the attribute table, 'Petroleum and Petroleum Products' and 'Other' (metric tons/year) data were added to their corresponding field and port.
7	Field Calculator was run to populate the Total with the equation Total = [PetroleumAndProducts] + [Other]
8	Port name and state abbreviations were manually entered in the Port field.

List of deleted fields (process step 4):

INDEX_NO	MAX_VESSEL	MED_FACIL
REGION_NO	HOLDGROUND	GARBAGE
LATITUDE	TURN_BASIN	DEGAUSS
LONGITUDE	PORTOFENTR	DRTYBALLST
LAT_DEG	US_REP	CRANEFIXED
LAT_MIN	ETAMESSAGE	CRANEMOBIL
LAT_HEMI	PILOT_REQD	CRANEFLOAT
LONG_DEG	PILOTAVAIL	LIFT_100_
LONG_MIN	LOC_ASSIST	LIFT50_100
LONG_HEMI	PILOTADVSD	LIFT_25_49
PUB	TUGSALVAGE	LIFT_0_24
CHART	TUG_ASSIST	LONGSHORE
HARBORSIZE	PRATIQUE	ELECTRICAL
HARBORTYPE	SSCC_CERT	SERV_STEAM
SHELTER	QUAR_OTHER	NAV_EQUIP
ENTRY_TIDE	COMM_PHONE	ELECREPAIR
ENTRYSWELL	COMM_FAX	PROVISIONS
ENTRY_ICE	COMM_RADIO	WATER
ENTRYOTHER	COMM_VHF	FUEL_OIL
OVERHD_LIM	COMM_AIR	DIESEL
CHAN_DEPTH	COMM_RAIL	DECKSUPPLY
ANCH_DEPTH	CARGOWHARF	ENG_SUPPLY
CARGODEPTH	CARGO_ANCH	REPAIRCODE
OIL_DEPTH	CARMDMOO	DRYDOCK
TIDE_RANGE	CARBCHMOOR	RAILWAY

List of added fields (process step 5):

Port	Other
PetroleumAndProducts	Total

7. QUALITY PROCESS

Attribute Accuracy: Attribute values were checked though sources and authorities.

Logical Consistency: Tested through visual inspection of geometry.

Completeness: This data does not serve as an exhaustive list of ports or cargo volume in the northeast United States. This data represents cargo volume ports in the northeast region, acquired from the US Army Corps of Engineers, 2013 Waterborne Commerce Statistics of the United States for use in the Northeast Ocean Planning Baseline Assessment.

Positional Accuracy: Intended to serve as general locations of ports at a regional scale.

Timeliness: Cargo volume data from US Army Corps of Engineers, 2013 Waterborne Commerce Statistics of the United States. Port locations based on best available data as of February 12, 2016.

Use restrictions: Not for navigation.