Safety, Security and Regulated Areas
Northeast United States
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Prepared for:
Northeast Ocean Data
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1. INTRODUCTION

The Regulated, Safety and Security Zones map layer identifies areas in which vessel access is either limited or restricted, or within which special regulations apply. The primary source material consisted of coordinates from the electronic Code of Federal Regulations (CFR), Title 33, Part 165, Subpart F, First Coast Guard District. The purpose of this part is to:

(a) Prescribe procedures for establishing different types of limited or controlled access areas and regulated navigation areas;

(b) Prescribe general regulations for different types of limited or controlled access areas and regulated navigation areas;

(c) Prescribe specific requirements for established areas; and

(d) List specific areas and their boundaries.

Additional spatial information was provided by NOAA digital nautical charts in cases where the CFR provided sufficient boundary descriptions rather than specific coordinates.

2. PURPOSE

To support coastal and ocean planning and other activities pursuant to the Coastal Zone Management Act, Energy Policy Act, Magnuson-Stevens Fishery Conservation and

Management Act, National Environmental Policy Act, Rivers and Harbors Act and the Submerged Lands Act.

3. SOURCES AND AUTHORITIES

Electronic Code of Federal Regulations – Title 33: Navigation and Navigable Waters, Part 165

- http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=09e3093fb256a009af5ad3d513f45a3d&n=33y2.0.1.6.34&r=PART&ty=HTML#33:2.0.1.6.34.1
- http://www.law.cornell.edu/cfr/text/33/165/subpart-F
- http://www.navcen.uscg.gov/?pageName=lnmDistrict&region=1
- http://www.charts.noaa.gov/OnLineViewer/AtlanticCoastViewerTable.shtml

Authority: 33 U.S.C. 1231; 46 U.S.C. Chapter 701, 3306, 3703; 50 U.S.C. 191, 195; 33 CFR 1.05-1, 6.04-1, 6.04-6, and 160.5; Pub. L. 107-295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

Source: CGD 79-034, 47 FR 29660, July 8, 1982, unless otherwise noted.

4. DATABASE DESIGN AND CONTENT

Native storage format: ArcGIS File Geodatabase – simple feature class

Feature types:

Regulated Navigation Area - a water area within a defined boundary for which regulations for vessels navigating within the area have been established under this part. Regulations might be temporary, permanent, or subject to certain conditions.

Safety and/or Security Zone –

- Safety Zone - a water area, shore area, or water and shore area to which, for safety or environmental purposes, access is limited to authorized persons, vehicles, or vessels, either temporarily, permanently, or under specific conditions. It may be stationary and described by fixed limits or it may be described as a zone around a vessel in motion. In cases where the safety zone exists around a temporary marine event, the zone is named by the event type

- Security Zone - an area of land, water, or land and water which is so designated by the Captain of the Port or District Commander for such time as is necessary to prevent

damage or injury to any vessel or waterfront facility, to safeguard ports, harbors, territories, or waters of the United States or to secure the observance of the rights and obligations of the United States.

Permanent – an area which is designated as a regulated navigation area or a safety and/or security zone (as described above) at all times.

Conditional – an area which is designated as regulated navigation area or a safety and/or security zone (as described above) under certain circumstances, such as when a vessel is anchored in that area.

Temporary - an area which is designated as a regulated navigation area or a safety and/or security zone (as described above) for a specified period of time, as specified in the timeFrame attribute, such as during an event. Safety and Security Zones which fall under this category are not displayed but are included in the downloadable dataset. Temporary safety and/or security zones may occur at a specified date and time or may be specified by a Notice of Enforcement in the Federal Register or the Local Notice to Mariners.

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Uniquely identifies a feature	OBJECTID	*
2	Shape	Geometric representation of the feature	geometry	*
3	description	General description of feature	text	50
3	location	General description of area	text	50
5	timeFrame	Specific date and time of enforcement, if applicable	text	100
6	CFRsection	Code of Federal Regulation section	text	16
7	designation	Zone designation	text	32
8	zoneCategory	Type of enforcement period	text	16
9	eventType	Type of event, if applicable	text	16
10	state	Location of a feature by state	text	2
11	genDesignation	Generalized description of the zone designation	text	64
12	SHAPE_Length	Measurement in spherical coordinates	double	*
13	SHAPE_Area	Measurement in spherical coordinates	double	*

Feature Class Name: SafetySecurityRegulatedAreas

Total Number of Unique Features: 307

Dataset Status: Complete

5. SPATIAL REPRESENTATION

Geometry Type: vector polygon
Reference System: GCS_North_American_1983
Horizontal Datum: North American Datum 1983
Ellipsoid: Geodetic Reference System 1980

XY Resolution: .001m
Tolerance: .001m

Geographic extent: -74.00 to -65.00, 34.92 to 46.00

IS0 19115 Topic Category: environment, oceans, transportation

Place Names: Place Names:

Arthur Kill, Atlantic Beach, Atlantic Ocean, Bellport Bay, Bergen Basin, Boon Island, Boothbay Harbor, Boston Harbor, Boston Inner Harbor, Beverly Harbor, Bowery Bay, Branford Harbor, Bridgeport Harbor, Buzzards Bay, Calf Pasture Beach, Camden Harbor, Cape Cod Bay, Cedar Beach Town Park, Charles River, Chelsea River, Compo Beach, Coney Island, Connecticut, Connecticut River, Cosey Beach, Duxbury Bay, Eastchester Bay, East River, Edgartown Harbor, Falmouth Beach, Fire Island, Fishers Island Sound, Fisher's Westcott Cove, Fort Point Channel, Flushing Bay, Friendship Harbor, Gardiner Bay, Gloucester Harbor, Gulf of Maine, Gravesend Bay, Great South Bay, Hampton Beach, Hempstead Harbor, Hingham Harbor, Hudson River, Huntington Bay, Ipswich Bay, Jamaica Bay, Jennings Beach, Jones Beach, Lake Champlain, Larchmont Harbor, Lewis Bay, Linekin Bay, Little Bay, Long Beach, Long Island Sound, Main Beach, Maine, Manchester Bay, Marblehead Harbor, Martha's Vineyard, Massachusetts, Massachusetts Bay, Merrimack River, Middletown Harbor, Midland Beach, Mystic River, Nahant Bay, Nantasket Beach, Nantucket, Nantucket Sound, Narragansett Bay, Navesink River, Newark Bay, New Bedford Harbor, Newburyport Harbor, New Hampshire, New Haven Harbor, Newtown Creek, New York, New York Bay, Niantic River, North Bay, Norwich Harbor, Oak Bluffs Harbor, Old Harbor, Patchogue Bay, Pierhead Channel, Piscataqua Harbor, Plymouth Harbor, Port Jefferson Harbor, Portland Harbor, Portsmouth, Providence Harbor, Provincetown Harbor, Quantuck Bay, Raritan Bay, Revere Beach, Rhode Island, Rockaway Beach, Rockaway Inlet, Rockland Harbor, Sag Harbor Bay, Salem Harbor, Salisbury Beach, Sandy Hook Bay, Saugus River, Seagull Beach, Shellpoint Beach, Sipican Harbor, South Bay, South Beach, South Ellis Beach, St. Albans Bay, Thames River, Three Mile Harbor, Thurston Bay, Treadwell Bay, Umbrella Beach, Vermont, Westbrook Harbor, Weymouth Fore River, York Beach

Recommended Cartographic Properties:
(Using ArcGIS ArcMap nomenclature)

Regulated Navigation Area: No Fill, 19-50-54, Outline dashed 6:6, 1.20
Safety and/or Security Zone – Permanent: Simple fill, 40-100-100; no outline
Safety and/or Security Zone – Conditional: Simple fill, 20-50-80; no outline

Scale range for optimal visualization: 10,000 to 1,000,000

6. DATA PROCESSING

Processing environment: ArcGIS 10.04, Windows 7 Professional, Intel Core i5 CPU

	Process Steps Description
1	Extraction and entry of coordinates from the CFR into Excel then ArcGIS
2	Development of polygon features using editor functions based on description in CFR in UTM 18 or UTM 19 depending on feature location. Features in different UTM zones were created in separate feature classes.
3	Entry of field values from CFR into attribute table in editing environment
4	On screen edit/digitizing of marine safety features using NOAA Raster Nautical Charts (RNC™) for records or coordinates not specified in CFR. Maximum chart scale used at each location. Point digitizing conducted at an average scale of 1:40,000
5	Clipping UTM 18 features which abut the shoreline shoreline shapefiles (NOAA medium resolution shoreline for features in UTM 18 and NOAA high resolution shoreline for features in UTM 19), using cut polygon and trace in the editing environment, or ERASE geoprocessing function, where necessary.
6	PROJECT datasets from UTM 18 and UTM 19 into NAD83 coordinate system.
7	MERGE datasets from separate UTM zones into single feature class.
8	Use edit vertices tool in the editing environment to join polygons from features which cross multiple UTM zones.

7. QUALITY PROCESS

Attribute Accuracy: Original content was acquired from authoritative sources – no new testing was done to cross reference or confirm otherwise the field or geometry values

Logical Consistency: Tested through visual inspection of the geometry at a scale of 1:10,000 and through the analysis of summary statistics on field values

Completeness: All known records from CFR (Code of Federal Regulations) acquired. Records whose coordinates contained obvious errors were omitted. Records in which precise location of zone could not be determined, or when the size, location, and duration of the safety zone vary depend on the presence of vessels, were also omitted.

Positional Accuracy: Coordinates obtained from CFR accurate to 1/100000 of a degree. Features digitized using NOAA RNCs™ are subject to any inaccuracies caused by old methods of collecting, processing, and displaying data transferred from paper to electronic charts. Attempts were made to minimize positional inaccuracies while digitizing by digitizing at the approximate scale of the chart. The average accuracy of the measured benchmarks in the shoreline layers, used to clip features that abut the shoreline, is 3.06 meters (10 feet).

Timeliness: Based on best available data as of September 15, 2014; for up to date information on timing of temporary or conditional events refer to Local Notice to Mariners or current e-CFR.

Use restrictions: NOT FOR NAVIGATION

Distribution Liability: All parties receiving these data must be informed all caveats and limitations.