Shipping Fairways, Lanes, and Zones

Tags

Precautionary Area, Shipping, Atlantic, boundaries, oceans, Marine Boundaries, Socioeconomics, Restricted Area, U.S. Waters, Marine Boundaries, Pacific, Recommended Routes, transportation, environment, United States, Separation Zone, Traffic Lane, Area to be Avoided, Mandatory Ship Reporting, Regulation, Shipping Safety Fairway, Ports, Particularly Sensitive Sea Area, Gulf of Mexico, National, Northern Right Whale

Summary

To support coastal and ocean planning and other activities pursuant to the Energy Policy Act, Coastal Zone Management Act, Magnuson-Stevens Fishery Conservation and Management Act, National Environmental Policy Act, Rivers and Harbors Act and the Submerged Lands Act.

Description

Various shipping zones delineate activities and regulations for marine vessel traffic. Traffic lanes define specific traffic flow, while traffic separation zones assist opposing streams of marine traffic. Precautionary areas represent areas where ships must navigate with caution, and shipping safety fairways designate where artificial structures are prohibited. Recommended Routes are predetermined routes for shipping adopted for reasons of safety. Along certain zones of the East Coast of the United States, ships are required to reduce speeds to 10 knots or less over ground during seasonal periods within designated endangered species areas, such as the North Atlantic Right Whales. Particularly Sensitive Sea Areas need special protection because of their vulnerability to damage by international maritime activities. Areas to be avoided are within defined limits where navigation is particularly hazardous or it is exceptionally important to avoid casualties and should be avoided by all ships or certain classes of ships.

Credits

There are no credits for this item.

Use limitations

These data are intended for coastal and ocean use planning. Not for navigation.

Extent

West	-179.999989	**East**	179.999989
North	60.982267	**South**	9.356176

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

ArcGIS Metadata

Topics and Keywords

THEMES OR CATEGORIES OF THE RESOURCE   transportation, environment, boundaries, oceans
* CONTENT TYPE   Downloadable Data
PLACE KEYWORDS   Atlantic, Pacific, United States, Gulf of Mexico, National
THEME KEYWORDS   boundaries, oceans, transportation, environment
 THESAURUS
  TITLE   ISO 19115 Topic Category
THEME KEYWORDS   Precautionary Area, Shipping, Marine Boundaries, Restricted Area, U.S. Waters, Recommended Routes, Separation Zone, Traffic Lane, Area to be Avoided, Mandatory Ship Reporting, Regulation, Shipping Safety Fairway, Ports, Particularly Sensitive Sea Area, Northern Right Whale
THEME KEYWORDS   Socioeconomics, Marine Boundaries
 THESAURUS
  TITLE   NOS Data Explorer Topic Category

Citation

TITLE   Shipping Fairways, Lanes, and Zones

PUBLICATION DATE   2015-12-04
EDITION   Various
PRESENTATION FORMATS   * digital map

Citation Contacts
RESPONSIBLE PARTY
   ORGANIZATION'S NAME   NOAA's Ocean Service, Office of Coast Survey (OCS)
   CONTACT'S ROLE   publisher
     CONTACT INFORMATION
      ADDRESS
       DELIVERY POINT   Silver Spring, MD
RESPONSIBLE PARTY
   ORGANIZATION'S NAME   Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office of Coast Survey (OCS)
   CONTACT'S ROLE   originator

Resource Details
DATASET LANGUAGES   English (UNITED STATES)
STATUS   completed
SPATIAL REPRESENTATION TYPE   vector
* PROCESSING ENVIRONMENT   Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.0.4322

Extents
EXTENT
  DESCRIPTION
    ground condition
  TEMPORAL EXTENT
   BEGINNING DATE   2001-07-11
   ENDING DATE
    INDETERMINATE DATE   now
EXTENT
  GEOGRAPHIC EXTENT
   BOUNDING RECTANGLE
    WEST LONGITUDE   -179.46
    EAST LONGITUDE   174.6
    SOUTH LATITUDE   9.31
    NORTH LATITUDE   60.98
EXTENT
  GEOGRAPHIC EXTENT
   BOUNDING RECTANGLE
    EXTENT TYPE   Extent used for searching
    * WEST LONGITUDE   -179.999989
    * EAST LONGITUDE   179.999989
    * NORTH LATITUDE   60.982267
    * SOUTH LATITUDE   9.356176
    * EXTENT CONTAINS THE RESOURCE   Yes
EXTENT IN THE ITEM'S COORDINATE SYSTEM
  * WEST LONGITUDE   -20037507.067162
  * EAST LONGITUDE   20037507.067162
  * SOUTH LATITUDE   1046184.673179
  * NORTH LATITUDE   8621752.668018
  * EXTENT CONTAINS THE RESOURCE   Yes

Resource Points of Contact
POINT OF CONTACT
  INDIVIDUAL'S NAME   ENC GIS Technical
  ORGANIZATION'S NAME   NOAA Office of Coast Survey
  CONTACT'S POSITION   ENC GIS Technical
  CONTACT'S ROLE   point of contact
   CONTACT INFORMATION
    PHONE
     VOICE   (301) 713-2645
    ADDRESS
     TYPE   both
     DELIVERY POINT   1315 East West Hwy
     CITY   Silver Spring
     ADMINISTRATIVE AREA   MD
     POSTAL CODE   20910
     E-MAIL ADDRESS   enc.gis@noaa.gov

Resource Maintenance
RESOURCE MAINTENANCE
  UPDATE FREQUENCY   weekly

Resource Constraints

LEGAL CONSTRAINTS

  LIMITATIONS OF USE

    Not for navigation.

CONSTRAINTS

  LIMITATIONS OF USE

    These data are intended for coastal and ocean use planning. Not for navigation.

Spatial Reference

ARCGIS COORDINATE SYSTEM

  * TYPE   Projected

  * GEOGRAPHIC COORDINATE REFERENCE   GCS_WGS_1984

  * PROJECTION   WGS_1984_Web_Mercator_Auxiliary_Sphere

    * COORDINATE REFERENCE DETAILS

    PROJECTED COORDINATE SYSTEM

      WELL-KNOWN IDENTIFIER   102100

      X ORIGIN   -22041545.367140558

      Y ORIGIN   -33272760.666300893

      XY SCALE   135368852.55357128

      Z ORIGIN   -100000

      Z SCALE   10000

      M ORIGIN   -100000

      M SCALE   10000

      XY TOLERANCE   0.001

      Z TOLERANCE   0.001

      M TOLERANCE   0.001

      HIGH PRECISION   true

      LATEST WELL-KNOWN IDENTIFIER   3857

      WELL-KNOWN TEXT   PROJCS["WGS_1984_Web_Mercator_Auxiliary_Sphere",GEOGCS
["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID
["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433]],PROJECTION["Mercator_Auxiliary_Sphere"],PARAMETER
["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER
["Central_Meridian",0.0],PARAMETER["Standard_Parallel_1",0.0],PARAMETER
["Auxiliary_Sphere_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

REFERENCE SYSTEM IDENTIFIER

  * VALUE   3857

  * CODESPACE   EPSG

  * VERSION   8.2.6

Spatial Data Properties

VECTOR

  * LEVEL OF TOPOLOGY FOR THIS DATASET   geometry only

  GEOMETRIC OBJECTS

    FEATURE CLASS NAME   navigation_shipping_line_v2

    * OBJECT TYPE   composite

    * OBJECT COUNT   310

ARCGIS FEATURE CLASS PROPERTIES

  FEATURE CLASS NAME   navigation_shipping_line_v2

    * FEATURE TYPE   Simple

    * GEOMETRY TYPE   Polygon

    * HAS TOPOLOGY   FALSE

    * FEATURE COUNT   310

    * SPATIAL INDEX   TRUE

    * LINEAR REFERENCING   FALSE

Data Quality

SCOPE OF QUALITY INFORMATION

  RESOURCE LEVEL   dataset

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY

  MEASURE DESCRIPTION

    Shipping Lanes in U.S. waters data is derived from NOAA ENC's which conforms to the
International Hydrographic Organization Transfer Standard for Digital Hydrographic Data, Special
Publication S-57, ENC Product Specification Edition 2.0. NOAA ENC Direct to GIS data has added
generalized nautical chart symbology to aid in the visualization of this data.

DATA QUALITY REPORT - COMPLETENESS OMISSION

  MEASURE DESCRIPTION

    Shipping Lanes in U.S. waters represents current coverage of all ENC Charts. The NOAA ENC Chart
Suite is not scheduled to be completed until 2015. As new NOAA ENCs and NOAA ENC editions are
created they will be added to the NOAA ENC Direct to GIS data on the first of every month.

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY

  MEASURE DESCRIPTION

    Shipping Lanes in U.S. waters is derived from NOAA ENC's which conforms to the International
Hydrographic Organization Transfer Standard for Digital Hydrographic Data, Special Publication S-

57, ENC Product Specification Edition 2.0.

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY
DIMENSION   horizontal
MEASURE DESCRIPTION
Maximum scale of intended use is 1:80,000.

Lineage
PROCESS STEP
WHEN THE PROCESS OCCURRED   2015-02-01
DESCRIPTION
The NOAA ENC database has been built from a combination of charted information as well as original "source" information. NOAA has compiled critical features such as channel limits, aids to navigation, and obstructions from the original documents that were used to put the feature on the paper chart. The objective is to use the most accurate information for features that are critical to the safety of navigation. NOAA uses a number of sources in compiling NOAA ENCS including U.S. Army Corps of Engineers surveys, drawings, and permits, U.S. Coast Guard Local Notices to Mariner, National Imagery and Mapping Agency Notices to Mariners, NOAA hydrographic surveys, and the largest scale paper chart of an area.

PROCESS CONTACT
INDIVIDUAL'S NAME   ENC GIS Technical
ORGANIZATION'S NAME   NOAA Office of Coast Survey
CONTACT'S POSITION   ENC GIS Technical
CONTACT'S ROLE   processor
CONTACT INFORMATION
PHONE
VOICE   (301) 713-2645
ADDRESS
TYPE   both
DELIVERY POINT   1315 East West Hwy
CITY   Silver Spring
ADMINISTRATIVE AREA   MD
POSTAL CODE   20910
E-MAIL ADDRESS   enc.gis@noaa.gov

Distribution
DISTRIBUTOR
CONTACT INFORMATION
INDIVIDUAL'S NAME   ENC GIS Technical
ORGANIZATION'S NAME   NOAA Office of Coast Survey
CONTACT'S POSITION   ENC GIS Technical
CONTACT'S ROLE   distributor
CONTACT INFORMATION
PHONE
VOICE   (301) 713-2645
ADDRESS
TYPE   both
DELIVERY POINT   1315 East West Hwy
CITY   Silver Spring
ADMINISTRATIVE AREA   MD
POSTAL CODE   20910
E-MAIL ADDRESS   enc.gis@noaa.gov
AVAILABLE FORMAT
NAME   ESRI Shape
FORMAT INFORMATION CONTENT   Data can be downloaded in either North American Datum 1927 or World Geodetic System 1984. Data is packaged as a zip file.
ORDERING PROCESS
TERMS AND FEES   There are no fees for the use of this data.
TRANSFER OPTIONS
ONLINE SOURCE
LOCATION   http://encdirect.noaa.gov/theme_layers/data/shipping_lanes/shippinglanes.zip
DISTRIBUTION FORMAT
* NAME   File Geodatabase Feature Class
TRANSFER OPTIONS
ONLINE SOURCE
LOCATION
http://encdirect.noaa.gov/arcgis/rest/services/NavigationChartData/MarineTransportation/MapServer/0
ONLINE SOURCE
LOCATION
http://encdirect.noaa.gov/arcgis/rest/services/NavigationChartData/MarineTransportation/MapServer

Fields
DETAILS FOR OBJECT navigation_shipping_line_v2
* TYPE   Feature Class
* ROW COUNT   310
DEFINITION

Various shipping zones delineate activities and regulations for marine vessel traffic. Traffic lanes define specific traffic flow, while traffic separation zones assist opposing streams of marine traffic. Precautionary areas represent areas where ships must navigate with caution, and shipping safety fairways designate where artificial structures are prohibited. Recommended Routes are predetermined routes for shipping adopted for reasons of safety. Along certain zones of the East Coast of the United States, ships are required to reduce speeds to 10 knots or less over ground during seasonal periods within designated endangered species areas, such as the North Atlantic Right Whales. Particularly Sensitive Sea Areas need special protection because of their vulnerability to damage by international maritime activities. Areas to be avoided are within defined limits where navigation is particularly hazardous or it is exceptionally important to avoid casualties and should be avoided by all ships or certain classes of ships.

DEFINITION SOURCE
NOAA Office of Coast Survey

FIELD Shape_Area
* ALIAS   Shape_Area
* DATA TYPE   Double
* WIDTH   8
* PRECISION   0
* SCALE   0
FIELD DESCRIPTION
Area of feature in internal units squared.
DESCRIPTION SOURCE
ESRI
DESCRIPTION OF VALUES
Positive real numbers that are automatically generated.

FIELD Shape
* ALIAS   Shape
* DATA TYPE   Geometry
* WIDTH   0
* PRECISION   0
* SCALE   0
FIELD DESCRIPTION
Feature geometry.
DESCRIPTION SOURCE
ESRI
DESCRIPTION OF VALUES
Coordinates defining the features.

FIELD OBJL
* ALIAS   OBJL
* DATA TYPE   String
* WIDTH   200
* PRECISION   0
* SCALE   0

FIELD THEMELAYER
* ALIAS   THEMELAYER
* DATA TYPE   String
* WIDTH   200
* PRECISION   0
* SCALE   0

FIELD INFORM
* ALIAS   INFORM
* DATA TYPE   String
* WIDTH   254
* PRECISION   0
* SCALE   0

FIELD OBJNAM
* ALIAS   OBJNAM
* DATA TYPE   String
* WIDTH   254
* PRECISION   0
* SCALE   0

FIELD Shape_Length
* ALIAS   Shape_Length
* DATA TYPE   Double
* WIDTH   8
* PRECISION   0
* SCALE   0

Length of feature in internal units.
DESCRIPTION SOURCE
ESRI
DESCRIPTION OF VALUES
Positive real numbers that are automatically generated.

FIELD OBJECTID
* ALIAS   OBJECTID
* DATA TYPE   OID
* WIDTH   4
* PRECISION   0
* SCALE   0
FIELD DESCRIPTION
Internal feature number.
DESCRIPTION SOURCE
ESRI
DESCRIPTION OF VALUES
Sequential unique whole numbers that are automatically generated.

Metadata Details

METADATA LANGUAGE   English (UNITED STATES)
METADATA CHARACTER SET   utf8 - 8 bit UCS Transfer Format
SCOPE OF THE DATA DESCRIBED BY THE METADATA   dataset
SCOPE NAME   * dataset
* LAST UPDATE   2017-01-06
ARCGIS METADATA PROPERTIES
METADATA FORMAT   ArcGIS 1.0
METADATA STYLE   FGDC CSDGM Metadata
STANDARD OR PROFILE USED TO EDIT METADATA   FGDC
CREATED IN ARCGIS FOR THE ITEM   2017-01-05   15:45:33
LAST MODIFIED IN ARCGIS FOR THE ITEM   2017-01-06   10:38:19
AUTOMATIC UPDATES
HAVE BEEN PERFORMED   Yes
LAST UPDATE   2017-01-06   10:36:41

Metadata Contacts

METADATA CONTACT
INDIVIDUAL'S NAME   ENC GIS Technical
ORGANIZATION'S NAME   NOAA Office of Coast Survey
CONTACT'S POSITION   ENC GIS Technical
CONTACT'S ROLE   point of contact
CONTACT INFORMATION
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