METRIC
MIL-PRF-89045
(date)

SUPERSEDING
See Section 6.3

NOTE: This draft dated 5 June 2000 prepared by the National Imagery and Mapping Agency, has not been approved and is subject to modification. DO NOT USE FOR ACQUISITION PURPOSES. (Project MCGT-0296)

PERFORMANCE SPECIFICATION
GEOSPATIAL SYMBOLS FOR DIGITAL DISPLAYS (GeoSym)

This specification is for use by all departments and agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This performance specification defines the content and format for the National Imagery and Mapping Agency (NIMA) Geospatial Symbols for Digital Displays (GeoSym). Although the GeoSym development was undertaken specifically to support the display of Vector Product Format (VPF™) data encoded with the Feature and Attribute Coding Catalogue (FACC), the graphic files and symbol assignment files which make up GeoSym may be used with data which is not encoded in FACC if a mapping from the native encoding scheme to the FACC equivalent can be made.

1.2 Purpose. This performance specification defines the format and content of the symbol assignment files that comprise the GeoSym product. For the format and content of the symbol files, refer to the Symbols and Annotation for Maps and Imagery or the Military Handbook, Geospatial Symbols for Digital Displays. Symbols and symbol assignment files are provided to support the display of the following VPF™ products:

Digital Nautical Chart (DNC®)
Digital Topographic Data (DTOP™)
Foundation Feature Data (FFD™)
Tactical Oceanic Data Level 0 (TOD™0)
Tactical Oceanic Data Level 1 (TOD™1)
Tactical Oceanic Data Level 2 (TOD™2)
Tactical Oceanic Data Level 4 (TOD™4)
Urban Vector Map (UVMap™)
Vector Interim Terrain Data (VITD™)
Vector Map Level 0 (VMap™0)
Vector Map Level 1 (VMap™1)
Vector Smart Map Level 2 (VMap™2)
World Vector Shoreline Plus(WVSPLUS®)

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Director, National Imagery and Mapping Agency, ATTN: Doctrine and Force Development Office/DF, Mail Stop P-37, 4600 Sangamore Road, Bethesda, MD, 20816-5003 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A **AREA MCGT**

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are needed to meet the requirements specified in Sections 3 and 4 of this document. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in Sections 3 and 4 of this specification whether or not they are listed here.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the current Department of Defense Index of Specifications and Standards (DODISS) and the supplement thereto, cited in the solicitation.

Specifications

Military

MIL-PRF-89023	*Digital Nautical Chart, 19 Dec 1997* *Amendment 1, 23 Feb 1999*
MIL-PRF-0089037(NIMA)	*Digital Topographic Data, 25 May 1999*
MIL-PRF-89049/1	*Foundation Feature Data, Draft, 30 Nov 1998*
MIL-PRF-89049/10	*Tactical Ocean Data Level 0, 24 Nov 1998*
MIL-PRF-89049/11	*Tactical Ocean Data Level 1, 24 Nov 1998*
MIL-PRF-89049/12	*Tactical Ocean Data Level 2, 24 Nov 1998*
MIL-PRF-89049/14	*Tactical Ocean Data Level 4, Draft, (RFC N01-0194)date TBD*
MIL-PRF-89035	*Urban Vector Map, 25 Apr 2000*
MIL-PRF-89033	*Vector Map Level 1, 1 June 1995* *Amendment 1, 27 May 1998*
MIL-PRF-89039	*Vector Map Level 0, 9 Feb 1995* *Interim Amendment 1, 28 Sep 1999*
MIL-PRF-89040A	*Vector Interim Terrain Data, 8 May 1996*
MIL-PRF-0089049(NIMA)	*VPF Products, General Specification 24 Nov 1998*
MIL-V-89032	*Vector Smart Map Level 2, Draft, 30 Sep 1993* *Amendment 1, 14 Jan 1994* *Amendment 2, 16 Sep 1994* *Amendment 3, 22 Dec 1994*
MIL-PRF-89012A	*World Vector Shoreline, 24 Aug 1999*
PS/2BD/040	*DMA Product Specifications for Bottom Contour Charts (All Series), 4th Edition, March 1985*
PS/2DA/013	*DMA Product Specifications for Hull Integrity Test Site (HITS) Charts, 2nd Edition, December 1984*
PS/2DA/010	*DMA Product Specifications for Navy Operating Area (OPAREA) Charts, 1st Edition, December 1984*

Standards

Military

MIL-STD-2402	*Mapping, Charting and Geodesy Symbols for Graphic Displays*
MIL-STD-2407	*Interface Standard for Vector Product Format*
MIL-STD-2525A	*Interface Standard for Common Warfighting Symbology*

Handbooks

MIL-HDBK-857	*Department of Defense Handbook, Geospatial Symbols for Digital Displays, Draft*

(Copies of the military specifications and handbook marked as Draft above may be obtained from: NIMA OIPS, ATTN: Content Standards & Interoperability Division, Mail Stop P-24, 12310 Sunrise Valley Drive, Reston, VA 22091-3449. All other military standards, specifications, and handbooks are available from the DoD Single Stock Point (DODSSP), Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the document versions are those cited in the solicitation.

Symbology and Annotation for Maps and Imagery (SAMI) CGM profile of the ISO/IEC 8632-1 CGM Standard. (This profile is not yet registered with the ISO).

Digital Geographic Information Exchange Standard, Part 4: Feature and Attribute Coding Catalogue (FACC).

NIMA Profile of the DIGEST FACC

(Copies of the above publications are available from the National Imagery and Mapping Agency, ATTN: ATTN, C. Harmon, Mail Stop D-65, 4600 Sangamore Road, Bethesda, MD 20816-5003.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation.

ANSI/IEEE 754-1985. IEEE Standard for Binary Floating Point Arithmetic. August 12, 1985.

(Application for copies should be addressed to the publisher: IEEE, Inc., 345 East 47th St., NY, 10017.)

ISO/IEC 8632-1. 1987 (E). International Organization for Standardization Information Processing systems - Computer graphics - Metafile for the storage and transfer of picture description information - First edition, 1987.

ISO 9660. 1988 (E). International Organization for Standardization Information Processing-Volume and File Structure of CD-ROM for Information Interchange. First edition, 1988.

IHO S52. 1996. International Hydrographic Organization Specifications for Chart Content and Display Aspects of ECDIS. Special Publication No. 52. 5th Edition, December 1996.

IHO S52 Appendix 2. Colour & Symbol Specifications for ECDIS. Special Publication No. 52, APPENDIX 2, 4th Edition, July 1997.

IHO S52 Appendix 2, Annex A. IHO ECDIS Presentation Library Users' Manual. Special Publication No. 52, ANNEX A of APPENDIX 2, Edition/revision 3.1, January 1999

IHO S57. International Hydrographic Organization Transfer Standard for Digital Hydrographic Data. Edition 3.

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.)

(Non-government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other information services.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specification sheets, or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS.

3.1 Accuracy.

3.1.1 Displaced feature symbols. The maximum displacement of symbology due to display-time processing shall not exceed the accuracy tolerances of the digital product being displayed.

3.2 Units of measure. Units of measurement in this specification are given in the metric system, as is the coordinate space defined within the Computer Graphic Metafiles.

3.3 GeoSym Specification Description. This section provides information about the GeoSym directory structure implemented to support the VPF™ products defined in section 1.2.

3.3.1 Sources. This GeoSym specification is based on the complete feature content of the VPF™ product specifications listed in paragraph 2.2.1.a above and the graphic symbology specified in IHO S-52, IHO S-57, MIL-STD-2402, and other standard symbology efforts.

3.3.2 Directory Structure Design. This specification contains the directory structure design and the symbology content to support VPF™ product display systems.

3.3.3 Feature Coding Scheme. This GeoSym Specification utilizes the NIMA Profile of the Digital Geographic Information Exchange Standard (DIGEST), Part 4, Feature and Attribute Coding Catalogue (FACC) developed by the Digital Geographic Information Working Group (DGIWG). Symbols and symbol assignments have been included for some candidate FACC features, attributes, and attribute values which have been implemented in VPF™ products, but have yet to be approved for inclusion in the DIGEST FACC. These non-FACC encodings are identified in the NIMA Profile of the DIGEST FACC.

3.3.4 Digital Marginalia. The symbology for legends, grid lines and other cartographic constructs that are normally considered to be part of the marginalia, is not defined in this specification.

3.4 CD-ROM Labeling and Packaging.

3.4.1 CD-ROM Labeling. Each CD-ROM label shall indicate the NIMA stock number and the date.

3.4.2 CD-ROM Cases. The CD-ROM disc or discs shall be distributed in 100% recyclable cardboard sleeves.

3.4.3 Distribution Medium. This specification is distributed on CD-ROM discs, each of which contains the entire GeoSym directory structure as defined in section 3.5. The format of the CD-ROM discs conforms to ISO Standard 9660, Level 1.

3.4.4 Minimum Hardware Specification. GeoSym may be accessed by any hardware system that includes a CD-ROM reader and supports the ISO 9660 interface.

3.4.5 Operating System. The GeoSym directories utilize the standard DOS system disc directory structure and file-naming conventions. However, GeoSym is intended to be utilized by the Windows NT 4.0 operating system. GeoSym will not function as designed in the Windows 9x operating systems due to the area patterns being 32x32 in size.

3.5 Geospatial Symbols for Digital Displays (GeoSym).

3.5.1 GeoSym Directory Structure Scheme. The GeoSym CD-ROM has three top-level directories which contain the CGM symbols, the symbol assignment files, and documentation respectively. The GeoSym directory structure is depicted in Figure 1 below. Subsequent paragraphs describe the contents of each of the top-level directories.

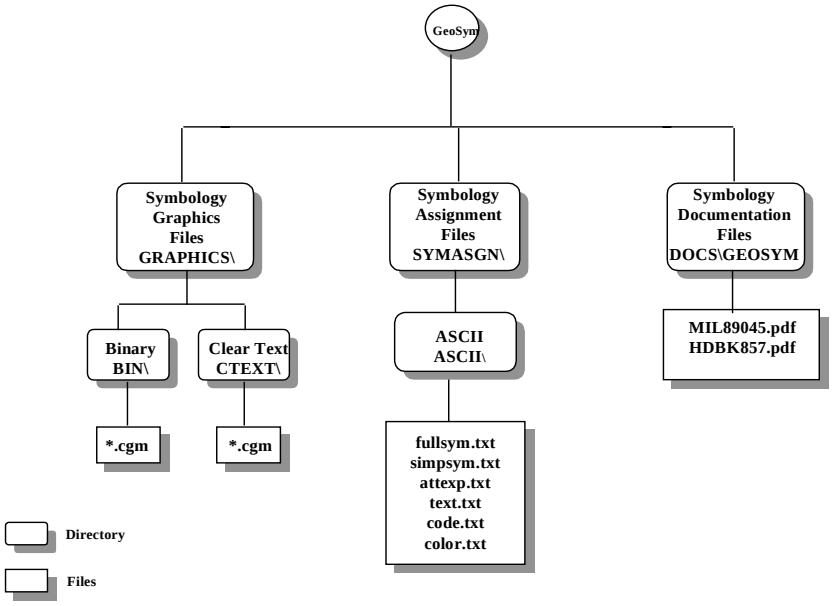


FIGURE 1. Implementation of GeoSym directory structure

3.5.2 GeoSym Graphics Files Directory. All of the GeoSym symbol graphics files are contained under the directory called "GRAPHICS". A unique symbol graphic in CGM format has been created for any FACC feature/attribute combination where individual feature characteristics warrant separate symbology. In most cases the level of detail found on a 1:50,000 scale map or chart has been used to develop this symbology set. Symbology has been developed only for FACC features and attributes which have been implemented in one of the Vector Product Format (VPF™) products being produced by the National Imagery and Mapping Agency (see section 1.2). The CGMs and the feature/attribute value combinations that they portray are presented in Appendix A.

The CGMs conform to the Symbology and Annotation for Maps and Imagery (SAMI) CGM profile of the ISO/IEC 8632-1 CGM Standard. The SAMI Profile is being developed by NIMA to support MIL-PRF-89045 as well as MIL-STD-2525a, Interface Standard Common Warfighting Symbology, and other imagery and map annotation uses. The MIL-PRF-89045 symbology requires more complex CGM structures than any other CGM implementation that uses the SAMI Profile. The profile is not yet registered with ISO and is still being refined to ensure that it is broad enough to accommodate all of the functionality required to produce the MIL-PRF-89045 symbology and at the same time define the simplest

CGM implementation possible.

The CGMs contained in GeoSym are encoded in both binary format (in the “BIN” subdirectory) and clear text format (in the “CTEXT” subdirectory). Clear text encoded CGMs are provided for the convenience of users who desire to review or evaluate the CGMs with a text editor, as well as with CGM graphic interpretation software. However, some CGM interpretation applications may not display the clear text and binary encoded CGMs identically. Only binary encoding is allowed in the SAMI Profile. The binary encoded CGMs are considered the official symbology defined by this specification and are the only CGMs to be used operationally.

3.5.2.1 Graphics Symbol Characteristics.

The characteristics of individual symbols vary greatly. Some of the aspects of symbol design which distinguish each of the three feature delineation types of areas, lines, and points are described below.

3.5.2.1.1 Point Symbols. Most point symbols are standalone representations of a point feature or the center of an area feature. However, in some cases, multiple point symbols are required to fully define a feature. For example, the FACC Buoy feature (BC020) may be assigned up to six CGMs to represent various attributes of the feature. The table below shows the CGM assigned for each of the Buoy feature’s attribute values that are significant for symbolization.

BTC = 0 and SSC = 10 Buoy Type Category equal to UNKNOWN and Structure Shape Category equals Pillar/Spindle	0306.cgm	
TMC = 25 or 26 or 29 Top Mark Characteristic equals Can (Open), Can (Filled), or Can Over Ball (Open)	0213.cgm	
COL (Character of Light) text string contains “R” for red	0501.cgm	
SST = 1 or 2 or 3 or 4 or 6 or 9 or 14 or 15 Sound Signal Type equals one of the identified sound signal value (horn, whistle, etc)	0401.cgm	
NST = 10 or 54 Navigation System Type equal to Racon or Ramark	0512.cgm	
REF = 1 Radar Reflector Attribute equals Radar Reflector Present	0510.cgm	

These component CGMs are stacked on top of each to create a completely symbolized portrayal of the Buoy feature. The origin of each component graphic is set so that the graphic is positioned correctly relative to other components and relative to the point feature's location.

Open Can Buoy with Red Light, Fog Signal and RADAR Reflector	

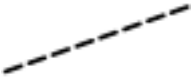
The non-component point symbol CGMs each completely symbolize a point feature such as these:

AL015, BFC=15 Building: School	2042.cgm	
BB150 Landing Place	0043.cgm	
BD180, VRR=4, HDP=0, SOH=1 Wreck: Submerged, Depth Unknown, Dangerous	0065.cgm	

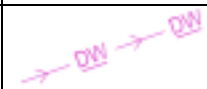
3.5.2.1.2 Line Symbols. Line symbols are used to symbolize linear features and the boundaries of area features. They are categorized into three groups: solid lines, dashed/dotted lines, and complex lines. Solid lines consist of a single line of various weights and colors such as:

AP030 Road	0605.cgm	
AQ113, loc=25 Pipeline/Pipe: Above ground or water	0610.cgm	
FC041, TSP=4 Traffic Separation Scheme: Separation zone	0620.cgm	

Dashed/dotted lines consist of a single line composed of dots and/or dashes of various lengths, weights, and colors, such as:

BE015, HQC=3 or 14 Depth Contour: Supplementary (1/2 or 1/4)	0669.cgm	
AP030, FCO=7, RST=2, WTC=2 Road: Non-divided, loose/unpaved, fair/dry weather	3118.cgm	
AC031, MAC=40 or 41 Maritime Area: TSS	0665.cgm	

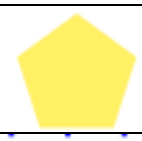
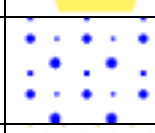
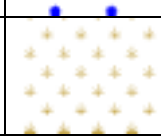
Complex lines consist of a combination of solid lines, dashed/dotted lines and/or point symbols that repeat along the linear feature at a given interval, such as:

CA010, HQC=5 or 6 Contour Line (land): Depression	1307.cgm	
FC036, MAC=15 Restricted Area: Anchoring Prohibited	0739.cgm	
FC165, RTT=3, EXS=0 Route (Maritime): Recommended Track for Deep Vessels, Existence unknown	0723.cgm	

Point symbols that are used as part of the construction of the complex line symbols, are separate from the point symbols used to symbolize point features and area features. These special point symbols have symbol numbers of 5008 and higher.

When a line symbol is used to depict the boundary of an area feature, it should be drawn clockwise around the area. This will result in the correct orientation of the complex line symbology relative to the area feature.

3.5.2.1.3 Area Symbols. Area symbols are one of two types of interior fills: a solid color fill or a pattern fill. Examples of some of these area symbol types are shown below:

AP020 Interchange	1602.cgm	Solid Color Fill	
BH020 Canal: Not Perennial	1608.cgm	Pattern Fill	
BH095 Marsh/Swamp	0910.cgm	Pattern Fill	

3.5.2.1.4 Special Symbols for Unknown Features. There are three symbols that are used to symbolize VPF features for which there is no symbol assignment in GeoSym. If this situation exists, it is an indication that either the GeoSym symbol assignment table is incorrect or that the VPF product dataset being displayed does not conform to the appropriate specification listed in section 2.2.1. The following table identifies which symbol should be used to symbolize an “unknown” point, line, or area feature. The default symbols should be placed under the following conditions:

1. There is no row in the *sym.txt file for the feature (fcode)
2. After evaluating all rows in the *sym.txt file for that fcode, there is no row that results in an evaluation of “true”.

Table 1. Symbols to Place for Unknown Features

Unknown Feature Type	Point Symbol to Place	Linear Symbol to Place
Point (full chart or simplified)	5000.cgm	
Line		5001.cgm
Area – Full Chart	5000.cgm	5001.cgm
Area - Simplified	5000.cgm	0634.cgm

3.5.3 GeoSym Symbology Assignment Files Directory. To facilitate the consistent use of symbols across VPF™ products and among users, a set of symbology assignment files accompanies the CGMs. These files reside under the directory called "SYMASGN" and are provided for use by application software to automatically assign a symbol(s) to a feature with a specific combination of attributes relevant to symbolization. These files also facilitate the display of some feature attribute information textually.

The symbology assignment files are represented in ASCII file format in the "ASCII" subdirectory.

3.5.3.1 Symbology assignment files.

The GeoSym symbology assignment files consist of two parts: the header and the data records. Each row of the header is terminated with a colon, with the exception of the last row, which consists of a single semi-colon character. This indicates the end of the header section and the beginning of the data records. The first row of the header contains the name of the file and an English description of that file. The subsequent rows of the header contain the order and definitions of each field contained in a row of data, according to the following format:

fieldname=datatype,datasize,fielddesc,coderef,:

Fieldname is an identifier of that particular field. *Datatype* indicates the type of data contained in that field (N=integer, T=character string). *Datasize* is the maximum number of bytes of datatype integer or the maximum number of characters in the text string required to store the values in the field. *Fielddesc* is an English description of that field. *Coderef* is used to indicate that the values contained in that field are integer codes whose meanings are defined in the associated code.txt file (see section 3.5.3.1.4). Fields that contain coded values will contain "code.txt" in the coderef position in the header. Fields that do not contain coded values will contain a dash, "-", in the coderef position.

Following every header is a series of one or more data records (or rows). Each row contains pipe-delimited fields corresponding to the field definitions defined in the header. The values contained in each row store the information pertaining to each defined field.

3.5.3.1.1 Symbol Assignment File. There are two main symbol assignment files contained in the GeoSym structure. The first one is named "fullsym.txt" and contains the information necessary to assign full chart or the most robust symbology for a given feature/attribute. Symbolization instructions for every VPF™ product referenced in section 1.2 is contained in this file. The second file is named "simpsym.txt" and contains the information necessary to assign simplified symbology. At the time of this

draft, DNC is the only product for which simplified symbology is defined (in IHO S52). Therefore, the simpsym.txt file contains symbolization instructions for DNC only. Table 2 defines the header for both the fullsym.txt and simpsym.txt files.

Table 2. Header for Symbol Assignment File

```
fullsym.txt or simpsym.txt,Full or Simplified Symbol Assignment File:
id=N,2,Row Identifier,-,:
pid=N,1,VPF Product Identifier,code.txt,:
fcode=T,5,FACC Feature Code,-,:
delin=N,1,Delineation of Feature Code,code.txt,:
cov=T,5,VPF Coverage for Feature Code,-,:
pointsym=T,4,Point Symbol Number,-,:
linesym=T,4,Line Symbol Number,-,:
areasym=T,4,Area Symbol Number,-,:
dispri=N,1,Display Priority,-,:
orient=T,3,Orientation Attribute,-,:
labatt=T,3,Label Attribute,-,:
txrowid=N,1,Foreign Key to Text Attribute File,-,:
vgroup=N,4,IHO Viewing Group,-,:
txtgroup=N,1,IHO Text Group,-,:
radar=N,1,IHO Radar Display Category,code.txt,:
dispcat=N,1,IMO Display Category,code.txt,:
feadesc=T,256,Feature Description,-,:;
```

The fields in the *sym.txt file can be divided into the following five categories:

[id] [Assignment Data] [Label Data] [ECDIS Supporting Data] [Descriptive Data]

The [id] category consists of a single column named *id*. This field contains a unique identifier for each row of data contained in the file. This number is used to access the associated attribute expression for that row (see attexp.txt file, section 3.5.3.1.2).

The [assignment data] category consists of the next 9 fields. The first four of these constitute the “if” part of the logical expression and the remaining fields compose the “then” part. A VPF™ product identifier, FACC feature code, feature delineation, and VPF™ coverage, along with the applicable attribute expression from the attexp.txt file, provide information to identify unique combinations of symbology-relevant attribute values given to a specific feature type in a VPF™ product. The remaining fields contain the information to symbolize the feature properly. Both the *pid* field and the *delin* field contain coded information as defined in the code.txt file (see section 3.5.3.1.4).

The *pointsym*, *linesym*, and *areasym* fields contain the prefixes of the specific symbol file(s), CGM(s), that contain the symbology to be displayed for a specific feature/attribute condition. See section 3.5.2.1 for a definition of point, line and area symbols. It is possible for any, all, or none of the *sym fields to be populated for a given row in the *sym.txt file. Table 3 depicts the possible combinations of symbols that can apply based on a feature’s delineation (point, line, area).

Table 3. Symbol to Feature Type Cross-Reference

	Point Symbol	**Line Symbol**	**Area Symbol**
Point Feature	X		
Linear Feature		X	
Area Feature	X	X	X

A point feature may be symbolized as either a point symbol or as a text label. In the first case, the *pointsym* field will be populated with the appropriate point symbol number and both the *linesym* and *areasym* fields will be blank. In the second case, all of the *sym fields will be blank and the *labatt* field will be populated (see [label data] below).

A linear feature will be symbolized exclusively by a line symbol that may or may not be labeled. The *linesym* field will be populated with the appropriate line symbol number. If the linear feature is to be labeled, only the *labatt* field will be populated (see [label data] below).

An area feature may be symbolized by any combination of point, line, or area symbol as well as with a text label. Therefore, it is possible for any combination of the *sym fields to be populated as well as for none of them to be populated, as is the case when *labatt* is populated with the text label attribute (see [label data] below).

The *dispri* field contains a digit from 0 to 9 that defines the priority for each feature for display purposes. Nine is the highest priority. Symbols for features with higher priorities are displayed on top of and may obstruct symbols for features having lower priority. See section 6.5 in MIL-HDBK-857 for a complete description of display hierarchy in GeoSym.

Finally, the *orient* field contains a three-letter FACC attribute code identifying the attribute that contains the angle of rotation to apply to the point symbol specified to symbolize the feature.

The [label data] category is used to specify default display characteristics for attribute values which are to be displayed as labels in addition to or in place of a graphic symbol. Some examples are the Hydrographic Depth attribute (HDP) of the Sounding Feature (BE020); the Name attribute (NAM) of the Built-Up Area Feature (AL020); and the Color Code Category (CCC) and Character of Light (COL) attributes of the Buoy Feature (BC020). The *labatt* field contains a three character FACC attribute code identifying the attribute that contains the text label. The *txrowid* field contains a pointer to a record in the associated Text Attribute File (text.txt, see 3.5.3.1.3) which holds the default placement and display characteristics for the text label.

The [ECDIS Supporting Data] category provides several pieces of information that are specific to the ECDIS-compliant display requirements documented in the IHO S-52 and IHO S-57 specifications. These include the viewing group (vgroup) and text group (txtgroup), the display of the feature relative to raw radar (either always display Over radar or always Suppress by radar), and the IMO display category (display base, standard, or other). Both the radar indicator and the IMO display category fields contain code values that are defined in the code.txt file (see section 3.5.3.1.4). DNC is

the only product that will have these fields populate.

The [descriptive data] category provides a description of the feature being symbolized. The *feadesc* field contains an English textual description of the feature/attribute being symbolized.

3.5.3.1.2 Attribute Expression File. The attribute expression file contains the conditional attribute expression components for each row in the symbol assignment file requiring a conditional attribute. There is a single attexp.txt file for both the fullsym.txt and simpsym.txt files. Each expression may be composed of one to many expression components. The header of the attribute expression file is described below.

Table 4. Header for Attribute Expression File.

```
attexp.txt,Attribute Expression File:
cond_index=N,2,Key to Row ID in Symbol Assignment File,-,:
seq=N,1,Sequence Number of Expression Component,-,:
att=T,4,Attribute Code,-,:
oper=N,1,Relational Operator,code.txt,:
value=T,10,Attribute Value,-,:
connector=N,1,Expression Component Logical Connector,code.txt,:;
```

The *cond_index* field contains a numeric value that links the complete attribute expression to the applicable row in the *sym.txt file. Each row of a multiple component expression will contain the same value in the *cond_ind*ex field. The *seq* field contains a numeric value that identifies each row of a multiple component expression. In addition, the *seq* value controls the order in which each of the attribute expression components should be accessed in order to build a complete, accurate attribute expression.

The next three fields compose the attribute expression component. The *att* field contains the name of the attribute that will be tested for compliance. In most cases, this will be a three-character FACC attribute code. However, for certain objects, S52 symbolization instructions are based on the values of certain external settings that are controlled by the ECDIS viewing operator. These types of attributes will always be four-characters in length. Refer to MIL-HDBK-857 section 6.4.1.1 for a complete list of these types of attributes. The *oper* field will contain a single digit that equates to one of the allowable logical operators (see code.txt, section 3.5.3.1.4). The *value* field contains the value of the attribute that must be satisfied in order for the expression component to be true. The contents of the *value* field will either be a number, a set of characters delimited by double quotes, or the word NULL (no quotes).

The final field in the attexp.txt file is the *connector* field. This field will contain a number indicating which, if any, of the four defined logical connectors is to be used between the current attribute expression component and the next component in the attribute expression (see code.txt, section 3.5.3.1.4). The value of *connector* will be 0 (zero) after the final component of a multi-component attribute expression and at also if the attribute expression consists of a single component.

A complete explanation of how to use and interpret the information contained in the attexp.txt file is can be found in MIL-HDBK-857, section 6.4.

3.5.3.1.3 Text Attribute File. The text attribute file contains the default display characteristics for the attribute to be displayed. The header of the text attribute file is described below.

Table 5. Header for Text Attribute File.

```
text.txt,Text Attribute File:
id=N,1,Row Identifier,-,:
tfont=N,1,Text Font,code.txt,:
tstyle=N,1,Text Style,code.txt,:
tsize=N,1,Text Size (pt),-,:
tjust=N,1,Text Justification,code.txt,:
tcolor=N,1,Foreign Key to Color Assignment File,-,:
tdist=N,1,Distance from base Feature (mm),-,:
tdir=N,2,Direction from base Feature (az degrees),-,:;
```

The fields in the text.txt file contain information that controls the display of the text label. This information includes the font, style, size, and justification of the text to be displayed. In addition to the traditional vertical and horizontal justifications, one justification (sounding text) specifies that the attribute is a depth value. In this case, the default display for the text for the integer part of the depth value is centered on the point feature's position and any fractional part is displayed as a subscript. The *tfont*, *tstyle* and *tjust* fields contain numeric codes whose possible values are defined in the code.txt file (see 3.5.3.1.4). The *tcolor* field contains the row id of the record in the ASCII color file (color.txt) which holds the color token to be used to display the text. The *tdist* and *tdir* fields describe the distance in millimeters and the azimuth from North in degrees for the default offset of the text label relative to the feature's position. Zero values in these fields indicate that the text is to be displayed at the center of the feature.

3.5.3.1.4 Code Value Description File. The Code Value Description file defines the discreet coded values for specific attributes that are contained in the fullsym.txt, simpsym.txt, attexp.txt, or the text.txt files. This allows the application or the user to interpret the meaning of numeric values that are contained in the rows of the other symbology files. The first field in the code.txt file is the row identifier. The next two fields contain the name of the file and the name of the field in that file that contains coded values. The *value* field is the actual numeric code value and the *description* field contains the meaning of that coded value.

For example, a PID value of 5 in a row of the fullsym.txt file translates to the VPF™ product DNC. Fields that require this type of information have "code.txt" indicated in the file header for the respective field definition.

Table 6. Code Value Description File.

```
code.txt,Code Value Description File:
id=N,1,Row Identifier,-,:
file=T,12,Name of the File,-,:
attribute=T,9,Attribute Name,-,:
value=N,1,Unique Value of Attribute,-,:
description=T,21,Description of Value,-,:;
```

1	fullsym.txt	pid	1	VMap Level 0
2	fullsym.txt	pid	2	VMap Level 1
3	fullsym.txt	pid	3	VMap Level 2
4	fullsym.txt	pid	4	UVMap
5	fullsym.txt	pid	5	DNC
6	fullsym.txt	pid	8	WVS
7	fullsym.txt	pid	9	VITD
8	fullsym.txt	pid	17	FFD
9	fullsym.txt	pid	18	TOD Level 0
10	fullsym.txt	pid	19	TOD Level 1
11	fullsym.txt	pid	20	TOD Level 2
12	fullsym.txt	pid	22	TOD Level 4
12	fullsym.txt	pid	25	DTOP
13	fullsym.txt	delin	1	Point
14	fullsym.txt	delin	2	Line
15	fullsym.txt	delin	3	Area
16	fullsym.txt	radar	0	On top of Radar
17	fullsym.txt	radar	1	Suppressed by Radar
18	fullsym.txt	dispcat	1	Display Base
19	fullsym.txt	dispcat	2	Standard Display
20	fullsym.txt	dispcat	3	Other
21	simpsym.txt	pid	5	DNC
22	simpsym.txt	delin	1	Point
23	simpsym.txt	delin	2	Line
24	simpsym.txt	delin	3	Area
25	simpsym.txt	radar	0	On top of Radar
26	simpsym.txt	radar	1	Suppressed by Radar
27	simpsym.txt	dispcat	1	Display Base
28	simpsym.txt	dispcat	2	Standard Display
29	simpsym.txt	dispcat	3	Other
30	attexp.txt	oper	1	=
31	attexp.txt	oper	2	<>
32	attexp.txt	oper	3	<
33	attexp.txt	oper	4	>
34	attexp.txt	oper	5	<=
35	attexp.txt	oper	6	>=
36	attexp.txt	connector	0	None
37	attexp.txt	connector	1	or
38	attexp.txt	connector	2	AND
39	attexp.txt	connector	3	and
40	attexp.txt	connector	4	OR

Table 6. Code Value Description File (continued).

41	text.txt	tfont	0	San Serif
42	text.txt	tfont	1	Serif
43	text.txt	tstyle	0	Normal
44	text.txt	tstyle	1	Bold
45	text.txt	tstyle	2	Italic
46	text.txt	tstyle	3	Bold Italic
47	text.txt	tstyle	4	Underline
48	text.txt	tstyle	5	Bold Underline
49	text.txt	tstyle	6	Italic Underline
50	text.txt	tstyle	7	Bold Italic Underline
51	text.txt	tjust	1	Bottom Left
52	text.txt	tjust	2	Bottom Center
53	text.txt	tjust	3	Bottom Right
54	text.txt	tjust	4	Center Left
55	text.txt	tjust	5	Center Center
56	text.txt	tjust	6	Center Right
57	text.txt	tjust	7	Top Left
58	text.txt	tjust	8	Top Center
59	text.txt	tjust	9	Top Right
60	text.txt	tjust	10	Sounding Text

3.5.3.1.5 Color Assignment File.

GeoSym symbology files (CGMs) specify color for their primitives via an index number versus a direct color definition such as Red-Green-Blue (RGB) triplet values. The text.txt file also specifies a color index for the label attributes. The color assignment file contains the link between the color index number and the color token name assigned to that index. Also included for each index/token is the corresponding RGB value applicable in bright daylight lighting conditions against a black background.

Table 7. Header for Color Assignment File.

```
color.txt,Color Assignment File:
index=N,1,Color Index Number,-,:
token=T,14,Color Token Name,-,:
red=N,1,Red Value,-,:
green=N,1,Green Value,-,:
blue=N,1,Blue Value,-,:;
```

Refer to MIL-HDBK-857 Section 6.5 for a full explanation of color and its implementation in ECDIS. The contents of the color assignment file are to be used in two ways. First, the CGM interpreter software may use this information when displaying a given CGM, which contains a single color index number that equates to a specific row in the color.txt file. (Alternatively, the CGM interpreter software may use the application attribute structure “IC_ColorNameTable” which is embedded within each CGM. See section 6.5 of MIL-HDBK-857 for an explanation of this CGM attribute). Secondly, the text.txt file contains a numeric key (tcolor) which is a pointer into the color assignment file to define the color with which to display the text label.

3.5.4 GeoSym Documentation Files. The directory called “DOCS” contains documentation files that accompany this CD-ROM. The GeoSym specific documentation is in the GeoSym subfolder and consists of the following files:

The Performance Specification, Geospatial Symbols for Digital Displays, MIL-PRF-89045 in Portable Document Format (PDF).

The Department of Defense Handbook, Geospatial Symbols for Digital Displays, MIL-HDBK-857 in PDF.

4. Verification

4.1 Classification of inspection. The inspection requirements specified herein are classified as a conformance inspection.

4.2 Conformance inspection. Conformance inspection shall include the examinations of 4.2.1 and 4.2.2.

4.2.1 Visual examination. The CD-ROM contents shall be examined to ensure that all necessary and required files are present on the CD-ROM.

4.2.2 Examination. The files in the GeoSym directory structure shall be examined for compliance with the requirements specified in Section 3. Unless a waiver has been granted, non-compliance with any of the specified requirements shall constitute cause for rejection.

4.2.3 Tests. A CD-ROM sample determined by the contracting officer shall be tested for compliance in the following areas:

a. ISO 9660 compliance

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point’s packaging activity within the Military Department or Defense Agency, or within the Military Department’s Systems Command. Packaging data retrieval is available from the managing Military Department’s or Defense Agency’s automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

6.1 Intended use. GeoSym is intended to support the electronic display of VPF™ data. This product is intended for use by military and civilian branches of the government.

6.2 Acquisition requirements. This section is not applicable to this specification.

6.3 Supersession. This specification supersedes all previous versions of this specification, including the Draft Performance Specification Geospatial Symbols for Digital Displays (GeoSym), dated 20 February 1998, which documented the design of an earlier prototype of GeoSym. This specification is the official initial release of this document and reflects

the final design of GeoSym.

6.4 Definitions.

Area feature. A geographic entity that encloses a region; for example, a lake, administrative area, or state.

Area symbol. A CGM that contains the graphic depiction for the interior of an area feature. An area symbol will either be a solid fill color or a repeating graphic pattern fill.

Attribute. A property of an entity; for example, the type of a building, or the width of a road.

Attribute value. The specific value of an attribute; for example, a building type of school, 48 feet for road width.

Computer Graphics Metafile. An International Standards Organization (ISO) Metafile format for describing pictures in vector form (ISO-8632).

Conditional expression. A logical expression using a specific syntax to represent a feature attribute value. A conditional expression is interpreted by software to identify the symbol condition which best matches observed feature attribute value combinations. Valid operators include: =, <, >, AND, OR. Special operators include: NULL. Negation is supported by the combination <> and is used to mean “not equal to”.

Directory. A file that contains a list of the unique names, file types (directory or file), beginning addresses, and lengths of other files.

Delineation. The dimensional classification of a feature (point, line, area).

Feature. A model of a real world geographic entity. A zero-, one-, or two-dimensional entity of uniform attribute scheme from an exhaustive attribute distribution across a plane, or a set of such entities sharing common attribute values. Simple, compound and complex are types of features.

Feature attribute. A property of a feature. (see Attribute)

Field. A tab-delimited location in a row of each ASCII file that contains a single value for a given entity.

Field type. The data type of the value that is stored in a given field. This will either be an “N” for integer or a “T” for character.

File. A named set of records composed of ASCII characters.

Foreign key. One or more fields in one file that are used as a primary key in another file.

Graphics files. Contains the graphic representation of a symbol. Conforms to computer graphic metafile (CGM) format.

Index. A mechanism used to quickly identify a particular record or group of records based on a file's primary key.

Key. One or more fields whose values uniquely identify or can be used

to select a row.

Line feature. A geographic entity that defines a linear (one-dimensional) structure; for example, a river, road, or a state boundary.

Line symbol. A CGM that contains the graphic depiction for a line feature or the bounding linework of an area feature. A line symbol will either be a solid line, a dashed/dotted line or a complex line.

Medium. A data storage device (e.g., a CD-ROM, hard disk drive, magnetic tape, or floppy disk).

Point feature. A geographic entity that defines a zero-dimensional location; for example, a well or a building.

Point symbol. A CGM that contains one or more graphic depictions for a point feature.

Product specification. A document that defines the precise content and format of a specific product. It contains technical requirements and database design decisions such as coding, tiling, special relationships between entities, and so forth.

Row. An ordered collection of fields pertaining to the entity.

Row id. An integer that uniquely identifies each row in a file.

Symbol assignment file. A file that stores the symbol rules of each feature. Each row id from the symbol assignment file is used as a key into the associated attribute expression file to access the conditional expression applicable for a given row.

Symbol conditions. The logical conditions used within the symbol rules to portray specific feature or environmental attribute values which influence how a feature is depicted by a symbol.

Vector product format. A standard format, structure, and organization for large geographic databases based on a georelational data model and intended for direct access.

6.4.1 Acronyms.

ANSI	American National Standards Institute
ASCII	American Standard Code for Information Interchange
CD-ROM	Compact Disc-Read Only Memory
DIGEST	Digital Geographic Exchange Standards
DoD	Department of Defense
DODISS	Department of Defense Index of Specifications and Standards
DOS	Disc Operating System
DPS	Digital Production System
FACC	Feature and Attribute Coding Catalogue
IHO	International Hydrographic Organization
ISO	International Organization for Standardization

MC&G	Mapping, Charting, and Geodesy
NIMA	National Imagery and Mapping Agency
PC	Personal Computer
VPD	Vector Product Format Prototype Development
VPF™	Vector Product Format

6.5 International standardization agreements.

Certain provisions of this specification are the subject of international standardization agreements. When amendment, revision, or cancellation of this specification is proposed that will modify the international agreement concerned, the preparing activity will take appropriate action through international standardization channels, including departmental standardization offices, to change the agreement or make other appropriate accommodations.

6.6 NIMA customer help desk.

For questions concerning this or other NIMA products, services, or specifications, please telephone the NIMA Customer Help Desk at 1-800-455-0899, Commercial 314-260-1236, or DSN 490-5032.

SYMBOL ASSIGNMENTS

A.1 SCOPE

A.1.1 Scope. This appendix is a consolidated representation of the GeoSym feature/attributes and corresponding graphic symbology. It is a mandatory part of the specification. The information contained herein is intended for compliance.

A.2 APPLICABLE DOCUMENTS

The following documents were used extensively in the selection of appropriate symbology for a given feature/attribute: IHO S52, IHO S57, MIL-STD-2402, OPAREA, HITS, BC.

A.3 SYMBOL ASSIGNMENTS

This appendix provides a textual description and graphic depiction of each symbol and the symbol assignment expression which assigns each symbol to a specific feature/attribute entity. This appendix is sorted by fcode, feature delineation, and VPF™ product. Refer to Figure A-1 for information about each field contained in the Appendix and how to interpret the field’s contents.

It is important to note that the symbols in this Appenidx are drawn to appear correctly in the context of digital map display containing many other symbols. Therefore, some symbols may appear to be distorted or have exaggerated elements in their representation in this appendix. For example, the dots in symbol 0052 used by fcode BD000 appear to be too large in this appendix. However, when one views symbol 0052 in the GeoSym viewer (GEOSYMVW.EXE), the symbol displays correctly.

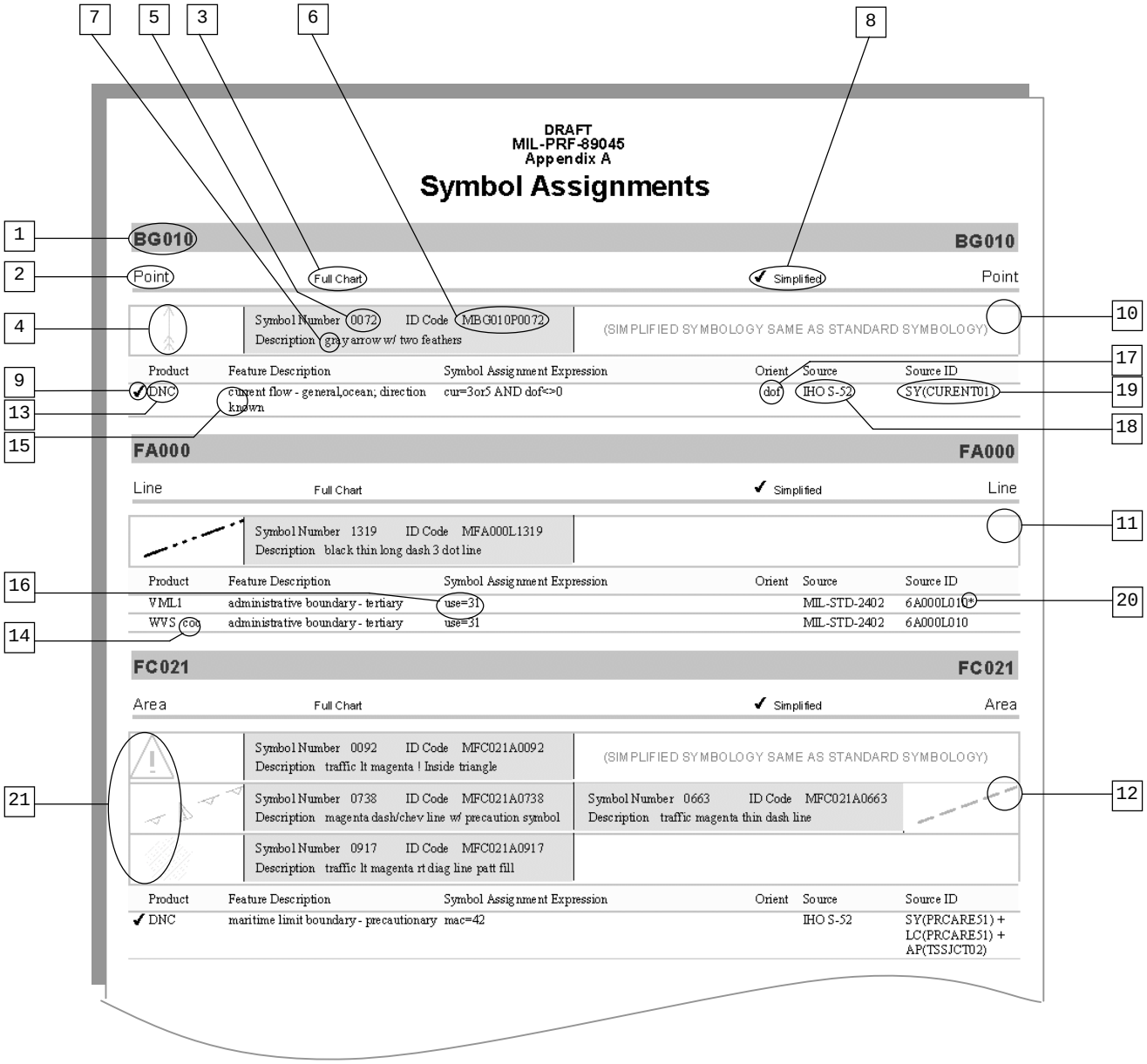


Figure A-1. Appendix A "How-To" Diagram

Figure A-1 "How-To" Diagram Key

1 **FCODE** - The FACC feature code that identifies the feature being symbolized. The primary sort for Appendix A is alphabetically by FCODE.

2 **Delineation** - The delineation of the feature being symbolized (e.g. point, line, or area). The secondary sort for Appendix A is by delineation in the order point, line, then area.

3 **Full Chart Symbol Heading** - Full chart symbology for each feature attribution combination is shown in the left-hand column.

4 **Full Chart Symbol** - The leftmost box contains the full chart symbology for the feature being symbolized. This box may contain a point symbol, a line symbol, an area solid fill or an area pattern fill. Note that the type of symbol appearing in the box does not necessarily indicate the delineation of the symbol. Some area features require separate line and point symbology components. (See #21)

5 **Symbol Number** - The four digit code that identifies the symbol assigned to the feature attribute combinations listed. The third sort for Appendix A is by symbol number. (The Symbol Number also appears in the simplified symbol section. See #12)

6 **Symbol ID Code** - An alphanumeric identifier that is in a format that is compatible with the Symbol Identifier specified by *MIL-STD-2525A*. The first letter of the code is always M for MC&G symbology. The next 5 characters are the FACC feature code for the feature to which the symbol is associated. The sixth character specifies the symbol's delineation, P, L, or A, for point, line, or area respectively. The final four characters are used to store the symbol number. (The Symbol ID Code also appears in the simplified symbol section. See #12)

7 **Symbol Description** - An English description of the symbol. (The Symbol Description also appears in the simplified symbol section. See #12)

8 **Simplified Symbol Heading** - Simplified symbology for each feature/attribute combination that requires it is shown in the right-hand column.

9 **Simplified Symbol Designator** - Simplified symbology is currently applicable only for features in the Digital Nautical Chart (DNC) product. A check mark is placed on the line for the feature attribution combinations for which the simplified symbology applies. Other feature/attribute combinations that also appear under the symbol but do not have a check mark do not apply to the simplified symbology shown in the rightmost box.

10 **Same Simplified Symbology** - The text "(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)" appears in the right-hand column if the simplified symbol assigned to the feature/attribute combination is the same as that assigned for the full chart symbol.

11 **No Simplified Symbology** - The symbol section in the right-hand column appears blank if there is no simplified symbol applicable for the feature/ attribute combinations listed.

12 **Different Simplified Symbology** - If the simplified symbol assigned to the feature/attribute combination is different from the full chart symbol, then the simplified symbol is depicted and described in the right-hand column. (Note that this section also contains items 4, 5, 6 and 7.)

13 **Product** - A three-letter abbreviation that specifies the product for which the feature attribute combination applies. The fourth sort for Appendix A is by product abbreviation. The following abbreviations are used for the products listed in section 1.2:

Digital Nautical Chart	DNC
Digital Topographic Data	DTOP
Foundation Feature Data	FFD
Tactical Ocean Data Level 0	TOD0
Tactical Ocean Data Level 1	TOD1
Tactical Ocean Data Level 2	TOD2
Tactical Ocean Data Level 4	TOD4
Urban Vector Map	UVM
Vector Interim Terrain Data	VITD
Vector Map Level 0	VML0
Vector Map Level 1	VML1
Vector Smart Map Level 2	VML2
World Vector Shoreline Plus	WVS

14 **Coverage** – Some products contain the same feature in multiple coverages and require the symbolization of that feature to be different. When necessary, the coverage field will be populated with the name of the coverage (e.g. “coc”) or with an indication that the feature is not in that coverage (e.g., “<>coc”).

15 **Feature Description** - An English description of the feature that includes a brief description of what the attribution implies.

16 **Symbol Assignment Expression** - The attribute(s) and value(s) that qualify the feature for a specific symbol. Only those attributes and their values that drive the symbology for a feature are listed.

17 **Orientation** - The three-letter FACC attribute code identifying the attribute that contains the angle of rotation to apply to the point symbol specified to symbolize the feature. If empty, the point symbol should be placed per its orientation in the CGM.

18 **Source** - The source that the symbol assignment was derived from. The source options are:

IHO S-52	International Hydrographic Organization Specifications for Chart Content and Display Aspects of ECDIS including Appendix A and Appendix A, Annex A
MIL-STD-2402	Mapping, Charting and Geodesy Symbols for Graphic Displays
OPAREA	DMA Product Specifications for Navy Operating Area (OPAREA) Charts
HITS	DMA Product Specifications for Hull Integrity Test Sites (HITS)
BC	DMA Product Specifications for Bottom Contour Charts
Original	In some cases there was no appropriate source instruction and in those cases an original symbol was derived that was consistent and meaningful for the product.

19 **Source ID** - The specific reference to the symbol number within the indicated source. Only applies to S-52 or MIL-STD-2402.

20 Variation on Symbology - An asterisk following a source ID indicates that the symbol chosen for the feature attribute combination is loosely based on the source ID listed but some aspect(s) of the symbol have been changed.

21 Symbol Compilation - In the case of some area features, more than one symbol component is required for the complete symbolization of the feature. In these cases, all of the symbol components are listed and must be combined to form the complete symbol.

Symbol Assignments

AA010 AA010

Point

Full Chart ✓ Simplified Point

Symbol Number 0001 ID Code MAA010P0001
Description feature brown mine symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	mine/quarry			IHO S-52	SY(PRDINS02)

Symbol Number 2001 ID Code MAA010P2001
Description black pick & hammer

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	mine			MIL-STD-2402	1A010P001
UVM	mine			MIL-STD-2402	1A010P001
VML0	mine/quarry			MIL-STD-2402	1A010P001
VML1	mine/quarry			MIL-STD-2402	1A010P001
VML2	mine/quarry			MIL-STD-2402	1A010P001

Line

Full Chart ✓ Simplified Line

Symbol Number 3116 ID Code MAA010L3116
Description black very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	mine			MIL-STD-2402	1A010A003*

Area

Full Chart ✓ Simplified Area

Symbol Number 0027 ID Code MAA010A0027
Description feature brown mine symbol inside circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0624 ID Code MAA010A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	mine/quarry			IHO S-52	SY(QUARRY01) + LS(DASH,1,LANDF)

Symbol Number 2001 ID Code MAA010A2001
Description black pick & hammer

Symbol Number 3116 ID Code MAA010A3116
Description black very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	mine			MIL-STD-2402	1A010A001
UVM	mine			MIL-STD-2402	1A010A001
VML0	mine/quarry			MIL-STD-2402	1A010A001
VML1	mine/quarry			MIL-STD-2402	1A010A001
VML2	mine/quarry			MIL-STD-2402	1A010A001

Refer to Appendix G for true symbol scale representations.

AA012 AA012

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2001 ID Code MAA012P2001
Description black pick & hammer

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	quarry			MIL-STD-2402	1A030P001
UVM	quarry			MIL-STD-2402	1A030P001

Line — Full Chart — ✓ Simplified — Line

Symbol Number 3116 ID Code MAA012L3116
Description black very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	quarry			MIL-STD-2402	1A030A003*

Area — Full Chart — ✓ Simplified — Area

Symbol Number 2001 ID Code MAA012A2001
Description black pick & hammer

Symbol Number 3116 ID Code MAA012A3116
Description black very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	quarry			MIL-STD-2402	1A030A003
UVM	quarry			MIL-STD-2402	1A030A003

AA040 AA040

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2002 ID Code MAA040P2002
Description black tower

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	rig/superstructure			ORIGINAL	2002
UVM	rig/superstructure			ORIGINAL	2002
VML1	rig/superstructure			ORIGINAL	2002
VML2	rig/superstructure			ORIGINAL	2002

Refer to Appendix G for true symbol scale representations.

AA050 AA050

Point Full Chart ✓ Simplified Point

Symbol Number 0078 ID Code MAA050P0078
Description black sm cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	well - not water	pro<>116		MIL-STD-2402	1A050P001
UVM	well - not water	pro<>116		MIL-STD-2402	1A050P001
VML0	well			MIL-STD-2402	1A050P001
VML1	well - not water	pro<>116		MIL-STD-2402	1A050P001
VML2	well - not water	pro<>116		MIL-STD-2402	1A050P001

Symbol Number 2003 ID Code MAA050P2003
Description basic blue solid filled cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	well - water	pro=116		MIL-STD-2402	1A050P003
UVM	well - water	pro=116		MIL-STD-2402	1A050P003
VML1	well - water	pro=116		MIL-STD-2402	1A050P003
VML2	well - water	pro=116		MIL-STD-2402	1A050P003

AA052 AA052

Point Full Chart ✓ Simplified Point

Symbol Number 2002 ID Code MAA052P2002
Description black tower

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	oil/gas field			ORIGINAL	2002

Area Full Chart ✓ Simplified Area

Symbol Number 0604 ID Code MAA052A0604
Description feature brown very thin solid line

Symbol Number 0804 ID Code MAA052A0804
Description brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	oil/gas field			ORIGINAL	0604 0804

Refer to Appendix G for true symbol scale representations.

AB000 AB000

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MAB000A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	disposal site/waste pile			IHO S-52	AC(LANDA)
DTOP	disposal site/waste pile			IHO S-52	AC(LANDA)
UVM	disposal site/waste pile			IHO S-52	AC(LANDA)
VML1	disposal site/waste pile			IHO S-52	AC(LANDA)
VML2	disposal site/waste pile			IHO S-52	AC(LANDA)

AB010 AB010

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MAB010A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wrecking yard/scrap yard			IHO S-52	AC(LANDA)
DTOP	wrecking yard/scrap yard			IHO S-52	AC(LANDA)
UVM	wrecking yard/scrap yard			IHO S-52	AC(LANDA)

Symbol Number 4107 ID Code MAB010A4107
Description lt gray dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML2	wrecking yard/scrap yard			ORIGINAL	4107

AC000 AC000

Point Full Chart ✓ Simplified Point

Symbol Number 2005 ID Code MAC000P2005
Description black building w/ 2 smokestacks above

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	processing plant/treatment plant			ORIGINAL	2005
VML0	processing plant/treatment plant			ORIGINAL	2005
VML1	processing plant/treatment plant			ORIGINAL	2005
VML2	processing plant/treatment plant			ORIGINAL	2005

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0624 ID Code MAC000A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	processing plant/treatment plant			IHO S-52	LS(DASH,1,LANDF)
DTOP	processing plant/treatment plant			IHO S-52	LS(DASH,1,LANDF)
UVM	processing plant/treatment plant			IHO S-52	LS(DASH,1,LANDF)
VML1	processing plant/treatment plant			IHO S-52	LS(DASH,1,LANDF)
VML2	processing plant/treatment plant			IHO S-52	LS(DASH,1,LANDF)

AC020 AC020

Point Full Chart ✓ Simplified Point

Symbol Number 2005 ID Code MAC020P2005
Description black building w/ 2 smokestacks above

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	catalytic cracker			ORIGINAL	2005
UVM	catalytic cracker			ORIGINAL	2005
VML2	catalytic cracker			ORIGINAL	2005

AC030 AC030

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAC030A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 4077 ID Code MAC030A4077
Description depth med blue narrow rt diag line patt fill

Symbol Number 0804 ID Code MAC030A0804
Description brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	settling basin/sludge pond			MIL-STD-2402	1C030A004
DTOP	settling basin/sludge pond			MIL-STD-2402	1C030A004
FFD	settling basin/sludge pond			MIL-STD-2402	1C030A004
UVM	settling basin/sludge pond			MIL-STD-2402	1C030A004
VML1	settling basin/sludge pond			MIL-STD-2402	1C030A004
VML2	settling basin/sludge pond			MIL-STD-2402	1C030A004

Refer to Appendix G for true symbol scale representations.

AC040 AC040

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2002 ID Code MAC040P2002
Description black tower

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	oil/gas facilities			ORIGINAL	2002

AD010 AD010

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2009 ID Code MAD010P2009
Description black square w/ zap inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	power plant			ORIGINAL	2009
VML1	power plant			ORIGINAL	2009

Area — Full Chart — ✓ Simplified — Area

Symbol Number 4077 ID Code MAD010A4077
Description depth med blue narrow rt diag line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	power plant			ORIGINAL	4077

Symbol Number 0600 ID Code MAD010A0600
Description black very thin solid line
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAD010A0804
Description brown solid fill
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	power plant			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
DTOP	power plant			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
UVM	power plant			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
VML2	power plant			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Refer to Appendix G for true symbol scale representations.

AD020 AD020

Point Full Chart ✓ Simplified Point

Symbol Number 2010 ID Code MAD020P2010
Description black sun burst w/ dot inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	solar panels			ORIGINAL	2010
VML2	solar panels			ORIGINAL	2010

AD030 AD030

Point Full Chart ✓ Simplified Point

Symbol Number 0002 ID Code MAD030P0002
Description feature brown filled square w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	substation/tran.yard			IHO S-52	SY(BUISGL11)

Symbol Number 2011 ID Code MAD030P2011
Description black filled square w/ zap on top

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	substation/tran.yard			MIL-STD-2402	1D030P001*
UVM	substation/tran.yard			MIL-STD-2402	1D030P001*
VML0	substation/tran.yard			MIL-STD-2402	1D030P001*
VML2	substation/tran.yard			MIL-STD-2402	1D030P001*

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAD030A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAD030A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	substation/tran.yard			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
DTOP	substation/tran.yard			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
UVM	substation/tran.yard			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
VML2	substation/tran.yard			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Refer to Appendix G for true symbol scale representations.

AF010 AF010

Point Full Chart ✓ Simplified Point

Symbol Number 0003 ID Code MAF010P0003
Description black chimney symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	chimney/smokestack			IHO S-52	SY(CHIMNY11)
DTOP	chimney/smokestack			IHO S-52	SY(CHIMNY11)
UVM	chimney/smokestack			IHO S-52	SY(CHIMNY11)
VML1	chimney/smokestack			IHO S-52	SY(CHIMNY11)
VML2	chimney/smokestack			IHO S-52	SY(CHIMNY11)

AF020 AF020

Line Full Chart ✓ Simplified Line

Symbol Number 3086 ID Code MAF020L3086
Description gray very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	conveyor			MIL-STD-2402	1F020L001
UVM	conveyor			MIL-STD-2402	1F020L001
VML1	conveyor			MIL-STD-2402	1F020L001
VML2	conveyor			MIL-STD-2402	1F020L001

AF030 AF030

Point Full Chart ✓ Simplified Point

Symbol Number 0004 ID Code MAF030P0004
Description black tower symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	cooling tower			IHO S-52	SY(TOWERS03)

Symbol Number 2016 ID Code MAF030P2016
Description black dot inside double cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cooling tower			MIL-STD-2402	1F030P005*
UVM	cooling tower			MIL-STD-2402	1F030P005*
VML1	cooling tower			MIL-STD-2402	1F030P005*
VML2	cooling tower			MIL-STD-2402	1F030P005*

Refer to Appendix G for true symbol scale representations.

Area | Full Chart | ✓ Simplified | Area

Symbol Number 3117 ID Code MAF030A3117
Description black thin dash line

Symbol Number 4100 ID Code MAF030A4100
Description lt gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	cooling tower			MIL-STD-2402	1F030A001*

AF040

Point | Full Chart | ✓ Simplified | Point

Symbol Number 0005 ID Code MAF040P0005
Description feature brown crane symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crane			IHO S-52	SY(CRANES01)
DTOP	crane			IHO S-52	SY(CRANES01)
UVM	crane			IHO S-52	SY(CRANES01)
VML1	crane			IHO S-52	SY(CRANES01)
VML2	crane			IHO S-52	SY(CRANES01)

AF070

Point | Full Chart | ✓ Simplified | Point

Symbol Number 0006 ID Code MAF070P0006
Description black flare stack symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	flare pipe			IHO S-52	SY(FLASTK11)
DTOP	flare pipe			IHO S-52	SY(FLASTK11)
UVM	flare pipe			IHO S-52	SY(FLASTK11)
VML1	flare pipe			IHO S-52	SY(FLASTK11)
VML2	flare pipe			IHO S-52	SY(FLASTK11)

AH010

Point | Full Chart | ✓ Simplified | Point

Symbol Number 0007 ID Code MAH010P0007
Description black square

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bastion/rampart/fortification			IHO S-52	SY(FORSTC11)

Refer to Appendix G for true symbol scale representations.

Symbol Number 2043 ID Code MAH010P2043
Description black four black squares w/ connection

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	bastion/rampart/fortification			MIL-STD-2402	1H050P003

Line Full Chart ✓ Simplified Line

Symbol Number 3052 ID Code MAH010L3052
Description magenta thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	bastion/rampart/fortification			ORIGINAL	3052

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAH010A0600
Description black very thin solid line
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAH010A0804
Description brown solid fill
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bastion/rampart/fortification			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Symbol Number 4186 ID Code MAH010A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	bastion/rampart/fortification			ORIGINAL	4186

AH050 AH050

Point Full Chart ✓ Simplified Point

Symbol Number 0007 ID Code MAH050P0007
Description black square
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fortification			IHO S-52	SY(FORSTC11)

Symbol Number 2043 ID Code MAH050P2043
Description black four black squares w/ connection

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	fortification			MIL-STD-2402	1H050P003
UVM	fortification			MIL-STD-2402	1H050P003
VML1	fortification			MIL-STD-2402	1H050P003
VML2	fortification			MIL-STD-2402	1H050P003

Refer to Appendix G for true symbol scale representations.

Line Full Chart ✓ Simplified Line

Symbol Number 3052 ID Code MAH050L3052
Description magenta thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	fortification			ORIGINAL	3052

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAH050A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAH050A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fortification			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Symbol Number 4186 ID Code MAH050A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	fortification			ORIGINAL	4186
UVM	fortification			ORIGINAL	4186
VML1	fortification			ORIGINAL	4186
VML2	fortification			ORIGINAL	4186

AH060 AH060

Point Full Chart ✓ Simplified Point

Symbol Number 2072 ID Code MAH060P2072
Description gray shadowed square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	underground bunker			ORIGINAL	2072

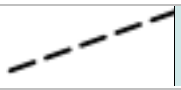
Line Full Chart ✓ Simplified Line

Symbol Number 3054 ID Code MAH060L3054
Description lt magenta very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	underground bunker			ORIGINAL	3054

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area



Symbol Number 3117 ID Code MAH060A3117
Description black thin dash line

Symbol Number 4100 ID Code MAH060A4100
Description lt gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	underground bunker			ORIGINAL	3117 4100

AI020

Area Full Chart ✓ Simplified Area

Symbol Number 3114 ID Code MAI020A3114
Description black very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	mobile home/mobile home park			MIL-STD-2402	1I020A001
UVM	mobile home/mobile home park			MIL-STD-2402	1I020A001
VML2	mobile home/mobile home park			MIL-STD-2402	1I020A001

AI030

Point Full Chart ✓ Simplified Point

Symbol Number 2026 ID Code MAI030P2026
Description black tent

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	camp			ORIGINAL	2026

AJ030

Area Full Chart ✓ Simplified Area

Symbol Number 4217 ID Code MAJ030A4217
Description beige very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	feedlot/stockyard/holding pen			ORIGINAL	4217
UVM	feedlot/stockyard/holding pen			ORIGINAL	4217
VML2	feedlot/stockyard/holding pen			ORIGINAL	4217

Refer to Appendix G for true symbol scale representations.

AJ050 AJ050

Point Full Chart ✓ Simplified Point

Symbol Number 0008 ID Code MAJ050P0008
Description black sm cir w/ X on top

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	windmill			IHO S-52	SY(WNDMIL12)
DTOP	windmill			IHO S-52	SY(WNDMIL12)
UVM	windmill			IHO S-52	SY(WNDMIL12)
VML1	windmill			IHO S-52	SY(WNDMIL12)
VML2	windmill			IHO S-52	SY(WNDMIL12)

AK020 AK020

Point Full Chart ✓ Simplified Point

Symbol Number 0024 ID Code MAK020P0024
Description black dot inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	amusement park attraction			IHO S-52	SY(POSGEN03)

Symbol Number 2029 ID Code MAK020P2029
Description black ferris wheel

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	amusement park attraction			ORIGINAL	2029
UVM	amusement park attraction			ORIGINAL	2029
VML1	amusement park attraction			ORIGINAL	2029
VML2	amusement park attraction			ORIGINAL	2029

Line Full Chart ✓ Simplified Line

Symbol Number 0600 ID Code MAK020L0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	amusement park attraction			IHO S-52	LS(SOLD,1,CHBLK)

Refer to Appendix G for true symbol scale representations.

AK030 AK030

Area Full Chart ✓ Simplified Area

Symbol Number 3117 ID Code MAK030A3117
Description black thin dash line

Symbol Number 4045 ID Code MAK030A4045
Description green solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	amusement park			MIL-STD-2402	1K030A002
UVM	amusement park			MIL-STD-2402	1K030A002
VML2	amusement park			MIL-STD-2402	1K030A002

AK040 AK040

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MAK040A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	athletic field			IHO S-52	AC(LANDA)

Symbol Number 4279 ID Code MAK040A4279
Description nav orange thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	athletic field			MIL-STD-2402	1K040A002
UVM	athletic field			MIL-STD-2402	1K040A001
VML0	athletic field			MIL-STD-2402	1K040A002
VML2	athletic field			MIL-STD-2402	1K040A002

AK060 AK060

Area Full Chart ✓ Simplified Area

Symbol Number 3117 ID Code MAK060A3117
Description black thin dash line

Symbol Number 4045 ID Code MAK060A4045
Description green solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	campground/campsite			MIL-STD-2402	1K030A002
UVM	campground/campsite			MIL-STD-2402	1K030A002
VML2	campground/campsite			MIL-STD-2402	1K030A002

Refer to Appendix G for true symbol scale representations.

AK070 AK070

Area | Full Chart | ✓ Simplified | Area

Symbol Number 4279 ID Code MAK070A4279
Description nav orange thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	drive in theater			MIL-STD-2402	1K070A001
VML2	drive in theater			MIL-STD-2402	1K070A001

AK080 AK080

Point | Full Chart | ✓ Simplified | Point

Symbol Number 0024 ID Code MAK080P0024
Description black dot inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	drive in theater screen			IHO S-52	SY(POSGEN03)

AK090 AK090

Area | Full Chart | ✓ Simplified | Area

Symbol Number 0822 ID Code MAK090A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fairgrounds			IHO S-52	AC(LANDA)

Symbol Number 4279 ID Code MAK090A4279
Description nav orange thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	fairgrounds			MIL-STD-2402	1K090A001
UVM	fairgrounds			MIL-STD-2402	1K090A001
VML2	fairgrounds			MIL-STD-2402	1K090A001

AK100 AK100

Area | Full Chart | ✓ Simplified | Area

Symbol Number 0822 ID Code MAK100A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	golf course			IHO S-52	AC(LANDA)

Refer to Appendix G for true symbol scale representations.

Symbol Number 4279 ID Code MAK100A4279
Description nav orange thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	golf course			MIL-STD-2402	1K100A001
UVM	golf course			MIL-STD-2402	1K100A001
VML2	golf course			MIL-STD-2402	1K100A001

AK110 AK110

Area Full Chart ✓ Simplified Area

Symbol Number 4156 ID Code MAK110A4156
Description black solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	grandstand			MIL-STD-2402	1K110A001

AK120 AK120

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MAK120A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	park			IHO S-52	AC(LANDA)

Symbol Number 3117 ID Code MAK120A3117
Description black thin dash line

Symbol Number 4045 ID Code MAK120A4045
Description green solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	park			MIL-STD-2402	1K120A003
UVM	park			MIL-STD-2402	1K120A003
VML1	park			MIL-STD-2402	1K120A003
VML2	park			MIL-STD-2402	1K120A003

AK130 AK130

Line Full Chart ✓ Simplified Line

Symbol Number 0605 ID Code MAK130L0605
Description feature brown thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	race track			IHO S-52	LS(SOLD,2,LANDF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 3113 ID Code MAK130L3113
Description black solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	race track			MIL-STD-2402	1K130L002
UVM	race track			MIL-STD-2402	1K130L002
VML1	race track			MIL-STD-2402	1K130L002
VML2	race track			MIL-STD-2402	1K130L002

Area Full Chart ✓ Simplified Area

Symbol Number 3113 ID Code MAK130A3113
Description black solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	race track			ORIGINAL	3113
VML0	race track			ORIGINAL	3113

AK150 AK150

Point Full Chart ✓ Simplified Point

Symbol Number 2034 ID Code MAK150P2034
Description black skier

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	ski jump			ORIGINAL	2034
VML1	ski jump			ORIGINAL	2034
VML2	ski jump			ORIGINAL	2034

Line Full Chart ✓ Simplified Line

Symbol Number 0656 ID Code MAK150L0656
Description gray very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	ski jump			MIL-STD-2402	1K150L001
VML2	ski jump			MIL-STD-2402	1K150L001

AK160 AK160

Point Full Chart ✓ Simplified Point

Symbol Number 0002 ID Code MAK160P0002
Description feature brown filled square w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	stadium/amphitheater			IHO S-52	SY(BUISGL11)

Refer to Appendix G for true symbol scale representations.

Symbol Number 2035 ID Code MAK160P2035
Description black dot inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	stadium/amphitheater			MIL-STD-2402	1K160P001
VML1	stadium/amphitheater			MIL-STD-2402	1K160P001

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAK160A0600
Description black very thin solid line
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAK160A0804
Description brown solid fill
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	stadium/amphitheater			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Symbol Number 3113 ID Code MAK160A3113
Description black solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	stadium/amphitheater			MIL-STD-2402	1K160A001
UVM	stadium/amphitheater			MIL-STD-2402	1K160A001
VML2	stadium/amphitheater			MIL-STD-2402	1K160A001

AK170 AK170

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAK170A0600
Description black very thin solid line

Symbol Number 4138 ID Code MAK170A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	swimming pool			MIL-STD-2402	1K170A001
UVM	swimming pool			MIL-STD-2402	1K170A001
VML2	swimming pool			MIL-STD-2402	1K170A001

AK180 AK180

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MAK180A0822
Description lt brown solid fill
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	zoo/safari park			IHO S-52	AC(LANDA)

Refer to Appendix G for true symbol scale representations.

	Symbol Number 3117 ID Code MAK180A3117 Description black thin dash line	
	Symbol Number 4045 ID Code MAK180A4045 Description green solid fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	zoo/safari park			MIL-STD-2402	1K180A003
UVM	zoo/safari park			MIL-STD-2402	1K180A003
VML2	zoo/safari park			MIL-STD-2402	1K180A003

AL005 AL005

Area Full Chart ✓ Simplified Area

	Symbol Number 0081 ID Code MAL005A0081 Description lt magenta square w/ I	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)	
	Symbol Number 0734 ID Code MAL005A0734 Description magenta dash/chevron line	Symbol Number 4186 ID Code MAL005A4186 Description magenta thin dash line	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	animal sanctuary			IHO S-52	SY(INFARE51) + LC(CTYARE51)

AL015 AL015

Point Full Chart ✓ Simplified Point

	Symbol Number 0002 ID Code MAL015P0002 Description feature brown filled square w/ black outline	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - maritime station	bfc=81 AND sta=0or2or3or6or11		IHO S-52	SY(BUISGL11)

	Symbol Number 0010 ID Code MAL015P0010 Description black 'iron cross'	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - house of worship	bfc=7 AND hwt=0or2or3or4or7or22		IHO S-52	SY(BUIREL13)

	Symbol Number 0011 ID Code MAL015P0011 Description black X inscribed in rectangle	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - house of worship	bfc=7 AND hwt=11or14or15or16or20or21		IHO S-52	SY(BUIREL14)
UVM	building - house of worship	bfc=7or114 AND hwt=11or14or15or16		IHO S-52	SY(BUIREL14)
VML1	building - house of worship	bfc=7 AND hwt=11or14or15or16		IHO S-52	SY(BUIREL14)
VML2	building - house of worship	bfc=7 AND hwt=11or14or15or16		IHO S-52	SY(BUIREL14)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0012 ID Code MAL015P0012
Description black mosque/minaret w/ dot in circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - house of worship	bfc=7 AND hwt=5or6or9		IHO S-52	SY(BUIREL15)
UVM	building - house of worship	bfc=7or114 AND hwt=5or6or9		IHO S-52	SY(BUIREL15)
VML1	building - house of worship	bfc=7 AND hwt=5or6or9		IHO S-52	SY(BUIREL15)
VML2	building - house of worship	bfc=7 AND hwt=5or6or9		IHO S-52	SY(BUIREL15)

Symbol Number 0013 ID Code MAL015P0013
Description lt magenta CG in rectangle w/ pale green fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - maritime station	bfc=81 AND sta=1		IHO S-52	SY(CGUSTA02)

Symbol Number 0014 ID Code MAL015P0014
Description black filled diamond cntred on horizontal line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - maritime station	bfc=81 AND sta=5		IHO S-52	SY(RSCSTA02)

Symbol Number 0015 ID Code MAL015P0015
Description lt magenta SS in rectangle w/ pale green fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - maritime station	bfc=81 AND sta<>0and<>1and<>2and<>3and<>5and<>6and<>11		IHO S-52	SY(SISTAT02)

Symbol Number 0401 ID Code MAL015P0401
Description lt magenta arcs origin offset for beacons

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - maritime station (rescue), sound signal	bfc=81 AND sta=5 AND sst<>16		IHO S-52	SY(FOGSIG01) for water

Symbol Number 0402 ID Code MAL015P0402
Description lt magenta arcs origin offset for buoys

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - maritime station (not rescue), sound signal	bfc=81 AND sta<>5 AND sst<>16		IHO S-52	SY(FOGSIG01) for land

Symbol Number 0500 ID Code MAL015P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - not maritime station, light flare	bfc<>81 AND col<>"UNK"		IHO S-52	SY(LIGHTDEF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 1001 ID Code MAL015P1001
Description red filled square black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - generic	bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96		MIL-STD-2402	1L015P006
UVM	building - gov't	bfc=2or3or5or8or12or13or14or28or31or35or37or38or52or61or62or64or65or66or67or77or78or79or80or96or101or119or121or123or723		MIL-STD-2402	1L015P006
VML1	building - gov't	bfc=2or3or5or12or13or14		MIL-STD-2402	1L015P006
VML2	building - gov't	bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96		MIL-STD-2402	1L015P006

Symbol Number 1002 ID Code MAL015P1002
Description black filled cir w/ white cross inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - hospital	bfc=6		MIL-STD-2402	1L015P009
UVM	building - hospital	bfc=6or100		MIL-STD-2402	1L015P009
VML2	building - hospital	bfc=6		MIL-STD-2402	1L015P009

Symbol Number 1202 ID Code MAL015P1202
Description feature brown filled square w/ brown outln

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	building - generic (industry)	bfc=81or83or84or85or86or89or90or94or102or104or110or112or113or116or120or124or125		MIL-STD-2402	1L015P0006
UVM	building - generic (industry)	bfc=1or21or22or23or24or25or26or27or29or30or40or54or59or71or72or73or74or75or76		MIL-STD-2402	1L015P0006

Symbol Number 2036 ID Code MAL015P2036
Description black sm filled square

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building - not house of worship,not maritime station	bfc<>7and<>81		MIL-STD-2402	1L015P062
DTOP	building - generic	bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36or53or59or69or70or83or85or86or87or88or89		MIL-STD-2402	1L015P062
DTOP	building - generic	bfc=90or91or92or93or95or98or999		MIL-STD-2402	1L015P062
UVM	building - generic (population)	bfc=63or69or70or87or88or91or92or93or95or97or98or99or103or105or106or107or109or111or115or117or118or122or126or127or128or999		MIL-STD-2402	1L015P062
UVM	building - generic (population)	bfc=0or4or9or10or11or16or17or18or19or20or33or34or36or39or51or53or55or56or57or58		MIL-STD-2402	1L015P062
VML0	building			MIL-STD-2402	1L015P062
VML1	building - generic	bfc=0or1or4or9or10or11or16or17or18or19or20or22or23or24or27or83or999		MIL-STD-2402	1L015P062
VML2	building - generic	bfc=53or59or69or70or83or85or86or87or88or89or90or91or92or93or95or98or999		MIL-STD-2402	1L015P062
VML2	building - generic	bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36		MIL-STD-2402	1L015P062

Refer to Appendix G for true symbol scale representations.

Symbol Number 2042 ID Code MAL015P2042
Description black filled square w/ flag on top

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - school	bfc=15		MIL-STD-2402	1L015P008
UVM	building - school,college,seminary	bfc=15or60or108		MIL-STD-2402	1L015P008
VML1	building - school	bfc=15		MIL-STD-2402	1L015P008
VML2	building - school	bfc=15		MIL-STD-2402	1L015P008

Symbol Number 2044 ID Code MAL015P2044
Description black lighthouse symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - lighthouse	bfc=82		ORIGINAL	2044
UVM	building - lighthouse	bfc=82		ORIGINAL	2044
VML2	building - lighthouse	bfc=82		ORIGINAL	2044

Symbol Number 2045 ID Code MAL015P2045
Description black filled square w/ cross on top

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - house of worship	bfc=7		MIL-STD-2402	1L015P011
UVM	building - house of worship	bfc=7or114 AND hwt=0or2or3or4or7 OR bfc=50		MIL-STD-2402	1L015P011
VML1	building - house of worship	bfc=7 AND hwt=0or2or3or4or7		MIL-STD-2402	1L015P011
VML2	building - house of worship	bfc=7 AND hwt=0or2or3or4or7		MIL-STD-2402	1L015P011

Symbol Number 2047 ID Code MAL015P2047
Description black filled square w/ T on top

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	building - house of worship	bfc=7or114 AND hwt=20		MIL-STD-2402	1L015P037
VML1	building - house of worship	bfc=7 AND hwt=20		MIL-STD-2402	1L015P037
VML2	building - house of worship	bfc=7 AND hwt=20		MIL-STD-2402	1L015P037

Symbol Number 2048 ID Code MAL015P2048
Description black pinwheel

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	building - house of worship	bfc=7or114 AND hwt=21		MIL-STD-2402	1L015P035
VML1	building - house of worship	bfc=7 AND hwt=21		MIL-STD-2402	1L015P035
VML2	building - house of worship	bfc=7 AND hwt=21		MIL-STD-2402	1L015P035

Line

Full Chart ✓ Simplified Line

Symbol Number 1406 ID Code MAL015L1406
Description brown thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - school	bfc=15		ORIGINAL	1406
UVM	building - school	bfc=15or60or108		ORIGINAL	1406
VML2	building - school	bfc=15		ORIGINAL	1406

Refer to Appendix G for true symbol scale representations.

Symbol Number 3001 ID Code MAL015L3001
Description lt beige thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - house of worship	bfc=7		ORIGINAL	3001
UVM	building - house of worship	bfc=7or114		ORIGINAL	3001
VML2	building - house of worship	bfc=7		ORIGINAL	3001

Symbol Number 3104 ID Code MAL015L3104
Description red solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	building - gov't	bfc=2or3or5or8or28or52or121		ORIGINAL	3104

Symbol Number 3112 ID Code MAL015L3112
Description black thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - generic	bfc<>6and<>7and<>15		MIL-STD-2402	1L015L001
UVM	building - generic	bfc<>2and<>3and<>5and<>8and<>15and<>28and<>52and<>121and<>6and<>7and<>114and<>100and<>60and<>108		MIL-STD-2402	1L015L001
VML2	building - generic	bfc<>6and<>7and<>15		MIL-STD-2402	1L015L001

Symbol Number 3153 ID Code MAL015L3153
Description beige-rose thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - hospital	bfc=6		ORIGINAL	3153
UVM	building - hospital	bfc=6or100		ORIGINAL	3153
VML2	building - hospital	bfc=6		ORIGINAL	3153

Area

Full Chart ✓ Simplified

Area

Symbol Number 1601 ID Code MAL015A1601
Description red solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	building - gov't	bfc=2or3or5or8or28or52or121		MIL-STD-2402	1L015A025

Symbol Number 4002 ID Code MAL015A4002
Description lt beige solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - house of worship	bfc=7		ORIGINAL	4002
UVM	building - house of worship	bfc=7or114		ORIGINAL	4002
VML1	building - house of worship	bfc=7		ORIGINAL	4002
VML2	building - house of worship	bfc=7		ORIGINAL	4002

Refer to Appendix G for true symbol scale representations.

Symbol Number 4015 ID Code MAL015A4015
Description beige-rose solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - hospital	bfc=6		ORIGINAL	4015
UVM	building - hospital	bfc=6or100		ORIGINAL	4015
VML2	building - hospital	bfc=6		ORIGINAL	4015

Symbol Number 4025 ID Code MAL015A4025
Description feature brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - school	bfc=15		MIL-STD-2402	1L015A030
UVM	building - school	bfc=15or60or108		MIL-STD-2402	1L015A030
VML1	building - school	bfc=15		MIL-STD-2402	1L015A030
VML2	building - school	bfc=15		MIL-STD-2402	1L015A030

Symbol Number 4156 ID Code MAL015A4156
Description black solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	building - generic	bfc<>6and<>7and<>15		MIL-STD-2402	1L015A022
UVM	building - generic	bfc<>2and<>3and<>5and<>8and<>28and<>52and<>121and<>15and<>6and<>7and<>114and<>100and<>60and<>108		MIL-STD-2402	1L015A022
VML1	building - generic	bfc<>7and<>15		MIL-STD-2402	1L015A022
VML2	building - generic	bfc<>6and<>7and<>15		MIL-STD-2402	1L015A022

Symbol Number 0600 ID Code MAL015A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAL015A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

AL018 AL018

Point Full Chart ✓ Simplified Point

Symbol Number 0002 ID Code MAL018P0002
Description feature brown filled square w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	building superstructure addition			IHO S-52	SY(BUISGL11)

Refer to Appendix G for true symbol scale representations.

AL020 AL020

Point

Full Chart ✓ Simplified Point

Symbol Number 0016 ID Code MAL020P0016
Description feature brown filled cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	built-up area			IHO S-52	SY(BUAARE02)

Symbol Number 2053 ID Code MAL020P2053
Description black sm open square w/ dot in center

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	built-up area			MIL-STD-2402	1L020P002
VML1	built-up area			MIL-STD-2402	1L020P002

Area

Full Chart ✓ Simplified Area

Symbol Number 4128 ID Code MAL020A4128
Description yellow solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP pop	built-up area			MIL-STD-2402	1L020A006
FFD	built-up area			MIL-STD-2402	1L020A006
UVM	built-up area			MIL-STD-2402	1L020A006
VML0	built-up area			MIL-STD-2402	1L020A006
VML1	built-up area			MIL-STD-2402	1L020A006
VML2	built-up area			MIL-STD-2402	1L020A006

Symbol Number 0604 ID Code MAL020A0604
Description feature brown very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAL020A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	built-up area			IHO S-52	LS(SOLD,1,LANDF) + AC(CHBRN)

Symbol Number 3112 ID Code MAL020A3112
Description black thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	built-up area			MIL-STD-2402	1L020A010

Symbol Number 3112 ID Code MAL020A3112
Description black thin solid line

Symbol Number 4243 ID Code MAL020A4243
Description depth dk gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP <>pop	built-up area			ORIGINAL	3112 4243

Refer to Appendix G for true symbol scale representations.

AL025 AL025

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0017 ID Code MAL025P0017
Description black three stacked sm cirs

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	cairn			IHO S-52	SY(CAIRNS11)
DTOP	cairn			IHO S-52	SY(CAIRNS11)
VML0	cairn			IHO S-52	SY(CAIRNS11)
VML1	cairn			IHO S-52	SY(CAIRNS11)
VML2	cairn			IHO S-52	SY(CAIRNS11)

AL030 AL030

Point — Full Chart — ✓ Simplified — Point

Symbol Number 1003 ID Code MAL030P1003
Description black cross

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cemetery			MIL-STD-2402	1L030P003
UVM	cemetery			MIL-STD-2402	1L030P003
VML2	cemetery			MIL-STD-2402	1L030P003

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0600 ID Code MAL030A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAL030A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	cemetery			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
DTOP	cemetery			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
UVM	cemetery			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)
VML2	cemetery			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

AL045 AL045

Area — Full Chart — ✓ Simplified — Area

Symbol Number 3104 ID Code MAL045A3104
Description red solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	complex outline			MIL-STD-2402	1L045A001
UVM	complex outline			MIL-STD-2402	1L045A001

Refer to Appendix G for true symbol scale representations.

AL050 AL050

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0018 ID Code MAL050P0018
Description black rectange above inverted T

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	display sign			IHO S-52	SY(NOTBRD11)

AL060 AL060

Line — Full Chart — ✓ Simplified — Line

Symbol Number 1301 ID Code MAL060L1301
Description black line w/ squares

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	dragon teeth			MIL-STD-2402	1L060L002
VITD	dragon teeth			MIL-STD-2402	1L060L002
VML2	dragon teeth			MIL-STD-2402	1L060L002

Area — Full Chart — ✓ Simplified — Area

Symbol Number 1301 ID Code MAL060A1301
Description black line w/ squares

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	dragon teeth			MIL-STD-2402	1L060A002
VITD	dragon teeth			MIL-STD-2402	1L060A002
VML2	dragon teeth			MIL-STD-2402	1L060A002

AL070 AL070

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0600 ID Code MAL070L0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fence			IHO S-52	LS(SOLD,1,CHBLK)

Symbol Number 3148 ID Code MAL070L3148
Description black patt line -x -x -x

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	fence			MIL-STD-2402	1L070L004
UVM	fence			MIL-STD-2402	1L070L004
VML1	fence			MIL-STD-2402	1L070L004
VML2	fence			MIL-STD-2402	1L070L004

Refer to Appendix G for true symbol scale representations.

AL073 AL073

Point Full Chart ✓ Simplified Point

Symbol Number 0019 ID Code MAL073P0019
Description feature brown flag symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	flagstaff/flagpole			IHO S-52	SY(FLGSTF01)

AL075 AL075

Point Full Chart ✓ Simplified Point

Symbol Number 1205 ID Code MAL075P1205
Description brown vert line w/ horizontal ticks on rt side

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	gallery			ORIGINAL	1205

Line Full Chart ✓ Simplified Line

Symbol Number 1401 ID Code MAL075L1401
Description black outline open line w/ rt diag fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	gallery			MIL-STD-2402	1L075L001

AL100 AL100

Point Full Chart ✓ Simplified Point

Symbol Number 2058 ID Code MAL100P2058
Description gray filled square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	hut			MIL-STD-2402	1L100P001*
UVM	hut			MIL-STD-2402	1L100P001*
VML1	hut			MIL-STD-2402	1L100P001*
VML2	hut			MIL-STD-2402	1L100P001*

AL105 AL105

Point Full Chart ✓ Simplified Point

Symbol Number 2060 ID Code MAL105P2060
Description black square w/ S inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	settlement			MIL-STD-2402	1L135P001
VML2	settlement			MIL-STD-2402	1L135P001

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0802 ID Code MAL105A0802
Description gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP pop	settlement			MIL-STD-2402	1L135A001
FFD	settlement			MIL-STD-2402	1L135A001
VML1	settlement			MIL-STD-2402	1L135A001
VML2	settlement			MIL-STD-2402	1L135A001

Symbol Number 3112 ID Code MAL105A3112
Description black thin solid line

Symbol Number 4243 ID Code MAL105A4243
Description depth dk gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP <>pop	settlement			ORIGINAL	3112 4243

AL120 AL120

Point Full Chart ✓ Simplified Point

Symbol Number 1004 ID Code MAL120P1004
Description black pencil shape symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	missile site			MIL-STD-2402	1L120P003

Line Full Chart ✓ Simplified Line

Symbol Number 3054 ID Code MAL120L3054
Description lt magenta very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	missile site			ORIGINAL	3054

Area Full Chart ✓ Simplified Area

Symbol Number 3061 ID Code MAL120A3061
Description magenta thin dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	missile site			ORIGINAL	3061

Refer to Appendix G for true symbol scale representations.

AL130 AL130

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0020 ID Code MAL130P0020
Description black hatched trapazoid

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	monument			IHO S-52	SY(MONUMT12)

Symbol Number 2063 ID Code MAL130P2063
Description black monument symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	monument			MIL-STD-2402	1L130P001*
UVM	monument			MIL-STD-2402	1L130P001*
VML0	monument			MIL-STD-2402	1L130P001*
VML1	monument			MIL-STD-2402	1L130P001*
VML2	monument			MIL-STD-2402	1L130P001*

Area — Full Chart — ✓ Simplified — Area

Symbol Number 4175 ID Code MAL130A4175
Description lt orange solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	monument			ORIGINAL	4175

AL135 AL135

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2060 ID Code MAL135P2060
Description black square w/ S inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	native settlement			MIL-STD-2402	1L135P001
VML0	native settlement			MIL-STD-2402	1L135P001

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0802 ID Code MAL135A0802
Description gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP pop	native settlement			MIL-STD-2402	1L135A001
FFD	native settlement			MIL-STD-2402	1L135A001
UVM	native settlement			MIL-STD-2402	1L135A001
VML0	native settlement			MIL-STD-2402	1L135A001
VML1	native settlement			MIL-STD-2402	1L135A001
VML2	native settlement			MIL-STD-2402	1L135A001

Refer to Appendix G for true symbol scale representations.

Symbol Number 3112 ID Code MAL135A3112
Description black thin solid line

Symbol Number 4243 ID Code MAL135A4243
Description depth dk gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP <>pop	native settlement			MIL-STD-2402	1L135A001*

AL140 AL140

Point Full Chart ✓ Simplified Point

Symbol Number 0014 ID Code MAL140P0014
Description black filled diamond cntred on horizontal line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	particle accelerator			MIL-STD-2402	1L140P001

Area Full Chart ✓ Simplified Area

Symbol Number 4089 ID Code MAL140A4089
Description magenta solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	particle accelerator			MIL-STD-2402	1L140A001*
UVM	particle accelerator			MIL-STD-2402	1L140A001*
VML2	particle accelerator			MIL-STD-2402	1L140A001*

AL155 AL155

Point Full Chart ✓ Simplified Point

Symbol Number 1206 ID Code MAL155P1206
Description black line w/ indented rectangle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	overhead obstruction location			MIL-STD-2402	1L155P001

Line Full Chart ✓ Simplified Line

Symbol Number 3114 ID Code MAL155L3114
Description black very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	overhead obstruction location			ORIGINAL	3114

Refer to Appendix G for true symbol scale representations.

AL170 AL170

Area Full Chart ✓ Simplified Area

Symbol Number 4018 ID Code MAL170A4018
Description lt tan solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	plaza/city square			MIL-STD-2402	1L170A002
UVM	plaza/city square			MIL-STD-2402	1L170A002
VML2	plaza/city square			MIL-STD-2402	1L170A002

AL195 AL195

Point Full Chart ✓ Simplified Point

Symbol Number 2051 ID Code MAL195P2051
Description black ramp symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ramp			ORIGINAL	2051
VITD	ramp			ORIGINAL	2051

AL200 AL200

Point Full Chart ✓ Simplified Point

Symbol Number 0002 ID Code MAL200P0002
Description feature brown filled square w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ruins			IHO S-52	SY(BUISGL11)
DTOP	ruins			IHO S-52	SY(BUISGL11)
UVM	ruins			IHO S-52	SY(BUISGL11)
VML0	ruins			IHO S-52	SY(BUISGL11)
VML1	ruins			IHO S-52	SY(BUISGL11)
VML2	ruins			IHO S-52	SY(BUISGL11)

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MAL200A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ruins			IHO S-52	AC(LANDA)

Refer to Appendix G for true symbol scale representations.

Symbol Number 3114 ID Code MAL200A3114
Description black very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ruins			MIL-STD-2402	1L200A001
UVM	ruins			MIL-STD-2402	1L200A001
VML1	ruins			MIL-STD-2402	1L200A001
VML2	ruins			MIL-STD-2402	1L200A001

AL210 AL210

Point Full Chart ✓ Simplified Point

Symbol Number 2070 ID Code MAL210P2070
Description black diag bands in rectangle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	snow shed/rock shed			MIL-STD-2402	1L210P001
VML0	snow shed/rock shed			MIL-STD-2402	1L210P001
VML1	snow shed/rock shed			MIL-STD-2402	1L210P001
VML2	snow shed/rock shed			MIL-STD-2402	1L210P001

Line Full Chart ✓ Simplified Line

Symbol Number 3146 ID Code MAL210L3146
Description black solid triangle line patt

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	snow shed/rock shed			MIL-STD-2402	4B010L002
VML0	snow shed/rock shed			MIL-STD-2402	4B010L002
VML1	snow shed/rock shed			MIL-STD-2402	4B010L002
VML2	snow shed/rock shed			MIL-STD-2402	4B010L002

AL240 AL240

Point Full Chart ✓ Simplified Point

Symbol Number 0004 ID Code MAL240P0004
Description black tower symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tower (non-communication)			IHO S-52	SY(TOWERS03)

Symbol Number 0500 ID Code MAL240P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tower - light flare	col<>"UNK"		IHO S-52	SY(LIGHTDEF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 2071 ID Code MAL240P2071
Description black dot inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	tower (non-communication)			MIL-STD-2402	1L240P009
UVM	tower (non-communication)			MIL-STD-2402	1L240P009
VML0	tower (non-communication)			MIL-STD-2402	1L240P009
VML1	tower (non-communication)			MIL-STD-2402	1L240P009
VML2	tower (non-communication)			MIL-STD-2402	1L240P009

AL250 AL250

Point Full Chart ✓ Simplified Point

Symbol Number 2072 ID Code MAL250P2072
Description gray shadowed square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	underground dwelling			MIL-STD-2402	1L250P001
UVM	underground dwelling			MIL-STD-2402	1L250P001
VML2	underground dwelling			MIL-STD-2402	1L250P001

Area Full Chart ✓ Simplified Area

Symbol Number 3117 ID Code MAL250A3117
Description black thin dash line

Symbol Number 4100 ID Code MAL250A4100
Description lt gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	underground dwelling			ORIGINAL	3117 4100

AL260 AL260

Point Full Chart ✓ Simplified Point

Symbol Number 2323 ID Code MAL260P2323
Description black dot

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	wall			ORIGINAL	2323

Line Full Chart ✓ Simplified Line

Symbol Number 0600 ID Code MAL260L0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wall			IHO S-52	LS(SOLD,1,CHBLK)

Refer to Appendix G for true symbol scale representations.

Symbol Number 3113 ID Code MAL260L3113
Description black solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	wall			MIL-STD-2402	1L260L001
UVM	wall			MIL-STD-2402	1L260L001
VITD	wall			MIL-STD-2402	1L260L001
VML0	wall			MIL-STD-2402	1L260L001
VML1	wall			MIL-STD-2402	1L260L001
VML2	wall			MIL-STD-2402	1L260L001

AM010 AM010

Point Full Chart ✓ Simplified Point

Symbol Number 2073 ID Code MAM010P2073
Description black square w/ diag line inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	depot (storage)			MIL-STD-2402	1M010P001*
VML0	depot (storage)			MIL-STD-2402	1M010P001*

Area Full Chart ✓ Simplified Area

Symbol Number 4028 ID Code MAM010A4028
Description brown horizontal lines patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	depot (storage)			ORIGINAL	4028
UVM	depot (storage)			ORIGINAL	4028
VML2	depot (storage)			ORIGINAL	4028

Symbol Number 0624 ID Code MAM010A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depot (storage)			IHO S-52	LS(DASH,1,LANDF)

AM020 AM020

Point Full Chart ✓ Simplified Point

Symbol Number 0021 ID Code MAM020P0021
Description feature brown filled cir w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	grain bin/silo			IHO S-52	SY(SILBUI11)

Refer to Appendix G for true symbol scale representations.

Symbol Number 2074 ID Code MAM020P2074
Description brown cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	grain bin/silo			MIL-STD-2402	1M020P002*
UVM	grain bin/silo			MIL-STD-2402	1M020P002*
VML1	grain bin/silo			MIL-STD-2402	1M020P002*
VML2	grain bin/silo			MIL-STD-2402	1M020P002*

Area Full Chart ✓ Simplified Area

Symbol Number 4028 ID Code MAM020A4028
Description brown horizontal lines patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	grain bin/silo			ORIGINAL	4028
UVM	grain bin/silo			ORIGINAL	4028
VML2	grain bin/silo			ORIGINAL	4028

AM030 AM030

Point Full Chart ✓ Simplified Point

Symbol Number 0004 ID Code MAM030P0004
Description black tower symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	grain elevator			IHO S-52	SY(TOWERS03)
DTOP	grain elevator			IHO S-52	SY(TOWERS03)
UVM	grain elevator			IHO S-52	SY(TOWERS03)
VML1	grain elevator			IHO S-52	SY(TOWERS03)
VML2	grain elevator			IHO S-52	SY(TOWERS03)

Area Full Chart ✓ Simplified Area

Symbol Number 4028 ID Code MAM030A4028
Description brown horizontal lines patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	grain elevator			ORIGINAL	4028
UVM	grain elevator			ORIGINAL	4028
VML2	grain elevator			ORIGINAL	4028

Symbol Number 0600 ID Code MAM030A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAM030A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	grain elevator			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Refer to Appendix G for true symbol scale representations.

AM040 AM040

Area Full Chart ✓ Simplified Area

Symbol Number 4123 ID Code MAM040A4123
Description depth gray stiple patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	mineral pile			ORIGINAL	4123

Symbol Number 0624 ID Code MAM040A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	mineral pile			IHO S-52	LS(DASH,1,LANDF)

AM060 AM060

Point Full Chart ✓ Simplified Point

Symbol Number 2076 ID Code MAM060P2076
Description red brown filled semicircle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	storage bunker/storage mound			MIL-STD-2402	1M060P001*
UVM	storage bunker/storage mound			MIL-STD-2402	1M060P001*
VML2	storage bunker/storage mound			MIL-STD-2402	1M060P001*

Area Full Chart ✓ Simplified Area

Symbol Number 4114 ID Code MAM060A4114
Description depth gray horizontal lines patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	storage bunker/storage mound			ORIGINAL	4114
UVM	storage bunker/storage mound			ORIGINAL	4114
VML2	storage bunker/storage mound			ORIGINAL	4114

AM070 AM070

Point Full Chart ✓ Simplified Point

Symbol Number 0022 ID Code MAM070P0022
Description black cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tank			IHO S-52	SY(TNKCON12)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0500 ID Code MAM070P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tank - light flare	col<>"UNK"		IHO S-52	SY(LIGHTDEF)

Symbol Number 2019 ID Code MAM070P2019
Description black sm filled cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	tank			MIL-STD-2402	1M070P003
UVM	tank			MIL-STD-2402	1M070P003
VML0	tank			MIL-STD-2402	1M070P003
VML1	tank			MIL-STD-2402	1M070P003
VML2	tank			MIL-STD-2402	1M070P003

Area Full Chart ✓ Simplified Area

Symbol Number 4156 ID Code MAM070A4156
Description black solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	tank			MIL-STD-2402	1M070A014
UVM	tank			MIL-STD-2402	1M070A014
VML2	tank			MIL-STD-2402	1M070A014

Symbol Number 0600 ID Code MAM070A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAM070A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tank			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

AM080 AM080

Point Full Chart ✓ Simplified Point

Symbol Number 0023 ID Code MAM080P0023
Description black water tower symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	water tower			IHO S-52	SY(TOWERS12)

Symbol Number 2078 ID Code MAM080P2078
Description basic blue dot inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	water tower			MIL-STD-2402	1M080P001
UVM	water tower			MIL-STD-2402	1M080P001
VML0	water tower			MIL-STD-2402	1M080P001
VML1	water tower			MIL-STD-2402	1M080P001
VML2	water tower			MIL-STD-2402	1M080P001

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 4156 ID Code MAM080A4156
Description black solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	water tower			ORIGINAL	4156

AN010 AN010

Line Full Chart ✓ Simplified Line

Symbol Number 0605 ID Code MAN010L0605
Description feature brown thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	railroad			IHO S-52	LS(SOLD,2,LANDF)

Symbol Number 3123 ID Code MAN010L3123
Description black solid line w/ single tics both sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	RR - operational, unknown/1 lane	exs=0or28 AND ltn<2		MIL-STD-2402	1N010L003
FFD	RR - operational, normal/broad/unknown	exs=0or28 AND rgc<>2		MIL-STD-2402	1N050L003
UVM	RR -op, unkn/norml/brd	exs=0or28 AND rgc<>2		MIL-STD-2402	1N010L003
VITD	RR - definite, unkn/single	exs=0or1 AND fco=0or3		MIL-STD-2402	1N010L003
VML0	RR -op, unkn/single	exs=28 AND fco=0or3		MIL-STD-2402	1N010L003
VML1	RR -op, unkn/single, unkn/norml/brd	exs=0or28 AND fco=0or3 AND rgc<>2		MIL-STD-2402	1N010L003
VML2	RR -op, unkn/single, unkn/norml/brd	exs=0or28 AND fco=0or3 AND rgc<>2		MIL-STD-2402	1N010L003

Symbol Number 3125 ID Code MAN010L3125
Description black solid line w/ single tics alt sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	RR - operational, narrow	exs=0or28 AND rgc=2		MIL-STD-2402	1N050L005
UVM	RR -op, narrow	exs=0or28 AND rgc=2		MIL-STD-2402	1N010L067
VML1	RR -op, unkn/single, narrow	exs=0or28 AND fco=0or3 AND rgc=2		MIL-STD-2402	1N010L067
VML2	RR -op, unkn/single, narrow	exs=0or28 AND fco=0or3 AND rgc=2		MIL-STD-2402	1N010L067

Symbol Number 3127 ID Code MAN010L3127
Description black solid line w/ double tics both sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	RR - operational, multiple lanes	exs=0or28 AND ltn>1		MIL-STD-2402	1N010L009
VITD	RR - definite, multi	exs=0or1 AND fco<>0and<>3		MIL-STD-2402	1N010L009
VML0	RR -op,multi	exs=28 AND fco<>0and<>3		MIL-STD-2402	1N010L009
VML1	RR -op,multi, unkn/norml/brd	exs=0or28 AND fco<>0and<>3 AND rgc<>2		MIL-STD-2402	1N010L009
VML2	RR -op,multi, unkn/norml/brd	exs=0or28 AND fco<>0and<>3 AND rgc<>2		MIL-STD-2402	1N010L009

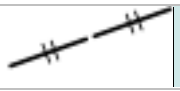
Refer to Appendix G for true symbol scale representations.

Symbol Number 3129 ID Code MAN010L3129
Description black solid line w/ double tics alt sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	RR -op, mult, narrow	exs=0or28 AND fco<>0and<>3 AND rgc=2		MIL-STD-2402	1N010L011
VML2	RR -op, mult, narrow	exs=0or28 AND fco<>0and<>3 AND rgc=2		MIL-STD-2402	1N010L011

Symbol Number 3131 ID Code MAN010L3131
Description black dash line w/ single tics both sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	RR - other	exs<>0and<>28		MIL-STD-2402	1N010L022
FFD	RR - non-operational, normal/broad/unknown	exs<>0and<>28 AND rgc<>2		MIL-STD-2402	1N010L022
UVM	RR -non-op, unkn/norml/brd	exs<>0and<>28 AND rgc<>2		MIL-STD-2402	1N010L022
VITD	RR - dismantled, under construction	exs<>0and<>1		MIL-STD-2402	1N010L022
VML0	RR -non-op, unkn/single	exs<>28 AND fco=0or3		MIL-STD-2402	1N010L022
VML1	RR -non-op, unkn/single, unkn/norml/brd	exs<>0and<>28 AND fco=0or3 AND rgc<>2		MIL-STD-2402	1N010L022
VML2	RR -non-op, unkn/single, unkn/norml/brd	exs<>0and<>28 AND fco=0or3 AND rgc<>2		MIL-STD-2402	1N010L022

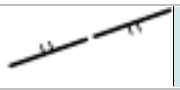


Symbol Number 3133 ID Code MAN010L3133
Description black dash line w/ double tics both sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	RR -non-op, multi	exs<>28 AND fco<>0and<>3		MIL-STD-2402	1N010L021
VML1	RR -non-op, multi, norml/brd/unkn	exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2		MIL-STD-2402	1N010L021
VML2	RR -non-op, multi, norml/brd/unkn	exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2		MIL-STD-2402	1N010L021

Symbol Number 3135 ID Code MAN010L3135
Description black dash line w/ single tics alt sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	RR - non-operational, narrow	exs<>0and<>28 AND rgc=2		MIL-STD-2402	1N050L064
UVM	RR -non-op, narrow	exs<>0and<>28 AND rgc=2		MIL-STD-2402	1N010L023
VML1	RR -non-op, single/unkn, narrow	exs<>0and<>28 AND fco=0or3 AND rgc=2		MIL-STD-2402	1N010L023
VML2	RR -non-op, single/unkn, narrow	exs<>0and<>28 AND fco=0or3 AND rgc=2		MIL-STD-2402	1N010L023



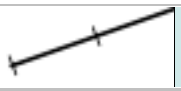
Symbol Number 3137 ID Code MAN010L3137
Description black dash line w/ double tics alt sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	RR -non-op, multi, narrow	exs<>0and<>28 AND fco<>0and<>3 AND rgc=2		MIL-STD-2402	1N010L024
VML2	RR -non-op, multi, narrow	exs<>0and<>28 AND fco<>0and<>3 AND rgc=2		MIL-STD-2402	1N010L024

Refer to Appendix G for true symbol scale representations.

AN050 AN050

Line Full Chart ✓ Simplified Line



Symbol Number 3123 ID Code MAN050L3123
Description black solid line w/ single tics both sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	RR siding - normal,broad,unknown	rgc<>2		MIL-STD-2402	1N050L003
FFD	railroad siding/railroad spur - normal/broad/unknown	rgc<>2		MIL-STD-2402	1N050L003
UVM	RR siding - normal,broad,unknown	rgc<>2		MIL-STD-2402	1N050L003
VITD	RR siding - normal/broad, definite	exs=0or1 AND rrc=0or1or5		MIL-STD-2402	1N050L003
VML1	RR siding - normal,broad,unknown	rgc<>2		MIL-STD-2402	1N050L003
VML2	RR siding - normal,broad,unknown	rgc<>2		MIL-STD-2402	1N050L003

Symbol Number 3125 ID Code MAN050L3125
Description black solid line w/ single tics alt sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	RR siding - narrow	rgc=2		MIL-STD-2402	1N050L005
FFD	railroad siding/railroad spur - narrow	rgc=2		MIL-STD-2402	1N050L005
UVM	RR siding - narrow	rgc=2		MIL-STD-2402	1N050L005
VITD	RR sidiing - narrow, definite	exs=0or1 AND rrc=4		MIL-STD-2402	1N050L005
VML1	RR siding - narrow	rgc=2		MIL-STD-2402	1N050L005
VML2	RR siding - narrow	rgc=2		MIL-STD-2402	1N050L005

Symbol Number 3135 ID Code MAN050L3135
Description black dash line w/ single tics alt sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	RR siding - dismantled, under construction	exs<>0and<>1		MIL-STD-2402	1N050L064

AN060 AN060

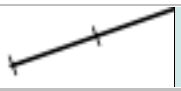
Point Full Chart ✓ Simplified Point

■

Symbol Number 2036 ID Code MAN060P2036
Description black sm filled square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	railroad yard/marshalling yard			MIL-STD-2402	1N080P001

Line Full Chart ✓ Simplified Line



Symbol Number 3123 ID Code MAN060L3123
Description black solid line w/ single tics both sides

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	railroad yard/marshalling yard			MIL-STD-2402	1N080L002

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0802 ID Code MAN060A0802
Description gray solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	railroad yard/marshalling yard			ORIGINAL	0802
DTOP	railroad yard/marshaling yard			ORIGINAL	0802
FFD	railroad yard/marshalling yard			ORIGINAL	0802
UVM	railroad yard/marshaling yard			ORIGINAL	0802
VITD	railroad yard/marshalling yard			ORIGINAL	0802
VML1	railroad yard/marshalling yard			ORIGINAL	0802
VML2	railroad yard/marshalling yard			ORIGINAL	0802

AN075 AN075

Point Full Chart ✓ Simplified Point

Symbol Number 2080 ID Code MAN075P2080
Description black rt diag line inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	railroad turntable			MIL-STD-2402	1N075P001
VML2	railroad turntable			MIL-STD-2402	1N075P001

Area Full Chart ✓ Simplified Area

Symbol Number 4167 ID Code MAN075A4167
Description black cross hatch patt fill

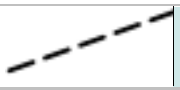
Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	railroad turntable			ORIGINAL	4167

AP010 AP010

Line Full Chart ✓ Simplified Line

Symbol Number 3116 ID Code MAP010L3116
Description black very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	cart track			MIL-STD-2402	1P010L001
VITD	cart track			MIL-STD-2402	1P010L001
VML1	cart track			MIL-STD-2402	1P010L001



Symbol Number 3117 ID Code MAP010L3117
Description black thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cart track			MIL-STD-2402	1P010L004
UVM	cart track			MIL-STD-2402	1P010L004
VML2	cart track			MIL-STD-2402	1P010L004

Refer to Appendix G for true symbol scale representations.

AP020 AP020

Point

Full Chart ✓ Simplified Point

Symbol Number 2081 ID Code MAP020P2081
Description black open square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	interchange			MIL-STD-2402	1P020P001

Line

Full Chart ✓ Simplified Line

Symbol Number 0605 ID Code MAP020L0605
Description feature brown thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	interchange			IHO S-52	LS(SOLD,2,LANDF)

Symbol Number 3121 ID Code MAP020L3121
Description black long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	interchange			MIL-STD-2402	1P020L004
UVM	interchange			MIL-STD-2402	1P020L004
VML2	interchange			MIL-STD-2402	1P020L004

Area

Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAP020A0600
Description black very thin solid line

Symbol Number 1602 ID Code MAP020A1602
Description lights yellow solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	interchange			ORIGINAL	0600 1602

AP030 AP030

Line

Full Chart ✓ Simplified Line

Symbol Number 0605 ID Code MAP030L0605
Description feature brown thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	road			IHO S-52	LS(SOLD,2,LANDF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 1314 ID Code MAP030L1314
Description red brown triple solid thin lines

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	road - op, hard, primary	exs=0or28 AND rst=1 AND use=26		MIL-STD-2402	1P030L002*
VML1	road - op, hard, interstate/international	exs=0or28 AND rst=1 AND use=23or37		MIL-STD-2402	1P030L002*
VML2	road - op, hard, interstate/international	exs=0or28 AND rst=1 AND use=23or37		MIL-STD-2402	1P030L002*

Symbol Number 1315 ID Code MAP030L1315
Description red brown double solid thin lines

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	road - operational, hard	exs=0or28 AND rst=1		MIL-STD-2402	1P030L002
UVM	road - op, hard, secondary	exs=0or28 AND rst=1 AND use=30		MIL-STD-2402	1P030L002
VITD	road - w/ median, hard, all weather	fco=5or6 AND rst=0or1 AND wtc=0or1		MIL-STD-2402	1P030L002
VML0	road - operational, w/median	exs=28 AND med=1		MIL-STD-2402	1P030L002
VML1	road - op, hard, national/state	exs=0or28 AND rst=1 AND use=4or5		MIL-STD-2402	1P030L002
VML2	road - op, hard, national/state	exs=0or28 AND rst=1 AND use=4or5		MIL-STD-2402	1P030L002

Symbol Number 1316 ID Code MAP030L1316
Description red brown triple dash thin lines

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	road - non-op, hard, primary	exs<>0and<>28 AND rst=1 AND use=26		MIL-STD-2402	1P030L047*
VML1	road - non-op, hard, interstate/international	exs<>0and<>28 AND rst=1 AND use=23or37		MIL-STD-2402	1P030L047*
VML2	road - non-op, hard, interstate/international	exs<>0and<>28 AND rst=1 AND use=23or37		MIL-STD-2402	1P030L047*

Symbol Number 1317 ID Code MAP030L1317
Description red brown double dash thin lines

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	road - non-operational, hard	exs<>0and<>28 AND rst=1		MIL-STD-2402	1P030L023
UVM	road - non-op, hard, secondary	exs<>0and<>28 AND rst=1 AND use=30		MIL-STD-2402	1P030L047
VML0	road - non-op, w/ median	exs<>28 AND med=1		MIL-STD-2402	1P030L047
VML1	road - non-op, hard, national/state	exs<>0and<>28 AND rst=1 AND use=4or5		MIL-STD-2402	1P030L047
VML2	road - non-op, hard, national/state	exs<>0and<>28 AND rst=1 AND use=4or5		MIL-STD-2402	1P030L047

Symbol Number 1571 ID Code MAP030L1571
Description brown vy thin dash/dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	road - op,fair weather	exs=0or28 AND wtc=2		MIL-STD-2402	1P030L031

Symbol Number 1855 ID Code MAP030L1855
Description red brown thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	road - op, hard, unk	exs=0or28 AND rst=1 AND use=0		MIL-STD-2402	1P030L009
VITD	road - w/out median, hard, all weather	fco=0or7 AND rst=0or1 AND wtc=0or1		MIL-STD-2402	1P030L009
VML0	road - operational, w/o median	exs=28 AND med<>1		MIL-STD-2402	1P030L009
VML1	road - op, hard, private/other	exs=0or28 AND rst=1 AND use=0or6or999		MIL-STD-2402	1P030L009
VML2	road - op, hard, private/other	exs=0or28 AND rst=1 AND use=0or6or999		MIL-STD-2402	1P030L009

Refer to Appendix G for true symbol scale representations.

Symbol Number 3012 ID Code MAP030L3012
Description brown very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	road - op, no median, hard, all weather	exs=0or28 AND med=0or2 AND rst=1 AND wtc=0or1		MIL-STD-2402	1P030L025

Symbol Number 3014 ID Code MAP030L3014
Description brown solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	road - op, w/median, hard, all weather	exs=0or28 AND med=1 AND rst=1 AND wtc=0or1		MIL-STD-2402	1P030L024

Symbol Number 3017 ID Code MAP030L3017
Description brown thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	road - under constr.	exs<>0and<>28		MIL-STD-2402	1P030L023

Symbol Number 3021 ID Code MAP030L3021
Description brown thin dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	road - op, loose, all weather	exs=0or28 AND rst=0or2 AND wtc=0or1		ORIGINAL	3021

Symbol Number 3024 ID Code MAP030L3024
Description red brown very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	road - loose	rst<>1		MIL-STD-2402	1P050L011
UVM	road - op, loose	exs=0or28 AND rst<>1		MIL-STD-2402	1P030L011
VITD	road - w/out median, loose, all weather	fco=0or7 AND rst=2 AND wtc=0or1		MIL-STD-2402	1P030L011
VML1	road - op/loose	exs=0or28 AND rst<>1		MIL-STD-2402	1P030L011
VML2	road - op/loose	exs=0or28 AND rst<>1		MIL-STD-2402	1P030L011

Symbol Number 3028 ID Code MAP030L3028
Description red brown thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	road - non-op, hard, unk	exs<>0and<>28 AND rst=1 AND use=0		MIL-STD-2402	1P030L023
VITD	road - w/out median, loose, fair weather	fco=0or7 AND rst=2 AND wtc=2		MIL-STD-2402	1P030L023
VML0	road - non-op, w/o median	exs<>28 AND med<>1		MIL-STD-2402	1P030L023
VML1	road - non-op, hard, other	exs<>0and<>28 AND rst=1 AND use=0or6or999		MIL-STD-2402	1P030L023
VML2	road - non-op, hard, other	exs<>0and<>28 AND rst=1 AND use=0or6or999		MIL-STD-2402	1P030L023

Area Full Chart ✓ Simplified Area

Symbol Number 4036 ID Code MAP030A4036
Description red brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	road - operational	exs=0or28or999		ORIGINAL	4036

Refer to Appendix G for true symbol scale representations.

Symbol Number 4037 ID Code MAP030A4037
Description red brown horizontal line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	road - non-operational	exs=5or6or7		ORIGINAL	4037

AP040 AP040

Point Full Chart ✓ Simplified Point

Symbol Number 2038 ID Code MAP040P2038
Description black dot w/ parallel lines inside circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	gate			ORIGINAL	2038

AP050 AP050

Line Full Chart ✓ Simplified Line

Symbol Number 0656 ID Code MAP050L0656
Description gray very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	trail			MIL-STD-2402	1P050L003
FFD	trail			MIL-STD-2402	1P050L003
UVM	trail			MIL-STD-2402	1P050L003
VML0	trail			MIL-STD-2402	1P050L003
VML1	trail			MIL-STD-2402	1P050L003
VML2	trail			MIL-STD-2402	1P050L003

AO010 AO010

Line Full Chart ✓ Simplified Line

Symbol Number 0657 ID Code MAQ010L0657
Description gray thick dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	aerial cableway lines/ski lift lines			IHO S-52	LS(DASH,4,CHGRD)
DTOP	aerial cableway lines/ski lift lines			IHO S-52	LS(DASH,4,CHGRD)
UVM	aerial cableway lines/ski lift lines			IHO S-52	LS(DASH,4,CHGRD)
VML0	aerial cableway lines/ski lift lines			IHO S-52	LS(DASH,4,CHGRD)
VML1	aerial cableway lines/ski lift lines			IHO S-52	LS(DASH,4,CHGRD)
VML2	aerial cableway lines/ski lift lines			IHO S-52	LS(DASH,4,CHGRD)

Refer to Appendix G for true symbol scale representations.

AO020 AO020

Point Full Chart ✓ Simplified Point

Symbol Number 0024 ID Code MAQ020P0024
Description black dot inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	aerial cableway pylon/ski pylon			IHO S-52	SY(POSGEN03)

AO040 AO040

Point Full Chart ✓ Simplified Point

Symbol Number 2083 ID Code MAQ040P2083
Description black double line with flares on ends

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	bridge/overpass/viaduct			MIL-STD-2402	1Q040P012
FFD	bridge/overpass/viaduct			MIL-STD-2402	1Q040P012
UVM	bridge/overpass/viaduct			MIL-STD-2402	1Q040P012
VITD	bridge/overpass/viaduct			MIL-STD-2402	1Q040P012
VML0	bridge/overpass/viaduct			MIL-STD-2402	1Q040P012
VML1	bridge/overpass/viaduct			MIL-STD-2402	1Q040P012
VML2	bridge/overpass/viaduct			MIL-STD-2402	1Q040P012

Line Full Chart ✓ Simplified Line

Symbol Number 0627 ID Code MAQ040L0627
Description gray very thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bridge/overpass/viaduct	bsc<>12 AND bot<>4and<>10and<>11		IHO S-52	LS(SOLD,5,CHGRD)

Symbol Number 0751 ID Code MAQ040L0751
Description black solid line w/ tick terminators

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	bridge/overpass/viaduct			MIL-STD-2402	1Q040L019*
FFD	bridge/overpass/viaduct			MIL-STD-2402	1Q040L019*
UVM	bridge/overpass/viaduct			MIL-STD-2402	1Q040L019*
VITD	bridge/overpass/viaduct			MIL-STD-2402	1Q040L019*
VML0	bridge/overpass/viaduct			MIL-STD-2402	1Q040L019*
VML1	bridge/overpass/viaduct			MIL-STD-2402	1Q040L019*
VML2	bridge/overpass/viaduct			MIL-STD-2402	1Q040L019*

Symbol Number 0753 ID Code MAQ040L0753
Description very thck gray line w/ cntrd magenta dbl cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bridge/overpass/viaduct	bsc=12 OR bot=4or10or11		IHO S-52	LC=LS(SOLD,5,CHGRD) + SY(BRIDGE01)

Refer to Appendix G for true symbol scale representations.

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0611 ID Code MAQ040A0611
Description gray thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bridge/overpass/viaduct	bsc<>12 AND bot<>4and<>10and<>11		IHO S-52	LS(SOLD,4,CHGRD)

Symbol Number 1572 ID Code MAQ040A1572
Description black thin solid dbl lines w/ flares on ea end

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	bridge/overpass/viaduct			MIL-STD-2402	1Q040A002*

Symbol Number 0046 ID Code MAQ040A0046
Description magenta small circle inside circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0611 ID Code MAQ040A0611
Description gray thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bridge/overpass/viaduct	bsc=12 OR bot=4or10or11		IHO S-52	SY(BRIDGE01) + LS(SOLD,4,CHGRD)

AO045 AO045

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2083 ID Code MAQ045P2083
Description black double line with flares on ends

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	bridge span			ORIGINAL	2083
VITD	bridge span			ORIGINAL	2083

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0627 ID Code MAQ045L0627
Description gray very thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bridge span			IHO S-52	LS(SOLD,5,CHGRD)

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0611 ID Code MAQ045A0611
Description gray thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bridge span			IHO S-52	LS(SOLD,4,CHGRD)

Refer to Appendix G for true symbol scale representations.

AO058 AO058

Point Full Chart ✓ Simplified Point

Symbol Number 1171 ID Code MAQ058P1171
Description black opposing open equi triangles

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	constriction/expansion	wd1=40		MIL-STD-2402	1Q058P002

Symbol Number 2087 ID Code MAQ058P2087
Description black opposing solid triangles pnting in

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	constriction/expansion			MIL-STD-2402	1Q058P001
VITD	constriction/expansion	wd1<40		MIL-STD-2402	1Q058P001

AO060 AO060

Point Full Chart ✓ Simplified Point

Symbol Number 0004 ID Code MAQ060P0004
Description black tower symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	control tower			IHO S-52	SY(TOWERS03)

Symbol Number 2088 ID Code MAQ060P2088
Description purple dot inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	control tower			MIL-STD-2402	1Q060P007
UVM	control tower			MIL-STD-2402	1Q060P007
VML1	control tower			MIL-STD-2402	1Q060P007
VML2	control tower			MIL-STD-2402	1Q060P007

AO064 AO064

Point Full Chart ✓ Simplified Point

Symbol Number 2089 ID Code MAQ064P2089
Description black cir w/ four outer tics and dot inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	causeway			ORIGINAL	2089

Line Full Chart ✓ Simplified Line

Symbol Number 3142 ID Code MAQ064L3142
Description black parallel vy thin lines w/ tics (ladder patt)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	causeway			MIL-STD-2402	2H100L001

Refer to Appendix G for true symbol scale representations.

AO065 AO065

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2090 ID Code MAQ065P2090
Description black cir w/ C inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	culvert			MIL-STD-2402	1Q065P002
VML2	culvert			MIL-STD-2402	1Q065P002

Line — Full Chart — ✓ Simplified — Line

Symbol Number 1572 ID Code MAQ065L1572
Description black thin solid dbl lines w/ flares on ea end

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	culvert			MIL-STD-2402	1Q065P001*

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0600 ID Code MAQ065A0600
Description black very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	culvert			ORIGINAL	0600

AO070 AO070

Point — Full Chart — ✓ Simplified — Point

Symbol Number 1005 ID Code MAQ070P1005
Description black F inside boat

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ferry crossing			ORIGINAL	1005
FFD	ferry crossing			ORIGINAL	1005
UVM	ferry crossing			ORIGINAL	1005
VITD	ferry crossing			ORIGINAL	1005
VML0	ferry crossing			ORIGINAL	1005
VML1	ferry crossing			ORIGINAL	1005
VML2	ferry crossing			ORIGINAL	1005

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0700 ID Code MAQ070L0700
Description magenta dash very thin line w/ boat shape

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ferry crossing - without cables	fer=2		IHO S-52	LC(FERYRT01)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0701 ID Code MAQ070L0701
Description black dash very thin line w/ boat shape

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ferry crossing - with cables	fer=1		IHO S-52	LC(FERYRT02)

Symbol Number 3115 ID Code MAQ070L3115
Description black thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ferry crossing			MIL-STD-2402	1Q070L004
FFD	ferry crossing			MIL-STD-2402	1Q070L004
UVM	ferry crossing			MIL-STD-2402	1Q070L004
VITD	ferry crossing			MIL-STD-2402	1Q070L004
VML0	ferry crossing			MIL-STD-2402	1Q070L004
VML1	ferry crossing			MIL-STD-2402	1Q070L004
VML2	ferry crossing			MIL-STD-2402	1Q070L004

AO080 AO080

Point Full Chart ✓ Simplified Point

Symbol Number 0096 ID Code MAQ080P0096
Description magenta square w/ i

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ferry site			IHO S-52	SY(CHINFO07)

AO090 AO090

Point Full Chart ✓ Simplified Point

Symbol Number 2038 ID Code MAQ090P2038
Description black dot w/ parallel lines inside circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	entrance/exit			ORIGINAL	2038

AO110 AO110

Point Full Chart ✓ Simplified Point

Symbol Number 0026 ID Code MAQ110P0026
Description black tall slender triangle w/ cir at bottom

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	mooring mast			IHO S-52	SY(MSTCON14)

Refer to Appendix G for true symbol scale representations.

Symbol Number 2094 ID Code MAQ110P2094
Description purple solid ellipse extending from pole

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	mooring mast			MIL-STD-2402	1Q110P002
UVM	mooring mast			MIL-STD-2402	1Q110P002
VML1	mooring mast			MIL-STD-2402	1Q110P002
VML2	mooring mast			MIL-STD-2402	1Q110P002

AO111 AO111

Point Full Chart ✓ Simplified Point

Symbol Number 1171 ID Code MAQ111P1171
Description black opposing open equi triangles

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	prepared raft or float bridge site			MIL-STD-2402	1Q111P001
VITD	prepared raft or float bridge site			MIL-STD-2402	1Q111P001

Line Full Chart ✓ Simplified Line

Symbol Number 3115 ID Code MAQ111L3115
Description black thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	prepared raft or float bridge site			MIL-STD-2402	1Q070L004

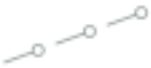
AO113 AO113

Line Full Chart ✓ Simplified Line

Symbol Number 0610 ID Code MAQ113L0610
Description gray solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pipeline/pipe - above ground or water	loc=25		IHO S-52	LS(SOLD,3,CHGRD)



Symbol Number 0704 ID Code MAQ113L0704
Description gray dash very thin line w/ sm cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pipeline/pipe - not above ground or water; sewage, outfall, intake	loc<>25 AND pro=95 OR plt=2or3		IHO S-52	LC(PIPSOL06)
✓ DNC	pipeline/pipe - not above ground or water; water	loc<>25 AND pro=116		IHO S-52	LC(PIPSOL06)

Symbol Number 0705 ID Code MAQ113L0705
Description magenta dash very thin line w/ cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pipeline/pipe - not above ground or water;not sewage or water	loc<>25 AND pro<>95and<>116 AND plt<>2and<>3		IHO S-52	LC(PIPSOL05)

Refer to Appendix G for true symbol scale representations.

Symbol Number 1303 ID Code MAQ113L1303
Description basic blue thin dash line w/ circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	pipeline/pipe - undergound;water	loc=4 AND pro=116		MIL-STD-2402	1L160L002*
VML1	pipeline/pipe - undergound;water	loc=4 AND pro=116		MIL-STD-2402	1L160L002*
VML2	pipeline/pipe - undergound;water	loc=4 AND pro=116		MIL-STD-2402	1L160L002*

Symbol Number 1304 ID Code MAQ113L1304
Description basic blue thin dash line w/ dot

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	pipeline/pipe - water	pro=116		MIL-STD-2402	1L160L002*
UVM	pipeline/pipe - on or above ground;water	loc<>4 AND pro=116		MIL-STD-2402	1L160L002*
VML1	pipeline/pipe - not underground;water	loc<>4 AND pro=116		MIL-STD-2402	1L160L002*
VML2	pipeline/pipe - on or above ground;water	loc<>4 AND pro=116		MIL-STD-2402	1L160L002*

Symbol Number 1305 ID Code MAQ113L1305
Description brown dash thin line w/ dot

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	pipeline/pipe - not water	pro<>116		MIL-STD-2402	1L160L002*
UVM	pipeline/pipe - on or above ground;not water	loc<>4 AND pro<>116		MIL-STD-2402	1L160L002*
VITD	pipeline/pipe			MIL-STD-2402	1L160L002*
VML0	pipeline/pipe - on ground	loc=8		MIL-STD-2402	1L160L002*
VML1	pipeline/pipe - not underground;not water	loc<>4 AND pro<>116		MIL-STD-2402	1L160L002*
VML2	pipeline/pipe - on or above ground;not water	loc<>4 AND pro<>116		MIL-STD-2402	1L160L002*

Symbol Number 3022 ID Code MAQ113L3022
Description brown thin dash line w/ open cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	pipeline/pipe - underground;not water	loc=4 AND pro<>116		MIL-STD-2402	1L160L002*
VML0	pipeline/pipe - underground	loc=4		MIL-STD-2402	1L160L002*
VML1	pipeline/pipe - underground;not water	loc=4 AND pro<>116		MIL-STD-2402	1L160L002*
VML2	pipeline/pipe - underground;not water	loc=4 AND pro<>116		MIL-STD-2402	1L160L002*

AO116 AO116

Point Full Chart ✓ Simplified Point

Symbol Number 0002 ID Code MAQ116P0002
Description feature brown filled square w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pumping station			IHO S-52	SY(BUISGL11)

Refer to Appendix G for true symbol scale representations.

Symbol Number 2097 ID Code MAQ116P2097
Description black sm square w/ P inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	pumping station			MIL-STD-2402	1L180P002*
UVM	pumping station			MIL-STD-2402	1L180P002*
VML0	pumping station			MIL-STD-2402	1L180P002*
VML1	pumping station			MIL-STD-2402	1L180P002*
VML2	pumping station			MIL-STD-2402	1L180P002*

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MAQ116A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MAQ116A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pumping station			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Symbol Number 4262 ID Code MAQ116A4262
Description purple thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	pumping station			MIL-STD-2402	1L180A001
UVM	pumping station			MIL-STD-2402	1L180A001
VML2	pumping station			MIL-STD-2402	1L180A001

AO118 AO118

Point Full Chart ✓ Simplified Point

Symbol Number 1172 ID Code MAQ118P1172
Description black diamond w/ curve staffed arrow

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sharp curve(s)			MIL-STD-2402	1Q118P001
VITD	sharp curve(s)			MIL-STD-2402	1Q118P001

AO120 AO120

Point Full Chart ✓ Simplified Point

Symbol Number 1211 ID Code MAQ120P1211
Description black two rt pointing triangles

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	steep grade			MIL-STD-2402	1Q125P001

Refer to Appendix G for true symbol scale representations.

AO125 AO125

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2099 ID Code MAQ125P2099
Description black dot inside cir inside square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	station (miscellaneous)			ORIGINAL	2099

Area — Full Chart — ✓ Simplified — Area

Symbol Number 4156 ID Code MAQ125A4156
Description black solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	station (miscellaneous)			ORIGINAL	4156

AO130 AO130

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2100 ID Code MAQ130P2100
Description black cir w/ T inside

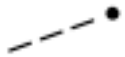
Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	tunnel			ORIGINAL	2100
FFD	tunnel			ORIGINAL	2100
VITD	tunnel			ORIGINAL	2100
VML0	tunnel			ORIGINAL	2100
VML1	tunnel			ORIGINAL	2100
VML2	tunnel			ORIGINAL	2100

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0656 ID Code MAQ130L0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tunnel			IHO S-52	LS(DASH,1,CHGRD)



Symbol Number 3141 ID Code MAQ130L3141
Description black three dash one dot very thin line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	tunnel			MIL-STD-2402	1Q131L002*
FFD	tunnel			MIL-STD-2402	1Q131L002*
UVM	tunnel			MIL-STD-2402	1Q131L002*
VITD	tunnel			MIL-STD-2402	1Q131L002*
VML0	tunnel			MIL-STD-2402	1Q131L002*
VML1	tunnel			MIL-STD-2402	1Q131L002*
VML2	tunnel			MIL-STD-2402	1Q131L002*

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 3112 ID Code MAQ130A3112
Description black thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	tunnel			ORIGINAL	3112

AO135

Point Full Chart ✓ Simplified Point

Symbol Number 2101 ID Code MAQ135P2101
Description red brown octagon shape w/ "R" inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	vehicle stopping area/rest area			ORIGINAL	2101

Area Full Chart ✓ Simplified Area

Symbol Number 4240 ID Code MAQ135A4240
Description red solid thin line

Symbol Number 1610 ID Code MAQ135A1610
Description red left diag line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	vehicle stopping area/rest area			ORIGINAL	4240 1610
VML2	vehicle stopping area/rest area			ORIGINAL	4240 1610

AO140

Area Full Chart ✓ Simplified Area

Symbol Number 4240 ID Code MAQ140A4240
Description red solid thin line

Symbol Number 1610 ID Code MAQ140A1610
Description red left diag line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	vehicle storage/parking area			ORIGINAL	4240 1610
UVM	vehicle storage/parking area			ORIGINAL	4240 1610
VML2	vehicle storage/parking area			ORIGINAL	4240 1610

AO150

Area Full Chart ✓ Simplified Area

Symbol Number 0802 ID Code MAQ150A0802
Description gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	flight of steps			ORIGINAL	0802

Refer to Appendix G for true symbol scale representations.

AT005 AT005

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0708 ID Code MAT005L0708
Description magenta broken zig-zag line w/ flash symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	cable			IHO S-52	LC(CBLSUB06)

AT010 AT010

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2102 ID Code MAT010P2102
Description black satellite dish symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	disk/dish			IHO S-52	SY(DSHAER11)
DTOP	disk/dish			IHO S-52	SY(DSHAER11)
UVM	disk/dish			IHO S-52	SY(DSHAER11)
VML1	disk/dish			IHO S-52	SY(DSHAER11)
VML2	disk/dish			IHO S-52	SY(DSHAER11)

Area — Full Chart — ✓ Simplified — Area

Symbol Number 4089 ID Code MAT010A4089
Description magenta solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	disk/dish			ORIGINAL	4089

AT020 AT020

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2105 ID Code MAT020P2105
Description black cir around satellite dish symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	early warning radar site			ORIGINAL	2105

Line — Full Chart — ✓ Simplified — Line

Symbol Number 3064 ID Code MAT020L3064
Description magenta thin wavy solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	early warning radar site			ORIGINAL	3064

Refer to Appendix G for true symbol scale representations.

Area | Full Chart | ✓ Simplified | Area

	Symbol Number 0600 ID Code MAT020A0600 Description black very thin solid line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0804 ID Code MAT020A0804 Description brown solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	early warning radar site			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

	Symbol Number 1513 ID Code MAT020A1513 Description magenta jagged line	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	early warning radar site			ORIGINAL	1513

AT030 AT030

Line | Full Chart | ✓ Simplified | Line

	Symbol Number 0657 ID Code MAT030L0657 Description gray thick dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	power transmission line			IHO S-52	LS(DASH,4,CHGRD)

	Symbol Number 3074 ID Code MAT030L3074 Description purple thin solid line w/ dots on each side	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	power transmission line			MIL-STD-2402	1T030L007
UVM	power transmission line			MIL-STD-2402	1T030L007
VML0	power transmission line			MIL-STD-2402	1T030L007
VML1	power transmission line			MIL-STD-2402	1T030L007
VML2	power transmission line			MIL-STD-2402	1T030L007

AT040 AT040

Point | Full Chart | ✓ Simplified | Point

	Symbol Number 0024 ID Code MAT040P0024 Description black dot inside cir	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	power transmission pylon			IHO S-52	SY(POSGEN03)

	Symbol Number 2104 ID Code MAT040P2104 Description purple tower symbol	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	power transmission pylon			ORIGINAL	2104

Refer to Appendix G for true symbol scale representations.

AT045 AT045

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0028 ID Code MAT045P0028
Description black dome inside lg magenta circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	radar transmitter - dome	ssc=87		IHO S-52	SY(DOMES011)+SY(RDOSTA02)

Symbol Number 0029 ID Code MAT045P0029
Description black rectangle below T in lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	radar transmitter - scanner	ssc=108		IHO S-52	SY(RASCAN11)+SY(RDOSTA02)

Symbol Number 0030 ID Code MAT045P0030
Description black triangle w/ in lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	radar transmitter - mast	ssc=60		IHO S-52	SY(MSTCON14)+SY(RD0STA02)

Symbol Number 0031 ID Code MAT045P0031
Description black tower inside lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	radar transmitter - tower	ssc=107		IHO S-52	SY(TOWERS03)+SY(RDOSTA02)

Symbol Number 0511 ID Code MAT045P0511
Description lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	radar transmitter - other, unknown	ssc=0or999		IHO S-52	SY(RDOSTA02)

Symbol Number 2105 ID Code MAT045P2105
Description black cir around satellite dish symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	radar transmitter			ORIGINAL	2105

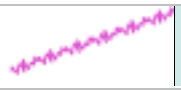
Line — Full Chart — ✓ Simplified — Line

Symbol Number 3061 ID Code MAT045L3061
Description magenta thin dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	radar transmitter			ORIGINAL	3061

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area



Symbol Number 1513 ID Code MAT045A1513
Description magenta jagged line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	radar transmitter			ORIGINAL	1513

AT050 AT050

Point Full Chart ✓ Simplified Point

Symbol Number 0033 ID Code MAT050P0033
Description feature brown fill sqr black otln in lg mgnta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	communication building			IHO S-52	SY(BUISGL11)+SY (RDOSTA02)

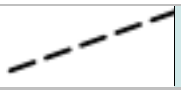
Symbol Number 2106 ID Code MAT050P2106
Description black filled square w/ outward ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	communication building			MIL-STD-2402	1T050P020*
UVM	communication building			MIL-STD-2402	1T050P020*
VML0	communication building			MIL-STD-2402	1T050P020*
VML2	communication building			MIL-STD-2402	1T050P020*

Area Full Chart ✓ Simplified Area

Symbol Number 4089 ID Code MAT050A4089
Description magenta solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	communication building			MIL-STD-2402	1T050A006



Symbol Number 3117 ID Code MAT050A3117
Description black thin dash line

Symbol Number 4109 ID Code MAT050A4109
Description depth gray solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	communication building			MIL-STD-2402	1T050A005*
VML2	communication building			MIL-STD-2402	1T050A005*

Refer to Appendix G for true symbol scale representations.

AT060 AT060

Line | Full Chart | ✓ Simplified | Line

Symbol Number 0657 ID Code MAT060L0657
Description gray thick dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	telephone line/telegraph line			IHO S-52	LS(DASH,4,CHGRD)

Symbol Number 3096 ID Code MAT060L3096
Description gray very rhin dash line w/ dot

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	telephone line/telegraph line			MIL-STD-2402	1T060L002*
UVM	telephone line/telegraph line			MIL-STD-2402	1T060L002*
VML0	telephone line/telegraph line			MIL-STD-2402	1T060L002*
VML1	telephone line/telegraph line			MIL-STD-2402	1T060L002*
VML2	telephone line/telegraph line			MIL-STD-2402	1T060L002*

AT070 AT070

Point | Full Chart | ✓ Simplified | Point

Symbol Number 2107 ID Code MAT070P2107
Description black vert line w/ two horiz lines at top

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	telephone-telegraph pylon/pole			ORIGINAL	2107

AT080 AT080

Point | Full Chart | ✓ Simplified | Point

Symbol Number 0004 ID Code MAT080P0004
Description black tower symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	communication tower			IHO S-52	SY(TOWERS03)

Symbol Number 0500 ID Code MAT080P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	communication tower - light flare	col<>"UNK"		IHO S-52	SY(LIGHTDEF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 2108 ID Code MAT080P2108
Description black tower w/ sound waves at top

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	communication tower			MIL-STD-2402	1T080P007
UVM	communication tower			MIL-STD-2402	1T080P007
VML0	communication tower			MIL-STD-2402	1T080P007
VML1	communication tower			MIL-STD-2402	1T080P007
VML2	communication tower			MIL-STD-2402	1T080P007

BA010 BA010

Line Full Chart ✓ Simplified Line

Symbol Number 0621 ID Code MBA010L0621
Description depth med blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	coastline/shoreline - not mangrove or marsh	slt<>6and<>8		MIL-STD-2402	2A010L002
FFD	coastline/shoreline - accurate	acc=1		MIL-STD-2402	2A010L002
UVM	coastline/shoreline - not mangrove or marsh	slt<>6and<>8		MIL-STD-2402	2A010L002
VML0	coastline/shoreline			MIL-STD-2402	2A010L002
VML1	coastline/shoreline -not mangrove or marsh	slt<>6and<>8		MIL-STD-2402	2A010L002
VML2	coastline.shoreline - not mangrove or marsh	slt<>6and<>8		MIL-STD-2402	2A010L002

Symbol Number 0632 ID Code MBA010L0632
Description dk gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	coastline/shoreline - mangrove, marsh	slt=6or8		IHO S-52	LS(DASH,1,CSTLN)

Symbol Number 0743 ID Code MBA010L0743
Description dk gray small open rectangle dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	coastline/shoreline - approximate; not mangrove or marsh	acc=2 AND slt<>6and<>8		IHO S-52	LC(LOWACC21)

Symbol Number 1573 ID Code MBA010L1573
Description dk gray very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	coastline/shoreline - accurate; not mangrove or marsh	acc=1 AND slt<>6and<>8		IHO S-52	LS(SOLD,1,CSTLN)
WVS	coastline/shoreline			IHO S-52	LS(SOLD,1,CSTLN)

Refer to Appendix G for true symbol scale representations.

Symbol Number 3042 ID Code MBA010L3042
Description basic blue very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	coastline - mangrove, marsh	slt=6or8		MIL-STD-2402	2A010L007
FFD	coastline/shoreline - not accurate	acc<>1		MIL-STD-2402	2A010L007
UVM	coastline/shoreline - mangrove, marsh	slt=6or8		MIL-STD-2402	2A010L007
VML1	coastline/shoreline - mangrove, marsh	slt=6or8		MIL-STD-2402	2A010L007
VML2	coastline/shoreline - mangrove, marsh	slt=6or8		MIL-STD-2402	2A010L007

BA020 BA020

Point

Full Chart ✓ Simplified Point

Symbol Number 0150 ID Code MBA020P0150
Description yellow-green filled sm cir w/ gray outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	foreshore			ORIGINAL	0150

Line

Full Chart ✓ Simplified Line

Symbol Number 0608 ID Code MBA020L0608
Description depth gray very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	foreshore			IHO S-52	LS(SOLD,1,DEPCN)

Area

Full Chart ✓ Simplified Area

Symbol Number 0803 ID Code MBA020A0803
Description yellow green solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	foreshore			IHO S-52	AC(DEPIT)
DTOP	foreshore			IHO S-52	AC(DEPIT)
UVM	foreshore			IHO S-52	AC(DEPIT)
VML1	foreshore			IHO S-52	AC(DEPIT)
VML2	foreshore			IHO S-52	AC(DEPIT)

Symbol Number 0949 ID Code MBA020A0949
Description depth gray diamond patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	foreshore - shallow mode display on	isdm=1		IHO S-52	AP(DIAMOND1)

Refer to Appendix G for true symbol scale representations.

BA030 BA030

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0035 ID Code MBA030P0035
Description lt brown sm filled cir w/ gray outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	island			IHO S-52	SY(LNDARE01)

Symbol Number 2111 ID Code MBA030P2111
Description brown filled cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	island			MIL-STD-2402	4B135P001

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0822 ID Code MBA030A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	island			IHO S-52	AC(LANDA)
DTOP	island			IHO S-52	AC(LANDA)
FFD	island			IHO S-52	AC(LANDA)
UVM	island			IHO S-52	AC(LANDA)
VML1	island			IHO S-52	AC(LANDA)
VML2	island			IHO S-52	AC(LANDA)

Symbol Number 4236 ID Code MBA030A4236
Description beige solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	island			MIL-STD-2402	4B135A001

BA040 BA040

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0805 ID Code MBA040A0805
Description depth white fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
WVS	water (except inland)			ORIGINAL	0805

Refer to Appendix G for true symbol scale representations.

Symbol Number 0821 ID Code MBA040A0821
Description depth lt blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	water (except inland)			MIL-STD-2402	2A040A001
DTOP	water (except inland)			MIL-STD-2402	2A040A001
FFD	water (except inland)			MIL-STD-2402	2A040A001
UVM	water (except inland)			MIL-STD-2402	2A040A001
VML0	water (except inland)			MIL-STD-2402	2A040A001
VML1	water (except inland)			MIL-STD-2402	2A040A001
VML2	water (except inland)			MIL-STD-2402	2A040A001

BA050 BA050

Area Full Chart ✓ Simplified Area

Symbol Number 4220 ID Code MBA050A4220
Description med-beige thin solid line

Symbol Number 4005 ID Code MBA050A4005
Description beige stiple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	beach			ORIGINAL	4220 4005

BA060 BA060

Area Full Chart ✓ Simplified Area

Symbol Number 4220 ID Code MBA060A4220
Description med-beige thin solid line

Symbol Number 4005 ID Code MBA060A4005
Description beige stiple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	beach zone			ORIGINAL	4220 4005

BB010 BB010

Point Full Chart ✓ Simplified Point

Symbol Number 0036 ID Code MBB010P0036
Description magenta anchor

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	anchorage - not anchoring berth	mac<>12		IHO S-52	SY(ACHARE02)
DTOP	anchorage			IHO S-52	SY(ACHARE02)
VML2	anchorage			IHO S-52	SY(ACHARE02)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0037 ID Code MBB010P0037
Description magenta anchor w/ sm cir on shaft

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	anchorage - anchoring berth	mac=12		IHO S-52	SY(ACHBRT07)

Line

Full Chart ✓ Simplified

Symbol Number 0711 ID Code MBB010L0711
Description magenta dash/chevron line w/anchor symbol

Symbol Number 3000 ID Code MBB010L3000
Description lt magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	anchorage - not anchoring berth	mac<>12		IHO S-52	LC(ACHARE51)

Symbol Number 3000 ID Code MBB010L3000
Description lt magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	anchorage - anchoring berth	mac=12		IHO S-52	LS(DASH,2,CHMGF)

Area

Full Chart ✓ Simplified

Symbol Number 0037 ID Code MBB010A0037
Description magenta anchor w/ sm cir on shaft

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 3000 ID Code MBB010A3000
Description lt magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	anchorage - anchoring berth	mac=12		IHO S-52	SY(ACHBRT07) + LS(DASH,2,CHMGF)

Symbol Number 0902 ID Code MBB010A0902
Description lt magenta anchor

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0711 ID Code MBB010A0711
Description magenta dash/chevron line w/anchor symbol

Symbol Number 3000 ID Code MBB010A3000
Description lt magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	anchorage - not anchoring berth	mac<>12		IHO S-52	SY(ACHARE51) + LC(ACHARE51)
DTOP	anchorage			IHO S-52	SY(ACHARE51) + LC(ACHARE51)
VML2	anchorage			IHO S-52	SY(ACHARE51) + LC(ACHARE51)

Refer to Appendix G for true symbol scale representations.

BB020 BB020

Point Full Chart ✓ Simplified Point

Symbol Number 0032 ID Code MBB020P0032
Description magenta circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	berth			IHO S-52	SY(BRTHNO01)

BB030 BB030

Point Full Chart ✓ Simplified Point

Symbol Number 0051 ID Code MBB030P0051
Description black filled sm cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bollard			IHO S-52	SY(PILPNT02)

BB040 BB040

Line Full Chart ✓ Simplified Line

Symbol Number 0623 ID Code MBB040L0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	breakwater/groyne - partly submerged at high water	vrr=1		IHO S-52	LS(SOLD,2,CSTLN)
DTOP	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)
UVM	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)
VML0	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)
VML1	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)
VML2	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)

Symbol Number 0626 ID Code MBB040L0626
Description dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	breakwater/groyne - submerged, covers and uncovers	vrr=4or8		IHO S-52	LS(DASH,2,CSTLN)

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0623 ID Code MBB040A0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	breakwater/groyne - partly submerged at high water	vrr=1		IHO S-52	LS(SOLD,2,CSTLN)
DTOP	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)
UVM	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)
VML2	breakwater/groyne			IHO S-52	LS(SOLD,2,CSTLN)

Symbol Number 0626 ID Code MBB040A0626
Description dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	breakwater/groyne - submerged, covers and uncovers	vrr=4or8		IHO S-52	LS(DASH,2,CSTLN)

BB050 BB050

Point Full Chart ✓ Simplified Point

Symbol Number 0039 ID Code MBB050P0039
Description traffic magenta cir w/ 1 cone

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	calling-in point - more than two-way traffic, 1st direction	df3<>0	df1	IHO S-52	SY(RDOCAL02)
✓ DNC	calling-in point - more than two-way traffic, 2nd direction	df3<>0	df2	IHO S-52	SY(RDOCAL02)
✓ DNC	calling-in point - more than two-way traffic, 3rd direction	df3<>0	df3	IHO S-52	SY(RDOCAL02)
✓ DNC	calling-in point - more than two-way traffic, 4th direction	df4<>0	df4	IHO S-52	SY(RDOCAL02)
✓ DNC	calling-in point - one way traffic	df1<>0 AND df2=0	df1	IHO S-52	SY(RDOCAL02)

Symbol Number 0040 ID Code MBB050P0040
Description traffic magenta cir w/ 2 cones

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	calling-in point - two way traffic	df2<>0 AND df3=0	df1	IHO S-52	SY(RDOCAL03)

Symbol Number 0041 ID Code MBB050P0041
Description magenta cir w/ 2 cones and 2 ?

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	calling-in point - direction of traffic unknown	df1=0		IHO S-52	SY(RCLDEF01)

Refer to Appendix G for true symbol scale representations.

BB080 BB080

Point Full Chart ✓ Simplified Point

Symbol Number 0038 ID Code MBB080P0038
Description lt brown filled square w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	dolphin			IHO S-52	SY(MORFAC03)

BB090 BB090

Area Full Chart ✓ Simplified Area

Symbol Number 1573 ID Code MBB090A1573
Description dk gray very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0822 ID Code MBB090A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	drydock			IHO S-52	LS(SOLD,1,CSTLN) + AC(LANDA)

Symbol Number 3112 ID Code MBB090A3112
Description black thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	drydock			MIL-STD-2402	2B090A003
UVM	drydock			MIL-STD-2402	2B090A003
VML2	drydock			MIL-STD-2402	2B090A003

BB100 BB100

Line Full Chart ✓ Simplified Line

Symbol Number 0712 ID Code MBB100L0712
Description gray L complex line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fish stakes			IHO S-52	LC(FSHFAC02)

BB105 BB105

Point Full Chart ✓ Simplified Point

Symbol Number 0042 ID Code MBB105P0042
Description magenta fish w/ arcs above and below

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fishing harbor			IHO S-52	SY(HRBFAC09)

Refer to Appendix G for true symbol scale representations.

BB110 BB110

Area — Full Chart — ✓ Simplified — Area

	Symbol Number 0047 ID Code MBB110A0047 Description gray rectangle w/ angle line on top		
	Symbol Number 0716 ID Code MBB110A0716 Description gray dash/chevron line	Symbol Number 0656 ID Code MBB110A0656 Description gray very thin dash line	
	Symbol Number ID Code Description	Symbol Number 0903 ID Code MBB110A0903 Description gray fish trap patt fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fish traps/fish weirs			IHO S-52	SY(FSHFAC02) + LC(NAVARE51)

BB115 BB115

Area — Full Chart — ✓ Simplified — Area

	Symbol Number 0656 ID Code MBB115A0656 Description gray very thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	gridiron			IHO S-52	LS(DASH,1,CHGRD)

BB140 BB140

Line — Full Chart — ✓ Simplified — Line

	Symbol Number 0623 ID Code MBB140L0623 Description dk gray thin solid line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	jetty - partly submerged at high water	vrr=1		IHO S-52	LS(SOLD,2,CSTLN)
DTOP	jetty			IHO S-52	LS(SOLD,2,CSTLN)
UVM	jetty			IHO S-52	LS(SOLD,2,CSTLN)
VML1	jetty - unknown, partly submerged at high water	vrr=0or1		IHO S-52	LS(SOLD,2,CSTLN)
VML2	jetty			IHO S-52	LS(SOLD,2,CSTLN)

	Symbol Number 0626 ID Code MBB140L0626 Description dk gray thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	jetty - submerged, covers and uncovers	vrr=4or8		IHO S-52	LS(DASH,2,CSTLN)
VML1	jetty - covers and uncovers	vrr=8		IHO S-52	LS(DASH,2,CSTLN)

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0623 ID Code MBB140A0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	jetty - partly submerged at high water	vrr=1		IHO S-52	LS(SOLD,2,CSTLN)
DTOP	jetty			IHO S-52	LS(SOLD,2,CSTLN)
UVM	jetty			IHO S-52	LS(SOLD,2,CSTLN)
VML2	jetty			IHO S-52	LS(SOLD,2,CSTLN)

Symbol Number 0626 ID Code MBB140A0626
Description dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	jetty - submerged, covers and uncovers	vrr=4or8		IHO S-52	LS(DASH,2,CSTLN)

BB150 BB150

Point Full Chart ✓ Simplified Point

Symbol Number 0043 ID Code MBB150P0043
Description magenta yacht inside lg cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	landing place			IHO S-52	SY(SMCFAC02)

Area Full Chart ✓ Simplified Area

Symbol Number 0043 ID Code MBB150A0043
Description magenta yacht inside lg cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0604 ID Code MBB150A0604
Description feature brown very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MBB150A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	landing place			IHO S-52	SY(SMCFAC02) + LS(SOLD,1,LANDF) + AC(CHBRN)

Refer to Appendix G for true symbol scale representations.

BB160 BB160

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0038 ID Code MBB160P0038
Description lt brown filled square w/ black outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	mooring ring			IHO S-52	SY(MORFAC03)

BB170 BB170

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0044 ID Code MBB170P0044
Description black installation buoy

Symbol Number 0311 ID Code MBB170P0311
0 Description black mooring/installation buoy

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	offshore loading facility			IHO S-52	SY(BOYINB01)

Symbol Number 0500 ID Code MBB170P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	offshore loading facility - light	cha=21		IHO S-52	SY(LIGHTDEF)

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0625 ID Code MBB170L0625
Description dk gray thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	offshore loading facility			IHO S-52	LS(SOLD,4,CSTLN)

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0625 ID Code MBB170A0625
Description dk gray thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MBB170A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	offshore loading facility			IHO S-52	LS(SOLD,4,CSTLN) + AC(CHBRN)

Refer to Appendix G for true symbol scale representations.

BB180 BB180

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0045 ID Code MBB180P0045
Description gray fish inside net

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	oyster bed/mussel bed			IHO S-52	SY(MARCUL02)

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0716 ID Code MBB180A0716
Description gray dash/chevron line

Symbol Number 0656 ID Code MBB180A0656
Description gray very thin dash line

Symbol Number 0904 ID Code MBB180A0904
Description gray fish in net patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	oyster bed/mussel bed			IHO S-52	LC(NAVARE51) + AP(MARCUL02)

BB190 BB190

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0625 ID Code MBB190L0625
Description dk gray thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
DTOP	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
FFD	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
UVM	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
VML0	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
VML1	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
VML2	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0625 ID Code MBB190A0625
Description dk gray thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
DTOP	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
FFD	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
UVM	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
VML1	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)
VML2	pier/wharf/quay			IHO S-52	LS(SOLD,4,CSTLN)

BB220 BB220

Line Full Chart ✓ Simplified Line

Symbol Number 0623 ID Code MBB220L0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ramp (maritime) - partly submerged at high water	vrr=1		IHO S-52	LS(SOLD,2,CSTLN)
DTOP	ramp (maritime)			IHO S-52	LS(SOLD,2,CSTLN)

Symbol Number 0626 ID Code MBB220L0626
Description dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ramp (maritime) - submerged, covers and uncovers	vrr=4or8		IHO S-52	LS(DASH,2,CSTLN)

Area Full Chart ✓ Simplified Area

Symbol Number 0623 ID Code MBB220A0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ramp (maritime) - partly submerged at high water	vrr=1		IHO S-52	LS(SOLD,2,CSTLN)
DTOP	ramp (maritime)			IHO S-52	LS(SOLD,2,CSTLN)

Symbol Number 0626 ID Code MBB220A0626
Description dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ramp (maritime) - submerged, covers and uncovers	vrr=4or8		IHO S-52	LS(DASH,2,CSTLN)

Refer to Appendix G for true symbol scale representations.

BB230 BB230

Line Full Chart ✓ Simplified Line

Symbol Number 0623 ID Code MBB230L0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	seawall			IHO S-52	LS(SOLD,2,CSTLN)
DTOP	seawall			IHO S-52	LS(SOLD,2,CSTLN)
UVM	seawall			IHO S-52	LS(SOLD,2,CSTLN)
VML0	seawall			IHO S-52	LS(SOLD,2,CSTLN)
VML1	seawall			IHO S-52	LS(SOLD,2,CSTLN)
VML2	seawall			IHO S-52	LS(SOLD,2,CSTLN)

BB240 BB240

Line Full Chart ✓ Simplified Line

Symbol Number 0623 ID Code MBB240L0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	slipway/patent slip - partly submerged at high water	vrr=1		IHO S-52	LS(SOLD,2,CSTLN)
UVM	slipway/patent slip			IHO S-52	LS(SOLD,2,CSTLN)
VML2	slipway/patent slip			IHO S-52	LS(SOLD,2,CSTLN)

Symbol Number 0626 ID Code MBB240L0626
Description dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	slipway/patent slip - submerged, covers and uncovers	vrr=4or8		IHO S-52	LS(DASH,2,CSTLN)

Area Full Chart ✓ Simplified Area

Symbol Number 0623 ID Code MBB240A0623
Description dk gray thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML2	slipway/patent slip			IHO S-52	LS(SOLD,2,CSTLN)

Refer to Appendix G for true symbol scale representations.

BC010 BC010

Point Full Chart ✓ Simplified Point

Symbol Number 0009 ID Code MBC010P0009
Description feature brown dot inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	beacon - radar station	nst=45		IHO S-52	SY(POSGEN01)

Symbol Number 0100 ID Code MBC010P0100
Description black beacon/buoy base

Symbol Number 0101 ID Code MBC010P0101
0 Description yellow rectangle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	beacon-base			IHO S-52	SY(BCNGEN01)

Symbol Number 0114 ID Code MBC010P0114
Description black topmark open parallelogram

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - rhombus/diamond	tmc=19or31		IHO S-52	SY(TOPMAR14)

Symbol Number 0122 ID Code MBC010P0122
Description black topmark one cone up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - 1 cone up	tmc=16or21		IHO S-52	SY(TOPMAR22)

Symbol Number 0124 ID Code MBC010P0124
Description black topmark one cone down

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - 1 cone down	tmc=22		IHO S-52	SY(TOPMAR24)

Symbol Number 0125 ID Code MBC010P0125
Description black topmark two cones up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - 2 cones up	tmc=3		IHO S-52	SY(TOPMAR25)

Symbol Number 0126 ID Code MBC010P0126
Description black topmark two cones down

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - 2 cones down	tmc=8		IHO S-52	SY(TOPMAR26)

Symbol Number 0127 ID Code MBC010P0127
Description black topmark two cones point out

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - 2 cones out	tmc=1		IHO S-52	SY(TOPMAR27)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0128 ID Code MBC010P0128
Description black topmark two cones point in

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - 2 cones in	tmc=9		IHO S-52	SY(TOPMAR28)

Symbol Number 0130 ID Code MBC010P0130
Description black topmark one ball

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - one ball	tmc=15or27or28		IHO S-52	SY(TOPMAR30)

Symbol Number 0132 ID Code MBC010P0132
Description black topmark two balls

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - 2 balls	tmc=2		IHO S-52	SY(TOPMAR32)

Symbol Number 0133 ID Code MBC010P0133
Description black topmark can

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - can	tmc=25or26or29		IHO S-52	SY(TOPMAR33)

Symbol Number 0185 ID Code MBC010P0185
Description black topmark special X

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - special (x)	tmc=6		IHO S-52	SY(TOPMAR85)

Symbol Number 0186 ID Code MBC010P0186
Description black topmark cross

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - upright cross	tmc=23or30		IHO S-52	SY(TOPMAR86)

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Symbol Number 0187 ID Code MBC010P0187
Description black topmark perch

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - perch	tmc=18		IHO S-52	SY(TOPMAR87)

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Symbol Number 0188 ID Code MBC010P0188
Description black topmark broom up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - broom point up	tmc=17		IHO S-52	SY(TOPMAR88)

Symbol Number 0199 ID Code MBC010P0199
Description black default topmark upright

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	beacon - default topmark	tmc=0or32or33		IHO S-52	SY(TMARDEF1)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0401 ID Code MBC010P0401
Description lt magenta arcs origin offset for beacons

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	beacon - sound signal	sst=1or2or3or4or6or9or14or15		IHO S-52	SY(FOGSIG01) for water

Symbol Number 0510 ID Code MBC010P0510
Description magenta arc w/ 5 ticks pointing upward

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	beacon - radar reflector present	ref=1		IHO S-52	SY(RADRFL03)

Symbol Number 0511 ID Code MBC010P0511
Description lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	beacon - radio navigation system	nst=1or4or5or17or41or51or53		IHO S-52	SY(RDOSTA02)

Symbol Number 0512 ID Code MBC010P0512
Description lg magenta dashed cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	beacon - radar navigation system	nst=10or54		IHO S-52	SY(RTPBCN02)

BC020 BC020

Point Full Chart ✓ Simplified Point

Symbol Number 0009 ID Code MBC020P0009
Description feature brown dot inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - radar station	nst=45		IHO S-52	SY(POSGEN01)

Symbol Number 0051 ID Code MBC020P0051
Description black filled sm cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - articulated light (base)	btc=35		IHO S-52	SY(PILPNT02)

Symbol Number 0202 ID Code MBC020P0202
Description black buoy topmark one cone up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - 1 cone up	tmc=16or21		IHO S-52	SY(TOPMAR02)

Symbol Number 0204 ID Code MBC020P0204
Description black buoy topmark one cone down

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - 1 cone down	tmc=22		IHO S-52	SY(TOPMAR04)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0205 ID Code MBC020P0205
Description black buoy topmark two cones up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - 2 cones up	tmc=3		IHO S-52	SY(TOPMAR05)

Symbol Number 0206 ID Code MBC020P0206
Description black buoy topmark two cones down

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - 2 cones down	tmc=8		IHO S-52	SY(TOPMAR06)

Symbol Number 0207 ID Code MBC020P0207
Description black buoy topmark two cones point out

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - 2 cones out	tmc=1		IHO S-52	SY(TOPMAR07)

Symbol Number 0208 ID Code MBC020P0208
Description black buoy topmark two cones point in

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - 2 cones in	tmc=9		IHO S-52	SY(TOPMAR08)

Symbol Number 0210 ID Code MBC020P0210
Description black buoy topmark one ball

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - one ball	tmc=15or27or28		IHO S-52	SY(TOPMAR10)

Symbol Number 0212 ID Code MBC020P0212
Description black buoy topmark two balls

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - 2 balls	tmc=2		IHO S-52	SY(TOPMAR12)

Symbol Number 0213 ID Code MBC020P0213
Description black buoy topmark can

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - can	tmc=25or26or29		IHO S-52	SY(TOPMAR13)

Symbol Number 0214 ID Code MBC020P0214
Description black buoy topmark open parallelogram

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - rhombus/diamond	tmc=19or31		IHO S-52	SY(TOPMAR14) for buoys

Symbol Number 0217 ID Code MBC020P0217
Description black buoy topmark upright cross

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - upright cross	tmc=23or30		IHO S-52	SY(TOPMAR17)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0265 ID Code MBC020P0265
Description black buoy topmark special X

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - special (x)	tmc=6		IHO S-52	SY(TOPMAR65)

Symbol Number 0299 ID Code MBC020P0299
Description black buoy default topmark

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	buoy - default topmark	tmc=0or17or18or32or33		IHO S-52	SY(TMARDEF2)

Symbol Number 0300 ID Code MBC020P0300
Description black default buoy beside magenta ?

Symbol Number 0313 ID Code MBC020P0313
0 Description yellow circle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	default buoy; type unknown	btc=0 AND ssc=0or85or999		IHO S-52	SY(BOYGEN03)

Symbol Number 0301 ID Code MBC020P0301
Description black barrel buoy

Symbol Number 0313 ID Code MBC020P0313
0 Description yellow circle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - barrel; type unknown	btc=0 AND ssc=1		IHO S-52	SY(BOYBAR01)

Symbol Number 0302 ID Code MBC020P0302
Description black can buoy

Symbol Number 0313 ID Code MBC020P0313
0 Description yellow circle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - can; type unknown	btc=0 AND ssc=7		IHO S-52	SY(BOYCAN01)

Symbol Number 0303 ID Code MBC020P0303
Description black cone buoy

Symbol Number 0313 ID Code MBC020P0313
0 Description yellow circle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - conical; type unknown	btc=0 AND ssc=6		IHO S-52	SY(BOYCON01)

Symbol Number 0304 ID Code MBC020P0304
Description black mooring barrel buoy

Symbol Number 0311 ID Code MBC020P0311
0 Description black mooring/installation buoy

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - mooring;barrel	btc=7 AND ssc=1		IHO S-52	SY(BOYMOR01)

Symbol Number 0305 ID Code MBC020P0305
Description black mooring can buoy

Symbol Number 0311 ID Code MBC020P0311
0 Description black mooring/installation buoy

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - mooring;can	btc=7 AND ssc=7		IHO S-52	SY(BOYMOR03)

Symbol Number 0306 ID Code MBC020P0306
Description black pillar buoy

Symbol Number 0313 ID Code MBC020P0313
0 Description yellow circle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - pillar; type unknown	btc=0 AND ssc=10		IHO S-52	SY(BOYPIL01)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0307 ID Code MBC020P0307
Description black spherical buoy

Symbol Number 0313 ID Code MBC020P0313
0 Description yellow circle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - sphere; type unknown	btc=0 AND ssc=17		IHO S-52	SY(BOYSPH01)

Symbol Number 0308 ID Code MBC020P0308
Description black spar buoy

Symbol Number 0313 ID Code MBC020P0313
0 Description yellow circle w/ outline black outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - spar; type unknown	btc=0 AND ssc=16		IHO S-52	SY(BOYSPR01)

Symbol Number 0309 ID Code MBC020P0309
Description black superbuoy

Symbol Number 0312 ID Code MBC020P0312
0 Description black superbuoy - simplified

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - ODAS	btc=10		IHO S-52	SY(BOYSUP01)
✓ DNC	buoy - superbuoy; type unknown	btc=0 AND ssc=73		IHO S-52	SY(BOYSUP01)

Symbol Number 0310 ID Code MBC020P0310
Description black lanby

Symbol Number 0312 ID Code MBC020P0312
0 Description black superbuoy - simplified

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - LANBY	btc=4		IHO S-52	SY(BOYSUP03)

Symbol Number 0311 ID Code MBC020P0311
Description black mooring/installation buoy

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - mooring;not barrel, not can	btc=7 AND ssc<>1and<>7		IHO S-52	SY(BOYMOR11)

Symbol Number 0401 ID Code MBC020P0401
Description lt magenta arcs origin offset for beacons

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - sound signal	sst=1or2or3or4or6or9or14or15		IHO S-52	SY(FOGSIG01) for water

Symbol Number 0510 ID Code MBC020P0510
Description magenta arc w/ 5 ticks pointing upward

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - radar reflector present	ref=1		IHO S-52	SY(RADRFL03)

Symbol Number 0511 ID Code MBC020P0511
Description lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - radio navigation system	nst=1or4or5or17or41or51or53		IHO S-52	SY(RDOSTA02)

Symbol Number 0512 ID Code MBC020P0512
Description lg magenta dashed cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - radar navigation system	nst=10or54		IHO S-52	SY(RTPBCN02)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0513 ID Code MBC020P0513
Description black lt float

Symbol Number 0515 ID Code MBC020P0515
0 Description black lt float, simplified

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	buoy - light float	btc=6		IHO S-52	SY(LITFLT01)

BC040 BC040

Point Full Chart ✓ Simplified Point

Symbol Number 0009 ID Code MBC040P0009
Description feature brown dot inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light - radar station	nst=45		IHO S-52	SY(POSGEN01)

Symbol Number 0051 ID Code MBC040P0051
Description black filled sm cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light - base symbol			IHO S-52	SY(PILPNT02)

Symbol Number 0114 ID Code MBC040P0114
Description black topmark open parallelogram

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - rhombus/diamond	tmc=19or31		IHO S-52	SY(TOPMAR14)

Symbol Number 0122 ID Code MBC040P0122
Description black topmark one cone up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - 1 cone up	tmc=16or21		IHO S-52	SY(TOPMAR22)

Symbol Number 0124 ID Code MBC040P0124
Description black topmark one cone down

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - 1 cone down	tmc=22		IHO S-52	SY(TOPMAR24)

Symbol Number 0125 ID Code MBC040P0125
Description black topmark two cones up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - 2 cones up	tmc=3		IHO S-52	SY(TOPMAR25)

Symbol Number 0126 ID Code MBC040P0126
Description black topmark two cones down

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - 2 cones down	tmc=8		IHO S-52	SY(TOPMAR26)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0127 ID Code MBC040P0127
Description black topmark two cones point out

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - 2 cones out	tmc=1		IHO S-52	SY(TOPMAR27)

Symbol Number 0128 ID Code MBC040P0128
Description black topmark two cones point in

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - 2 cones in	tmc=9		IHO S-52	SY(TOPMAR28)

Symbol Number 0130 ID Code MBC040P0130
Description black topmark one ball

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - one ball	tmc=15or27or28		IHO S-52	SY(TOPMAR30)

Symbol Number 0132 ID Code MBC040P0132
Description black topmark two balls

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - 2 balls	tmc=2		IHO S-52	SY(TOPMAR32)

Symbol Number 0133 ID Code MBC040P0133
Description black topmark can

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - can	tmc=25or26or29		IHO S-52	SY(TOPMAR33)

Symbol Number 0185 ID Code MBC040P0185
Description black topmark special X

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - special (x)	tmc=6		IHO S-52	SY(TOPMAR85)

Symbol Number 0186 ID Code MBC040P0186
Description black topmark cross

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - upright cross	tmc=23or30		IHO S-52	SY(TOPMAR86)

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Symbol Number 0187 ID Code MBC040P0187
Description black topmark perch

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - perch	tmc=18		IHO S-52	SY(TOPMAR87)

\|/

Symbol Number 0188 ID Code MBC040P0188
Description black topmark broom up

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - broom point up	tmc=17		IHO S-52	SY(TOPMAR88)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0199 ID Code MBC040P0199
Description black default topmark upright

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DNC	light - default topmark	tmc=0or32or33		IHO S-52	SY(TMARDEF1)

Symbol Number 0401 ID Code MBC040P0401
Description lt magenta arcs origin offset for beacons

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light - sound signal	sst=1or2or3or4or6or9or14or15		IHO S-52	SY(FOGSIG01) for water

Symbol Number 0500 ID Code MBC040P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light - flare			IHO S-52	SY(LIGHTDEF)

Symbol Number 0510 ID Code MBC040P0510
Description magenta arc w/ 5 ticks pointing upward

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light - radar reflector present	ref=1		IHO S-52	SY(RADRFL03)

Symbol Number 0511 ID Code MBC040P0511
Description lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light - radio navigation system	nst=1or4or5or17or41or51or53		IHO S-52	SY(RDOSTA02)

Symbol Number 0512 ID Code MBC040P0512
Description lg magenta dashed cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light - radar navigation system	nst=10or54		IHO S-52	SY(RTPBCN02)

Line Full Chart ✓ Simplified Line

Symbol Number 0713 ID Code MBC040L0713
Description magenta compressed zig-zag line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light			MIL-STD-2402	2C050L001

BC050 BC050

Point Full Chart ✓ Simplified Point

Symbol Number 2044 ID Code MBC050P2044
Description black lighthouse symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	lighthouse			ORIGINAL	2044
VML0	lighthouse			ORIGINAL	2044

Refer to Appendix G for true symbol scale representations.

BC055 BC055

Point Full Chart ✓ Simplified Point

Symbol Number 0151 ID Code MBC055P0151
Description magenta box above inverted T with open cir

Symbol Number 0152 ID Code MBC055P0152
0 Description magenta box w/ dot and line below

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	marker			IHO S-52	SY(DAYSQR21)

BC060 BC060

Area Full Chart ✓ Simplified Area

Symbol Number 3116 ID Code MBC060A3116
Description black very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light sector			IHO S-52	LS(DASH,1,CHBLK)

BC070 BC070

Point Full Chart ✓ Simplified Point

Symbol Number 0009 ID Code MBC070P0009
Description feature brown dot inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light vessel/lightship - radar station	nst=45		IHO S-52	SY(POSGEN01)

Symbol Number 0401 ID Code MBC070P0401
Description lt magenta arcs origin offset for beacons

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light vessel/lightship - sound signal	sst=1or2or3or4or6or9or14or15		IHO S-52	SY(FOGSIG01) for water

Symbol Number 0500 ID Code MBC070P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light vessel/lightship - default flare			IHO S-52	SY(LIGHTDEF)

Symbol Number 0510 ID Code MBC070P0510
Description magenta arc w/ 5 ticks pointing upward

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light vessel/lightship - radar reflector present	ref=1		IHO S-52	SY(RADRFL03)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0511 ID Code MBC070P0511
Description lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light vessel/lightship - radio navigation system	nst=1or4or5or17or41or51or53		IHO S-52	SY(RDOSTA02)

Symbol Number 0512 ID Code MBC070P0512
Description lg magenta dashed cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light vessel/lightship - radar navigation system	nst=10or54		IHO S-52	SY(RTPBCN02)

Symbol Number 0514 ID Code MBC070P0514
Description black lt vessel

Symbol Number 0516 ID Code MBC070P0516
0 Description black lt vessel, simplified

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	light vessel/lightship			IHO S-52	SY(LITVES01)

BC080 BC080

Point Full Chart ✓ Simplified Point

Symbol Number 0051 ID Code MBC080P0051
Description black filled sm cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	perches/stakes			IHO S-52	SY(PILPNT02)

Area Full Chart ✓ Simplified Area

Symbol Number 0680 ID Code MBC080A0680
Description black thin dotted line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0810 ID Code MBC080A0810
Description depth med blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	perches/stakes			IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)

BC100 BC100

Line Full Chart ✓ Simplified Line

Symbol Number 0656 ID Code MBC100L0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	leading line			IHO S-52	LS(DASH,1,CHGRD)

Refer to Appendix G for true symbol scale representations.

BD000 BD000

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0052 ID Code MBD000P0052
Description depth med blue fill cir w/ black dotted outline

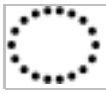
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - depth unknown	hdp=0		IHO S-52	SY(OBSTRN01)

Symbol Number 0053 ID Code MBD000P0053
Description depth med blue fill lg oval w/ black dot outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - depth 20m or less	hdp>0and<=20		IHO S-52	SY(DANGER01)



Symbol Number 0054 ID Code MBD000P0054
Description lg black oval w/ dotted outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

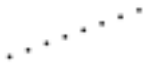
Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - depth greater than 20m	hdp>20		IHO S-52	SY(DANGER02)

Symbol Number 0058 ID Code MBD000P0058
Description black leader line w/ question mark

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

Line — Full Chart — ✓ Simplified — Line



Symbol Number 3139 ID Code MBD000L3139
Description black very thin dotted line

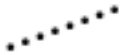
Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	underwater danger/hazard			ORIGINAL	3139

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0629 ID Code MBD000A0629
Description gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - depth greater than 20m	hdp>20		IHO S-52	LS(DASH,2,CHGRD)



Symbol Number 0680 ID Code MBD000A0680
Description black thin dotted line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - depth 20m or less	hdp>0and<=20		IHO S-52	LS(DOTT,2,CHBLK)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0680 ID Code MBD000A0680
Description black thin dotted line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0810 ID Code MBD000A0810
Description depth med blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - depth unknown	hdp=0		IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)

Symbol Number 0058 ID Code MBD000A0058
Description black leader line w/ question mark

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	underwater danger/hazard - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

BD005 BD005

Point Full Chart ✓ Simplified Point

Symbol Number 0052 ID Code MBD005P0052
Description depth med blue fill cir w/ black dotted outline

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	miscellaneous underwater feature - obstruction	wkt=35		HITS	Para 403.A

Symbol Number 0524 ID Code MBD005P0524
Description purple open circle w/ diagonal cross bar

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	miscellaneous underwater feature - sonar confirmed	exs=57		BC	Para 601.A.2
TOD2	miscellaneous underwater feature - sonar confirmed	exs=57		BC	Para 601.A.2

Symbol Number 0525 ID Code MBD005P0525
Description purple open very very thin circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	miscellaneous underwater feature - reported	exs=58		BC	Para 601.A.1
TOD2	miscellaneous underwater feature - reported	exs=58		BC	Para 601.A.1

Symbol Number 0526 ID Code MBD005P0526
Description purple open very thin circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	miscellaneous underwater feature - not obstruction	wkt<>35		HITS	Para 403.A

Refer to Appendix G for true symbol scale representations.

BD010 BD010

Point — Full Chart ✓ Simplified — Point

Symbol Number 0056 ID Code MBD010P0056
Description gray waves symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	breakers			IHO S-52	SY(WATTUR02)

Line — Full Chart ✓ Simplified — Line

Symbol Number 0752 ID Code MBD010L0752
Description gray very thin dash line w/ cntred waves

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	breakers			IHO S-52	LC=LS(DASH,1,CHGRD)+SY(WATTUR02)

Area — Full Chart ✓ Simplified — Area

Symbol Number 0056 ID Code MBD010A0056
Description gray waves symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0656 ID Code MBD010A0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	breakers			IHO S-52	SY(WATTUR02) + LS(DASH,1,CHGRD)

BD020 BD020

Point — Full Chart ✓ Simplified — Point

Symbol Number 0052 ID Code MBD020P0052
Description depth med blue fill cir w/ black dotted outline

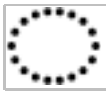
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - submerged; depth unknown	vrr=4 AND hdp=0		IHO S-52	SY(OBSTRN01)

Symbol Number 0053 ID Code MBD020P0053
Description depth med blue fill lg oval w/ black dot outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - submerged;depth 20m or less	vrr=4 AND hdp>0and<=20		IHO S-52	SY(DANGER01)



Symbol Number 0054 ID Code MBD020P0054
Description lg black oval w/ dotted outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - submerged;depth greater than 20m	vrr=4 AND hdp>20		IHO S-52	SY(DANGER02)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0055 ID Code MBD020P0055
Description yellow-green solid circle w/ black dot outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - covers and uncovers; depth null	vrr=8 AND hdp=NULL		IHO S-52	SY(OBSTRN03)

Symbol Number 0057 ID Code MBD020P0057
Description lt brown square with dk gray outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - partly submerged/dry; depth null	vrr=1 AND hdp=NULL		IHO S-52	SY(OBSTRN11)

Symbol Number 0058 ID Code MBD020P0058
Description black leader line w/ question mark

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

Area Full Chart ✓ Simplified Area

Symbol Number 0623 ID Code MBD020A0623
Description dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MBD020A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - above surface	vrr=1 AND hdp=NULL		IHO S-52	LS(SOLD,2,CSTLN) + AC(CHBRN)

Symbol Number 0626 ID Code MBD020A0626
Description dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0803 ID Code MBD020A0803
Description yellow green solid fill

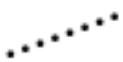
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - covers and uncovers	vrr=8 AND hdp=NULL		IHO S-52	LS(DASH,2,CSTLN) + AC(DEPIT)

Symbol Number 0629 ID Code MBD020A0629
Description gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - submerged;depth greater than 20m	vrr=4 AND hdp>20		IHO S-52	LS(DASH,2,CHGRD)



Symbol Number 0680 ID Code MBD020A0680
Description black thin dotted line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - submerged;depth 20m or less	vrr=4 AND hdp>0and<=20		IHO S-52	LS(DOTT,2,CHBLK)

Refer to Appendix G for true symbol scale representations.

	Symbol Number 0680 ID Code MBD020A0680 Description black thin dotted line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0810 ID Code MBD020A0810 Description depth med blue solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - submerged;depth unknown	vrr=4 AND hdp=0		IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)

	Symbol Number 0058 ID Code MBD020A0058 Description black leader line w/ question mark	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	crib - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

BD030 BD030

Point Full Chart ✓ Simplified Point

	Symbol Number 0052 ID Code MBD030P0052 Description depth med blue fill cir w/ black dotted outline	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	discolored water			IHO S-52	SY(OBSTRN01)

	Symbol Number 0058 ID Code MBD030P0058 Description black leader line w/ question mark	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	discolored water - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

Area Full Chart ✓ Simplified Area

	Symbol Number 0680 ID Code MBD030A0680 Description black thin dotted line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0810 ID Code MBD030A0810 Description depth med blue solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	discolored water			IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)

	Symbol Number 0058 ID Code MBD030A0058 Description black leader line w/ question mark	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	discolored water - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

Refer to Appendix G for true symbol scale representations.

BD040 BD040

Point — Full Chart — ✓ Simplified — Point

	Symbol Number 0056 ID Code MBD040P0056 Description gray waves symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	eddies			IHO S-52	SY(WATTUR02)

Area — Full Chart — ✓ Simplified — Area

	Symbol Number 0056 ID Code MBD040A0056 Description gray waves symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0656 ID Code MBD040A0656 Description gray very thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	eddies			IHO S-52	SY(WATTUR02) + LS(DASH,1,CHGRD)

BD050 BD050

Point — Full Chart — ✓ Simplified — Point

#	Symbol Number 0059 ID Code MBD050P0059 Description gray pound (#) symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	foul ground			IHO S-52	SY(FOULGND1)

Area — Full Chart — ✓ Simplified — Area

#	Symbol Number 0059 ID Code MBD050A0059 Description gray pound (#) symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)	
	Symbol Number 0716 ID Code MBD050A0716 Description gray dash/chevron line	Symbol Number 0656 ID Code MBD050A0656 Description gray very thin dash line	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	foul ground			IHO S-52	SY(FOULGND1) + LC(NAVARE51)

BD060 BD060

Point — Full Chart — ✓ Simplified — Point

	Symbol Number 0060 ID Code MBD060P0060 Description gray kelp symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	kelp/seaweed			IHO S-52	SY(WEDKLP03)

Refer to Appendix G for true symbol scale representations.

Area | Full Chart | ✓ Simplified | Area

	Symbol Number 0060 ID Code MBD060A0060 Description gray kelp symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 3077 ID Code MBD060A3077 Description lt gray very thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	kelp/seaweed			IHO S-52	SY(WEDKLP03) + LS(DASH,1,CHGRF)

BD080 BD080

Point | Full Chart | ✓ Simplified | Point

	Symbol Number 0056 ID Code MBD080P0056 Description gray waves symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	overfalls/tide rips			IHO S-52	SY(WATTUR02)

Area | Full Chart | ✓ Simplified | Area

	Symbol Number 0056 ID Code MBD080A0056 Description gray waves symbol	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0656 ID Code MBD080A0656 Description gray very thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	overfalls/tide rips			IHO S-52	SY(WATTUR02) + LS(DASH,1,CHGRD)

BD100 BD100

Point | Full Chart | ✓ Simplified | Point

●	Symbol Number 0051 ID Code MBD100P0051 Description black filled sm cir	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pile/piling/post			IHO S-52	SY(PILPNT02)

○	Symbol Number 2264 ID Code MBD100P2264 Description black cir	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	pile/piling/post			MIL-STD-2402	2D100P001
VML2	pile/piling/post			MIL-STD-2402	2D100P001

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

	Symbol Number 0623 ID Code MBD100A0623 Description dk gray thin solid line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0804 ID Code MBD100A0804 Description brown solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pile/piling/post - does not cover	vrr=1		IHO S-52	LS(SOLD,2,CSTLN) + AC(CHBRN)

	Symbol Number 0626 ID Code MBD100A0626 Description dk gray thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0803 ID Code MBD100A0803 Description yellow green solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pile/piling/post - covers and uncovers	vrr=8		IHO S-52	LS(DASH,2,CSTLN) + AC(DEPIT)

	Symbol Number 0680 ID Code MBD100A0680 Description black thin dotted line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0810 ID Code MBD100A0810 Description depth med blue solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pile/piling/post - submerged	vrr=4		IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)
DTOP	pile/piling/post			IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)
VML2	pile/piling/post			IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)

	Symbol Number 0058 ID Code MBD100A0058 Description black leader line w/ question mark	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	pile/piling/post - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

BD110 BD110

Point Full Chart ✓ Simplified Point

	Symbol Number 0061 ID Code MBD110P0061 Description black dot inside square	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	platform			IHO S-52	SY(OFSPLF01)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0402 ID Code MBD110P0402
Description lt magenta arcs origin offset for buoys

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	platform - sound signal	sst<>16		IHO S-52	SY(FOGSIG01) for land

Symbol Number 0500 ID Code MBD110P0500
Description magenta flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	platform - lighted	cha=21		IHO S-52	SY(LIGHTDEF)

BD120 BD120

Line Full Chart ✓ Simplified Line

Symbol Number 3186 ID Code MBD120L3186
Description black jagged line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	reef			MIL-STD-2402	2D120L002
VML0	reef			MIL-STD-2402	2D120L002
VML1	reef			MIL-STD-2402	2D120L002
VML2	reef			MIL-STD-2402	2D120L002

Area Full Chart ✓ Simplified Area

Symbol Number 0803 ID Code MBD120A0803
Description yellow green solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	reef - covers and uncovers	vrr=8		IHO S-52	AC(DEPIT)

Symbol Number 0949 ID Code MBD120A0949
Description depth gray diamond patt fill

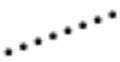
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	reef - covers and uncovers, shallow display mode on	vrr=8 AND isdm=1		IHO S-52	AP(DIAMOND1)

Symbol Number 0629 ID Code MBD120A0629
Description gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	reef - submerged, depth greater than 20m	vrr=4 AND hdp>20		IHO S-52	LS(DASH,2,CHGRD)

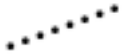


Symbol Number 0680 ID Code MBD120A0680
Description black thin dotted line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	reef - submerged, depth 20m or less	vrr=4 AND hdp>0and<=20		IHO S-52	LS(DOTT,2,CHBLK)

Refer to Appendix G for true symbol scale representations.



Symbol Number 0680 ID Code MBD120A0680
Description black thin dotted line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0810 ID Code MBD120A0810
Description depth med blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	reef - not covers and uncovers, depth unknown or null	vrr<>8 AND hdp=0orNULL		IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)

Symbol Number 3186 ID Code MBD120A3186
Description black jagged line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	reef			MIL-STD-2402	2D120A010*
VML1	reef			MIL-STD-2402	2D120A010*
VML2	reef			MIL-STD-2402	2D120A010*

Symbol Number 0058 ID Code MBD120A0058
Description black leader line w/ question mark

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	reef - not covers and uncovers, not accurate	vrr<>8 AND acc<>1		IHO S-52	SY(LOWACC01)

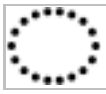
BD130 BD130

Point Full Chart ✓ Simplified Point

Symbol Number 0053 ID Code MBD130P0053
Description depth med blue fill lg oval w/ black dot outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	rock - submerged; depth 20m or less	vrr=4 AND hdp>0and<=20		IHO S-52	SY(DANGER01)



Symbol Number 0054 ID Code MBD130P0054
Description lg black oval w/ dotted outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	rock - submerged;depth greater than 20m	vrr=4 AND hdp>20		IHO S-52	SY(DANGER02)

Symbol Number 0058 ID Code MBD130P0058
Description black leader line w/ question mark

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	rock - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

Symbol Number 0062 ID Code MBD130P0062
Description black cross in dotted cir, depth med blue fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	rock - submerged; depth unknown	vrr=4 AND hdp=0		IHO S-52	SY(UWTROC03)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0063 ID Code MBD130P0063
Description black 6 point asterisk

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	rock - depth null	hdp=NULL		IHO S-52	SY(UWTROC04)
DTOP	rock			IHO S-52	SY(UWTROC04)
VML0	rock			IHO S-52	SY(UWTROC04)
VML1	rock			IHO S-52	SY(UWTROC04)
VML2	rock			IHO S-52	SY(UWTROC04)

BD140 BD140

Point Full Chart ✓ Simplified Point

Symbol Number 0052 ID Code MBD140P0052
Description depth med blue fill cir w/ black dotted outline

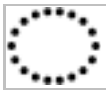
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - submergerd; depth unknown	vrr=4 AND hdp=0		IHO S-52	SY(OBSTRN01)

Symbol Number 0053 ID Code MBD140P0053
Description depth med blue fill lg oval w/ black dot outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - submerged; depth 20m or less	vrr=4 AND hdp>0and<=20		IHO S-52	SY(DANGER01)



Symbol Number 0054 ID Code MBD140P0054
Description lg black oval w/ dotted outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - submerged; depth greater than 20m	vrr=4 AND hdp>20		IHO S-52	SY(DANGER02)

Symbol Number 0055 ID Code MBD140P0055
Description yellow-green solid circle w/ black dot outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - covers and uncovers; depth null	vrr=8 AND hdp=NULL		IHO S-52	SY(OBSTRN03)

Symbol Number 0057 ID Code MBD140P0057
Description lt brown square with dk gray outline

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - partly submergerd/dry; depth null	vrr=1 AND hdp=NULL		IHO S-52	SY(OBSTRN11)

Symbol Number 0058 ID Code MBD140P0058
Description black leader line w/ question mark

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

	Symbol Number 0623 ID Code MBD140A0623 Description dk gray thin solid line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0804 ID Code MBD140A0804 Description brown solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - does not cover	vrr=1		IHO S-52	LS(SOLD,2,CSTLN) + AC(CHBRN)

	Symbol Number 0626 ID Code MBD140A0626 Description dk gray thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0803 ID Code MBD140A0803 Description yellow green solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - covers and uncovers	vrr=8		IHO S-52	LS(DASH,2,CSTLN) + AC(DEPIT)

	Symbol Number 0680 ID Code MBD140A0680 Description black thin dotted line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0810 ID Code MBD140A0810 Description depth med blue solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - submerged	vrr=4		IHO S-52	LS(DOTT,2,CHBLK) + AC(DEPVS)

	Symbol Number 0058 ID Code MBD140A0058 Description black leader line w/ question mark	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snags/stumps - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

BD180 BD180

Point Full Chart ✓ Simplified Point

	Symbol Number 0053 ID Code MBD180P0053 Description depth med blue fill lg oval w/ black dot outline	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - submerged; depth 20m or less	vrr=4 AND hdp>0and<=20		IHO S-52	SY(DANGER01)

	Symbol Number 0054 ID Code MBD180P0054 Description lg black oval w/ dotted outline	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - submerged; depth greater than 20m	vrr=4 AND hdp>20		IHO S-52	SY(DANGER02)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0058 ID Code MBD180P0058
Description black leader line w/ question mark

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - not accurate	acc<>1		IHO S-52	SY(LOWACC01)

Symbol Number 0064 ID Code MBD180P0064
Description gray wreck symbol

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - not submerged; depth null	hdp=NULL AND vrr=1or2or8		IHO S-52	SY(WRECKS01)
✓ DNC	wreck - showing mast/ hull/ superstructure; depth null	loc<>4 AND hdp=NULL		IHO S-52	SY(WRECKS01)

Symbol Number 0065 ID Code MBD180P0065
Description blck bar 3 ticks in dotted depth med blue oval

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - submerged; dangerous; depth unknown	vrr=4 AND soh=1 AND hdp=0		IHO S-52	SY(WRECKS05)
✓ DNC	wreck - unknown; depth null	hdp=NULL AND vrr=0		IHO S-52	SY(WRECKS05)

Symbol Number 0066 ID Code MBD180P0066
Description black horiz bar w/3 ticks

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - submerged; not dangerous; depth unknown	vrr=4 AND soh=2 AND hdp=0		IHO S-52	SY(WRECKS04)
TOD4	wreck			HITS	Para 403.A

Symbol Number 0524 ID Code MBD180P0524
Description purple open circle w/ diagonal cross bar

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	wreck - sonar confirmed	exs=57		BC	Para 601.A.2
TOD2	wreck - sonar confirmed	exs=57		BC	Para 601.A.2

Symbol Number 0525 ID Code MBD180P0525
Description purple open very very thin circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	wreck - reported	exs=58		BC	Para 601.A.1
TOD2	wreck - reported	exs=58		BC	Para 601.A.1

Symbol Number 2212 ID Code MBD180P2212
Description black solid filled shipwreck symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	wreck			MIL-STD-2402	2D180P013
VML0	wreck			MIL-STD-2402	2D180P013
VML1	wreck			MIL-STD-2402	2D180P013
VML2	wreck			MIL-STD-2402	2D180P013

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

	Symbol Number 0623 ID Code MBD180A0623 Description dk gray thin solid line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0804 ID Code MBD180A0804 Description brown solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - does not cover; depth null	vrr=1 AND hdp=NULL		IHO S-52	LS(SOLD,2,CSTLN) + AC(CHBRN)

	Symbol Number 0626 ID Code MBD180A0626 Description dk gray thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0803 ID Code MBD180A0803 Description yellow green solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - covers and uncovers; depth null	vrr=8 AND hdp=NULL		IHO S-52	LS(DASH,2,CSTLN) + AC(DEPIT)

	Symbol Number 0630 ID Code MBD180A0630 Description dk gray thin dotted line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0810 ID Code MBD180A0810 Description depth med blue solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - submerged; depth unknown	vrr=4 AND hdp=0		IHO S-52	LS(DOTT,2,CSTLN) + AC(DEPVS)
✓ DNC	wreck - unknown; awash; depth null	vrr=0or2 AND hdp=NULL		IHO S-52	LS(DOTT,2,CSTLN) + AC(DEPVS)

	Symbol Number 0680 ID Code MBD180A0680 Description black thin dotted line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - submerged; depth 20m or less	vrr=4 AND hdp>0and<=20		IHO S-52	LS(DOTT,2,CHBLK)

	Symbol Number 3117 ID Code MBD180A3117 Description black thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	wreck - submerged; depth greater than 20m	vrr=4 AND hdp>20		IHO S-52	LS(DASH,2,CHBLK)

Refer to Appendix G for true symbol scale representations.

BE010 BE010

Line

Full Chart ✓ Simplified Line

Symbol Number 0608 ID Code MBE010L0608
Description depth gray very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth curve - accurate; not equal ssdc	acc=1 AND crv<>ssdc		IHO S-52	LS(SOLD,1,DEPCN)

Symbol Number 0609 ID Code MBE010L0609
Description depth dk gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth curve - accurate; equals ssdc	acc=1 AND crv=ssdc		IHO S-52	LS(SOLD,2,DEPSC)

Symbol Number 0613 ID Code MBE010L0613
Description depth dk gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth curve - not accurate; equals ssdc	acc=2 AND crv=ssdc		IHO S-52	LS(DASH,2,DEPSC)

Symbol Number 0614 ID Code MBE010L0614
Description depth gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth curve - not accurate; not equal ssdc	acc=2 AND crv<>ssdc		IHO S-52	LS(DASH,1,DEPCN)

Area

Full Chart ✓ Simplified Area

Symbol Number 0805 ID Code MBE010A0805
Description depth white fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area (deep water); 2 shades	idsm=1 AND cvl>=ssdcand<>99999		IHO S-52	AC(DEPDW)
✓ DNC	depth area (very deep); 4 shades	idsm=0 AND cvl>=msdcand<>99999		IHO S-52	AC(DEPDW)

Symbol Number 0810 ID Code MBE010A0810
Description depth med blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area (very shallow); 2 shades; shallow mode off	idsm=1 AND isdm=0 AND cvl<ssdc		IHO S-52	AC(DEPVS)
✓ DNC	depth area (very shallow); 2 shades; shallow mode on	idsm=1 AND isdm=1 AND cvl<ssdc		IHO S-52	AC(DEPVS)
✓ DNC	depth area (very shallow); 4 shades; shallow mode off	idsm=0 AND isdm=0 AND cvl<mssc		IHO S-52	AC(DEPVS)
✓ DNC	depth area (very shallow); 4 shades; shallow mode on	idsm=0 AND isdm=1 AND cvl<mssc		IHO S-52	AC(DEPVS)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0820 ID Code MBE010A0820
Description depth pale blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area (medium deep); 4 shades	idsm=0 AND cvl>=ssdcand<msdc		IHO S-52	AC(DEPMD)

Symbol Number 0821 ID Code MBE010A0821
Description depth lt blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area (medium shallow); 4 shades; shallow mode off	idsm=0 AND isdm=0 AND cvl>=msscand<ssdc		IHO S-52	AC(DEPMS)
✓ DNC	depth area (medium shallow); 4 shades; shallow mode on	idsm=0 AND isdm=1 AND cvl>=msscand<ssdc		IHO S-52	AC(DEPMS)

Symbol Number 0823 ID Code MBE010A0823
Description no data gray solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area; depth unknown	cvl=99999		IHO S-52	AC(NODTA)

Symbol Number 0934 ID Code MBE010A0934
Description gray dash wide patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area; depth unknown	cvl=99999		IHO S-52	AP(PRTSUR01)

Symbol Number 0949 ID Code MBE010A0949
Description depth gray diamond patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area (medium shallow); 4 shades; shallow mode on	idsm=0 AND isdm=1 AND cvl>=msscand<ssdc		IHO S-52	AP(DIAMOND1)
✓ DNC	depth area (very shallow); 2 shades; shallow mode on	idsm=1 AND isdm=1 AND cvl<ssdc		IHO S-52	AP(DIAMOND1)
✓ DNC	depth area (very shallow); 4 shades; shallow mode on	idsm=0 AND isdm=1 AND cvl<mssc		IHO S-52	AP(DIAMOND1)

Symbol Number 0631 ID Code MBE010A0631
Description gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	depth area; depth unknown	cvl=99999		IHO S-52	LS(SOLD,2,CHGRD)

BE015 BE015

Line Full Chart ✓ Simplified Line

Symbol Number 0608 ID Code MBE015L0608
Description depth gray very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	depth contour - not index	hqc<>1		BC	Para 403.A*
TOD2	depth contour - not index	hqc<>1		BC	Para 403.A*
TOD4	depth contour - accurate,not index	acc=1 AND hqc<>1		HITS	Para 402.A*

Refer to Appendix G for true symbol scale representations.

Symbol Number 0609 ID Code MBE015L0609
Description depth dk gray thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	depth contour - index	hqc=1		BC	Para 403.A*
TOD2	depth contour - index	hqc=1		BC	Para 403.A*
TOD4	depth contour - accurate, index	acc=1 AND hqc=1		HITS	Para 402.A*

Symbol Number 0688 ID Code MBE015L0688
Description depth dk gray thin long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	depth contour - not accurate, index	acc<>1 AND hqc=1		HITS	Para 402.A*

Symbol Number 0689 ID Code MBE015L0689
Description depth gray very thin long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	depth contour - not accurate, not index	acc<>1 AND hqc<>1		HITS	Para 402.A*

Symbol Number 3082 ID Code MBE015L3082
Description gray very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	depth contour			MIL-STD-2402	2E015L005
VML0	depth contour			MIL-STD-2402	2E015L005
VML1	depth contour			MIL-STD-2402	2E015L005
VML2	depth contour			MIL-STD-2402	2E015L005
WVS	depth contour			MIL-STD-2402	2E015L005

BE019 BE019

Area Full Chart ✓ Simplified Area

Symbol Number 0803 ID Code MBE019A0803
Description yellow green solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	depth area - depth unknown	cvl=-32767		IHO S-52	AC(DEPIT)
TOD2	depth area - depth unknown	cvl=-32767		IHO S-52	AC(DEPIT)
TOD4	depth area - depth unknown	cvl=-32767		IHO S-52	AC(DEPIT)

Symbol Number 0805 ID Code MBE019A0805
Description depth white fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	depth area - depth greater than 200m	cvl>=200		IHO S-52	AC(DEPDW)
TOD2	depth area - depth greater than 200m	cvl>=200		IHO S-52	AC(DEPDW)
TOD4	depth area - depth greater than 123m	cvl>=123		IHO S-52	AC(DEPDW)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0810 ID Code MBE019A0810
Description depth med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	depth area - depth less than 200m	cvl>0and<200		IHO S-52	AC(DEPVS)
TOD2	depth area - depth less than 200m	cvl>0and<200		IHO S-52	AC(DEPVS)
TOD4	depth area - depth less than 123m	cvl>0and<123		IHO S-52	AC(DEPVS)

Symbol Number 0820 ID Code MBE019A0820
Description depth pale blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
WVS	depth area			IHO S-52	AC(DEPMD)

BE020 BE020

Point Full Chart ✓ Simplified Point

Symbol Number 1251 ID Code MBE020P1251
Description sounding gray circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	sounding or drying height - circle (light) indicating low accuracy	acc<>1		IHO S-52	SY(SOUND*C2)
TOD1	sounding - circle (light) indicating low accuracy	acc<>1		IHO S-52	SY(SOUND*C2)
TOD2	sounding - circle (light) indicating low accuracy	acc<>1		IHO S-52	SY(SOUND*C2)
TOD4	sounding - circle (light) indicating low accuracy	acc<>1		IHO S-52	SY(SOUND*C2)

Symbol Number 1256 ID Code MBE020P1256
Description sounding black overbar

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	drying height overbar (dark)	hdh>=0 AND hdp=NULL		IHO S-52	SY(SOUNDSA1)

BE030 BE030

Area Full Chart ✓ Simplified Area

Symbol Number 0820 ID Code MBE030A0820
Description depth pale blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	track swath			ORIGINAL	0820
TOD2	track swath			ORIGINAL	0820

Refer to Appendix G for true symbol scale representations.

BE040 BE040

Line Full Chart ✓ Simplified Line

Symbol Number 0670 ID Code MBE040L0670
Description depth med blue thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD1	track line			MIL-STD-2402	2E030L001
TOD2	track line			MIL-STD-2402	2E030L001

BF010 BF010

Point Full Chart ✓ Simplified Point

Symbol Number 1233 ID Code MBF010P1233
Description black horiz line below triangle w/ B inside

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	bottom characteristics - surface unknown	mcc=0 AND psc=0		ORIGINAL	1233

BF012 BF012

Point Full Chart ✓ Simplified Point

Symbol Number 0022 ID Code MBF012P0022
Description black cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site core site			HITS	Para 404.E

BG010 BG010

Point Full Chart ✓ Simplified Point

Symbol Number 0071 ID Code MBG010P0071
Description gray arrow w/ 2 feathers and 2 ?

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	current flow - general; direction unknown	cur=0 OR dof=0		IHO S-52	SY(CURDEF01)
TOD0	current flow - general; direction unknown	cur=0 OR dof=0		IHO S-52	SY(CURDEF01)

Symbol Number 0072 ID Code MBG010P0072
Description gray arrow w/ two feathers

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	current flow - general,ocean; direction known	cur=3or5 AND dof<>0	dof	IHO S-52	SY(CURENT01)
TOD0	current flow - ocean; direction known	cur=5 AND dof<>0	dof	IHO S-52	SY(CURENT01)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0073 ID Code MBG010P0073
Description gray arrow w/ no feathers

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	current flow - ebb; direction known	cur=1 AND dof<>0	dof	IHO S-52	SY(EBBSTR01)

Symbol Number 0074 ID Code MBG010P0074
Description gray arrow w/ one feather

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	current flow - flood; direction known	cur=2 AND dof<>0	dof	IHO S-52	SY(FLDSTR01)

Symbol Number 1006 ID Code MBG010P1006
Description basic blue line w/ arrow

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	current flow			MIL-STD-2402	2G010P004

BG020 BG020

Point Full Chart ✓ Simplified Point

Symbol Number 0015 ID Code MBG020P0015
Description lt magenta SS in rectangle w/ pale green fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tide gauge			IHO S-52	SY(SISTAT02)

BG030 BG030

Point Full Chart ✓ Simplified Point

Symbol Number 0076 ID Code MBG030P0076
Description gray diamond

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tide data point			IHO S-52	SY(TIDSTR01)

BG040 BG040

Point Full Chart ✓ Simplified Point

Symbol Number 0154 ID Code MBG040P0154
Description gray open cir,arrows pting out,represent only

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	current diagram			ORIGINAL	0154

Refer to Appendix G for true symbol scale representations.

BH000 BH000

Line Full Chart ✓ Simplified Line

Symbol Number 0621 ID Code MBH000L0621
Description depth med blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	inland water			ORIGINAL	0621

Area Full Chart ✓ Simplified Area

Symbol Number 4152 ID Code MBH000A4152
Description lt blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	inland water			ORIGINAL	4152

BH010 BH010

Point Full Chart ✓ Simplified Point

Symbol Number 1007 ID Code MBH010P1007
Description basic blue cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	aqueduct			MIL-STD-2402	2H010P003
VML1	aqueduct			MIL-STD-2402	2H010P003
VML2	aqueduct			MIL-STD-2402	2H010P003

Line Full Chart ✓ Simplified Line

Symbol Number 0610 ID Code MBH010L0610
Description gray solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	aqueduct - elevated	loc=25		IHO S-52	LS(SOLD,3,CHGRD)

Symbol Number 0704 ID Code MBH010L0704
Description gray dash very thin line w/ sm cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	aqueduct - not elevated	loc<>25		IHO S-52	LC(PIPSOL06)

Symbol Number 3050 ID Code MBH010L3050
Description basic blue dashed line w/ open cirs

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	aqueduct - not elevated	loc<>25		MIL-STD-2402	2H010L029
FFD	aqueduct - not elevated	loc<>25		MIL-STD-2402	2H010L029
UVM	aqueduct - not elevated	loc<>25		MIL-STD-2402	2H010L029
VML1	aqueduct - not elevated	loc<>25		MIL-STD-2402	2H010L029
VML2	aqueduct - not elevated	loc<>25		MIL-STD-2402	2H010L029

Refer to Appendix G for true symbol scale representations.

Symbol Number 4266 ID Code MBH010L4266
Description basic blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	aqueduct - elevated	loc=25		MIL-STD-2402	2H010L001*
FFD	aqueduct - elevated	loc=25		MIL-STD-2402	2H010L001*
UVM	aqueduct - elevated	loc=25		MIL-STD-2402	2H010L001*
VML1	aqueduct - elevated	loc=25		MIL-STD-2402	2H010L001*
VML2	aqueduct - elevated	loc=25		MIL-STD-2402	2H010L001*

BH015 BH015

Area Full Chart ✓ Simplified Area

Symbol Number 4080 ID Code MBH015A4080
Description basic blue marsh/swamp patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	bog			MIL-STD-2402	5D040A002
VML0	bog			MIL-STD-2402	5D040A002
VML1	bog			MIL-STD-2402	5D040A002
VML2	bog			MIL-STD-2402	5D040A002

BH020 BH020

Line Full Chart ✓ Simplified Line

Symbol Number 0600 ID Code MBH020L0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	canal			IHO S-52	LS(SOLD,1,CHBLK)

Symbol Number 3108 ID Code MBH020L3108
Description depth pale blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	canal - perennial	hyc=0or8		MIL-STD-2402	2H020L001
FFD	canal - perennial	hyc=8		MIL-STD-2402	2H020L001
UVM	canal - perennial	hyc=8		MIL-STD-2402	2H020L001
VITD	canal			MIL-STD-2402	2H020L001
VML1	canal - perennial	hyc=8		MIL-STD-2402	2H020L001
VML2	canal - perennial	hyc=8		MIL-STD-2402	2H020L001

Symbol Number 3109 ID Code MBH020L3109
Description depth pale blue thin dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	canal - dry	hyc=3		MIL-STD-2402	2H020L002*

Refer to Appendix G for true symbol scale representations.

Symbol Number 3167 ID Code MBH020L3167
Description depth pale blue thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	canal - not perennial	hyc<>8		MIL-STD-2402	2H020L002
UVM	canal - not perennial	hyc<>8		MIL-STD-2402	2H020L002
VML1	canal - not perennial	hyc<>8		MIL-STD-2402	2H020L002
VML2	canal - not perennial	hyc<>8		MIL-STD-2402	2H020L002

Area Full Chart ✓ Simplified Area

Symbol Number 4138 ID Code MBH020A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	canal - perennial	hyc=8		MIL-STD-2402	2H020A002
UVM	canal - navigable;perennial	exs=32 AND hyc=8		MIL-STD-2402	2H020A002
VML2	canal - navigable;perennial	exs=32 AND hyc=8		MIL-STD-2402	2H020A002

Symbol Number 0600 ID Code MBH020A0600
Description black very thin solid line

Symbol Number 4138 ID Code MBH020A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP <>sdr	canal			MIL-STD-2402	2H020A007*
DTOP sdr	canal - not covered	cda<>2		MIL-STD-2402	2H020A006*

Symbol Number 0600 ID Code MBH020A0600
Description black very thin solid line
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0810 ID Code MBH020A0810
Description depth med blue solid fill
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	canal			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)

Symbol Number 3116 ID Code MBH020A3116
Description black very thin dash line

Symbol Number 4138 ID Code MBH020A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP sdr	canal - covered	cda=2		MIL-STD-2402	2H020A015*

Symbol Number 4265 ID Code MBH020A4265
Description basic blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	canal - perennial	hyc=8		ORIGINAL	4265

Refer to Appendix G for true symbol scale representations.

Symbol Number 4265 ID Code MBH020A4265
Description basic blue thin solid line

Symbol Number 1608 ID Code MBH020A1608
Description basic blue stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	canal - non-perennial, dry, unknown	hyc<>8		MIL-STD-2402	2H020A005
UVM	canal - not navigable or not perennial	exs<>32 OR hyc<>8		MIL-STD-2402	2H020A005
VITD	canal - not perennial	hyc<>8		MIL-STD-2402	2H020A005
VML2	canal - not navigable or not perennial	exs<>32 OR hyc<>8		MIL-STD-2402	2H020A005

BH030 BH030

Line Full Chart ✓ Simplified Line

Symbol Number 0621 ID Code MBH030L0621
Description depth med blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	ditch			MIL-STD-2402	2H030L006
UVM	ditch - perennial, unknown	hyc=0or8		MIL-STD-2402	2H030L006
VML1	ditch - perennial, unknown	hyc=0or8		MIL-STD-2402	2H030L006
VML2	ditch - perennial, unknown	hyc=0or8		MIL-STD-2402	2H030L006

Symbol Number 0669 ID Code MBH030L0669
Description depth med blue very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	ditch - intermittent	hyc=6		MIL-STD-2402	2H030L002
VML1	ditch - not perennial	hyc<>0and<>8		MIL-STD-2402	2H030L002
VML2	ditch - intermittent	hyc=6		MIL-STD-2402	2H030L002

Symbol Number 3107 ID Code MBH030L3107
Description depth pale blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ditch			MIL-STD-2402	2H030L006

Area Full Chart ✓ Simplified Area

Symbol Number 0821 ID Code MBH030A0821
Description depth lt blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	ditch			MIL-STD-2402	2H030A002
UVM	ditch			MIL-STD-2402	2H030A002
VML2	ditch			MIL-STD-2402	2H030A002

Refer to Appendix G for true symbol scale representations.

	Symbol Number 0600 ID Code MBH030A0600 Description black very thin solid line	
	Symbol Number 0821 ID Code MBH030A0821 Description depth lt blue solid fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP <>sdr	ditch			MIL-STD-2402	2H030A003*
DTOP sdr	ditch - not covered	cda<>2		MIL-STD-2402	2H030A003*

	Symbol Number 3116 ID Code MBH030A3116 Description black very thin dash line	
	Symbol Number 0821 ID Code MBH030A0821 Description depth lt blue solid fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP sdr	ditch - covered	cda=2		MIL-STD-2402	2H030A008*

BH040 BH040

Area Full Chart ✓ Simplified Area

	Symbol Number 0600 ID Code MBH040A0600 Description black very thin solid line	
	Symbol Number 4154 ID Code MBH040A4154 Description dk blue solid fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	filtration beds/aeration beds			MIL-STD-2402	2H040A001*
FFD	filtration beds/aeration beds			MIL-STD-2402	2H040A001*
UVM	filtration beds/aeration beds			MIL-STD-2402	2H040A001*
VML1	filtration beds/aeration beds			MIL-STD-2402	2H040A001*
VML2	filtration beds/aeration beds			MIL-STD-2402	2H040A001*

BH050 BH050

Area Full Chart ✓ Simplified Area

	Symbol Number 0716 ID Code MBH050A0716 Description gray dash/chevron line	Symbol Number 0656 ID Code MBH050A0656 Description gray very thin dash line	
	Symbol Number 0904 ID Code MBH050A0904 Description gray fish in net patt fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	fish hatchery/fish farm/marine farm			IHO S-52	LC(NAVARE51) + AP(MARCUL02)

Refer to Appendix G for true symbol scale representations.

Symbol Number 3112 ID Code MBH050A3112
Description black thin solid line

Symbol Number 4138 ID Code MBH050A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	fish hatchery/fish farm/marine farm			MIL-STD-2402	2H050A001
FFD	fish hatchery/fish farm/marine farm			MIL-STD-2402	2H050A001
UVM	fish hatchery/fish farm/marine farm			MIL-STD-2402	2H050A001
VML0	fish hatchery/fish farm/marine farm			MIL-STD-2402	2H050A001
VML1	fish hatchery/fish farm/marine farm			MIL-STD-2402	2H050A001
VML2	fish hatchery/fish farm/marine farm			MIL-STD-2402	2H050A001

BH060 BH060

Line Full Chart ✓ Simplified Line

Symbol Number 3106 ID Code MBH060L3106
Description depth pale blue very thin solid line w/ ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	flume - elevated	loc=25		MIL-STD-2402	2H060L003
UVM	flume - elevated	loc=25		MIL-STD-2402	2H060L003
VML1	flume - elevated	loc=25		MIL-STD-2402	2H060L003
VML2	flume - elevated	loc=25		MIL-STD-2402	2H060L003

Symbol Number 3107 ID Code MBH060L3107
Description depth pale blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	flume - not elevated	loc<>25		MIL-STD-2402	2H060L002
UVM	flume - not elevated	loc<>25		MIL-STD-2402	2H060L002
VML1	flume - not elevated	loc<>25		MIL-STD-2402	2H060L002
VML2	flume - not elevated	loc<>25		MIL-STD-2402	2H060L002

BH070 BH070

Point Full Chart ✓ Simplified Point

Symbol Number 2087 ID Code MBH070P2087
Description black opposing solid triangles pnting in

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ford			MIL-STD-2402	2H070P005
FFD	ford			MIL-STD-2402	2H070P005
UVM	ford			MIL-STD-2402	2H070P005
VITD	ford			MIL-STD-2402	2H070P005
VML0	ford			MIL-STD-2402	2H070P005
VML1	ford			MIL-STD-2402	2H070P005
VML2	ford			MIL-STD-2402	2H070P005

Refer to Appendix G for true symbol scale representations.

Line Full Chart ✓ Simplified Line

Symbol Number 3114 ID Code MBH070L3114
Description black very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ford			MIL-STD-2402	2H070L001
FFD	ford			MIL-STD-2402	2H070L001
UVM	ford			MIL-STD-2402	2H070L001
VITD	ford			MIL-STD-2402	2H070L001
VML0	ford			MIL-STD-2402	2H070L001
VML1	ford			MIL-STD-2402	2H070L001
VML2	ford			MIL-STD-2402	2H070L001

BH075 BH075

Point Full Chart ✓ Simplified Point

Symbol Number 2320 ID Code MBH075P2320
Description basic blue sm cir in cir w/4 squares outside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	fountain			ORIGINAL	2320

Area Full Chart ✓ Simplified Area

Symbol Number 4266 ID Code MBH075A4266
Description basic blue very thin solid line

Symbol Number 1609 ID Code MBH075A1609
Description basic blue diag grid patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	fountain			ORIGINAL	4266 1609

BH077 BH077

Area Full Chart ✓ Simplified Area

Symbol Number 1511 ID Code MBH077A1511
Description brown thin line outward ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	hummock			ORIGINAL	1511
VML0	hummock			ORIGINAL	1511
VML2	hummock			ORIGINAL	1511

Refer to Appendix G for true symbol scale representations.

BH080 BH080

Area Full Chart ✓ Simplified Area

Symbol Number 4071 ID Code MBH080A4071
Description basic blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	lake/pond - perennial, unknown	hyc=0or8		MIL-STD-2402	2H080A001
UVM	lake/pond - perennial, unknown	hyc=0or8		MIL-STD-2402	2H080A001
VML1	lake/pond - perennial, unknown	hyc=0or8		MIL-STD-2402	2H080A001
VML2	lake/pond - perennial, unknown	hyc=0or8		MIL-STD-2402	2H080A001

Symbol Number 0600 ID Code MBH080A0600
Description black very thin solid line

Symbol Number 4071 ID Code MBH080A4071
Description basic blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP <>sdr	lake/pond			MIL-STD-2402	2H080A006*
DTOP sdr	lake/pond - perennial	hyc=8		MIL-STD-2402	2H080A006*

Symbol Number 0600 ID Code MBH080A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0810 ID Code MBH080A0810
Description depth med blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	lake/pond			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)

Symbol Number 1655 ID Code MBH080A1655
Description basic blue thin dash line

Symbol Number 1611 ID Code MBH080A1611
Description basic blue dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP sdr	lake/pond - not perennial	hyc<>8		MIL-STD-2402	2H080A007*
FFD	lake/pond - dry	hyc=3		MIL-STD-2402	2H080A005*
UVM	lake/pond - dry, intermittent	hyc=3or6		MIL-STD-2402	2H080A005*
VML1	lake/pond - dry, intermittent	hyc=3or6		MIL-STD-2402	2H080A005*
VML2	lake/pond - dry, intermittent	hyc=3or6		MIL-STD-2402	2H080A005*

Refer to Appendix G for true symbol scale representations.

BH090 BH090

Area Full Chart ✓ Simplified Area

Symbol Number 4078 ID Code MBH090A4078
Description basic blue inundation area patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	land subject to inundation			MIL-STD-2402	2H090A001
DTOP	land subject to inundation			MIL-STD-2402	2H090A001
FFD	land subject to inundation			MIL-STD-2402	2H090A001
UVM	land subject to inundation			MIL-STD-2402	2H090A001
VML0	land subject to inundation			MIL-STD-2402	2H090A001
VML1	land subject to inundation			MIL-STD-2402	2H090A001
VML2	land subject to inundation			MIL-STD-2402	2H090A001

Symbol Number 3118 ID Code MBH090A3118
Description black dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	land subject to inundation			MIL-STD-2402	2H090A005

BH095 BH095

Area Full Chart ✓ Simplified Area

Symbol Number 0910 ID Code MBH095A0910
Description brown marsh patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	marsh/swamp			IHO S-52	AP(MARSHES1)

Symbol Number 1605 ID Code MBH095A1605
Description yellow-green tree-top patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	marsh/swamp - deciduous	veg=24		MIL-STD-2402	5C030A015

Symbol Number 1606 ID Code MBH095A1606
Description yellow-green triangle tree patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	marsh/swamp - evergreen,mixed	veg=25or50		MIL-STD-2402	5C030A002

Symbol Number 4080 ID Code MBH095A4080
Description basic blue marsh/swamp patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	marsh/swamp - no trees	veg=0or56		MIL-STD-2402	5D040A002
FFD	marsh/swamp			MIL-STD-2402	5D040A002
UVM	marsh/swamp			MIL-STD-2402	5D040A002
VML0	marsh/swamp			MIL-STD-2402	5D040A002
VML1	marsh/swamp			MIL-STD-2402	5D040A002
VML2	marsh/swamp			MIL-STD-2402	5D040A002

Refer to Appendix G for true symbol scale representations.

Symbol Number 1655 ID Code MBH095A1655
Description basic blue thin dash line

Symbol Number 1613 ID Code MBH095A1613
Description yellow-green nipa patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	marsh/swamp - palm, mangrove	veg=16or19		MIL-STD-2402	5C030A029

Symbol Number 3118 ID Code MBH095A3118
Description black dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	marsh/swamp			MIL-STD-2402	2H095A001

BH100 BH100

Line Full Chart ✓ Simplified Line

Symbol Number 3142 ID Code MBH100L3142
Description black parallel vy thin lines w/ tics (ladder patt)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	moat			MIL-STD-2402	2H100L001
VITD	moat			MIL-STD-2402	2H100L001

Area Full Chart ✓ Simplified Area

Symbol Number 4152 ID Code MBH100A4152
Description lt blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	moat			ORIGINAL	4152

BH110 BH110

Line Full Chart ✓ Simplified Line

Symbol Number 3106 ID Code MBH110L3106
Description depth pale blue very thin solid line w/ ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	penstock - elevated	loc=25		MIL-STD-2402	2H110L001
UVM	penstock - elevated	loc=25		MIL-STD-2402	2H110L001
VML1	penstock - elevated	loc=25		MIL-STD-2402	2H110L001
VML2	penstock - elevated	loc=25		MIL-STD-2402	2H110L001

Refer to Appendix G for true symbol scale representations.

Symbol Number 3107 ID Code MBH110L3107
Description depth pale blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	penstock - not elevated	loc<>25		MIL-STD-2402	2H110L002
UVM	penstock - not elevated	loc<>25		MIL-STD-2402	2H110L002
VML1	penstock - not elevated	loc<>25		MIL-STD-2402	2H110L002
VML2	penstock - not elevated	loc<>25		MIL-STD-2402	2H110L002

BH120 BH120

Point Full Chart ✓ Simplified Point

Symbol Number 2231 ID Code MBH120P2231
Description basic blue open diamond

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	rapids			ORIGINAL	2231
VML0	rapids			ORIGINAL	2231
VML1	rapids			ORIGINAL	2231
VML2	rapids			ORIGINAL	2231

Line Full Chart ✓ Simplified Line

Symbol Number 0610 ID Code MBH120L0610
Description gray solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	rapids			IHO S-52	LS(SOLD,3,CHGRD)

Symbol Number 3117 ID Code MBH120L3117
Description black thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	rapids			MIL-STD-2402	2H120L001*
VML1	rapids			MIL-STD-2402	2H120L001*
VML2	rapids			MIL-STD-2402	2H120L001*

Refer to Appendix G for true symbol scale representations.

BH130 BH130

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MBH130A0600
Description black very thin solid line

Symbol Number 4138 ID Code MBH130A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	reservoir			MIL-STD-2402	2H130A001
FFD	reservoir			MIL-STD-2402	2H130A001*
UVM	reservoir			MIL-STD-2402	2H130A001*
VML1	reservoir			MIL-STD-2402	2H130A001*
VML2	reservoir			MIL-STD-2402	2H130A001*

Symbol Number 0600 ID Code MBH130A0600
Description black very thin solid line
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0810 ID Code MBH130A0810
Description depth med blue solid fill
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	reservoir			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)

BH135 BH135

Area Full Chart ✓ Simplified Area

Symbol Number 4085 ID Code MBH135A4085
Description basic blue rice patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	rice field			MIL-STD-2402	5A010A001
VITD	rice field			MIL-STD-2402	5A010A001
VML0	rice field			MIL-STD-2402	5A010A001
VML1	rice field			MIL-STD-2402	5A010A001
VML2	rice field			MIL-STD-2402	5A010A001

BH140 BH140

Line Full Chart ✓ Simplified Line

Symbol Number 0600 ID Code MBH140L0600
Description black very thin solid line
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	river/stream			IHO S-52	LS(SOLD,1,CHBLK)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0622 ID Code MBH140L0622
Description depth med blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	river/stream - perennial, unknown	hyc=0or8		MIL-STD-2402	2H140L001
FFD	river/stream - perennial, unknown	hyc=0or8		MIL-STD-2402	2H140L001
UVM	river/stream - perennial, unknown	hyc=0or8		MIL-STD-2402	2H140L001
VML0	river/stream - perennial	hyc=8		MIL-STD-2402	2H140L001
VML1	river/stream - perennial, unknown	hyc=0or8		MIL-STD-2402	2H140L001
VML2	river/stream - perennial, unknown	hyc=0or8		MIL-STD-2402	2H140L001

Symbol Number 3047 ID Code MBH140L3047
Description basic blue thin long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140L002
FFD	river/stream - dry, non-perennial	hyc=3or6		MIL-STD-2402	2H140L002
UVM	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140L002
VML0	river/stream - intermittent	hyc=6		MIL-STD-2402	2H140L002
VML1	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140L002
VML2	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140L002

Symbol Number 3112 ID Code MBH140L3112
Description black thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	river/stream - perennial, braided	hyc=8or14		MIL-STD-2402	2H140L007

Symbol Number 3120 ID Code MBH140L3120
Description black thin long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	river/stream - intermittent	hyc=0or6		MIL-STD-2402	2H140L013

Area Full Chart ✓ Simplified Area

Symbol Number 4079 ID Code MBH140A4079
Description basic blue stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP sdr	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140A003

Symbol Number 4138 ID Code MBH140A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP sdr	river/stream - perennial;non-tidal	hyc=0or8 AND tid=1		MIL-STD-2402	2H140A002
FFD	river/stream - perennial, unknown	hyc=0or8		MIL-STD-2402	2H140A002
UVM	river/stream - perennial, unknown	hyc=0or8		MIL-STD-2402	2H140A002
VML1	river/stream - perennial, unknown; non-tidal	hyc=0or8 AND tid=1		MIL-STD-2402	2H140A002
VML2	river/stream - perennial, unknown; non-tidal	hyc=0or8 AND tid=1		MIL-STD-2402	2H140A002

Refer to Appendix G for true symbol scale representations.

Symbol Number 0600 ID Code MBH140A0600
Description black very thin solid line

Symbol Number 4138 ID Code MBH140A4138
Description med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP <>sdr	river/stream			MIL-STD-2402	2H140A001*

Symbol Number 0600 ID Code MBH140A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0810 ID Code MBH140A0810
Description depth med blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	river/stream			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)

Symbol Number 1655 ID Code MBH140A1655
Description basic blue thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	river/stream - intermittent	hyc=6		MIL-STD-2402	2H140A003

Symbol Number 3112 ID Code MBH140A3112
Description black thin solid line

Symbol Number 4071 ID Code MBH140A4071
Description basic blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP sdr	river/stream - perennial;tidal	hyc=0or8 AND tid<>1		MIL-STD-2402	2H140A001*

Symbol Number 3117 ID Code MBH140A3117
Description black thin dash line

Symbol Number 4071 ID Code MBH140A4071
Description basic blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	river/stream - perennial, unknown; tidal, unknown	hyc=0or8 AND tid=0or2		MIL-STD-2402	2H140A001*
VML2	river/stream - perennial, unknown; tidal	hyc=0or8 AND tid<>1		MIL-STD-2402	2H140A001*

Symbol Number 4265 ID Code MBH140A4265
Description basic blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	river/stream - perennial, braided	hyc=0or8or14		MIL-STD-2402	2H140A015

Refer to Appendix G for true symbol scale representations.

Symbol Number 4265 ID Code MBH140A4265
Description basic blue thin solid line

Symbol Number 1608 ID Code MBH140A1608
Description basic blue stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	river/stream - dry, non-perennial	hyc=3or6		MIL-STD-2402	2H140A003
UVM	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140A003
VML1	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140A003
VML2	river/stream - dry, intermittent	hyc=3or6		MIL-STD-2402	2H140A003

BH145 BH145

Point Full Chart ✓ Simplified Point

Symbol Number 2232 ID Code MBH145P2232
Description basic blue solid arrowhead

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	river stream vanishing point			MIL-STD-2402	2H145P001*
VML1	river stream vanishing point			MIL-STD-2402	2H145P001*
VML2	river stream vanishing point			MIL-STD-2402	2H145P001*

BH150 BH150

Area Full Chart ✓ Simplified Area

Symbol Number 0911 ID Code MBH150A0911
Description depth med blue grid patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	salt pan			MIL-STD-2402	2H150A001
VML1	salt pan			MIL-STD-2402	2H150A001
VML2	salt pan			MIL-STD-2402	2H150A001

Symbol Number 4081 ID Code MBH150A4081
Description basic blue diag grid patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	salt pan			ORIGINAL	4081

BH155 BH155

Point Full Chart ✓ Simplified Point

Symbol Number 2233 ID Code MBH155P2233
Description basic blue square w/ grid inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	salt evaporator			ORIGINAL	2233

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0911 ID Code MBH155A0911
Description depth med blue grid patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	salt evaporator			MIL-STD-2402	2H150A001
DTOP	salt evaporator			MIL-STD-2402	2H150A011
FFD	salt evaporator			MIL-STD-2402	2H150A011
UVM	salt evaporator			MIL-STD-2402	2H150A001
VML0	salt evaporator			MIL-STD-2402	2H150A001
VML1	salt evaporator			MIL-STD-2402	2H150A001
VML2	salt evaporator			MIL-STD-2402	2H150A001

BH160 BH160

Area Full Chart ✓ Simplified Area

Symbol Number 4289 ID Code MBH160A4289
Description basic blue stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sebkha			MIL-STD-2402	2H160A001
UVM	sebkha			MIL-STD-2402	2H160A001
VML1	sebkha			MIL-STD-2402	2H160A001
VML2	sebkha			MIL-STD-2402	2H160A001

BH165 BH165

Point Full Chart ✓ Simplified Point

Symbol Number 2234 ID Code MBH165P2234
Description basic blue cir diagly half filled

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	spillway			ORIGINAL	2234

Line Full Chart ✓ Simplified Line

Symbol Number 3082 ID Code MBH165L3082
Description gray very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	spillway			ORIGINAL	3082

Area Full Chart ✓ Simplified Area

Symbol Number 4145 ID Code MBH165A4145
Description depth pale blue lft diag dash line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	spillway			ORIGINAL	4145

Refer to Appendix G for true symbol scale representations.

BH170 BH170

Point Full Chart ✓ Simplified Point

Symbol Number 1008 ID Code MBH170P1008
Description basic blue filled cir w/ tail below

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	spring/water-hole			MIL-STD-2402	2H170P002
UVM	spring/water-hole			MIL-STD-2402	2H170P002
VML0	spring/water-hole			MIL-STD-2402	2H170P002
VML1	spring/water-hole			MIL-STD-2402	2H170P002
VML2	spring/water-hole			MIL-STD-2402	2H170P002

BH180 BH180

Point Full Chart ✓ Simplified Point

Symbol Number 1009 ID Code MBH180P1009
Description basic blue filled diamond

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	waterfall			ORIGINAL	1009
VML0	waterfall			ORIGINAL	1009
VML1	waterfall			ORIGINAL	1009
VML2	waterfall			ORIGINAL	1009

Line Full Chart ✓ Simplified Line

Symbol Number 0615 ID Code MBH180L0615
Description pale green solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

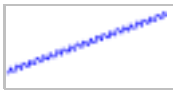
Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	waterfall			IHO S-52	LS(SOLD,3,CHWHT)

Symbol Number 0621 ID Code MBH180L0621
Description depth med blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	waterfall			MIL-STD-2402	2H180L001
VML1	waterfall			MIL-STD-2402	2H180L001
VML2	waterfall			MIL-STD-2402	2H180L001

BH190 BH190

Area Full Chart ✓ Simplified Area



Symbol Number 1506 ID Code MBH190A1506
Description basic blue jagged vy thin line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	lagoon/reef pool			MIL-STD-2402	2D125A001

Refer to Appendix G for true symbol scale representations.

BH200 BH200

Line Full Chart ✓ Simplified Line

Symbol Number 3109 ID Code MBH200L3109
Description depth pale blue thin dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	miscellaneous surface drainage feature			ORIGINAL	3109

Area Full Chart ✓ Simplified Area

Symbol Number 4150 ID Code MBH200A4150
Description depth pale blue stiple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	miscellaneous surface drainage feature			ORIGINAL	4150

BH210 BH210

Line Full Chart ✓ Simplified Line

Symbol Number 0600 ID Code MBH210L0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	inland shoreline			IHO S-52	LS(SOLD,1,CHBLK)

Symbol Number 0621 ID Code MBH210L0621
Description depth med blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	inland shoreline - unknown, rocky, rubble, sandy, stony, other	slt=0or10or11or13or14or15		MIL-STD-2402	2H075L001

Symbol Number 3042 ID Code MBH210L3042
Description basic blue very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	inland shoreline - mangrove, marsh	slt=6or8		MIL-STD-2402	2H075L002

Refer to Appendix G for true symbol scale representations.

BI010 BI010

Point Full Chart ✓ Simplified Point

Symbol Number 1010 ID Code MBI010P1010
Description basic blue solid square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cistern			MIL-STD-2402	2I010P001
UVM	cistern			MIL-STD-2402	2I010P001
VML1	cistern			MIL-STD-2402	2I010P001
VML2	cistern			MIL-STD-2402	2I010P001

BI020 BI020

Point Full Chart ✓ Simplified Point

Symbol Number 2238 ID Code MBI020P2238
Description black vertical heavy weight line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	dam/weir			MIL-STD-2402	2I020P002
FFD	dam/weir			MIL-STD-2402	2I020P002
VITD	dam/weir			MIL-STD-2402	2I020P002
VML0	dam/weir			MIL-STD-2402	2I020P002
VML1	dam/weir			MIL-STD-2402	2I020P002
VML2	dam/weir			MIL-STD-2402	2I020P002

Line Full Chart ✓ Simplified Line

Symbol Number 0607 ID Code MBI020L0607
Description feature brown thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	dam/weir			IHO S-52	LS(SOLD,4,LANDF)

Symbol Number 3113 ID Code MBI020L3113
Description black solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	dam/weir			MIL-STD-2402	2I020L001
FFD	dam/weir			MIL-STD-2402	2I020L001
UVM	dam/weir			MIL-STD-2402	2I020L001
VITD	dam/weir			MIL-STD-2402	2I020L001
VML0	dam/weir			MIL-STD-2402	2I020L001
VML1	dam/weir			MIL-STD-2402	2I020L001
VML2	dam/weir			MIL-STD-2402	2I020L001

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 4156 ID Code MBI020A4156
Description black solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	dam/weir			ORIGINAL	4156
FFD	dam/weir			ORIGINAL	4156
UVM	dam/weir			ORIGINAL	4156
VML2	dam/weir			ORIGINAL	4156

BI030 BI030

Point Full Chart ✓ Simplified Point

Symbol Number 2239 ID Code MBI030P2239
Description black open arrowhead

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	lock			MIL-STD-2402	2I030P004
FFD	lock			MIL-STD-2402	2I030P004
VITD	lock			MIL-STD-2402	2I030P004
VML0	lock			MIL-STD-2402	2I030P004
VML2	lock			MIL-STD-2402	2I030P004

Line Full Chart ✓ Simplified Line

Symbol Number 3194 ID Code MBI030L3194
Description nav orange very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	lock			MIL-STD-2402	2I030L001
VML1	lock			MIL-STD-2402	2I030L001

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MBI030A0600
Description black very thin solid line

Symbol Number 0810 ID Code MBI030A0810
Description depth med blue solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	lock			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)
FFD	lock			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)
UVM	lock			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)
VML2	lock			IHO S-52	LS(SOLD,1,CHBLK) + AC(DEPVS)

Refer to Appendix G for true symbol scale representations.

	Symbol Number 0623 ID Code MBI030A0623 Description dk gray thin solid line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0804 ID Code MBI030A0804 Description brown solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	lock			IHO S-52	LS(SOLD,2,CSTLN) + AC(CHBRN)

BI040 BI040

Point Full Chart ✓ Simplified Point

	Symbol Number 0025 ID Code MBI040P0025 Description traffic magenta lg cir, 2 horiz & 1 vert line	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sluice gate			IHO S-52	SY(GATCON04)
UVM	sluice gate			IHO S-52	SY(GATCON04)
VML0	sluice gate			IHO S-52	SY(GATCON04)
VML2	sluice gate			IHO S-52	SY(GATCON04)

Line Full Chart ✓ Simplified Line

	Symbol Number 0623 ID Code MBI040L0623 Description dk gray thin solid line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	sluice gate			IHO S-52	LS(SOLD,2,CSTLN)
DTOP	sluice gate			IHO S-52	LS(SOLD,2,CSTLN)
UVM	sluice gate			IHO S-52	LS(SOLD,2,CSTLN)
VML2	sluice gate			IHO S-52	LS(SOLD,2,CSTLN)

BI050 BI050

Point Full Chart ✓ Simplified Point

	Symbol Number 0024 ID Code MBI050P0024 Description black dot inside cir	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	water intake tower			MIL-STD-2402	2I050P001
UVM	water intake tower			MIL-STD-2402	2I050P001
VML1	water intake tower			MIL-STD-2402	2I050P001
VML2	water intake tower			MIL-STD-2402	2I050P001

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0600 ID Code MBI050A0600
Description black very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	water intake tower			MIL-STD-2402	2I050A001
UVM	water intake tower			MIL-STD-2402	2I050A001
VML2	water intake tower			MIL-STD-2402	2I050A001

BJ020 BJ020

Area Full Chart ✓ Simplified Area

Symbol Number 1406 ID Code MBJ020A1406
Description brown thin solid line

Symbol Number 4032 ID Code MBJ020A4032
Description brown stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	moraine			MIL-STD-2402	2J020A001*
VML1	moraine			MIL-STD-2402	2J020A001*
VML2	moraine			MIL-STD-2402	2J020A001*

BJ030 BJ030

Area Full Chart ✓ Simplified Area

Symbol Number 0823 ID Code MBJ030A0823
Description no data gray solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	glacier			IHO S-52	AC(NODTA)

Symbol Number 4150 ID Code MBJ030A4150
Description depth pale blue stiple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	glacier			MIL-STD-2402	2J030A001
VML1	glacier			MIL-STD-2402	2J030A001
VML2	glacier			MIL-STD-2402	2J030A001

Symbol Number 0656 ID Code MBJ030A0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0912 ID Code MBJ030A0912
Description gray random line patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	glacier			IHO S-52	LS(DASH,1,CHGRD) + AP(ICEARE04)

Refer to Appendix G for true symbol scale representations.

BJ040 BJ040

Line Full Chart ✓ Simplified Line

Symbol Number 3047 ID Code MBJ040L3047
Description basic blue thin long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ice cliff			MIL-STD-2402	2J040L001
VML0	ice cliff			MIL-STD-2402	2J040L001
VML1	ice cliff			MIL-STD-2402	2J040L001
VML2	ice cliff			MIL-STD-2402	2J040L001

BJ060 BJ060

Point Full Chart ✓ Simplified Point

Symbol Number 0077 ID Code MBJ060P0077
Description black radiating cones

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ice peak/nunatak			IHO S-52	SY(HILTOP11)

Symbol Number 2242 ID Code MBJ060P2242
Description black 8 pt asterisk w/ open center

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ice peak/nunatak			MIL-STD-2402	2J060P002
VML1	ice peak/nunatak			MIL-STD-2402	2J060P002
VML2	ice peak/nunatak			MIL-STD-2402	2J060P002

BJ065 BJ065

Area Full Chart ✓ Simplified Area

Symbol Number 0823 ID Code MBJ065A0823
Description no data gray solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ice shelf			IHO S-52	AC(NODTA)

Symbol Number 4151 ID Code MBJ065A4151
Description basic blue ripple jagged patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ice shelf			ORIGINAL	4151
VML0	ice shelf			ORIGINAL	4151
VML1	ice shelf			ORIGINAL	4151
VML2	ice shelf			ORIGINAL	4151

Refer to Appendix G for true symbol scale representations.

	Symbol Number 0656 ID Code MBJ065A0656 Description gray very thin dash line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0912 ID Code MBJ065A0912 Description gray random line patt fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ice shelf			IHO S-52	LS(DASH,1,CHGRD) + AP(ICEARE04)

BJ070 BJ070

Area Full Chart ✓ Simplified Area

	Symbol Number 4151 ID Code MBJ070A4151 Description basic blue ripple jagged patt fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	pack ice			ORIGINAL	4151
VML0	pack ice			ORIGINAL	4151
VML1	pack ice			ORIGINAL	4151
VML2	pack ice			ORIGINAL	4151

BJ080 BJ080

Area Full Chart ✓ Simplified Area

	Symbol Number 4289 ID Code MBJ080A4289 Description basic blue stipple dot patt fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	polar ice			ORIGINAL	4289
VML0	polar ice			ORIGINAL	4289
VML1	polar ice			ORIGINAL	4289
VML2	polar ice			ORIGINAL	4289

BJ100 BJ100

Area Full Chart ✓ Simplified Area

	Symbol Number 0823 ID Code MBJ100A0823 Description no data gray solid fill	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snow field/ice field			IHO S-52	AC(NODTA)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0656 ID Code MBJ100A0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0912 ID Code MBJ100A0912
Description gray random line patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	snow field/ice field			IHO S-52	LS(DASH,1,CHGRD) + AP(ICEARE04)

Symbol Number 4180 ID Code MBJ100A4180
Description depth pale blue very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	snow field/ice field			MIL-STD-2402	2J100A002
VML0	snow field/ice field			MIL-STD-2402	2J100A002
VML1	snow field/ice field			MIL-STD-2402	2J100A002
VML2	snow field/ice field			MIL-STD-2402	2J100A002

BJ110 BJ110

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MBJ110A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	tundra			IHO S-52	AC(LANDA)

Symbol Number 4066 ID Code MBJ110A4066
Description yellow-green variated stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	tundra			ORIGINAL	4066
VML0	tundra			ORIGINAL	4066
VML1	tundra			ORIGINAL	4066
VML2	tundra			ORIGINAL	4066

CA010 CA010

Line Full Chart ✓ Simplified Line

Symbol Number 0604 ID Code MCA010L0604
Description feature brown very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	contour line (land)			IHO S-52	LS(SOLD,1,LANDF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 1306 ID Code MCA010L1306
Description red brown very thin long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	contour line (land) - supplementaL	hqc=3or14		MIL-STD-2402	3A010L007
VML0	contour line (land) - supplementary approx., carrying, supplemental dep., form lines	hqc=4or13or19or20or21or22or23		MIL-STD-2402	3A010L007
VML2	contour line (land) - supplementary (1/4, 1/2, approx), form lines	hqc=3or4or13or14		MIL-STD-2402	3A010L007

Symbol Number 1307 ID Code MCA010L1307
Description red brown vy thin line w/ ticks on inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	contour line (land) - depression	hqc=5or6		MIL-STD-2402	3A010L005
UVM	contour line (land) - depression	hqc=5or6		MIL-STD-2402	3A010L005
VML0	contour line (land) - depression	hqc=6or18		MIL-STD-2402	3A010L005
VML2	contour line (land) - depression	hqc=5or6		MIL-STD-2402	3A010L005

Symbol Number 1855 ID Code MCA010L1855
Description red brown thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	contour line (land) - intermediate	hqc=2		MIL-STD-2402	3A010L002
UVM	contour line (land) - intermediate	hqc=0or2or12		MIL-STD-2402	3A010L002
VML0	contour line (land) - intermediate, unknown	hqc=0or2or12		MIL-STD-2402	3A010L002
VML2	contour line (land) - intermediate, unknown	hqc=0or2or9or12		MIL-STD-2402	3A010L002

Symbol Number 3026 ID Code MCA010L3026
Description red brown solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	contour line (land) - index, unknown	hqc=0or1		MIL-STD-2402	3A010L001
UVM	contour line (land) - index	hqc=1or7		MIL-STD-2402	3A010L001
VML1	contour line (land)			MIL-STD-2402	3A010L001
VML2	contour line (land) - index	hqc=1or7or8		MIL-STD-2402	3A010L001

CA030 CA030

Point Full Chart ✓ Simplified Point

○ Symbol Number 0078 ID Code MCA030P0078
Description black sm cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	spot elevation			IHO S-52	SY(POSGEN04)

Refer to Appendix G for true symbol scale representations.

●±

Symbol Number 1011 ID Code MCA030P1011
Description black sm filled cir beside +-

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	spot elevation - not accurate	ela<>1		MIL-STD-2402	3A030P006
FFD	spot elevation - not accurate	ela<>1		MIL-STD-2402	3A030P006
UVM	spot elevation - not accurate	ela<>1		MIL-STD-2402	3A030P006
VML0	spot elevation - not accurate	ela<>1		MIL-STD-2402	3A030P006
VML1	spot elevation - not accurate	ela<>1		MIL-STD-2402	3A030P006
VML2	spot elevation - not accurate	ela<>1		MIL-STD-2402	3A030P006

●

Symbol Number 2243 ID Code MCA030P2243
Description black sm filled cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	spot elevation - accurate	ela=1		MIL-STD-2402	3A030P001
FFD	spot elevation - accurate	ela=1		MIL-STD-2402	3A030P001
UVM	spot elevation - accurate	ela=1		MIL-STD-2402	3A030P001
VML0	spot elevation - accurate	ela=1		MIL-STD-2402	3A030P001
VML1	spot elevation - accurate	ela=1		MIL-STD-2402	3A030P001
VML2	spot elevation - accurate	ela=1		MIL-STD-2402	3A030P001

CA035 CA035

Point Full Chart ✓ Simplified Point

●

Symbol Number 2245 ID Code MCA035P2245
Description basic blue sm filled cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	inland water elevation			ORIGINAL	2245

DA005 DA005

Area Full Chart ✓ Simplified Area

Symbol Number 4124 ID Code MDA005A4124
Description depth gray land cover/ripple patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	asphalt lake			ORIGINAL	4124
UVM	asphalt lake			ORIGINAL	4124
VML1	asphalt lake			ORIGINAL	4124
VML2	asphalt lake			ORIGINAL	4124

Refer to Appendix G for true symbol scale representations.

DA010 DA010

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MDA010A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	ground surface element			IHO S-52	AC(LANDA)

Symbol Number 4003 ID Code MDA010A4003
Description beige solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	ground surface element - not rock, not lava, not sand	mcc<>8and<>52and<>46and<>84and<>88		MIL-STD-2402	4A010A001
VML0	ground surface element - not lava, not sand	mcc<>52and<>88		MIL-STD-2402	4A010A001
VML1	ground surface element - not rock, not lava, not sand	mcc<>8and<>52and<>88and<>46		MIL-STD-2402	4A010A001
VML2	ground surface element - not rock, not lava, not sand	mcc<>8and<>52and<>46and<>88		MIL-STD-2402	4A010A001

Symbol Number 4005 ID Code MDA010A4005
Description beige stiple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ground surface element - not rocky	smc<>84		MIL-STD-2402	4A010A003

Symbol Number 4034 ID Code MDA010A4034
Description brown heavy mixed stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	ground surface element - boulders, gravel, rock	mcc=46or84or8		MIL-STD-2402	4A010A002
VML1	ground surface element - boulders, gravel	mcc=46or8		MIL-STD-2402	4A010A002
VML2	ground surface element - boulders, gravel	mcc=46or8		MIL-STD-2402	4A010A002

Symbol Number 4108 ID Code MDA010A4108
Description lt gray land cover/ripple patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	ground surface element - lava	mcc=52		ORIGINAL	4108
VML0	ground surface element - lava	mcc=52		ORIGINAL	4108
VML1	ground surface element - lava	mcc=52		ORIGINAL	4108
VML2	ground surface element - lava	mcc=52		ORIGINAL	4108

Symbol Number 4248 ID Code MDA010A4248
Description lt gray stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	ground surface element - rocky	smc=84		MIL-STD-2402	4A010A002

Refer to Appendix G for true symbol scale representations.

Symbol Number 1851 ID Code MDA010A1851
Description beige thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	ground surface element - sands	stp=5or6or7or8or9		ORIGINAL	1851

Symbol Number 4220 ID Code MDA010A4220
Description med-beige thin solid line

Symbol Number 4005 ID Code MDA010A4005
Description beige stiple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	ground surface element - sand	mcc=88		MIL-STD-2402	4A010A003
VML0	ground surface element - sand	mcc=88		MIL-STD-2402	4A010A003
VML1	ground surface element - sand	mcc=88		MIL-STD-2402	4A010A003
VML2	ground surface element - sand	mcc=88		MIL-STD-2402	4A010A003

Symbol Number 4236 ID Code MDA010A4236
Description beige solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	ground surface element - silts, clays, evaporites, other	stp<>1and<>2and<>3and<>4and<>5and<>6and<>7and<>8and<>9		ORIGINAL	4236

Symbol Number 4259 ID Code MDA010A4259
Description beige thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	ground surface element - gravels	stp=1or2or3or4		ORIGINAL	4259

DA020 DA020

Area Full Chart ✓ Simplified Area

Symbol Number 4003 ID Code MDA020A4003
Description beige solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	barren ground			ORIGINAL	4003

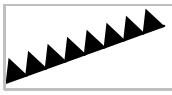
Symbol Number 4201 ID Code MDA020A4201
Description depth gray thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	barren ground			ORIGINAL	4201

Refer to Appendix G for true symbol scale representations.

DB010 DB010

Line Full Chart ✓ Simplified Line



Symbol Number 3146 ID Code MDB010L3146
Description black solid triangle line patt

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	bluff/cliff/escarpment			MIL-STD-2402	4B010L002
UVM	bluff/cliff/escarpment			MIL-STD-2402	4B010L002
VITD	bluff/cliff/escarpment			MIL-STD-2402	4B010L002
VML0	bluff/cliff/escarpment			MIL-STD-2402	4B010L002
VML1	bluff/cliff/escarpment			MIL-STD-2402	4B010L002
VML2	bluff/cliff/escarpment			MIL-STD-2402	4B010L002

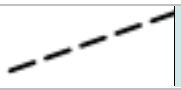
DB030 DB030

Point Full Chart ✓ Simplified Point

Symbol Number 2247 ID Code MDB030P2247
Description black diag line w/ "L" on top

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cave			MIL-STD-2402	4B030P001
UVM	cave			MIL-STD-2402	4B030P001
VML1	cave			MIL-STD-2402	4B030P001
VML2	cave			MIL-STD-2402	4B030P001

Area Full Chart ✓ Simplified Area



Symbol Number 3117 ID Code MDB030A3117
Description black thin dash line

Symbol Number 4249 ID Code MDB030A4249
Description black x patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	cave			ORIGINAL	3117 4249

DB060 DB060

Line Full Chart ✓ Simplified Line

Symbol Number 3024 ID Code MDB060L3024
Description red brown very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	crevice/crevasse			MIL-STD-2402	4B060L001
VML1	crevice/crevasse			MIL-STD-2402	4B060L001
VML2	crevice/crevasse			MIL-STD-2402	4B060L001

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 4030 ID Code MDB060A4030
Description brown left diag thin line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	crevice/crevasse			MIL-STD-2402	4B060A002
VML2	crevice/crevasse			MIL-STD-2402	4B060A002

DB070 DB070

Line Full Chart ✓ Simplified Line

Symbol Number 1308 ID Code MDB070L1308
Description black very thin line w/ ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cut			MIL-STD-2402	4B071L002
UVM	cut			MIL-STD-2402	4B071L002
VITD	cut			MIL-STD-2402	4B071L002
VML1	cut			MIL-STD-2402	4B071L002
VML2	cut			MIL-STD-2402	4B071L002

DB080 DB080

Line Full Chart ✓ Simplified Line

Symbol Number 1308 ID Code MDB080L1308
Description black very thin line w/ ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	depression			MIL-STD-2402	4B071L002
VML0	depression			MIL-STD-2402	4B071L002

Area Full Chart ✓ Simplified Area

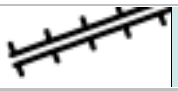
Symbol Number 1509 ID Code MDB080A1509
Description black thin solid line ticks on inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	depression			MIL-STD-2402	4B080A001

Refer to Appendix G for true symbol scale representations.

DB090 DB090

Line Full Chart ✓ Simplified Line



Symbol Number 1309 ID Code MDB090L1309
Description black double lines w/ ticks pointing out

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	embankment/fill			MIL-STD-2402	4B090L012
UVM	embankment/fill			MIL-STD-2402	4B090L012
VITD	embankment/fill			MIL-STD-2402	4B090L012
VML0	embankment/fill			MIL-STD-2402	4B090L012
VML1	embankment/fill			MIL-STD-2402	4B090L012
VML2	embankment/fill			MIL-STD-2402	4B090L012

Symbol Number 3082 ID Code MDB090L3082
Description gray very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	embankment/fill			IHO S-52	LS(SOLD,1,CHGRD)

Area Full Chart ✓ Simplified Area

Symbol Number 0913 ID Code MDB090A0913
Description feature brown solid filled circle patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	embankment/fill			ORIGINAL	0913

Symbol Number 1516 ID Code MDB090A1516
Description black thin line outward ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	embankment/fill			MIL-STD-2402	4B090A002
VML2	embankment/fill			MIL-STD-2402	4B090A002

DB100 DB100

Line Full Chart ✓ Simplified Line

Symbol Number 3003 ID Code MDB100L3003
Description tan very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	esker			MIL-STD-2402	4B100L001
VML1	esker			MIL-STD-2402	4B100L001
VML2	esker			MIL-STD-2402	4B100L001

Refer to Appendix G for true symbol scale representations.

DB110 DB110

Line Full Chart ✓ Simplified Line

Symbol Number 3014 ID Code MDB110L3014
Description brown solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	fault			MIL-STD-2402	4B110L001
UVM	fault			MIL-STD-2402	4B110L001
VML0	fault			MIL-STD-2402	4B110L001
VML1	fault			MIL-STD-2402	4B110L001
VML2	fault			MIL-STD-2402	4B110L001

DB115 DB115

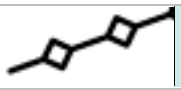
Point Full Chart ✓ Simplified Point

Symbol Number 2248 ID Code MDB115P2248
Description sm brown filled cir w/ tail below

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	geothermal feature			MIL-STD-2402	4B115P001
VML1	geothermal feature			MIL-STD-2402	4B115P001
VML2	geothermal feature			MIL-STD-2402	4B115P001

DB145 DB145

Line Full Chart ✓ Simplified Line



Symbol Number 1403 ID Code MDB145L1403
Description black line w/ open diamonds

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	miscellaneous obstacle			MIL-STD-2402	4B145L001

Area Full Chart ✓ Simplified Area

Symbol Number 3112 ID Code MDB145A3112
Description black thin solid line

Symbol Number 4249 ID Code MDB145A4249
Description black x patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	miscellaneous obstacle			MIL-STD-2402	4B145A001*

Refer to Appendix G for true symbol scale representations.

DB150 DB150

Point Full Chart ✓ Simplified Point

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Symbol Number 2249 ID Code MDB150P2249
Description black)(symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	mountain pass			MIL-STD-2402	4B150P001
VML1	mountain pass			MIL-STD-2402	4B150P001
VML2	mountain pass			MIL-STD-2402	4B150P001

DB160 DB160

Point Full Chart ✓ Simplified Point

Symbol Number 2250 ID Code MDB160P2250
Description brown 6 pt asterisk w/ open center

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	rock strata/rock formation			MIL-STD-2402	4B160P001
VML1	rock strata/rock formation			MIL-STD-2402	4B160P001
VML2	rock strata/rock formation			MIL-STD-2402	4B160P001

Line Full Chart ✓ Simplified Line

Symbol Number 3017 ID Code MDB160L3017
Description brown thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	rock strata/rock formation			ORIGINAL	3017

Area Full Chart ✓ Simplified Area

Symbol Number 4028 ID Code MDB160A4028
Description brown horizontal lines patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	rock strata/rock formation			ORIGINAL	4028
VML2	rock strata/rock formation			ORIGINAL	4028

DB170 DB170

Area Full Chart ✓ Simplified Area

Symbol Number 0913 ID Code MDB170A0913
Description feature brown solid filled circle patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	sand dune/sand hills			MIL-STD-2402	4B170A009

Refer to Appendix G for true symbol scale representations.

Symbol Number 4008 ID Code MDB170A4008
Description beige sand dune default

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sand dune/sand hills - unknown	ssc=0		MIL-STD-2402	4B170A003
UVM	sand dune/sand hills - unknown	ssc=0		MIL-STD-2402	4B170A003
VML1	sand dune/sand hills - unknown	ssc=0		MIL-STD-2402	4B170A003
VML2	sand dune/sand hills - unknown	ssc=0		MIL-STD-2402	4B170A003

Symbol Number 4009 ID Code MDB170A4009
Description beige sand dune crescent

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sand dune/sand hills - crescent	ssc=22		MIL-STD-2402	4B170A008
UVM	sand dune/sand hills - crescent	ssc=22		MIL-STD-2402	4B170A008
VML1	sand dune/sand hills - crescent	ssc=22		MIL-STD-2402	4B170A008
VML2	sand dune/sand hills - crescent	ssc=22		MIL-STD-2402	4B170A008

Symbol Number 4010 ID Code MDB170A4010
Description beige sand dune lateral

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sand dune/sand hills - lateral	ssc=26		MIL-STD-2402	4B170A001
UVM	sand dune/sand hills - lateral	ssc=26		MIL-STD-2402	4B170A001
VML1	sand dune/sand hills - lateral	ssc=26		MIL-STD-2402	4B170A001
VML2	sand dune/sand hills - lateral	ssc=26		MIL-STD-2402	4B170A001

Symbol Number 4011 ID Code MDB170A4011
Description beige sand dune mound

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sand dune/sand hills - mounds	ssc=27		MIL-STD-2402	4B170A006
UVM	sand dune/sand hills - mounds	ssc=27		MIL-STD-2402	4B170A006
VML1	sand dune/sand hills - mounds	ssc=27		MIL-STD-2402	4B170A006
VML2	sand dune/sand hills - mounds	ssc=27		MIL-STD-2402	4B170A006

Symbol Number 4012 ID Code MDB170A4012
Description beige sand dune ripple

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sand dune/sand hills - ripple	ssc=28		MIL-STD-2402	4B170A004
UVM	sand dune/sand hills - ripple	ssc=28		MIL-STD-2402	4B170A004
VML1	sand dune/sand hills - ripple	ssc=28		MIL-STD-2402	4B170A004
VML2	sand dune/sand hills - ripple	ssc=28		MIL-STD-2402	4B170A004

Symbol Number 4013 ID Code MDB170A4013
Description beige sand dune star

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sand dune/sand hills - star	ssc=29		MIL-STD-2402	4B170A005
UVM	sand dune/sand hills - star	ssc=29		MIL-STD-2402	4B170A005
VML1	sand dune/sand hills - star	ssc=29		MIL-STD-2402	4B170A005
VML2	sand dune/sand hills - star	ssc=29		MIL-STD-2402	4B170A005

Refer to Appendix G for true symbol scale representations.

Symbol Number 4014 ID Code MDB170A4014
Description beige sand dune transverse

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	sand dune/sand hills - transverse	ssc=30		MIL-STD-2402	4B170A007
UVM	sand dune/sand hills - transverse	ssc=30		MIL-STD-2402	4B170A007
VML1	sand dune/sand hills - transverse	ssc=30		MIL-STD-2402	4B170A007
VML2	sand dune/sand hills - transverse	ssc=30		MIL-STD-2402	4B170A007

DB180 DB180

Point Full Chart ✓ Simplified Point

Symbol Number 2251 ID Code MDB180P2251
Description sm brown open cir w/ eight tics outside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	volcano			MIL-STD-2402	4B180P001
VML2	volcano			MIL-STD-2402	4B180P001

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MDB180A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	volcano			IHO S-52	AC(LANDA)

DB190 DB190

Line Full Chart ✓ Simplified Line

Symbol Number 3112 ID Code MDB190L3112
Description black thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	volcanic dike			MIL-STD-2402	4B190L001

Symbol Number 3168 ID Code MDB190L3168
Description outline lt brown thin dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	volcanic dike			ORIGINAL	3168

DB200 DB200

Line Full Chart ✓ Simplified Line

Symbol Number 1406 ID Code MDB200L1406
Description brown thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	gully/gorge			ORIGINAL	1406

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 4027 ID Code MDB200A4027
Description brown wide left diag patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	gully/gorge			ORIGINAL	4027

Symbol Number 1406 ID Code MDB200A1406
Description brown thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	gully/gorge			ORIGINAL	1406

EA010 EA010

Area Full Chart ✓ Simplified Area

Symbol Number 4067 ID Code MEA010A4067
Description yellow-green dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cropland			MIL-STD-2402	5A010A003
UVM	cropland			MIL-STD-2402	5A010A003
VML0	cropland			MIL-STD-2402	5A010A003
VML1	cropland			MIL-STD-2402	5A010A003
VML2	cropland			MIL-STD-2402	5A010A003

Symbol Number 1412 ID Code MEA010A1412
Description yellow green thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	cropland			ORIGINAL	1412

EA020 EA020

Line Full Chart ✓ Simplified Line

Symbol Number 3036 ID Code MEA020L3036
Description very dk green thin line w/rectangles one side

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	hedgerow			MIL-STD-2402	5A020L001
UVM	hedgerow			MIL-STD-2402	5A020L001
VITD	hedgerow			MIL-STD-2402	5A020L001
VML0	hedgerow			MIL-STD-2402	5A020L001
VML2	hedgerow			MIL-STD-2402	5A020L001

Refer to Appendix G for true symbol scale representations.

EA030 EA030

Area Full Chart ✓ Simplified Area

Symbol Number 0914 ID Code MEA030A0914
Description feature brown cirs patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	nursery			ORIGINAL	0914

Symbol Number 4230 ID Code MEA030A4230
Description yellow-green squares in grid patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	nursery			MIL-STD-2402	5A030A001
UVM	nursery			MIL-STD-2402	5A030A001
VML0	nursery			MIL-STD-2402	5A030A001
VML2	nursery			MIL-STD-2402	5A030A001

EA040 EA040

Area Full Chart ✓ Simplified Area

Symbol Number 4051 ID Code MEA040A4051
Description very dk green squares in grid patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	orchard/plantation			MIL-STD-2402	5A040A005
FFD	orchard/plantation			MIL-STD-2402	5A040A005
UVM	orchard/plantation			MIL-STD-2402	5A040A005
VML0	orchard/plantation			MIL-STD-2402	5A040A005
VML1	orchard/plantation			MIL-STD-2402	5A040A005
VML2	orchard/plantation			MIL-STD-2402	5A040A005

Symbol Number 0624 ID Code MEA040A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0915 ID Code MEA040A0915
Description feature brown tree side-view patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	orchard/plantation			IHO S-52	LS(DASH,1,LANDF) + AP(VEGATN03)

Symbol Number 4178 ID Code MEA040A4178
Description very dk green very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	orchard/plantation			ORIGINAL	4178

Refer to Appendix G for true symbol scale representations.

EA050 EA050

Area Full Chart ✓ Simplified Area

Symbol Number 4054 ID Code MEA050A4054
Description very dk green offset grid/dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	vineyards			MIL-STD-2402	5A050A001
UVM	vineyards			MIL-STD-2402	5A050A001
VML0	vineyards			MIL-STD-2402	5A050A001
VML1	vineyards			MIL-STD-2402	5A050A001
VML2	vineyards			MIL-STD-2402	5A050A001

Symbol Number 0624 ID Code MEA050A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0915 ID Code MEA050A0915
Description feature brown tree side-view patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	vineyards			IHO S-52	LS(DASH,1,LANDF) + AP(VEGATN03)

Symbol Number 4178 ID Code MEA050A4178
Description very dk green very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	vineyards			ORIGINAL	4178

EA055 EA055

Area Full Chart ✓ Simplified Area

Symbol Number 4054 ID Code MEA055A4054
Description very dk green offset grid/dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	hops			MIL-STD-2402	5A050A001

EB010 EB010

Area Full Chart ✓ Simplified Area

Symbol Number 4068 ID Code MEB010A4068
Description yellow-green grass patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	grassland			MIL-STD-2402	5B010A001
UVM	grassland			MIL-STD-2402	5B010A001
VML0	grassland			MIL-STD-2402	5B010A001
VML1	grassland			MIL-STD-2402	5B010A001
VML2	grassland			MIL-STD-2402	5B010A001

Refer to Appendix G for true symbol scale representations.

Symbol Number 4178 ID Code MEB010A4178
Description very dk green very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	grassland			ORIGINAL	4178

EB020 EB020

Area Full Chart ✓ Simplified Area

Symbol Number 4063 ID Code MEB020A4063
Description yellow-green stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	scrub/brush			MIL-STD-2402	5B020A001
UVM	scrub/brush			MIL-STD-2402	5B020A001
VML0	scrub/brush			MIL-STD-2402	5B020A001
VML2	scrub/brush			MIL-STD-2402	5B020A001

Symbol Number 1412 ID Code MEB020A1412
Description yellow green thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	scrub/brush			ORIGINAL	1412

EC010 EC010

Area Full Chart ✓ Simplified Area

Symbol Number 4052 ID Code MEC010A4052
Description green bamboo patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	bamboo/cane			MIL-STD-2402	5C010A001
UVM	bamboo/cane			MIL-STD-2402	5C010A001
VML0	bamboo/cane			MIL-STD-2402	5C010A001
VML2	bamboo/cane			MIL-STD-2402	5C010A001

Symbol Number 4178 ID Code MEC010A4178
Description very dk green very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	bamboo/cane			ORIGINAL	4178

Refer to Appendix G for true symbol scale representations.

EC020 EC020

Point — Full Chart — ✓ Simplified — Point

Symbol Number 2252 ID Code MEC020P2252
Description green palm tree symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	oasis			MIL-STD-2402	5C020P002
VML1	oasis			MIL-STD-2402	5C020P002
VML2	oasis			MIL-STD-2402	5C020P002

Area — Full Chart — ✓ Simplified — Area

Symbol Number 4170 ID Code MEC020A4170
Description lt blue mixed stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	oasis			ORIGINAL	4170
VML0	oasis			ORIGINAL	4170
VML2	oasis			ORIGINAL	4170

EC030 EC030

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0079 ID Code MEC030P0079
Description feature brown side view of stylised tree

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	trees			IHO S-52	SY(TREPNT04)

Symbol Number 2253 ID Code MEC030P2253
Description green triangle tree symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML2	trees			MIL-STD-2402	5C030P001

Line — Full Chart — ✓ Simplified — Line

Symbol Number 3031 ID Code MEC030L3031
Description very dk green thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	trees			MIL-STD-2402	5C030L001

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0822 ID Code MEC030A0822
Description lt brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	trees - clearing	veg=52		ORIGINAL	0822

Refer to Appendix G for true symbol scale representations.

Symbol Number 1605 ID Code MEC030A1605
Description yellow-green tree-top patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	trees - deciduous, unknown	veg=0or24		MIL-STD-2402	5C030A015
FFD	trees - deciduous, unknown	tre=0or1		MIL-STD-2402	5C030A015
UVM	trees - deciduous, mixed, unknown	tre=0or1or3		MIL-STD-2402	5C030A015
VML0	trees - unknown, deciduous, mixed, other	veg=0or24or50or999		MIL-STD-2402	5C030A015
VML1	trees - unknown, deciduous, mixed, other	veg=0or24or50or999		MIL-STD-2402	5C030A015
VML2	trees - unknown, deciduous, mixed, other	veg=0or24or50or999		MIL-STD-2402	5C030A015

Symbol Number 1606 ID Code MEC030A1606
Description yellow-green triangle tree patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	trees - evergreen, mixed	veg=25or50		MIL-STD-2402	5C030A002
FFD	trees - evergreen, mixed	tre=2or3		MIL-STD-2402	5C030A002
UVM	trees - evergreen	tre=2		MIL-STD-2402	5C030A002
VML0	trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress	veg=11or12or17or18or25or29or38		MIL-STD-2402	5C030A002
VML1	trees - casuarina, coniferous, palm, filao, eucalyptus, cypress	veg=11or12or17or18or29or38		MIL-STD-2402	5C030A002
VML2	trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress	veg=11or12or17or18or25or29or38		MIL-STD-2402	5C030A002

Symbol Number 0624 ID Code MEC030A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0915 ID Code MEC030A0915
Description feature brown tree side-view patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	trees - not mangrove	veg<>19		IHO S-52	LS(DASH,1,LANDF) + AP(VEGATN03)

Symbol Number 0624 ID Code MEC030A0624
Description feature brown very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0916 ID Code MEC030A0916
Description feature brown mangrove side-view patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	trees - mangrove	veg=19		IHO S-52	LS(DASH,1,LANDF) + AP(VEGATN04)

Symbol Number 1412 ID Code MEC030A1412
Description yellow green thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	trees			ORIGINAL	1412

Refer to Appendix G for true symbol scale representations.

Symbol Number 1655 ID Code MEC030A1655
Description basic blue thin dash line

Symbol Number 1613 ID Code MEC030A1613
Description yellow-green nipa patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	trees - nipa palm, mangrove	veg=16or19		MIL-STD-2402	5C030A029
VML1	trees - nipa palm, mangrove	veg=16or19		MIL-STD-2402	5C030A029
VML2	trees - nipa palm, mangrove	veg=16or19		MIL-STD-2402	5C030A029

EC040 EC040

Line Full Chart ✓ Simplified Line

Symbol Number 3076 ID Code MEC040L3076
Description lt gray thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	cleared way/cut line/firebreak			MIL-STD-2402	5C015L001
VML0	cleared way/cut line/firebreak			MIL-STD-2402	5C015L001
VML1	cleared way/cut line/firebreak			MIL-STD-2402	5C015L001
VML2	cleared way/cut line/firebreak			MIL-STD-2402	5C015L001

EE000 EE000

Area Full Chart ✓ Simplified Area

Symbol Number 4063 ID Code MEE000A4063
Description yellow-green stipple dot patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	miscellaneous vegetation			MIL-STD-2402	5B020A001

FA000 FA000

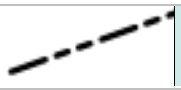
Line Full Chart ✓ Simplified Line

Symbol Number 0680 ID Code MFA000L0680
Description black thin dotted line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	administrative boundary - insular	use=32		MIL-STD-2402	6A000L005

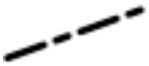
Refer to Appendix G for true symbol scale representations.



Symbol Number 1310 ID Code MFA000L1310
Description black one long dash two short dash line

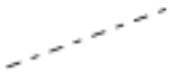
(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	administrative boundary - international	use=23		MIL-STD-2402	6A000L002
DTOP	administrative boundary - international	use=23		MIL-STD-2402	6A000L008
FFD	administrative boundary - international	use=23		MIL-STD-2402	6A000L008
UVM	administrative boundary - international	use=23		MIL-STD-2402	6A000L008
VML0	administrative boundary - international	use=23		MIL-STD-2402	6A000L008
VML1	administrative boundary - international	use=4or23		MIL-STD-2402	6A000L008
VML2	administrative boundary - international	use=23		MIL-STD-2402	6A000L008
WVS coc	administrative boundary - national, international	use=4or23		MIL-STD-2402	6A000L008



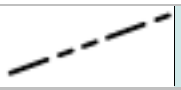
Symbol Number 1311 ID Code MFA000L1311
Description black long dash short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	administrative boundary - primary, unknown	use=0or26		MIL-STD-2402	6A000L002
FFD	administrative boundary - primary, unknown	use=0or26		MIL-STD-2402	6A000L002
UVM	administrative boundary - primary, unknown, other	use=0or26or999		MIL-STD-2402	6A000L002
VML0	administrative boundary - primary	use=26		MIL-STD-2402	6A000L002
VML1	administrative boundary - primary, unknown	use=0or26		MIL-STD-2402	6A000L002
VML2	administrative boundary - primary, unknown	use=0or26		MIL-STD-2402	6A000L002
WVS coc	administrative boundary - primary, unknown	use=0or26		MIL-STD-2402	6A000L002



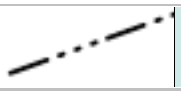
Symbol Number 1312 ID Code MFA000L1312
Description black very thin sht dash very sht dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	administrative boundary - city	use=16		MIL-STD-2402	6A000L002



Symbol Number 1318 ID Code MFA000L1318
Description black thin long dsh 2 shrt dsh line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	administrative boundary - secondary	use=30		MIL-STD-2402	6A000L003
WVS coc	administrative boundary - secondary	use=30		MIL-STD-2402	6A000L003



Symbol Number 1319 ID Code MFA000L1319
Description black thin long dash 3 dot line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	administrative boundary - tertiary	use=31		MIL-STD-2402	6A000L010
WVS coc	administrative boundary - tertiary	use=31		MIL-STD-2402	6A000L010

Refer to Appendix G for true symbol scale representations.

Symbol Number 1408 ID Code MFA000L1408
Description basic green vy thin long dash short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
WVS mab	administrative boundary			ORIGINAL	1408

FA001 FA001

Point Full Chart ✓ Simplified Point

Symbol Number 2256 ID Code MFA001P2256
Description black/white divided square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	administrative area			ORIGINAL	2256

Area Full Chart ✓ Simplified Area

Symbol Number 0633 ID Code MFA001A0633
Description lt gray thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	administrative area			IHO S-52	LS(DASH,2,CHGRF)
UVM	administrative area			IHO S-52	LS(DASH,2,CHGRF)
VML0	administrative area			IHO S-52	LS(DASH,2,CHGRF)
VML1	administrative area			IHO S-52	LS(DASH,2,CHGRF)
VML2	administrative area			IHO S-52	LS(DASH,2,CHGRF)
WVS	administrative area			IHO S-52	LS(DASH,2,CHGRF)

FA015 FA015

Point Full Chart ✓ Simplified Point

Symbol Number 2257 ID Code MFA015P2257
Description magenta square w/ F

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	firing range/gunnery range			ORIGINAL	2257

Line Full Chart ✓ Simplified Line

Symbol Number 3054 ID Code MFA015L3054
Description lt magenta very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	firing range/gunnery range			ORIGINAL	3054

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 4185 ID Code MFA015A4185
Description magenta thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	firing range/gunnery range			MIL-STD-2402	1H045A001

FA020 FA020

Line Full Chart ✓ Simplified Line

Symbol Number 3119 ID Code MFA020L3119
Description black very thin long dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	armistice line			MIL-STD-2402	6A020L001
DTOP	armistice line			MIL-STD-2402	6A020L001
FFD	armistice line			MIL-STD-2402	6A020L001
UVM	armistice line			MIL-STD-2402	6A020L001
VML0	armistice line			MIL-STD-2402	6A020L001
VML1	armistice line			MIL-STD-2402	6A020L001
VML2	armistice line			MIL-STD-2402	6A020L001
WVS	armistice line			MIL-STD-2402	6A020L001

FA030 FA030

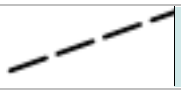
Line Full Chart ✓ Simplified Line

Symbol Number 3119 ID Code MFA030L3119
Description black very thin long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	cease-fire line			MIL-STD-2402	6A030L001
FFD	cease-fire line			MIL-STD-2402	6A030L001
VML0	cease-fire line			MIL-STD-2402	6A030L001
VML1	cease-fire line			MIL-STD-2402	6A030L001
VML2	cease-fire line			MIL-STD-2402	6A030L001
WVS	cease-fire line			MIL-STD-2402	6A030L001

FA040 FA040

Line Full Chart ✓ Simplified Line



Symbol Number 3120 ID Code MFA040L3120
Description black thin long dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	claim line			MIL-STD-2402	6A040L001
VML0	claim line			MIL-STD-2402	6A040L001
WVS	claim line			MIL-STD-2402	6A040L001

Refer to Appendix G for true symbol scale representations.

FA050 FA050

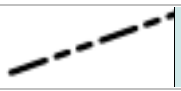
Line Full Chart ✓ Simplified Line

Symbol Number 3118 ID Code MFA050L3118
Description black dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	mandate line/convention line			ORIGINAL	3118
VML1	mandate line/convention line			ORIGINAL	3118
WVS	mandate line/convention line			ORIGINAL	3118

FA060 FA060

Line Full Chart ✓ Simplified Line



Symbol Number 1310 ID Code MFA060L1310
Description black one long dash two short dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	defacto boundary			MIL-STD-2402	6A060L002*
DTOP	defacto boundary			MIL-STD-2402	6A060L002*
VML0	defacto boundary			MIL-STD-2402	6A060L002*
VML1	defacto boundary			MIL-STD-2402	6A060L002*
VML2	defacto boundary			MIL-STD-2402	6A060L002*
WVS	defacto boundary			MIL-STD-2402	6A060L002*

FA070 FA070

Line Full Chart ✓ Simplified Line

Symbol Number 3143 ID Code MFA070L3143
Description black double dash very thin lines

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
WVS	demilitarized zone	mbl=6		MIL-STD-2402	6A070A001

Area Full Chart ✓ Simplified Area

Symbol Number 3143 ID Code MFA070A3143
Description black double dash very thin lines

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	demilitarized zone			MIL-STD-2402	6A070A001
UVM	demilitarized zone			MIL-STD-2402	6A070A001
VML0	demilitarized zone			MIL-STD-2402	6A070A001
VML1	demilitarized zone			MIL-STD-2402	6A070A001
VML2	demilitarized zone			MIL-STD-2402	6A070A001

Refer to Appendix G for true symbol scale representations.

FA090 FA090

Line Full Chart ✓ Simplified Line

Symbol Number 0612 ID Code MFA090L0612
Description lt gray very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	geophysical prospecting grid			MIL-STD-2402	1L085L001
VML1	geophysical prospecting grid			MIL-STD-2402	1L085L001
VML2	geophysical prospecting grid			MIL-STD-2402	1L085L001

FA110 FA110

Line Full Chart ✓ Simplified Line

Symbol Number 3119 ID Code MFA110L3119
Description black very thin long dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	international date line			MIL-STD-2402	6A110L001
DTOP	international date line			MIL-STD-2402	6A110L001
VML0	international date line			MIL-STD-2402	6A110L001
VML1	international date line			MIL-STD-2402	6A110L001
VML2	international date line			MIL-STD-2402	6A110L001

FA170 FA170

Area Full Chart ✓ Simplified Area

Symbol Number 3118 ID Code MFA170A3118
Description black dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	zone of occupation			MIL-STD-2402	6A170A001
VML0	zone of occupation			MIL-STD-2402	6A170A001
VML1	zone of occupation			MIL-STD-2402	6A170A001
VML2	zone of occupation			MIL-STD-2402	6A170A001

FC021 FC021

Point Full Chart ✓ Simplified Point

Symbol Number 0080 ID Code MFC021P0080
Description magenta solid filled diamond inside cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - pilot boarding	mac=48		IHO S-52	SY(PILBOP02)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0084 ID Code MFC021P0084
Description magenta cir w/ ! Inside

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - not pilot boarding	mac<>48		IHO S-52	SY(CHINFO06)

Line Full Chart ✓ Simplified Line

Symbol Number 0629 ID Code MFC021L0629
Description gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - fish traps	mac=56 AND mbl=NULL		IHO S-52	LS(DASH,2,CHGRD)
✓ DNC	maritime limit boundary - not clearing line	mbl<>7and<>13 AND mac=NULL		IHO S-52	LS(DASH,2,CHGRD)

Symbol Number 0631 ID Code MFC021L0631
Description gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - unsurveyed	mac=26 AND mbl=NULL		IHO S-52	LS(SOLD,2,CHGRD)

Symbol Number 0633 ID Code MFC021L0633
Description lt gray thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - marine farm	mac=57 AND mbl=NULL		IHO S-52	LS(DASH,2,CHGRF)
TOD0	maritime limit boundary - limit of territorial waters	mbl=6		IHO S-52	LS(DASH,2,CHGRF)
TOD0	maritime limit boundary - other	mbl<>6		IHO S-52	LS(DASH,2,CHGRF)
WVS	maritime limit boundary - territorial waters limits	mbl=6		IHO S-52	LS(DASH,2,CHGRF)

Symbol Number 0634 ID Code MFC021L0634
Description magenta very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - dumping, explosive dumping	mac=30or35 AND mbl=NULL		IHO S-52	LS(DASH,1,CHMGD)
✓ DNC	maritime limit boundary - spoil	mac=25 AND mbl=NULL		IHO S-52	LS(DASH,1,CHMGD)

Symbol Number 0635 ID Code MFC021L0635
Description lt magenta very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - cargo Xshipment	mac=49 AND mbl=NULL		IHO S-52	LS(DASH,1,CHMGF)
✓ DNC	maritime limit boundary - incineration	mac=31 AND mbl=NULL		IHO S-52	LS(DASH,1,CHMGF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0656 ID Code MFC021L0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - clearing line	mbl=13 AND mac=NULL		IHO S-52	LS(DASH,1,CHGRD)
✓ DNC	maritime limit boundary - fairway	mac=55 AND mbl=NULL		IHO S-52	LS(DASH,1,CHGRD)

Symbol Number 0663 ID Code MFC021L0663
Description traffic magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - precautionary	mac=42 AND mbl=NULL		IHO S-52	LS(DASH,2,TRFCD)
✓ DNC	maritime limit boundary - unknown, other	mac=0or999 AND mbl=NULL		IHO S-52	LS(DASH,2,TRFCD)

Symbol Number 1451 ID Code MFC021L1451
Description purple dash line w/ tics both sides (- + -)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	maritime limit boundary - international (at sea)	mbl=9		MIL-STD-2402	6A050L002
WVS	maritime limit boundary - international (at sea)	mbl=9		MIL-STD-2402	6A050L002

Symbol Number 1651 ID Code MFC021L1651
Description traffic lt magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - pilot boarding	mac=48 AND mbl=NULL		IHO S-52	LS(DASH,2,TRFCF)

Symbol Number 3054 ID Code MFC021L3054
Description lt magenta very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	maritime limit boundary - unknown	mbl=0		MIL-STD-2402	6C090L001*
WVS	maritime limit boundary - other territorial baseline	mbl=999		MIL-STD-2402	6C090L001*

Symbol Number 3077 ID Code MFC021L3077
Description lt gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - territorial waters baseline	mbl=7 AND mac=NULL		IHO S-52	LS(DASH,1,CHGRF)
WVS	maritime limit boundary - territorial waters baseline	mbl=7		IHO S-52	LS(DASH,1,CHGRF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 4186 ID Code MFC021L4186
Description magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - deguassing	mac=44 AND mbl=NULL		IHO S-52	LS(DASH,2,CHMGD)
✓ DNC	maritime limit boundary - dredging	mac=58 AND mbl=NULL		IHO S-52	LS(DASH,2,CHMGD)
✓ DNC	maritime limit boundary - oil field, gas field	mac=32or33 AND mbl=NULL		IHO S-52	LS(DASH,2,CHMGD)
✓ DNC	maritime limit boundary - submarine exercise, mine laying, firing range	mac=27or28or29 AND mbl=NULL		IHO S-52	LS(DASH,2,CHMGD)
✓ DNC	maritime limit boundary - turning area	mac=24 AND mbl=NULL		IHO S-52	LS(DASH,2,CHMGD)

Area Full Chart ✓ Simplified Area

Symbol Number 0823 ID Code MFC021A0823
Description no data gray solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - unsurveyed	mac=26		IHO S-52	AC(NODTA)

Symbol Number 0933 ID Code MFC021A0933
Description gray offset dash patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - unsurveyed	mac=26		IHO S-52	AP(NODATA03)

Symbol Number 0631 ID Code MFC021A0631
Description gray thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - unsurveyed	mac=26		IHO S-52	LS(SOLD,2,CHGRD)

Symbol Number 0716 ID Code MFC021A0716
Description gray dash/chevron line

Symbol Number 0634 ID Code MFC021A0634
Description magenta very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - spoil	mac=25		IHO S-52	LC(NAVARE51)

Symbol Number 0716 ID Code MFC021A0716
Description gray dash/chevron line

Symbol Number 0656 ID Code MFC021A0656
Description gray very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - fairway	mac=55		IHO S-52	LC(NAVARE51)

Symbol Number 0716 ID Code MFC021A0716
Description gray dash/chevron line

Symbol Number 0656 ID Code MFC021A0656
Description gray very thin dash line

Symbol Number 0904 ID Code MFC021A0904
Description gray fish in net patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - marine farm	mac=57		IHO S-52	LC(NAVARE51) + AP(MARCUL02)

Refer to Appendix G for true symbol scale representations.

	Symbol Number 0047 ID Code MFC021A0047 Description gray rectangle w/ angle line on top	
	Symbol Number 0716 ID Code MFC021A0716 Description gray dash/chevron line	Symbol Number 0656 ID Code MFC021A0656 Description gray very thin dash line
	Symbol Number ID Code Description	Symbol Number 0903 ID Code MFC021A0903 Description gray fish trap patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - fish traps	mac=56		IHO S-52	SY(FSHFAC02) + LC(NAVARE51)

	Symbol Number 0080 ID Code MFC021A0080 Description magenta solid filled diamond inside cir	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0734 ID Code MFC021A0734 Description magenta dash/chevron line	Symbol Number 1651 ID Code MFC021A1651 Description traffic lt magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - pilot boarding	mac=48		IHO S-52	SY(PILBOP02) + LC(CTYARE51)

	Symbol Number 0081 ID Code MFC021A0081 Description lt magenta square w/ I	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0734 ID Code MFC021A0734 Description magenta dash/chevron line	Symbol Number 0634 ID Code MFC021A0634 Description magenta very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - dumping, explosive dumping	mac=30or35		IHO S-52	SY(INFARE51) + LC(CTYARE51)

	Symbol Number 0081 ID Code MFC021A0081 Description lt magenta square w/ I	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0734 ID Code MFC021A0734 Description magenta dash/chevron line	Symbol Number 0635 ID Code MFC021A0635 Description lt magenta very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - cargo Xshipment	mac=49		IHO S-52	SY(INFARE51) + LC(CTYARE51)
✓ DNC	maritime limit boundary - incineration	mac=31		IHO S-52	SY(INFARE51) + LC(CTYARE51)

	Symbol Number 0092 ID Code MFC021A0092 Description traffic lt magenta ! Inside triangle	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0738 ID Code MFC021A0738 Description magenta dash/chev line w/precaution symbol	Symbol Number 0663 ID Code MFC021A0663 Description traffic magenta thin dash line
	Symbol Number 0917 ID Code MFC021A0917 Description traffic lt magenta rt diag line patt fill	

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - precautionary	mac=42		IHO S-52	SY(PRCARE51) + LC(PRCARE51) + AP(TSSJCT02)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0093 ID Code MFC021A0093
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MFC021A0734
Description magenta dash/chevron line

Symbol Number 4186 ID Code MFC021A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - deguassing	mac=44		IHO S-52	SY(CTYARE51) + LC(CTYARE51)
✓ DNC	maritime limit boundary - dredging area	mac=58		IHO S-52	SY(CTYARE51) + LC(CTYARE51)
✓ DNC	maritime limit boundary - oil field, gas field	mac=32or33		IHO S-52	SY(CTYARE51) + LC(CTYARE51)
✓ DNC	maritime limit boundary - submarine exercise, mine laying, firing range	mac=27or28or29		IHO S-52	SY(CTYARE51) + LC(CTYARE51)
✓ DNC	maritime limit boundary - turning area	mac=24		IHO S-52	SY(CTYARE51) + LC(CTYARE51)

Symbol Number 0097 ID Code MFC021A0097
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0742 ID Code MFC021A0742
Description magenta dash/chevron line w/caution symbol

Symbol Number 0663 ID Code MFC021A0663
Description traffic magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime limit boundary - unknown, other	mac=0or999		IHO S-52	SY(CTNARE51) + LC(CTNARE51)

FC031 FC031

Point Full Chart ✓ Simplified Point

Symbol Number 0082 ID Code MFC031P0082
Description traffic lt magenta cir w/ bar

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - entry prohibited	mac=5		IHO S-52	SY(ENTRES51)

Symbol Number 0083 ID Code MFC031P0083
Description traffic lt magenta arc w/ arrowhead

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - roundabout zone (TSS)	mac=40		IHO S-52	SY(TSSRON51)

Symbol Number 0084 ID Code MFC031P0084
Description magenta cir w/ ! Inside

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - unknown	mac=0		IHO S-52	SY(CHINFO06)

Symbol Number 0087 ID Code MFC031P0087
Description traffic lt magenta ! In lg cir w/ magenta ?

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged area	mac=2		IHO S-52	SY(RSRDEF51)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0093 ID Code MFC031P0093
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - mine danger area	mac=4		IHO S-52	SY(CTYARE51)

Line Full Chart ✓ Simplified Line

Symbol Number 0663 ID Code MFC031L0663
Description traffic magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - unknown, work in progress	mac=0or9		IHO S-52	LS(DASH,2,TRFCD)

Symbol Number 0665 ID Code MFC031L0665
Description traffic magenta thick dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - TSS	mac=40or41		IHO S-52	LS(DASH,4,TRFCD)

Symbol Number 3077 ID Code MFC031L3077
Description lt gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel	mac=2		IHO S-52	LS(DASH,1,CHGRF)

Symbol Number 4186 ID Code MFC031L4186
Description magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - entry prohibited	mac=5		IHO S-52	LS(DASH,2,CHMGD)
✓ DNC	maritime area - mine danger	mac=4		IHO S-52	LS(DASH,2,CHMGD)

Area Full Chart ✓ Simplified Area

Symbol Number 0803 ID Code MFC031A0803
Description yellow green solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, depth unknown, shallow mode off	mac=2 AND hdp=0 AND isdm=0		IHO S-52	AC(DEPIT)
✓ DNC	maritime area - dredged channel, depth unknown, shallow mode on	mac=2 AND hdp=0 AND isdm=1		IHO S-52	AC(DEPIT)

Symbol Number 0805 ID Code MFC031A0805
Description depth white fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, 2 shades, deep water	mac=2 AND idsm=1 AND hdp>=ssdc		IHO S-52	AC(DEPDW)
✓ DNC	maritime area - dredged channel, 4 shades, deep water	mac=2 AND idsm=0 AND hdp>=msdc		IHO S-52	AC(DEPDW)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0810 ID Code MFC031A0810
Description depth med blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, 2 shades, very shallow, shallow mode off	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0		IHO S-52	AC(DEPVS)
✓ DNC	maritime area - dredged channel, 2 shades, very shallow, shallow mode on	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1		IHO S-52	AC(DEPVS)
✓ DNC	maritime area - dredged channel, 4 shades, very shallow, shallow mode off	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0		IHO S-52	AC(DEPVS)
✓ DNC	maritime area - dredged channel, 4 shades, very shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1		IHO S-52	AC(DEPVS)

Symbol Number 0820 ID Code MFC031A0820
Description depth pale blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, 4 shades, medium deep	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc		IHO S-52	AC(DEPMD)

Symbol Number 0821 ID Code MFC031A0821
Description depth lt blue solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0		IHO S-52	AC(DEPMS)
✓ DNC	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1		IHO S-52	AC(DEPMS)

Symbol Number 0919 ID Code MFC031A0919
Description gray diag spaced dot patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, 2 shades, deep water	mac=2 AND idsm=1 AND hdp>=ssdc		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 2 shades, very shallow, shallow mode off	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 2 shades, very shallow, shallow mode on	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 4 shades, deep water	mac=2 AND idsm=0 AND hdp>=msdc		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 4 shades, medium deep	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 4 shades, very shallow, shallow mode off	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, 4 shades, very shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, depth unknown, shallow mode off	mac=2 AND hdp=0 AND isdm=0		IHO S-52	AP(DRGARE01)
✓ DNC	maritime area - dredged channel, depth unknown, shallow mode on	mac=2 AND hdp=0 AND isdm=1		IHO S-52	AP(DRGARE01)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0949 ID Code MFC031A0949
Description depth gray diamond patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, 2 shades, very shallow, shallow mode on	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1		IHO S-52	AP(DIAMOND1)
✓ DNC	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1		IHO S-52	AP(DIAMOND1)
✓ DNC	maritime area - dredged channel, 4 shades, very shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1		IHO S-52	AP(DIAMOND1)
✓ DNC	maritime area - dredged channel, depth unknown, shallow mode on	mac=2 AND hdp=0 AND isdm=1		IHO S-52	AP(DIAMOND1)

Symbol Number 0681 ID Code MFC031A0681
Description UI very dk blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - major op area	mac=104		OPAREA	

Symbol Number 0682 ID Code MFC031A0682
Description UI very dk blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - minor op area	mac=105		OPAREA	

Symbol Number 0683 ID Code MFC031A0683
Description UI very dk blue dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - pacific missile range	mac=111		OPAREA	

Symbol Number 0716 ID Code MFC031A0716
Description gray dash/chevron line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - safety lane	mac=156		IHO S-52	LC(NAVARE51)

Symbol Number 0754 ID Code MFC031A0754
Description UI vy dk blue vy thin line w/5 rows dots inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - ASW area	mac=106		OPAREA	

Symbol Number 0755 ID Code MFC031A0755
Description UI vy dk blue vy thin line w/vert inward ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - submarine op area	mac=107		OPAREA	

Symbol Number 0756 ID Code MFC031A0756
Description feature brown vy thin line w/vert inward ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - submarine traffic lane submerged	mac=108		OPAREA	

Refer to Appendix G for true symbol scale representations.

Symbol Number 0757 ID Code MFC031A0757
Description feature brown vy thin line w/3 rows dots ins

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - submarine traffic lane surface	mac=109		OPAREA	

Symbol Number 0758 ID Code MFC031A0758
Description feature brown 5 dot vy thin line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - surface traffic lane	mac=110		OPAREA	

Symbol Number 3077 ID Code MFC031A3077
Description lt gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - dredged channel, 2 shades, deep water	mac=2 AND idsm=1 AND hdp>=ssdc		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 2 shades, very shallow, shallow mode off	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 2 shades, very shallow, shallow mode on	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 4 shades, deep water	mac=2 AND idsm=0 AND hdp>=msdc		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 4 shades, medium deep	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 4 shades, very shallow, shallow mode off	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, 4 shades, very shallow, shallow mode on	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, depth unknown, shallow mode off	mac=2 AND hdp=0 AND isdm=0		IHO S-52	LS(DASH,1,CHGRF)
✓ DNC	maritime area - dredged channel, depth unknown, shallow mode on	mac=2 AND hdp=0 AND isdm=1		IHO S-52	LS(DASH,1,CHGRF)

Symbol Number 0081 ID Code MFC031A0081
Description lt magenta square w/ I

Symbol Number 0734 ID Code MFC031A0734
Description magenta dash/chevron line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - marine sanctuary	mac=101		IHO S-52	SY(INFARE51) + LC(CTYARE51)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0082 ID Code MFC031A0082
Description traffic lt magenta cir w/ bar

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MFC031A0734
Description magenta dash/chevron line

Symbol Number 4186 ID Code MFC031A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - entry prohibited	mac=5		IHO S-52	SY(ENTRES51) + LC(CTYARE51)

Symbol Number 0083 ID Code MFC031A0083
Description traffic lt magenta arc w/ arrowhead

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0917 ID Code MFC031A0917
Description traffic lt magenta rt diag line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - roundabout zone (TSS)	mac=40		IHO S-52	SY(TSSRON51) + AP(TSSJCT02)

Symbol Number 0087 ID Code MFC031A0087
Description traffic lt magenta ! In lg cir w/ magenta ?

Symbol Number 0734 ID Code MFC031A0734
Description magenta dash/chevron line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	maritime area - restricted areas	mac=0or144or145or154or999		IHO S-52	SY(RSRDEF51) + LC(CTYARE51)

Symbol Number 0093 ID Code MFC031A0093
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MFC031A0734
Description magenta dash/chevron line

Symbol Number 4186 ID Code MFC031A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - mine danger	mac=4		IHO S-52	SY(CTYARE51) + LC(CTYARE51)
TOD0	maritime area - military area, minefield	mac=143or148or149or158		IHO S-52	SY(CTYARE51) + LC(CTYARE51)
TOD0	maritime area - military practice areas	mac=27or28or115or116or140or146or147or150or151or152 or153or157or159		IHO S-52	SY(CTYARE51) + LC(CTYARE51)

Symbol Number 0097 ID Code MFC031A0097
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0742 ID Code MFC031A0742
Description magenta dash/chevron line w/caution symbol

Symbol Number 0663 ID Code MFC031A0663
Description traffic magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - unknown, work in progress	mac=0or9		IHO S-52	SY(CTNARE51) + LC(CTNARE51)
TOD0	maritime area - caution areas	mac=141or142or155		IHO S-52	SY(CTNARE51) + LC(CTNARE51)

Refer to Appendix G for true symbol scale representations.

IT	Symbol Number 1236 ID Code MFC031A1236 Description lt magenta IT	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)
	Symbol Number 0722 ID Code MFC031A0722 Description magenta dashed T line	Symbol Number 0662 ID Code MFC031A0662 Description traffic magenta very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	maritime area - inshore traffic zone (TSS)	mac=41		IHO S-52	SY(ITZARE51) + LC(RESARE51)

FC036 FC036

Point Full Chart ✓ Simplified Point

Symbol Number 0082 ID Code MFC036P0082 Description traffic lt magenta cir w/ bar	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - area to be avoided	mac=43		IHO S-52	SY(ENTRES51)

Symbol Number 0085 ID Code MFC036P0085 Description lt magenta fish w/ intersecting diag line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - fishing prohibited	mac=22		IHO S-52	SY(FSHRES51)

Symbol Number 0086 ID Code MFC036P0086 Description lt magenta open anchor w/ intrsctng diag line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - anchoring prohibited	mac=15		IHO S-52	SY(ACHRES51)

Symbol Number 0087 ID Code MFC036P0087 Description traffic lt magenta ! In lg cir w/ magenta ?	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - unknown or other	mac=0or999		IHO S-52	SY(RSRDEF51)

Symbol Number 0093 ID Code MFC036P0093 Description traffic lt magenta ! Inside lg circle	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - safety zone	mac=37		IHO S-52	SY(CTYARE51)

Line Full Chart ✓ Simplified Line

Symbol Number 0722 ID Code MFC036L0722 Description magenta dashed T line	(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area			IHO S-52	LC(RESARE51)

Refer to Appendix G for true symbol scale representations.

Area | Full Chart | ✓ Simplified | Area

Symbol Number 0081 ID Code MFC036A0081
Description lt magenta square w/ I

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0735 ID Code MFC036A0735
Description magenta dash/chevron line w/ dash, cir

Symbol Number 4186 ID Code MFC036A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - pipelines, sewer	mac=21or23or61		IHO S-52	SY(INFARE51) + LC(PIPARE51)

Symbol Number 0081 ID Code MFC036A0081
Description lt magenta square w/ I

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0736 ID Code MFC036A0736
Description gray dash/chevron line w/ dash, cir

Symbol Number 0629 ID Code MFC036A0629
Description gray thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - outfall, intake	mac=45or46		IHO S-52	SY(INFARE51) + LC(PIPARE61)

Symbol Number 0082 ID Code MFC036A0082
Description traffic lt magenta cir w/ bar

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MFC036A0734
Description magenta dash/chevron line

Symbol Number 4186 ID Code MFC036A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - area to be avoided	mac=43		IHO S-52	SY(ENTRES51) + LC(CTYARE51)

Symbol Number 0085 ID Code MFC036A0085
Description lt magenta fish w/ intersecting diag line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0740 ID Code MFC036A0740
Description magenta T dash line w/ fish symbol

Symbol Number 4186 ID Code MFC036A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - fishing prohibited	mac=22		IHO S-52	SY(FSHRES51) + LC(FSHRES51)

Symbol Number 0086 ID Code MFC036A0086
Description lt magenta open anchor w/ intrsctng diag line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0739 ID Code MFC036A0739
Description magenta T dash line w/ anchor symbol

Symbol Number 4186 ID Code MFC036A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - anchoring prohibited	mac=15		IHO S-52	SY(ACHRES51) + LC(ACHRES51)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0087 ID Code MFC036A0087
Description traffic lt magenta ! In lg cir w/ magenta ?

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MFC036A0734
Description magenta dash/chevron line

Symbol Number 4186 ID Code MFC036A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - to be avoided, other	mac=0or999		IHO S-52	SY(RSRDEF51) + LC(CTYARE51)
TOD0	restricted area			IHO S-52	SY(RSRDEF51) + LC(CTYARE51)

Symbol Number 0093 ID Code MFC036A0093
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MFC036A0734
Description magenta dash/chevron line

Symbol Number 4186 ID Code MFC036A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - safety zone	mac=37		IHO S-52	SY(CTYARE51) + LC(CTYARE51)

Symbol Number 0094 ID Code MFC036A0094
Description lt magenta angled line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0737 ID Code MFC036A0737
Description magenta dash/chevron line w/ flash symbol

Symbol Number 4186 ID Code MFC036A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	restricted area - cables	mac=20		IHO S-52	SY(CBLARE51) + LC(CBLARE51)

FC041 FC041

Point Full Chart ✓ Simplified Point

Symbol Number 0088 ID Code MFC041P0088
Description traffic magenta filled arrow

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	traffic separation scheme (TSS)		dof	IHO S-52	SY(TSSLPT51)

Line Full Chart ✓ Simplified Line

Symbol Number 0620 ID Code MFC041L0620
Description traffic lt magenta very very thick solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	traffic separation scheme (TSS) - separation zone line	tsp=4		IHO S-52	LS(SOLD,6,TRFCF)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0665 ID Code MFC041L0665
Description traffic magenta thick dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	traffic separation scheme (TSS) - outer boundary	tsp=2		IHO S-52	LS(DASH,4,TRFCD)

Area Full Chart ✓ Simplified Area

Symbol Number 0824 ID Code MFC041A0824
Description traffic lt magenta solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	traffic separation scheme (TSS) - separation zone area	tsp=3		IHO S-52	AC(TRFCF,3)

Symbol Number 0097 ID Code MFC041A0097
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0917 ID Code MFC041A0917
Description traffic lt magenta rt diag line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	traffic separation scheme (TSS) - inbound or outbound area	tsp=6or7		IHO S-52	SY(CTNARE51) + AP(TSSJCT02)

FC100 FC100

Line Full Chart ✓ Simplified Line

Symbol Number 0656 ID Code MFC100L0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	measured distance line			IHO S-52	LS(DASH,1,CHGRD)

FC101 FC101

Line Full Chart ✓ Simplified Line

Symbol Number 0684 ID Code MFC101L0684
Description basic red thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	theodolite line			ORIGINAL	0684

Refer to Appendix G for true symbol scale representations.

FC102 FC102

Line | Full Chart | ✓ Simplified | Line

Symbol Number 3112 ID Code MFC102L3112
Description black thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	range center line			ORIGINAL	3112

FC130 FC130

Line | Full Chart | ✓ Simplified | Line

Symbol Number 0663 ID Code MFC130L0663
Description traffic magenta thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	radar reference line			IHO S-52	LS(DASH,2,TRFCD)

FC165 FC165

Point | Full Chart | ✓ Simplified | Point

Symbol Number 0089 ID Code MFC165P0089
Description traffic magenta dashed arrow w/ 2 mgnta ?'s

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - direction unknown	dof=0		IHO S-52	SY(RTLDEF51)

Symbol Number 1220 ID Code MFC165P1220
Description traffic magenta dashed open arrow

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - direction known	dof<>0	dof	IHO S-52	SY(RCTLPT52)

Line | Full Chart | ✓ Simplified | Line

Symbol Number 0723 ID Code MFC165L0723
Description traffic magenta solid line w/ > and DW

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - marked;1-way;recomm for deep draft vessels	atn=1 AND exs=22 AND rtt=3		IHO S-52	LC(DWRTCL08)

Symbol Number 0724 ID Code MFC165L0724
Description traffic magenta dash line w/ > and DW

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - unmarked;1-way;recomm for deep draft vessels	atn=2 AND exs=22 AND rtt=3		IHO S-52	LC(DWRTCL07)

Refer to Appendix G for true symbol scale representations.

Symbol Number 0725 ID Code MFC165L0725
Description traffic magenta solid line w/ < > and DW

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - marked;2-way;recomm for deep draft vessels	atn=1 AND exs=23 AND rtt=3		IHO S-52	LC(DWRTCL06)

Symbol Number 0726 ID Code MFC165L0726
Description traffic magenta dash line w/ < > and DW

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - unmarked;2-way;recomm for deep draft vessels	atn=2 AND exs=23 AND rtt=3		IHO S-52	LC(DWRTCL05)

Symbol Number 0727 ID Code MFC165L0727
Description traffic magenta dash line w/ < ? > and DW

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - unknown;recomm for deep draft vessels	exs=0 AND rtt=3		IHO S-52	LC(DWLDEF01)

Symbol Number 0728 ID Code MFC165L0728
Description gray very thin line w/ >

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - marked;1-way;not recomm for deep draft vessels	atn=1 AND exs=22 AND rtt<>3		IHO S-52	LC(RECTRC12)

Symbol Number 0729 ID Code MFC165L0729
Description gray very thin dash line w/ >

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - unmarked;1-way;not recomm for deep draft vessels	atn=2 AND exs=22 AND rtt<>3		IHO S-52	LC(RECTRC11)

Symbol Number 0730 ID Code MFC165L0730
Description gray very thin line w/ < >

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - marked;2-way;not recomm for deep draft vessels	atn=1 AND exs=23 AND rtt<>3		IHO S-52	LC(RECTRC10)

Symbol Number 0731 ID Code MFC165L0731
Description gray very thin dash line w/ < >

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - unmarked;2-way;not recomm for deep draft vessels	atn=2 AND exs=23 AND rtt<>3		IHO S-52	LC(RECTRC09)

Symbol Number 0732 ID Code MFC165L0732
Description gray very thin dash line w/ < ? >

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - unknown;not recomm for deep draft vessels	exs=0 AND rtt<>3		IHO S-52	LC(RECDEF02)

Refer to Appendix G for true symbol scale representations.

Area | Full Chart | ✓ Simplified | Area

Symbol Number 0097 ID Code MFC165A0097
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0742 ID Code MFC165A0742
Description magenta dash/chevron line w/caution symbol

Symbol Number 0663 ID Code MFC165A0663
Description traffic magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - use unknown	rtt=0		IHO S-52	SY(CTNARE51) + LC(CTNARE51)

Symbol Number 0098 ID Code MFC165A0098
Description traffic magenta dash dbl head arrow w/ 2 ?'s

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MFC165A0734
Description magenta dash/chevron line

Symbol Number 0665 ID Code MFC165A0665
Description traffic magenta thick dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - 2-way	rtt=11		IHO S-52	SY(TWRDEF51) + LC(CTYARE51)

Symbol Number 1238 ID Code MFC165A1238
Description traffic lt mag DW filled arrow btwn 2 mgnta ?

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0741 ID Code MFC165A0741
Description traffic magenta dash/chevron line w/ DW

Symbol Number 0661 ID Code MFC165A0661
Description traffic magenta dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	route (maritime) - deep water	rtt=4		IHO S-52	SY(DWRTPT51)+SY(TSLDEF51) + LC(DWRUTE51)

FC170 FC170

Line | Full Chart | ✓ Simplified | Line

Symbol Number 0732 ID Code MFC170L0732
Description gray very thin dash line w/ < ? >

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	safety fairway			IHO S-52	LC(RECDEF02)

Area | Full Chart | ✓ Simplified | Area

Symbol Number 0091 ID Code MFC170A0091
Description gray ? inside angle brackets inside dashes

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0716 ID Code MFC170A0716
Description gray dash/chevron line

Symbol Number 0656 ID Code MFC170A0656
Description gray very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	safety fairway			IHO S-52	SY(RECDEF51) + LC(NAVARE51)
TOD0	safety fairway			IHO S-52	SY(RECDEF51) + LC(NAVARE51)

Refer to Appendix G for true symbol scale representations.

FC177 FC177

Line — Full Chart — ✓ Simplified — Line

Symbol Number 0656 ID Code MFC177L0656
Description gray very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	swept area			IHO S-52	LS(DASH,1,CHGRD)

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0095 ID Code MFC177A0095
Description lt gray under bar w/ upward bar on ends

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0716 ID Code MFC177A0716
Description gray dash/chevron line

Symbol Number 0656 ID Code MFC177A0656
Description gray very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	swept area			IHO S-52	SY(SWPARE51) + LC(NAVARE51)

FC178 FC178

Area — Full Chart — ✓ Simplified — Area

Symbol Number 0687 ID Code MFC178A0687
Description purple thick long dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test area			HITS	Para 404.A

FC179 FC179

Area — Full Chart — ✓ Simplified — Area

Symbol Number 1901 ID Code MFC179A1901
Description ui lt brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	side scan sonar coverage			HITS	Para 404.D

FC180 FC180

Point — Full Chart — ✓ Simplified — Point

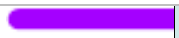
Symbol Number 0527 ID Code MFC180P0527
Description purple filled circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature			ORIGINAL	0527

Refer to Appendix G for true symbol scale representations.

Line

Full Chart ✓ Simplified Line



Symbol Number 0686 ID Code MFC180L0686
Description purple thick solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature - not cable, not slope > 10 degrees	htc<>507and<>509		HITS	Para 315

Symbol Number 0766 ID Code MFC180L0766
Description purple very thin solid line with inward ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature - slope > 10 degrees	htc=507		HITS	Para 315

Symbol Number 0767 ID Code MFC180L0767
Description purple broken zig-zag line w/ flash symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature - cable	htc=509		HITS	Para 315

Area

Full Chart ✓ Simplified Area

Symbol Number 0825 ID Code MFC180A0825
Description 21% purple solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature - height not > 2m, not slope > 10 degrees, not cable	htc<>503and<>507and<>509		HITS	Para 315

Symbol Number 0826 ID Code MFC180A0826
Description 42% purple solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature - height > 2m	htc=503		HITS	Para 315

Symbol Number 0766 ID Code MFC180A0766
Description purple very thin solid line with inward ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature - slope > 10 degrees	htc=507		HITS	Para 315

Symbol Number 0767 ID Code MFC180A0767
Description purple broken zig-zag line w/ flash symbol

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD4	hull integrity test site bottom feature - cable	htc=509		HITS	Para 315

Refer to Appendix G for true symbol scale representations.

GA005 GA005

Area Full Chart ✓ Simplified Area

Symbol Number 0685 ID Code MGA005A0685
Description oparea green thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	airspace - upper control area	aua=39		OPAREA	

Symbol Number 0759 ID Code MGA005A0759
Description oparea green thin line w/stagrd dots inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	air lanes/corridors	aua=0or20or36		OPAREA	

Symbol Number 0760 ID Code MGA005A0760
Description purple vy thin line w/ 3 row vert dots inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	airspace - air defense zone	aua=2		OPAREA	

Symbol Number 0761 ID Code MGA005A0761
Description oparea green vy thin line w/3 row vert dots

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	airspace - controlled	aua=9or21or22or23or43or46or70		OPAREA	

Symbol Number 0762 ID Code MGA005A0762
Description oparea green thin line with ticks inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	airspace - flight information region	aua=13		OPAREA	

Symbol Number 0763 ID Code MGA005A0763
Description oparea green thin line with open tabs inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	airspace - upper flight information region	aua=40		OPAREA	

GA015 GA015

Area Full Chart ✓ Simplified Area

Symbol Number 0764 ID Code MGA015A0764
Description purple thin line w/ rt angle ticks inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	special use airspace - warning area	aul=0or5or6		OPAREA	

Refer to Appendix G for true symbol scale representations.

Symbol Number 0765 ID Code MGA015A0765
Description purple thin line w/ lft angle ticks inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	special use airspace - prohibited,restricted	aul=2or3		OPAREA	

GA020 GA020

Point Full Chart ✓ Simplified Point

Symbol Number 0501 ID Code MGA020P0501
Description lights red flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	air obstruction light [DNC-specific]			IHO S-52	SY(LIGHTS01)

GA035 GA035

Point Full Chart ✓ Simplified Point

Symbol Number 0511 ID Code MGA035P0511
Description lg magenta cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	navaids (aeronautical)			IHO S-52	SY(RDOSTA02)

Symbol Number 0517 ID Code MGA035P0517
Description purple circle with dot in center

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	navaids (aeronautical) - NDB	nst=17		MIL-STD-2402	1R030P004*

Symbol Number 0518 ID Code MGA035P0518
Description purple hexagon with dot in center

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	navaids (aeronautical) - VOR	nst=20		MIL-STD-2402	1R030P007*

Symbol Number 0519 ID Code MGA035P0519
Description purpoe hexagon in square w/ dot in center

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	navaids (aeronautical) - VOR/DME	nst=21		MIL-STD-2402	1R030P010*

Symbol Number 0520 ID Code MGA035P0520
Description purple hexagon, solid outer rectgls, cntr dot

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	navaids (aeronautical) - VORTAC	nst=22		OPAREA	

Refer to Appendix G for true symbol scale representations.

Symbol Number 0521 ID Code MGA035P0521
Description purple hexagon, open outer rectgls, cntr dot

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	navaids (aeronautical) - TACAN	nst=23		OPAREA	

Symbol Number 0525 ID Code MGA035P0525
Description purple open very very thin circle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	navaids (aeronautical) - unknown	nst=0		OPAREA	

GA055 GA055

Point Full Chart ✓ Simplified Point

Symbol Number 0522 ID Code MGA055P0522
Description oparea green open triangle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	waypoint/reporting-calling in point - non compulsory	wpt<>10		OPAREA	

Symbol Number 0523 ID Code MGA055P0523
Description oparea green solid triangle

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
TOD0	waypoint/reporting-calling in point - compulsory	wpt=10		OPAREA	

GB005 GB005

Point Full Chart ✓ Simplified Point

Symbol Number 0090 ID Code MGB005P0090
Description feature brown outline of plane inside lg cir

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	airport/airfield			IHO S-52	SY(AIRARE02)

Symbol Number 2267 ID Code MGB005P2267
Description aero-blue airplane

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	airport/airfield - non military;operational	use<>8and<>22 AND exs=28		MIL-STD-2402	1U030P001*
FFD	airport/airfield - civilian, operational	use<>8and<>22 AND exs=28		MIL-STD-2402	1U030P001*
UVM	airport/airfield - non military;operational	use<>8and<>22 AND exs=28		MIL-STD-2402	1U030P001*
VML0	airport/airfield - non military	use<>8and<>22		MIL-STD-2402	1U030P001*
VML1	airport/airfield - operational; non military	use<>8and<>22 AND exs=28		MIL-STD-2402	1U030P001*
VML2	airport/airfield - operational; non military	use<>8and<>22 AND exs=28		MIL-STD-2402	1U030P001*

Refer to Appendix G for true symbol scale representations.

Symbol Number 2268 ID Code MGB005P2268
Description lt gray airplane

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	airport/airfield - not operational	exs<>28		MIL-STD-2402	1U030P001*
FFD	airport/airfield - non-operational	exs<>28		MIL-STD-2402	1U030P001*
UVM	airport/airfield - not operational	exs<>28		MIL-STD-2402	1U030P001*
VML1	airport/airfield - not operational	exs<>28		MIL-STD-2402	1U030P001*
VML2	airport/airfield - not operational	exs<>28		MIL-STD-2402	1U030P001*

Symbol Number 2269 ID Code MGB005P2269
Description magenta airplane

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	airport/airfield - military;operational	use=8or22 AND exs=28		MIL-STD-2402	1U030P001*
FFD	airport/airfield - military, operational	use=8or22 AND exs=28		MIL-STD-2402	1U030P001*
UVM	airport/airfield - military;operational	use=8or22 AND exs=28		MIL-STD-2402	1U030P001*
VML0	airport/airfield - military	use=8or22		MIL-STD-2402	1U030P001*
VML1	airport/airfield - operational; military	use=8or22 AND exs=28		MIL-STD-2402	1U030P001*
VML2	airport/airfield - operational; military	use=8or22 AND exs=28		MIL-STD-2402	1U030P001*

Area Full Chart ✓ Simplified Area

Symbol Number 0822 ID Code MGB005A0822
Description lt brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	airport/airfield			IHO S-52	LS(SOLD,1,CHBLK) + AP(AIRARE02)

Symbol Number 0600 ID Code MGB005A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0932 ID Code MGB005A0932
Description feature brown airplane patt fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	airport/airfield			IHO S-52	LS(SOLD,1,CHBLK) + AP(AIRARE02)

Symbol Number 4183 ID Code MGB005A4183
Description magenta solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	airport/airfield			MIL-STD-2402	1U030A015
FFD	airport/airfield			MIL-STD-2402	1U030A015
UVM	airport/airfield			MIL-STD-2402	1U030A015
VML2	airport/airfield			MIL-STD-2402	1U030A015

Refer to Appendix G for true symbol scale representations.

GB010 GB010

Point — Full Chart — ✓ Simplified — Point

Symbol Number 0503 ID Code MGB010P0503
Description lights yellow flare

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	airport lighting			IHO S-52	SY(LIGHTS03)

Symbol Number 1012 ID Code MGB010P1012
Description aero blue solid filled star

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	airport lighting			MIL-STD-2402	1U040P004
UVM	airport lighting			MIL-STD-2402	1U040P004
VML1	airport lighting			MIL-STD-2402	1U040P004
VML2	airport lighting			MIL-STD-2402	1U040P004

GB015 GB015

Area — Full Chart — ✓ Simplified — Area

Symbol Number 4194 ID Code MGB015A4194
Description aero-blue very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	apron/hardstand			MIL-STD-2402	1U060A003*
UVM	apron/hardstand			MIL-STD-2402	1U060A003*
VML2	apron/hardstand			MIL-STD-2402	1U060A003*

GB030 GB030

Point — Full Chart — ✓ Simplified — Point

Symbol Number 1013 ID Code MGB030P1013
Description black "H" inside black square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	helicopter landing pad			MIL-STD-2402	1U025P003
UVM	helicopter landing pad			MIL-STD-2402	1U025P003

Area — Full Chart — ✓ Simplified — Area

Symbol Number 3052 ID Code MGB030A3052
Description magenta thin solid line

Symbol Number 1612 ID Code MGB030A1612
Description magenta cross hatch patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	helicopter landing pad			ORIGINAL	3052 1612

Refer to Appendix G for true symbol scale representations.

GB035 GB035

Point Full Chart ✓ Simplified Point

Symbol Number 2271 ID Code MGB035P2271
Description purple "H" inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	heliport			SAE ARP5289	

Area Full Chart ✓ Simplified Area

Symbol Number 4184 ID Code MGB035A4184
Description magenta very thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	heliport			ORIGINAL	4184
UVM	heliport			ORIGINAL	4184

GB045 GB045

Line Full Chart ✓ Simplified Line

Symbol Number 3073 ID Code MGB045L3073
Description aero-blue thin short dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	overrun/stopway			ORIGINAL	3073

Area Full Chart ✓ Simplified Area

Symbol Number 4098 ID Code MGB045A4098
Description purple wide rt diag line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	overrun/stopway			ORIGINAL	4098
UVM	overrun/stopway			ORIGINAL	4098
VML2	overrun/stopway			ORIGINAL	4098

GB050 GB050

Line Full Chart ✓ Simplified Line

Symbol Number 1313 ID Code MGB050L1313
Description purple line w/ squares

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	revetment (airfield)			ORIGINAL	1313

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 1512 ID Code MGB050A1512
Description magenta vy thin line double ticks

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	revetment (airfield)			MIL-STD-2402	4B090A002

GB055 GB055

Point Full Chart ✓ Simplified Point

Symbol Number 2273 ID Code MGB055P2273
Description aero-blue solid cir w/ open diag band

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	runway - operational	exs=28		MIL-STD-2402	1U160P003

Symbol Number 2281 ID Code MGB055P2281
Description gray cir w/ open diag band

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML1	runway - not operational	exs<>28		MIL-STD-2402	1U160P003

Line Full Chart ✓ Simplified Line

Symbol Number 0606 ID Code MGB055L0606
Description feature brown solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	runway			IHO S-52	LS(SOLD,3,LANDF)

Symbol Number 3069 ID Code MGB055L3069
Description aero-blue very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	runway			MIL-STD-2402	1U160L006
VITD	runway			MIL-STD-2402	1U160L006
VML1	runway			MIL-STD-2402	1U160L006

Area Full Chart ✓ Simplified Area

Symbol Number 4089 ID Code MGB055A4089
Description magenta solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	runway			MIL-STD-2402	1U160A006
FFD	runway			MIL-STD-2402	1U160A006
UVM	runway			MIL-STD-2402	1U160A006
VML2	runway			MIL-STD-2402	1U160A006

Refer to Appendix G for true symbol scale representations.

Symbol Number 0600 ID Code MGB055A0600
Description black very thin solid line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0804 ID Code MGB055A0804
Description brown solid fill

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	runway			IHO S-52	LS(SOLD,1,CHBLK) + AC(CHBRN)

Symbol Number 3070 ID Code MGB055A3070
Description aero-blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	runway			MIL-STD-2402	1U160A009

GB065 GB065

Point Full Chart ✓ Simplified Point

Symbol Number 0080 ID Code MGB065P0080
Description magenta solid filled diamond inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	seaplane base			IHO S-52	SY(PILBOP02)

Area Full Chart ✓ Simplified Area

Symbol Number 4186 ID Code MGB065A4186
Description magenta thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
FFD	seaplane base			ORIGINAL	4186

GB070 GB070

Line Full Chart ✓ Simplified Line

Symbol Number 0634 ID Code MGB070L0634
Description magenta very thin dash line

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	seaplane landing/seaplane take-off area			IHO S-52	LS(DASH,1,CHMGD)

Refer to Appendix G for true symbol scale representations.

Area Full Chart ✓ Simplified Area

Symbol Number 0093 ID Code MGB070A0093
Description traffic lt magenta ! Inside lg circle

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0734 ID Code MGB070A0734
Description magenta dash/chevron line

Symbol Number 0634 ID Code MGB070A0634
Description magenta very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	seaplane landing/seaplane take-off area			IHO S-52	SY(CTYARE51) + LC(CTYARE51)

GB075 GB075

Line Full Chart ✓ Simplified Line

Symbol Number 3070 ID Code MGB075L3070
Description aero-blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	taxiway			MIL-STD-2402	1U200L002

Area Full Chart ✓ Simplified Area

Symbol Number 3070 ID Code MGB075A3070
Description aero-blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	taxiway			MIL-STD-2402	1U200A002
UVM	taxiway			MIL-STD-2402	1U200A002
VML2	taxiway			MIL-STD-2402	1U200A002

SA010 SA010

Area Full Chart ✓ Simplified Area

Symbol Number 4265 ID Code MSA010A4265
Description basic blue thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	common open water			ORIGINAL	4265

SA020 SA020

Area Full Chart ✓ Simplified Area

Symbol Number 4203 ID Code MSA020A4203
Description depth gray line w/ two dashes

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	disturbed soil			ORIGINAL	4203

Refer to Appendix G for true symbol scale representations.

SA030 SA030

Area Full Chart ✓ Simplified Area

Symbol Number 4202 ID Code MSA030A4202
Description depth gray thin dotted line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	exposed bedrock			ORIGINAL	4202

SA040 SA040

Area Full Chart ✓ Simplified Area

Symbol Number 1655 ID Code MSA040A1655
Description basic blue thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	permanent snowfield			ORIGINAL	1655

SA050 SA050

Area Full Chart ✓ Simplified Area

Symbol Number 0803 ID Code MSA050A0803
Description yellow green solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	slope polygon - 0 to >45%, dissected	gsc=1		ORIGINAL	0803

Symbol Number 1601 ID Code MSA050A1601
Description red solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 60% and <= 85%	spr=7		ORIGINAL	1601

Symbol Number 1901 ID Code MSA050A1901
Description ui lt brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 10% and <= 15%	spr=2		ORIGINAL	1901
VITD	slope polygon - > 10% and <= 20%	gsc=4		ORIGINAL	1901

Symbol Number 1902 ID Code MSA050A1902
Description dk beige solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 15% and <= 20%	spr=3		ORIGINAL	1902

Refer to Appendix G for true symbol scale representations.

Symbol Number 1903 ID Code MSA050A1903
Description rose solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 20% and <= 30%	spr=4		ORIGINAL	1903
VITD	slope polygon - > 20% and <= 30%	gsc=5		ORIGINAL	1903

Symbol Number 1904 ID Code MSA050A1904
Description golden yellow solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 30% and <= 45%	spr=5		ORIGINAL	1904
VITD	slope polygon - > 30% and <= 45%	gsc=6		ORIGINAL	1904

(white)

Symbol Number 1905 ID Code MSA050A1905
Description basic white solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - % unknown	spr=999		ORIGINAL	1905
VITD	slope polygon - % unknown	gsc=0		ORIGINAL	1905

Symbol Number 1906 ID Code MSA050A1906
Description lt red brown solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 85%	spr=8		ORIGINAL	1906

Symbol Number 4002 ID Code MSA050A4002
Description lt beige solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - <= 3%	spr=0		ORIGINAL	4002
VITD	slope polygon - <= 3%	gsc=2		ORIGINAL	4002

Symbol Number 4003 ID Code MSA050A4003
Description beige solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 3% and <= 10%	spr=1		ORIGINAL	4003
VITD	slope polygon - > 3% and <= 10%	gsc=3		ORIGINAL	4003

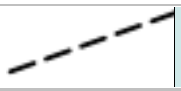
Symbol Number 4175 ID Code MSA050A4175
Description lt orange solid fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	slope polygon - > 45% and <= 60%	spr=6		ORIGINAL	4175
VITD	slope polygon - > 45%	gsc=7		ORIGINAL	4175

Refer to Appendix G for true symbol scale representations.

SA060 SA060

Line Full Chart ✓ Simplified Line



Symbol Number 3117 ID Code MSA060L3117
Description black thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VITD	covered drainage			MIL-STD-2402	2H020L018

SU001 SU001

Point Full Chart ✓ Simplified Point

Symbol Number 2274 ID Code MSU001P2274
Description magenta M inside cir

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	military base			ORIGINAL	2274

Area Full Chart ✓ Simplified Area

Symbol Number 3104 ID Code MSU001A3104
Description red solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
VML0	military base			ORIGINAL	3104

ZB020 ZB020

Point Full Chart ✓ Simplified Point

Symbol Number 2279 ID Code MZB020P2279
Description black triangle w/ dot inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
UVM	benchmark			ORIGINAL	2279

ZB030 ZB030

Point Full Chart ✓ Simplified Point

Symbol Number 2278 ID Code MZB030P2278
Description black dot in square

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	boundary monument			MIL-STD-2402	9B030P001
VML2	boundary monument			MIL-STD-2402	9B030P001

Refer to Appendix G for true symbol scale representations.

ZB035 ZB035

Point Full Chart ✓ Simplified Point

Symbol Number 2279 ID Code MZB035P2279
Description black triangle w/ dot inside

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	control point/control station			MIL-STD-2402	9B035P001
TOD0	control point/control station			MIL-STD-2402	9B035P001
UVM	control point/control station			MIL-STD-2402	9B035P001
VML1	control point/control station			MIL-STD-2402	9B035P001
VML2	control point/control station			MIL-STD-2402	9B035P001

ZC040 ZC040

Area Full Chart ✓ Simplified Area

Symbol Number 0733 ID Code MZC040A0733
Description lt magenta open flag

(SIMPLIFIED SYMBOLOGY SAME AS STANDARD SYMBOLOGY)

Symbol Number 0716 ID Code MZC040A0716
Description gray dash/chevron line

Symbol Number 0656 ID Code MZC040A0656
Description gray very thin dash line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
✓ DNC	magnetic disturbance area			IHO S-52	SY(LOCMAG51) + LC(NAVARE51)
VML1	magnetic disturbance area			IHO S-52	SY(LOCMAG51) + LC(NAVARE51)

ZD003 ZD003

Line Full Chart ✓ Simplified Line

Symbol Number 0600 ID Code MZD003L0600
Description black very thin solid line

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
WVS	artifact location			ORIGINAL	0600

Refer to Appendix G for true symbol scale representations.

ZD020 ZD020

Area Full Chart ✓ Simplified Area

Symbol Number 3082 ID Code MZD020A3082
Description gray very thin solid line

Symbol Number 4105 ID Code MZD020A4105
Description lt gray rt diag thin line patt fill

Product	Feature Description	Symbol Assignment Expression	Orient	Source	Source ID
DTOP	void collection area			ORIGINAL	3082 4105
FFD	void collection area			ORIGINAL	3082 4105
TOD0	void collection area			ORIGINAL	3082 4105
TOD1	void collection area			ORIGINAL	3082 4105
TOD2	void collection area			ORIGINAL	3082 4105
TOD4	void collection area			ORIGINAL	3082 4105
VML0	void collection area			ORIGINAL	3082 4105
VML1	void collection area			ORIGINAL	3082 4105
VML2	void collection area			ORIGINAL	3082 4105

Refer to Appendix G for true symbol scale representations.

TEXT LABEL ASSIGNMENTS

B.1 SCOPE

B.1.1 Scope. This appendix presents the text label information that is contained within the GeoSym symbology assignment tables. It is a mandatory part of the specification. The information contained herein is intended for compliance.

B.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

B.3 TEXT LABELS IN GEOSYM

GeoSym contains the ability to assign a text label to augment the graphic symbology assignment. This is accomplished via the “labatt” column of the symbology assignment file. If this column is populated with an attribute value, then the value contained in that attribute should be placed according to the instructions contained in the separate “text.txt” table (see section 3.5.3.1.3). Appendix B is sorted by fcode, delineation, and VPF™ product. Refer to MIL-HDBK-857 for instructions on how to use the text labeling information to place a text label for a point, line, or area feature.

Text Label Assignments

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AA010										**AA010**
Point										
DTOP	mine - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
UVM	mine - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	mine/quarry - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	mine/quarry - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Line										
UVM	mine - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
DTOP	mine - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
UVM	mine - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	mine/quarry - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	mine/quarry - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
AA012										**AA012**
Point										
UVM	quarry - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Line										
UVM	quarry - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	quarry - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
AA050										**AA050**
Point										
DTOP	well- name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
UVM	well - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	well - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	well - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AC000										**AC000**
Point										
DTOP	processing plant/treatment plant - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML1	processing plant/treatment plant - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML2	processing plant/treatment plant - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
DTOP	processing plant/treatment plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	processing plant/treatment plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	processing plant/treatment plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	processing plant/treatment plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AC030										**AC030**
Area										
UVM	settling basin/sludge pond - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AD010										**AD010**
Point										
VML1	power plant - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
DTOP	power plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	power plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	power plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	power plant - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AD030										**AD030**
Point										
UVM	substation/tran.yard - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	substation/tran.yard - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AH010										**AH010**
Point										
UVM	bastion/rampart/fortification - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
UVM	bastion/rampart/fortification - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	bastion/rampart/fortification - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AH050										**AH050**
Point										
DTOP	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
UVM	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML1	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML2	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
UVM	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
DTOP	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	fortification - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AH060										**AH060**
Point										
UVM	underground bunker - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
UVM	underground bunker - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	underground bunker - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AJ030										**AJ030**
Area										
UVM	feedlot/stockyard/holding pen - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AK030										**AK030**
Area										
DTOP	amusement park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	amusement park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	amusement park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AK040										**AK040**
Area										
DTOP	athletic field - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	athletic field - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	athletic field - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AK060										**AK060**
Area										
DTOP	campground/campsite - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	campground/campsite - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	campground/campsite - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AK090										**AK090**
Area										
DTOP	fairgrounds - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	fairgrounds - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	fairgrounds - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AK100										**AK100**
Area										
DTOP	golf course - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	golf course - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	golf course - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AK120										**AK120**
Area										
DTOP	park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AK130										**AK130**
Line										
DTOP	race track - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	race track - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	race track - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	race track - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	race track - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AK160										**AK160**
Point										
VML1	stadium/amphitheater - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
DTOP	stadium/amphitheater - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	stadium/amphitheater - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	stadium/amphitheater - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AK180										**AK180**
Area										
DTOP	zoo/safari park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	zoo/safari park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	zoo/safari park - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AL015										**AL015**
Point										
DNC	building - not maritime station, light label	bfc<>81 AND col<>"UNK"	col	San Serif	Normal	center left	black	10	4	90
DNC	building - maritime station - sound signal label	bfc=81 AND sst<>0and<>16	sst	San Serif	Normal	center right	black	10	6	270
DTOP	building - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
UVM	building - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML1	building - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML2	building - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
DTOP	building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
DTOP	building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL020										**AL020**
Point										
DNC	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML0	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
FFD	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML0	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	built-up area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL030										**AL030**
Point										
UVM	cemetery - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
DTOP	cemetery - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	cemetery - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	cemetery - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AL045										**AL045**
Area										
FFD	complex outline - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	complex outline - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL105										**AL105**
Point										
VML2	settlement - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
FFD	settlement - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	settlement - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL120										**AL120**
Point										
UVM	missile site - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Line										
UVM	missile site - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	missile site - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL130										**AL130**
Point										
DTOP	monument - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
UVM	monument - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	monument - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	monument - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
UVM	monument - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AL135										**AL135**
Point										
UVM	native settlement - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML0	native settlement - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
FFD	native settlement - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	native settlement - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML0	native settlement - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	native settlement - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL170										**AL170**
Area										
DTOP	plaza/city square - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	plaza/city square - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	plaza/city square - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL200										**AL200**
Point										
UVM	ruins - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
DTOP	ruins - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	ruins - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	ruins - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AL240										**AL240**
Point										
DNC	tower - light label	col<>"UNK"	col	San Serif	Normal	center left	black	10	4	90
AL250										**AL250**
Area										
UVM	underground dwelling - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AM010										**AM010**
Point										
UVM	depot (storage) - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	depot (storage) - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AM020										**AM020**
Point										
UVM	grain bin/silo - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
UVM	grain bin/silo - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AM030										**AM030**
Point										
UVM	grain elevator - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
UVM	grain elevator - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AM040										**AM040**
Area										
UVM	mineral pile - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AM060										**AM060**
Point										
UVM	storage bunker/storage mound - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	storage bunker/storage mound - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AM070										**AM070**
Point										
DNC	tank - light label	col<>"UNK"	col	San Serif	Normal	center left	black	10	4	90
UVM	tank - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
UVM	tank - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AM080										**AM080**
Point										
UVM	water tower - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	water tower - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AN010										**AN010**
Line										
UVM	RR - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	RR - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	RR - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AN060										**AN060**
Area										
UVM	railroad yard/marshaling yard - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AN075										**AN075**
Area										
UVM	railroad yard/marshaling yard - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AP020										**AP020**
Line										
UVM	railroad yard/marshaling yard - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	railroad yard/marshaling yard - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AP030										**AP030**
Line										
UVM	road - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	road - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	road - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	road - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AP040										**AP040**
Point										
UVM	gate - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AQ040										**AQ040**
Point										
UVM	bridge/overpass/viaduct - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	5	90
Line										
DNC	bridge/overpass/viaduct - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	bridge/overpass/viaduct - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
DNC	bridge/overpass/viaduct - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
UVM	bridge/overpass/viaduct - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AQ060										**AQ060**
Point										
UVM	control tower - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
AQ070										**AQ070**
Point										
UVM	ferry crossing - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	5	90
VML1	ferry crossing - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	5	90
VML2	ferry crossing - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	5	90
Line										
UVM	ferry crossing - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	ferry crossing - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	ferry crossing - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AQ090										**AQ090**
Point										
UVM	entrance/exit - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
AQ110										**AQ110**
Point										
UVM	mooring mast - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	2	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AQ125										**AQ125**
Point										
UVM	station (miscellaneous) - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	station (miscellaneous) - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AQ130										**AQ130**
Point										
DTOP	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
FFD	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML1	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML2	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
DTOP	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FFD	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	tunnel - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AQ150										**AQ150**
Area										
UVM	flight of steps - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AT020										**AT020**
Point										
UVM	early warning radar site - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	5	90
Line										
UVM	early warning radar site - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	early warning radar site - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AT040										**AT040**
Point										
UVM	power transmission pylon - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
AT045										**AT045**
Point										
UVM	radar transmitter - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	5	90
Line										
UVM	radar transmitter - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	radar transmitter - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AT050										**AT050**
Point										
DTOP	communication building - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
UVM	communication building - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	communication building - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
DTOP	communication building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	communication building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	communication building - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
AT070										**AT070**
Point										
UVM	telephone-telegraph pylon/pole - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
AT080										**AT080**
Point										
DNC	communication tower - light label	col<>"UNK"	col	San Serif	Normal	center left	black	10	4	90
DTOP	communication tower - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
UVM	communication tower - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	communication tower - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	communication tower - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
BA030										**BA030**
Area										
FFD	island - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	island - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	island - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BA040										**BA040**
Area										
FFD	water (except inland) - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	water (except inland) - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML0	water (except inland) - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BA050										**BA050**
Area										
UVM	beach - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BB010										**BB010**
Point										
DNC	anchorage - anchoring berth - name label	mac=12 AND nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Area										
DNC	anchorage - anchoring berth - name label	mac=12 AND nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	5	90
BB020										**BB020**
Point										
DNC	berth - ber label	ber<>"UNK"	ber	San Serif	Normal	bottom left	black	10	4	90
BB050										**BB050**
Point										
DNC	calling-in point - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	7	90
BB170										**BB170**
Point										
DNC	offshore loading facility - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	6	45
Area										
DNC	offshore loading facility - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
BC010										**BC010**
Point										
DNC	beacon - color label	ccc<>0	ccc	San Serif	Normal	bottom right	black	10	11	300
DNC	beacon - name label	nam<>"UNK"	nam	San Serif	Normal	bottom right	black	10	10	270
DNC	beacon - sound signal label	sst<>0and<>16	sst	San Serif	Normal	bottom right	black	10	11	250
BC020										**BC020**
Point										
DNC	buoy - color label	ccc<>0	ccc	San Serif	Normal	bottom right	black	10	11	300
DNC	buoy - light label	col<>"UNK"and<>NULL	col	San Serif	Normal	bottom right	black	10	14	45
DNC	buoy - light label	eol<>0and<>NULL	eol	San Serif	Normal	bottom right	black	10	14	315
DNC	buoy- light label	lvn<>0and<>NULL	lvn	San Serif	Normal	bottom right	black	10	10	90
DNC	buoy - light label	mlr<>"UNK"and<>NULL	mlr	San Serif	Normal	bottom right	black	10	11	119
DNC	buoy - name label	nam<>"UNK"	nam	San Serif	Normal	bottom right	black	10	10	270
DNC	buoy - light label	per<>0and<>NULL	per	San Serif	Normal	bottom right	black	10	11	59
DNC	buoy - sound signal label	sst<>0and<>16	sst	San Serif	Normal	bottom right	black	10	11	250
BC040										**BC040**
Point										
DNC	light - color label	ccc<>0	ccc	San Serif	Normal	bottom right	black	10	11	300
DNC	light - light label	col<>"UNK"	col	San Serif	Normal	bottom right	black	10	14	45
DNC	light - light label	eol<>0	eol	San Serif	Normal	bottom right	black	10	14	315
DNC	light - light label	lvn<>0	lvn	San Serif	Normal	bottom right	black	10	10	90
DNC	light - light label	mlr<>"UNK"and<>NULL	mlr	San Serif	Normal	bottom right	black	10	11	119
DNC	light - name label	nam<>"UNK"	nam	San Serif	Normal	bottom right	black	10	10	270
DNC	light - light label	per<>0	per	San Serif	Normal	bottom right	black	10	11	59
DNC	light - sound signal label	sst<>0and<>16	sst	San Serif	Normal	bottom right	black	10	11	250
BC050										**BC050**
Point										
UVM	lighthouse - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
BC070										**BC070**
Point										
DNC	light vessel/lightship - light label	col<>"UNK"	col	San Serif	Normal	bottom right	black	10	14	45
DNC	light vessel/lightship - light label	eol<>0	eol	San Serif	Normal	bottom right	black	10	14	315
DNC	light vessel/lightship - light label	lvn<>0	lvn	San Serif	Normal	bottom right	black	10	10	90
DNC	light vessel/lightship - light label	mlr<>"UNK"and<>NULL	mlr	San Serif	Normal	bottom right	black	10	11	119
DNC	light vessel/lightship - name label	nam<>"UNK"	nam	San Serif	Normal	bottom right	black	10	10	270
DNC	light vessel/lightship - light label	per<>0	per	San Serif	Normal	bottom right	black	10	11	59
DNC	light vessel/lightship - sound signal label	sst<>0and<>16	sst	San Serif	Normal	bottom right	black	10	11	250
BD005										**BD005**
Point										
TOD1	miscellaneous underwater feature - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
TOD2	miscellaneous underwater feature - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
BD110										**BD110**
Point										
DNC	platform - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	6	45
DNC	platform - sound signal label	sst<>0and<>16	sst	San Serif	Normal	center right	black	10	6	270
BD120										**BD120**
Line										
VML1	reef - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
VML1	reef - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BD130										**BD130**
Point										
DTOP	rock - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	rock - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	rock - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
BD180										**BD180**
Point										
TOD1	wreck - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
TOD2	wreck - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
BE020										**BE020**
Point										
DNC	drying height text (dark)	hdh>=0 AND hdp=NULL	hdh	San Serif	Normal	sounding text	sounding	10	0	0
DNC	sounding text (dark) - shallower than ssdc	hdp<=ssdc AND hdh=NULL	hdp	San Serif	Normal	sounding text	sounding	10	0	0
DNC	sounding text (light) - deeper than ssdc	hdp>ssdc AND hdh=NULL	hdp	San Serif	Normal	sounding text	sounding	10	0	0
TOD1	sounding text (dark) - shallower than 200m	hdp<200	hdp	San Serif	Normal	sounding text	sounding	10	0	0
TOD1	sounding text (light) - deeper than 200m	hdp>=200	hdp	San Serif	Normal	sounding text	sounding	10	0	0
TOD2	sounding text (dark) - shallower than 200m	hdp<200	hdp	San Serif	Normal	sounding text	sounding	10	0	0
TOD2	sounding text (light) - deeper than 200m	hdp>=200	hdp	San Serif	Normal	sounding text	sounding	10	0	0
TOD4	sounding text (dark) - shallower than 123m	hdp<123	hdp	San Serif	Normal	sounding text	sounding	10	0	0
TOD4	sounding text (light) - deeper than 123m	hdp>=123	hdp	San Serif	Normal	sounding text	sounding	10	0	0
BF010										**BF010**
Point										
DNC	bottom characteristics - label	mcc<>0	mcc	San Serif	Normal	center left	black	10	2	90
DNC	bottom characteristics - label	psc<>0	psc	San Serif	Normal	center right	black	10	2	270
BF012										**BF012**
Point										
TOD4	hull integrity test site core site - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
BG010										**BG010**
Point										
TOD0	current flow - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	7	90
BH010										**BH010**
Point										
UVM	aqueduct - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
UVM	aqueduct - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
BH020										**BH020**
Line										
UVM	canal - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	canal - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	canal - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	canal - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	canal - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BH040										**BH040**
Area										
UVM	filtration beds/aeration beds - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BH050										**BH050**
Area										
UVM	fish hatchery/fish farm/marine farm - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BH075										**BH075**
Point										
UVM	fountain - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	fountain - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BH080										**BH080**
Area										
DTOP	lake/pond - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FFD	lake/pond - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	lake/pond - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	lake/pond - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	lake/pond - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BH100										**BH100**
Area										
UVM	moat - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
BH130										**BH130**
Area										
DTOP	reservoir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FFD	reservoir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	reservoir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	reservoir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	reservoir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BH140										**BH140**
Line										
UVM	river/stream - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	river/stream - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	river/stream - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	river/stream - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	river/stream - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	river/stream - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BH180										**BH180**
Point										
DTOP	waterfall - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	waterfall - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	waterfall - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
Line										
DTOP	waterfall - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	waterfall - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	waterfall - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
BI020										**BI020**
Point										
DTOP	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	2	90
FFD	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	2	90
VML1	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	2	90
VML2	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	2	90
Line										
DTOP	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FFD	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
DTOP	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FFD	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	dam/weir - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BI030										**BI030**
Point										
FFD	lock - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	2	90
Area										
FFD	lock - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	lock - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	lock - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BJ065										**BJ065**
Area										
VML0	ice shelf - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BJ070										**BJ070**
Area										
VML0	pack ice - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
BJ080										**BJ080**
Area										
VML0	polar ice - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
DB030										**DB030**
Point										
DTOP	cave - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
UVM	cave - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML1	cave - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML2	cave - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	cave - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
DB090										**DB090**
Area										
UVM	embankment/fill - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
DB110										**DB110**
Line										
DTOP	fault - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	fault - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	fault - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
DB150										**DB150**
Point										
DTOP	mountain pass - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML1	mountain pass - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
VML2	mountain pass - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
DB180										**DB180**
Area										
DNC	volcano - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
DB200										**DB200**
Area										
UVM	gully/gorge - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
EC030										**EC030**
Area										
UVM	trees - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML1	trees - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	trees - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
FA001										**FA001**
Point										
VML0	administrative area - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
FFD	administrative area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML0	administrative area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	administrative area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
WVS	administrative area - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FA015										**FA015**
Point										
UVM	firing range/gunnery range - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
UVM	firing range/gunnery range - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	firing range/gunnery range - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FA070										**FA070**
Area										
VML0	demilitarized zone - na2 label		na2	San Serif	Normal	center center	black	10	0	0
FA170										**FA170**
Area										
DTOP	zone of occupation - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML0	zone of occupation - na2 label		na2	San Serif	Normal	center center	black	10	0	0
VML2	zone of occupation - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FC021										**FC021**
Point										
DNC	maritime limit boundary - pilot boarding - name label	mac=48 AND nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
FC031										**FC031**
Area										
TOD0	maritime area - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	6	90
FC036										**FC036**
Area										
TOD0	restricted area - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	6	90
FC170										**FC170**
Area										
TOD0	safety fairway - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	9	90
FC178										**FC178**
Area										
TOD4	hull integrity test area - test zone label	htz<>998	htz	San Serif	Normal	center center	black	10	0	0
GA005										**GA005**
Area										
TOD0	airspace - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
GA015										**GA015**
Area										
TOD0	special use airspace - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
GA035										**GA035**
Point										
TOD0	navaids (aeronautical) - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
GA055										**GA055**
Point										
TOD0	waypoint/reporting-calling in point - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
GB005										**GB005**
Point										
DTOP	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
FFD	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
UVM	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML0	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML1	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML2	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
DTOP	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
FFD	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
VML2	airport/airfield - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
GB010										**GB010**
Point										
UVM	airport lighting - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
GB030										**GB030**
Point										
DTOP	helicopter landing pad - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
UVM	helicopter landing pad - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
UVM	helicopter landing pad - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
GB035										**GB035**
Point										
FFD	heliport - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
FFD	heliport - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
UVM	heliport - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0

Product Feature Description		Symbol Assignment Expression	Label Attribute	Font	Style	Justification	Color	Size (pts)	Distance (mm)	Direction (az. deg)
GB055										**GB055**
Point										
VML1	runway - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Line										
VML1	runway - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
Area										
UVM	runway - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
GB065										**GB065**
Point										
FFD	seaplane base - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
Area										
FFD	seaplane base - name label	nam<>"UNK"	nam	San Serif	Normal	center center	black	10	0	0
ZB030										**ZB030**
Point										
DTOP	boundary monument - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
VML2	boundary monument - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	4	90
ZB035										**ZB035**
Point										
VML1	control point/control station - name label	nam<>"UNK"	nam	San Serif	Normal	bottom left	black	10	3	90
ZD012										**ZD012**
Point										
VITD	geographic information point - text label		txt	San Serif	Normal	center center	black	10	0	0
Line										
VITD	geographic information point - text label		txt	San Serif	Normal	center center	black	10	0	0
Area										
VITD	geographic information point - text label		txt	San Serif	Normal	center center	black	10	0	0

SYMBOL DESCRIPTIONS

C.1 SCOPE

C.1.1 Scope. This appendix describes each symbol contained in GeoSym. It is a mandatory part of the specification. The information contained herein is intended for compliance.

C.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

C.3 SYMBOL DESCRIPTIONS

Each CGM has a textual description associated with it. This description is based on the color, line weight, and graphical primitives used to construct the symbol. This appendix presents each symbol’s description, along with the color tokens used to build the symbol and a name for the symbols that indicates whether the symbol is a point symbol (first two characters SY), line symbol (first two characters LS or LC) or area symbol (first two characters AC or AP). If the symbol name includes characters enclosed in parentheses, that symbol is an IHO S52 symbol and can be found in the S52, Appendix 2, Colour & Symbol Specifications for ECDIS.

Table C-1A shows the standard naming convention used for color based on the color token(s) assigned to the symbol and is sorted by the standardized English adjective. Table C-1B shows the same information sorted by color token. Table C-2 shows the standard naming convention used to describe the width of a line. GeoSym symbols conform to the S52 definition of line widths as being in multiples of approximately .3mm. For example, the name of symbol 0610 is LS(SOLD,3,CHGRD). That means that symbol 0610 is a solid line that is approximately .9mm in thickness and is the color CHGRD (gray).

The English adjectives presented in Tables C-1A, C-1B, and C-2 are used within every appendix in this specification.

Table C-1A
Color Token to English Adjective Mapping
Sorted by English Adjective

English Adjective	Color Token
21% purple	purple21
42% purple	purple42
aero-blue	aero-blue
basic black	black
basic blue	blue
basic cyan	cyan
basic green	green
basic magenta	magenta
basic red	red
basic white	white
basic yellow	yellow
beige	med-beige
beige-rose	beige-rose
black	CHBLK
brown	CHBRN
brown green	ARPA2
cursor orange	CURSR
danger magenta	ISDNG
danger red	DNGHL
depth dk gray	DEPSC
depth gray	DEPCN
depth lt blue	DEPMS
depth med blue	DEPVS
depth pale blue	DEPMD
depth white	DEPDW
dk beige	dark-beige
dk blue	blue_5
dk gray	CSTLN
dk green	ARPA1
dk magenta	dark-magenta
dk red	PLRTE
dk red brown	dark-red-brown
dk tan	dark-tan
dk yellow	dark-yellow
feature brown	LANDF
golden yellow	ADINF
gray	CHGRD
green	CHGRN
lights green	LITGN
lights red	LITRD
lights yellow	LITYW
lt beige	light-beige

Table C-1B
Color Token to English Adjective Mapping
Sorted by Color Token

Color Token	English Adjective
ADINF	golden yellow
aero-blue	aero-blue
APLRT	lt orange
ARPA1	dk green
ARPA2	brown green
beige-rose	beige-rose
black	basic black
blue	basic blue
blue_3	lt blue
blue_4	med blue
blue_5	dk blue
CHBLK	black
CHBRN	brown
CHCOR	orange
CHGRD	gray
CHGRF	lt gray
CHGRN	green
CHMGD	magenta
CHMGF	lt magenta
CHRED	red
CHWHT	pale green
CHYLW	yellow
CSTLN	dk gray
CURSR	cursor orange
cyan	basic cyan
dark-beige	dk beige
dark-green	very dk green
dark-magenta	dk magenta
dark-red-brown	dk red brown
dark-tan	dk tan
dark-yellow	dk yellow
DEPCN	depth gray
DEPDW	depth white
DEPIT	yellow-green
DEPMD	depth pale blue
DEPMS	depth lt blue
DEPSC	depth dk gray
DEPVS	depth med blue
DNGHL	danger red
green	basic green
ISDNG	danger magenta
LANDA	lt brown

English Adjective	Color Token
lt blue	blue_3
lt brown	LANDA
lt gray	CHGRF
lt magenta	CHMGF
lt orange	APLRT
lt red brown	lite-red-brown
lt tan	light-tan
lt white	PSTRK
magenta	CHMGD
med blue	blue_4
nav orange	NINFO
no data gray	NODTA
oparea green	opgreen
orange	CHCOR
outline black	OUTLW
outline lt brown	OUTLL
pale green	CHWHT
past track gray	SYTRK
purple	med-purple
radar dk green	RADHI
radar lt green	RADLO
red	CHRED
red brown	med-red-brown
reserved dk gray	RESGR
reserved very dk blue	RESBL
reserved yellow	RESYW
reserved1 gray	RES01
reserved2 gray	RES02
reserved3 gray	RES03
reserved4 gray	RES04
reserved5 gray	RES05
rose	med-rose
scale orange	SCLBR
ships black	SHIPS
sounding black	SNDG2
sounding gray	SNDG1
tan	med-tan
traffic lt magenta	TRFCF
traffic magenta	TRFCD
UI border gray	UIBDR
UI lt brown	UIAFF
UI lt green	UINFG
UI magenta	UINFM
UI med blue	UIAFD
UI orange	UINFO

Color Token	English Adjective
LANDF	feature brown
light-beige	lt beige
light-tan	lt tan
lite-red-brown	lt red brown
LITGN	lights green
LITRD	lights red
LITYW	lights yellow
magenta	basic magenta
med-beige	beige
med-purple	purple
med-red-brown	red brown
med-rose	rose
med-tan	tan
NINFO	nav orange
NODTA	no data gray
opgreen	oparea green
OUTLL	outline lt brown
OUTLW	outline black
PLRTE	dk red
PSTRK	lt white
purple21	21% purple
purple42	42% purple
RADHI	radar dk green
RADLO	radar lt green
red	basic red
RES01	reserved1 gray
RES02	reserved2 gray
RES03	reserved3 gray
RES04	reserved4 gray
RES05	reserved5 gray
RESBL	reserved very dk blue
RESGR	reserved dk gray
RESYW	reserved yellow
SCLBR	scale orange
SHIPS	ships black
SNDG1	sounding gray
SNDG2	sounding black
SYTRK	past track gray
TRFCD	traffic magenta
TRFCF	traffic lt magenta
UIAFD	UI med blue
UIAFF	UI lt brown
UIBCK	UI white
UIBDR	UI border gray
UINFB	UI very dk blue

English Adjective	Color Token
UI red	UINFR
UI text gray	UINFF
UI very dk blue	UINFB
UI very dk gray	UINFD
UI white	UIBCK
very dk green	dark-green
yellow	CHYLW
yellow-green	DEPIT

Color Token	English Adjective
UINFD	UI very dk gray
UINFF	UI text gray
UINFG	UI lt green
UINFM	UI magenta
UINFO	UI orange
UINFR	UI red
white	basic white
yellow	basic yellow

Table C-2 S52 Widths to English Adjective

S52 Width	S52 Measure	English Name
1	0.3 mm	very thin
2	0.6 mm	thin
3	0.9 mm	(none)
4	1.2 mm	thick
5	1.5 mm	very thick
6	1.8 mm	very very thick
7	2.1 mm	Not Used in GeoSym
8	2.4 mm	Not Used in GeoSym

Symbol Descriptions

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
0001	landf			SY(PRDINS02)	feature brown mine symbol
0002	landf	chblk		SY(BUISGL11)	feature brown filled square w/ black outline
0003	chblk			SY(CHIMNY11)	black chimney symbol
0004	chblk			SY(TOWERS03)	black tower symbol
0005	landf			SY(CRANES01)	feature brown crane symbol
0006	chblk			SY(FLASTK11)	black flare stack symbol
0007	chblk			SY(FORSTC11)	black square
0008	chblk			SY(WNDMIL12)	black sm cir w/ X on top
0009	landf			SY(POSGEN01)	feature brown dot inside cir
0010	chblk			SY(BUIREL13)	black 'iron cross'
0011	chblk			SY(BUIREL14)	black X inscribed in rectangle
0012	chblk			SY(BUIREL15)	black mosque/minaret w/ dot in circle
0013	chmgf	chwht		SY(CGUSTA02)	lt magenta CG in rectangle w/ pale green fill
0014	chblk			SY(RSCSTA02)	black filled diamond cntred on horizontal line
0015	chmgf	chwht		SY(SISTAT02)	lt magenta SS in rectangle w/ pale green fill
0016	landf			SY(BUAARE02)	feature brown filled cir
0017	chblk			SY(CAIRNS11)	black three stacked sm cirs
0018	chblk			SY(NOTBRD11)	black rectange above inverted T
0019	landf			SY(FLGSTF01)	feature brown flag symbol
0020	chblk			SY(MONUMT12)	black hatched trapazoid
0021	landf	chblk		SY(SILBUI11)	feature brown filled cir w/ black outline
0022	chblk			SY(TNKCON12)	black cir
0023	chblk			SY(TOWERS12)	black water tower symbol
0024	chblk			SY(POSGEN03)	black dot inside cir
0025	trfcd			SY(GATCON04)	traffic magenta lg cir, 2 horiz & 1 vert line
0026	chblk			SY(MSTCON14)	black tall slender triangle w/ cir at bottom
0027	landf			SY(QUARRY01)	feature brown mine symbol inside circle
0028	chblk	chmgd		SY(DOMES011)+ SY(RDOSTA02)	black dome inside lg magenta circle
0029	chblk	chmgd		SY(RASCAN11)+ SY(RDOSTA02)	black rectangle below T in lg magenta cir
0030	chblk	chmgd		SY(MSTCON14)+ SY(RD0STA02)	black triangle w/ in lg magenta cir
0031	chblk	chmgd		SY(TOWERS03)+ SY(RDOSTA02)	black tower inside lg magenta cir
0032	chmgd			SY(BRTHNO01)	magenta circle
0033	landf	chblk	chmgd	SY(BUISGL11)+ SY(RDOSTA02)	feature brown fill sqr black otln in lg mgnta cir
0035	landa	cstln		SY(LNDARE01)	lt brown sm filled cir w/ gray outline
0036	chmgd			SY(ACHARE02)	magenta anchor
0037	chmgd			SY(ACHBRT07)	magenta anchor w/ sm cir on shaft
0038	landa	chblk		SY(MORFAC03)	lt brown filled square w/ black outline
0039	trfcd			SY(RDOCAL02)	traffic magenta cir w/ 1 cone
0040	trfcd			SY(RDOCAL03)	traffic magenta cir w/ 2 cones

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
0041	chmgd			SY(RCLDEF01)	magenta cir w/ 2 cones and 2 ?
0042	chmgd			SY(HRBFAC09)	magenta fish w/ arcs above and below
0043	chmgd			SY(SMCFAC02)	magenta yacht inside lg cir
0044	chblk			SY(BOYINB01)	black installation buoy
0045	chgrd			SY(MARCUL02)	gray fish inside net
0046	chmgd			SY(BRIDGE01)	magenta small circle inside circle
0047	chgrd			SY(FSHFAC02)	gray rectangle w/ angle line on top
0051	chblk			SY(PILPNT02)	black filled sm cir
0052	depvs	chblk		SY(OBSTRN01)	depth med blue fill cir w/ black dotted outline
0053	depvs	chblk		SY(DANGER01)	depth med blue fill lg oval w/ black dot outline
0054	chblk			SY(DANGER02)	lg black oval w/ dotted outline
0055	depit	chblk		SY(OBSTRN03)	yellow-green solid circle w/ black dot outline
0056	chgrd			SY(WATTUR02)	gray waves symbol
0057	landa	cstln		SY(OBSTRN11)	lt brown square with dk gray outline
0058	chblk			SY(LOWACC01)	black leader line w/ question mark
0059	chgrd			SY(FOULGND1)	gray pound (#) symbol
0060	chgrd			SY(WEDKLP03)	gray kelp symbol
0061	chblk			SY(OFSPLF01)	black dot inside square
0062	chblk	depvs	chblk	SY(UWTROC03)	black cross in dotted cir, depth med blue fill
0063	chblk			SY(UWTROC04)	black 6 point asterisk
0064	chgrd			SY(WRECKS01)	gray wreck symbol
0065	chblk	depvs	chblk	SY(WRECKS05)	blck bar 3 ticks in dotted depth med blue oval
0066	chblk			SY(WRECKS04)	black horiz bar w/3 ticks
0071	chgrd			SY(CURDEF01)	gray arrow w/ 2 feathers and 2 ?
0072	chgrd			SY(CURENT01)	gray arrow w/ two feathers
0073	chgrd			SY(EBBSTR01)	gray arrow w/ no feathers
0074	chgrd			SY(FLDSTR01)	gray arrow w/ one feather
0076	chgrd			SY(TIDSTR01)	gray diamond
0077	chblk			SY(HILTOP11)	black radiating cones
0078	chblk			SY(POSGEN04)	black sm cir
0079	landf			SY(TREPNT04)	feature brown side view of stylised tree
0080	chmgd			SY(PILBOP02)	magenta solid filled diamond inside cir
0081	chmgf			SY(INFARE51)	lt magenta square w/ I
0082	trfcf			SY(ENTRES51)	traffic lt magenta cir w/ bar
0083	trfcf			SY(TSSRON51)	traffic lt magenta arc w/ arrowhead
0084	chmgd			SY(CHINFO06)	magenta cir w/ ! Inside
0085	chmgf			SY(FSHRES51)	lt magenta fish w/ intersecting diag line
0086	chmgf			SY(ACHRES51)	lt magenta open anchor w/ intrsctng diag line
0087	trfcf	chmgd		SY(RSRDEF51)	traffic lt magenta ! In lg cir w/ magenta ?
0088	trfcd			SY(TSSLPT51)	traffic magenta filled arrow
0089	trfcd	chmgd		SY(RTLDEF51)	traffic magenta dashed arrow w/ 2 mgnta ?'s
0090	landf			SY(AIRARE02)	feature brown outline of plane inside lg cir
0091	chgrd			SY(RECDEF51)	gray ? inside angle brackets inside dashes
0092	trfcf			SY(PRCARE51)	traffic lt magenta ! Inside triangle
0093	trfcf			SY(CTYARE51)	traffic lt magenta ! Inside lg circle

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
0094	chmgf			SY(CBLARE51)	lt magenta angled line
0095	chgrf			SY(SWPARE51)	lt gray under bar w/ upward bar on ends
0096	chmgd			SY(CHINFO07)	magenta square w/ i
0097	trfcf			SY(CTNARE51)	traffic lt magenta ! Inside lg circle
0098	trfcd	chmgd		SY(TWRDEF51)	traffic magenta dash dbl head arrow w/ 2 ?'s
0100	chblk			SY(BCNGEN01)	black beacon/buoy base
0101	outlw	chylw		SY(BCNSPP21)	yellow rectangle w/ outline black outline
0114	chblk			SY(TOPMAR14)	black topmark open parallelogram
0122	chblk			SY(TOPMAR22)	black topmark one cone up
0124	chblk			SY(TOPMAR24)	black topmark one cone down
0125	chblk			SY(TOPMAR25)	black topmark two cones up
0126	chblk			SY(TOPMAR26)	black topmark two cones down
0127	chblk			SY(TOPMAR27)	black topmark two cones point out
0128	chblk			SY(TOPMAR28)	black topmark two cones point in
0130	chblk			SY(TOPMAR30)	black topmark one ball
0132	chblk			SY(TOPMAR32)	black topmark two balls
0133	chblk			SY(TOPMAR33)	black topmark can
0150	depit	depcn		SY	yellow-green filled sm cir w/ gray outline
0151	chmgd			SY(DAYSQR21)	magenta box above inverted T with open cir
0152	chmgd			SY(DAYSQR01)	magenta box w/ dot and line below
0154	chgrd			SY	gray open cir,arrows pting out,represent only
0185	chblk			SY(TOPMAR85)	black topmark special X
0186	chblk			SY(TOPMAR86)	black topmark cross
0187	chblk			SY(TOPMAR87)	black topmark perch
0188	chblk			SY(TOPMAR88)	black topmark broom up
0199	chblk			SY(TMARDEF1)	black default topmark upright
0202	chblk			SY(TOPMAR02)	black buoy topmark one cone up
0204	chblk			SY(TOPMAR04)	black buoy topmark one cone down
0205	chblk			SY(TOPMAR05)	black buoy topmark two cones up
0206	chblk			SY(TOPMAR06)	black buoy topmark two cones down
0207	chblk			SY(TOPMAR07)	black buoy topmark two cones point out
0208	chblk			SY(TOPMAR08)	black buoy topmark two cones point in
0210	chblk			SY(TOPMAR10)	black buoy topmark one ball
0212	chblk			SY(TOPMAR12)	black buoy topmark two balls
0213	chblk			SY(TOPMAR13)	black buoy topmark can
0214	chblk			SY(TOPMAR14) for buoys	black buoy topmark open parallelogram
0217	chblk			SY(TOPMAR17)	black buoy topmark upright cross
0265	chblk			SY(TOPMAR65)	black buoy topmark special X
0299	chblk			SY(TMARDEF2)	black buoy default topmark
0300	chblk	chmgd		SY(BOYGEN03)	black default buoy beside magenta ?
0301	chblk			SY(BOYBAR01)	black barrel buoy
0302	chblk			SY(BOYCAN01)	black can buoy
0303	chblk			SY(BOYCON01)	black cone buoy
0304	chblk			SY(BOYMOR01)	black mooring barrel buoy
0305	chblk			SY(BOYMOR03)	black mooring can buoy

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
0306	chblk			SY(BOYPIL01)	black pillar buoy
0307	chblk			SY(BOYSPH01)	black spherical buoy
0308	chblk			SY(BOYSPR01)	black spar buoy
0309	chblk			SY(BOYSUP01)	black superbuoy
0310	chblk			SY(BOYSUP03)	black lanby
0311	chblk			SY(BOYMOR11)	black mooring/installation buoy
0312	chblk			SY(BOYSUP02)	black superbuoy - simplified
0313	outlw	chylw		SY(BOYSPP11)	yellow circle w/ outline black outline
0401	chmgf			SY(FOGSIG01) for water	lt magenta arcs origin offset for beacons
0402	chmgf			SY(FOGSIG01) for land	lt magenta arcs origin offset for buoys
0500	chmgd			SY(LIGHTDEF)	magenta flare
0501	litrd			SY(LIGHTS01)	lights red flare
0502	litgn			SY(LIGHTS02)	lights green flare
0503	lityw			SY(LIGHTS03)	lights yellow flare
0510	chmgd			SY(RADRFL03)	magenta arc w/ 5 ticks pointing upward
0511	chmgd			SY(RDOSTA02)	lg magenta cir
0512	chmgd			SY(RTPBCN02)	lg magenta dashed cir
0513	chblk			SY(LITFLT01)	black lt float
0514	chblk			SY(LITVES01)	black lt vessel
0515	chblk			SY(LITFLT02)	black lt float, simplified
0516	chblk			SY(LITVES02)	black lt vessel, simplified
0517	med-purple			SY(NDB)	purple circle with dot in center
0518	med-purple			SY(VOR)	purple hexagon with dot in center
0519	med-purple			SY(VORDME)	purpoe hexagon in square w/ dot in center
0520	med-purple			SY(VORTAC)	purple hexagon, solid outer rectgls, cntr dot
0521	med-purple			SY(TACAN)	purple hexagon, open outer rectgls, cntr dot
0522	opgreen			SY	oparea green open triangle
0523	opgreen			SY	oparea green solid triangle
0524	med-purple			SY	purple open circle w/ diagonal cross bar
0525	med-purple			SY	purple open very very thin circle
0526	med-purple			SY	purple open very thin circle
0527	med-purple			SY	purple filled circle
0600	chblk			LS(SOLD,1,CHBLK)	black very thin solid line
0604	landf			LS(SOLD,1,LANDF)	feature brown very thin solid line
0605	landf			LS(SOLD,2,LANDF)	feature brown thin solid line
0606	landf			LS(SOLD,3,LANDF)	feature brown solid line
0607	landf			LS(SOLD,4,LANDF)	feature brown thick solid line

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
0608	depcn			LS(SOLD,1,DEPCN)	depth gray very thin solid line
0609	depsc			LS(SOLD,2,DEPSC)	depth dk gray thin solid line
0610	chgrd			LS(SOLD,3,CHGRD)	gray solid line
0611	chgrd			LS(SOLD,4,CHGRD)	gray thick solid line
0612	chgrf			LS(SOLD,1,CHGRF)	lt gray very thin solid line
0613	depsc			LS(DASH,2,DEPSC)	depth dk gray thin dash line
0614	depcn			LS(DASH,1,DEPCN)	depth gray very thin dash line
0615	chwht			LS(SOLD,3,CHWHT)	pale green solid line
0620	trfcf			LS(SOLD,6,TRFCF)	traffic lt magenta very very thick solid line
0621	depvs			LS(SOLD,1,DEPVS)	depth med blue very thin solid line
0622	depvs			LS(SOLD,2,DEPVS)	depth med blue thin solid line
0623	cstln			LS(SOLD,2,CSTLN)	dk gray thin solid line
0624	landf			LS(DASH,1,LANDF)	feature brown very thin dash line
0625	cstln			LS(SOLD,4,CSTLN)	dk gray thick solid line
0626	cstln			LS(DASH,2,CSTLN)	dk gray thin dash line
0627	chgrd			LS(SOLD,5,CHGRD)	gray very thick solid line
0629	chgrd			LS(DASH,2,CHGRD)	gray thin dash line
0630	cstln			LS(DOTT,2,CSTLN)	dk gray thin dotted line
0631	chgrd			LS(SOLD,2,CHGRD)	gray thin solid line
0632	cstln			LS(DASH,1,CSTLN)	dk gray very thin dash line
0633	chgrf			LS(DASH,2,CHGRF)	lt gray thin dash line
0634	chmgd			LS(DASH,1,CHMGD)	magenta very thin dash line
0635	chmgf			LS(DASH,1,CHMGF)	lt magenta very thin dash line
0656	chgrd			LS(DASH,1,CHGRD)	gray very thin dash line
0657	chgrd			LS(DASH,4,CHGRD)	gray thick dash line
0661	trfcd			LS(DASH,3,TRFCD)	traffic magenta dash line
0662	trfcd			LS(DASH,1,TRFCD)	traffic magenta very thin dash line
0663	trfcd			LS(DASH,2,TRFCD)	traffic magenta thin dash line
0665	trfcd			LS(DASH,4,TRFCD)	traffic magenta thick dash line
0669	depvs			LS(DASH,1,DEPVS)	depth med blue very thin dash line
0670	depvs			LS(DASH,2,DEPVS)	depth med blue thin dash line
0680	chblk			LS(DOTT,2,CHBLK)	black thin dotted line
0681	uinfb			LS(SOLD,2,UINFB)	UI very dk blue thin solid line
0682	uinfb			LS(SOLD,1,UINFB)	UI very dk blue very thin solid line
0683	uinfb			LS(DOTT,3,UINFB)	UI very dk blue dotted line
0684	red			LS(SOLD,2,red)	basic red thin solid line
0685	opgreen			LS(SOLD,2,opgreen)	oparea green thin solid line
0686	med-purple			LS(SOLD,4,med-purple)	purple thick solid line
0687	med-purple			LS(L-DASH,4,med-purple)	purple thick long dash line
0688	depsc			LS(L-DASH,2,DEPSC)	depth dk gray thin long dash line
0689	depcn			LS(L-DASH,1,DEPCN)	depth gray very thin long dash line
0700	chmgd			LC(FERYRT01)	magenta dash very thin line w/ boat shape
0701	chblk			LC(FERYRT02)	black dash very thin line w/ boat shape

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
0704	chgrd			LC(PIPSOL06)	gray dash very thin line w/ sm cir
0705	chmgd			LC(PIPSOL05)	magenta dash very thin line w/ cir
0708	chmgd			LC(CBLSUB06)	magenta broken zig-zag line w/ flash symbol
0711	chmgd			LC(ACHARE51)	magenta dash/chevron line w/anchor symbol
0712	chgrd			LC(FSHFAC02)	gray L complex line
0713	chmgd			LC	magenta compressed zig-zag line
0716	chgrd			LC(NAVARE51)	gray dash/chevron line
0722	chmgd			LC(RESARE51)	magenta dashed T line
0723	trfcd			LC(DWRTCL08)	traffic magenta solid line w/ > and DW
0724	trfcd			LC(DWRTCL07)	traffic magenta dash line w/ > and DW
0725	trfcd			LC(DWRTCL06)	traffic magenta solid line w/ < > and DW
0726	trfcd			LC(DWRTCL05)	traffic magenta dash line w/ < > and DW
0727	trfcd			LC(DWLDEF01)	traffic magenta dash line w/ < ? > and DW
0728	chgrd			LC(RECTRC12)	gray very thin line w/ >
0729	chgrd			LC(RECTRC11)	gray very thin dash line w/ >
0730	chgrd			LC(RECTRC10)	gray very thin line w/ < >
0731	chgrd			LC(RECTRC09)	gray very thin dash line w/ < >
0732	chgrd			LC(RECDEF02)	gray very thin dash line w/ < ? >
0733	chmgf			SY(LOCMAG51)	lt magenta open flag
0734	chmgd			LC(CTYARE51)	magenta dash/chevron line
0735	chmgd			LC(PIPARE51)	magenta dash/chevron line w/ dash, cir
0736	chgrd			LC(PIPARE61)	gray dash/chevron line w/ dash, cir
0737	chmgd			LC(CBLARE51)	magenta dash/chevron line w/ flash symbol
0738	chmgd			LC(PRCARE51)	magenta dash/chev line w/precaution symbol
0739	chmgd			LC(ACHRES51)	magenta T dash line w/ anchor symbol
0740	chmgd			LC(FSHRES51)	magenta T dash line w/ fish symbol
0741	trfcd			LC(DWRUTE51)	traffic magenta dash/chevron line w/ DW
0742	chmgd			LC(CTNARE51)	magenta dash/chevron line w/caution symbol
0743	cstln			LC(LOWACC21)	dk gray small open rectangle dash line
0751	chblk			LC	black solid line w/ tick terminators
0752	chgrd	chgrd		LC=LS(DASH,1,CHGRD)+ SY(WATTUR02)	gray very thin dash line w/ cntred waves
0753	chgrd	chmgd		LC=LS(SOLD,5,CHGRD)+ SY(BRIDGE01)	very thck gray line w/ cntrd magenta dbl cir
0754	uinfb			LC(OPAREAASW)	UI vy dk blue vy thin line w/5 rows dots inside
0755	uinfb			LC(OPAREAsubOA)	UI vy dk blue vy thin line w/vert inward ticks
0756	landf			LC(OPAREAstlsub)	feature brown vy thin line w/vert inward ticks
0757	landf			LC(OPAREAstlsur)	feature brown vy thin line w/3 rows dots ins
0758	landf			LC(OPAREAsfl)	feature brown 5 dot vy thin line
0759	opgreen			LC(OPAREAalcorr)	oparea green thin line w/stagrd dots inside
0760	med-purple			LC(OPAREAADIZ)	purple vy thin line w/ 3 row vert dots inside
0761	opgreen			LC(OPAREActlas)	oparea green vy thin line w/3 row vert dots
0762	opgreen			LC(OPAREAFIR)	oparea green thin line with ticks inside
0763	opgreen			LC(OPAREAUIR)	oparea green thin line with open tabs inside

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
0764	med-purple			LC(OPAREAAWAB)	purple thin line w/ rt angle ticks inside
0765	med-purple			LC(OPAREAARAB)	purple thin line w/ lft angle ticks inside
0766	med-purple			LC(HITSslope)	purple very thin solid line with inward ticks
0767	med-purple			LC(CBLSUB06*)	purple broken zig-zag line w/ flash symbol
0802	chgrd			AC(CHGRD)	gray solid fill
0803	depit			AC(DEPIT)	yellow green solid fill
0804	chbrn			AC(CHBRN)	brown solid fill
0805	depdw			AC(DEPDW)	depth white fill
0810	depvs			AC(DEPVS)	depth med blue solid fill
0820	depmd			AC(DEPMD)	depth pale blue solid fill
0821	depms			AC(DEPMS)	depth lt blue solid fill
0822	landa			AC(LANDA)	lt brown solid fill
0823	nodta			AC(NODTA)	no data gray solid fill
0824	trfcf			AC(TRFCF,3)	traffic lt magenta solid fill
0825	purple21			AC(purple21)	21% purple solid fill
0826	purple42			AC(purple42)	42% purple solid fill
0902	chmgf			SY(ACHARE51)	lt magenta anchor
0903	chgrd			AP(FSHFAC04)	gray fish trap patt fill
0904	chgrd			AP(MARCUL02)	gray fish in net patt fill
0910	chbrn			AP(MARSHES1)	brown marsh patt fill
0911	depvs			AP	depth med blue grid patt fill
0912	chgrd			AP(ICEARE04)	gray random line patt fill
0913	landf			AP	feature brown solid filled circle patt fill
0914	landf			AP	feature brown cirs patt fill
0915	landf			AP(VEGATN03)	feature brown tree side-view patt fill
0916	landf			AP(VEGATN04)	feature brown mangrove side-view patt fill
0917	trfcf			AP(TSSJCT02)	traffic lt magenta rt diag line patt fill
0919	chgrd			AP(DRGARE01)	gray diag spaced dot patt fill
0932	landf			AP(AIRARE02)	feature brown airplane patt fill
0933	chgrd			AP(NODATA03)	gray offset dash patt fill
0934	chgrd			AP(PRTSUR01)	gray dash wide patt fill
0949	depcn			AP(DIAMOND1)	depth gray diamond patt fill
1001	chred	chblk		SY	red filled square black outline
1002	chblk			SY	black filled cir w/ white cross inside
1003	chblk			SY	black cross
1004	chblk			SY	black pencil shape symbol
1005	chblk			SY	black F inside boat
1006	blue			SY	basic blue line w/ arrow
1007	blue			SY	basic blue cir
1008	blue			SY	basic blue filled cir w/ tail below
1009	blue			SY	basic blue filled diamond

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
1010	blue			SY	basic blue solid square
1011	chblk			SY	black sm filled cir beside +-
1012	aero-blue			SY	aero blue solid filled star
1013	chblk			SY	black "H" inside black square
1171	chblk			SY	black opposing open equi triangles
1172	chblk			SY	black diamond w/ curve staffed arrow
1202	landf	chbrn		SY(BUISGL01)	feature brown filled square w/ brown outln
1205	chbrn			SY	brown vert line w/ horizontal ticks on rt side
1206	chblk			SY	black line w/ indented rectangle
1211	chblk			SY	black two rt pointing triangles
1220	trfcd			SY(RCTLPT52)	traffic magenta dashed open arrow
1233	chblk			SY	black horiz line below triangle w/ B inside
1236	chmgf			SY(ITZARE51)	lt magenta IT
1238	trfcf	trfcf	chmgd	SY(DWRTPT51)+ SY(TSLDEF51)	traffic lt mag DW filled arrow btwn 2 mgnta ?
1251	sndg1			SY(SOUND*C2)	sounding gray circle
1256	sndg2			SY(SOUNDSA1)	sounding black overbar
1301	chblk			LC	black line w/ squares
1303	blue			LC	basic blue thin dash line w/ circle
1304	blue			LC	basic blue thin dash line w/ dot
1305	chbrn			LC	brown dash thin line w/ dot
1306	med-red-brown			LS(L-DASH,1,med-red-brown)	red brown very thin long dash line
1307	med-red-brown			LC	red brown vy thin line w/ ticks on inside
1308	chblk			LC	black very thin line w/ ticks
1309	chblk			LC	black double lines w/ ticks pointing out
1310	chblk			LC	black one long dash two short dash line
1311	chblk			LC	black long dash short dash line
1312	chblk			LC	black very thin sht dash very sht dash line
1313	med-purple			LC	purple line w/ squares
1314	med-red-brown			LC	red brown triple solid thin lines
1315	med-red-brown			LC	red brown double solid thin lines
1316	med-red-brown			LC	red brown triple dash thin lines
1317	med-red-brown			LC	red brown double dash thin lines
1318	chblk			LC	black thin long dsh 2 shrt dsh line
1319	chblk			LC	black thin long dash 3 dot line
1401	chblk			LC	black outline open line w/ rt diag fill
1403	chblk			LC	black line w/ open diamonds
1406	chbrn			LS(SOLD,2,CHBRN)	brown thin solid line
1408	green			LC	basic green vy thin long dash short dash line

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
1412	depit			LS(SOLD,2,DEPIT)	yellow green thin solid line
1451	med-purple			LC	purple dash line w/ tics both sides (- + -)
1506	blue			LC	basic blue jagged vy thin line
1509	chblk			LC	black thin solid line ticks on inside
1511	chbrn			LC	brown thin line outward ticks
1512	chmgd			LC	magenta vy thin line double ticks
1513	chmgd			LC	magenta jagged line
1516	chblk			LC	black thin line outward ticks
1571	chbrn			LC	brown vy thin dash/dotted line
1572	chblk			LC	black thin solid dbl lines w/ flares on ea end
1573	cstln			LS(SOLD,1,CSTLN)	dk gray very thin solid line
1601	chred			AC(CHRED)	red solid fill
1602	lityw			AC(LITYW)	lights yellow solid fill
1605	depit			AP	yellow-green tree-top patt fill
1606	depit			AP	yellow-green triangle tree patt fill
1608	blue			AP	basic blue stipple dot patt fill
1609	blue			AP	basic blue diag grid patt fill
1610	chred			AP	red left diag line patt fill
1611	blue			AP	basic blue dot patt fill
1612	chmgd			AP	magenta cross hatch patt fill
1613	depit			AP	yellow-green nipa patt fill
1651	trfcf			LS(DASH,2,TRFCF)	traffic lt magenta thin dash line
1655	blue			LS(DASH,2,blue)	basic blue thin dash line
1851	med-beige			LS(S-DASH,2,med-beige)	beige thin short dash line
1855	med-red-brown			LS(SOLD,2,med-red-brown)	red brown thin solid line
1901	uiaff			AC(UIAFF)	ui lt brown solid fill
1902	dark-beige			AC(dark-beige)	dk beige solid fill
1903	med-rose			AC(med-rose)	rose solid fill
1904	adinf			AC(ADINF)	golden yellow solid fill
1905	white			AC(white)	basic white solid fill
1906	lite-red-brown			AC(lite-red-brown)	lt red brown solid fill
2001	chblk			SY	black pick & hammer
2002	chblk			SY	black tower
2003	blue			SY	basic blue solid filled cir
2005	chblk			SY	black building w/ 2 smokestacks above
2009	chblk			SY	black square w/ zap inside
2010	chblk			SY	black sun burst w/ dot inside
2011	chblk			SY	black filled square w/ zap on top
2016	chblk			SY	black dot inside double cir
2019	chblk			SY	black sm filled cir

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
2026	chblk			SY	black tent
2029	chblk			SY	black ferris wheel
2034	chblk			SY	black skier
2035	chblk			SY	black dot inside cir
2036	chblk			SY	black sm filled square
2038	chblk			SY	black dot w/ parallel lines inside circle
2042	chblk			SY	black filled square w/ flag on top
2043	chblk			SY	black four black squares w/ connection
2044	chblk			SY	black lighthouse symbol
2045	chblk			SY	black filled square w/ cross on top
2047	chblk			SY	black filled square w/ T on top
2048	chblk			SY	black pinwheel
2051	chblk			SY	black ramp symbol
2053	chblk			SY	black sm open square w/ dot in center
2058	chgrd			SY	gray filled square
2060	chblk			SY	black square w/ S inside
2063	chblk			SY	black monument symbol
2070	chblk			SY	black diag bands in rectangle
2071	chblk			SY	black dot inside cir
2072	chgrd			SY	gray shadowed square
2073	chblk			SY	black square w/ diag line inside
2074	chbrn			SY	brown cir
2076	med-red-brown			SY	red brown filled semicircle
2078	blue			SY	basic blue dot inside cir
2080	chblk			SY	black rt diag line inside cir
2081	chblk			SY(SAE0002)	black open square
2083	chblk			SY	black double line with flares on ends
2087	chblk			SY	black opposing solid triangles pnting in
2088	med-purple			SY	purple dot inside cir
2089	chblk			SY	black cir w/ four outer tics and dot inside
2090	chblk			SY	black cir w/ C inside
2094	med-purple			SY	purple solid ellipse extending from pole
2097	chblk			SY	black sm square w/ P inside
2099	chblk			SY	black dot inside cir inside square
2100	chblk			SY	black cir w/ T inside
2101	med-red-brown			SY	red brown octagon shape w/ "R" inside
2102	chblk			SY(DSHAER11)	black satellite dish symbol
2104	med-purple			SY	purple tower symbol
2105	chblk			SY	black cir around satellite dish symbol
2106	chblk			SY	black filled square w/ outward ticks

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
2107	chblk			SY	black vert line w/ two horiz lines at top
2108	chblk			SY	black tower w/ sound waves at top
2111	chbrn			SY	brown filled cir
2212	chblk			SY	black solid filled shipwreck symbol
2231	blue			SY	basic blue open diamond
2232	blue			SY	basic blue solid arrowhead
2233	blue			SY	basic blue square w/ grid inside
2234	blue			SY	basic blue cir diagly half filled
2238	chblk			SY	black vertical heavy weight line
2239	chblk			SY	black open arrowhead
2242	chblk			SY	black 8 pt asterisk w/ open center
2243	chblk			SY	black sm filled cir
2245	blue			SY	basic blue sm filled cir
2247	chblk			SY	black diag line w/ "L" on top
2248	chbrn			SY	sm brown filled cir w/ tail below
2249	chblk			SY	black)(symbol
2250	chbrn			SY	brown 6 pt asterisk w/ open center
2251	chbrn			SY	sm brown open cir w/ eight tics outside
2252	chgrn			SY	green palm tree symbol
2253	chgrn			SY	green triangle tree symbol
2256	chblk			SY	black/white divided square
2257	chmgd			SY	magenta square w/ F
2264	chblk			SY	black cir
2267	aero-blue			SY	aero-blue airplane
2268	chgrf			SY	lt gray airplane
2269	chmgd			SY	magenta airplane
2271	med-purple			SY(SAE0030)	purple "H" inside cir
2273	aero-blue			SY	aero-blue solid cir w/ open diag band
2274	chmgd			SY	magenta M inside cir
2278	chblk			SY	black dot in square
2279	chblk			SY	black triangle w/ dot inside
2281	chgrd			SY	gray cir w/ open diag band
2320	blue			SY(SAE0028)	basic blue sm cir in cir w/4 squares outside
2323	chblk			SY	black dot
3000	chmgf			LS(DASH,2,CHMGF)	lt magenta thin dash line
3001	light-beige			LS(SOLD,2,light-beige)	lt beige thin solid line
3003	med-tan			LS(SOLD,1,med-tan)	tan very thin solid line
3012	chbrn			LS(SOLD,1,CHBRN)	brown very thin solid line
3014	chbrn			LS(SOLD,3,CHBRN)	brown solid line
3017	chbrn			LS(DASH,2,CHBRN)	brown thin dash line
3021	chbrn			LS(DOTT,2,CHBRN)	brown thin dotted line
3022	chbrn			LC	brown thin dash line w/ open cir

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
3024	med-red-brown			LS(SOLD,1,med-red-brown)	red brown very thin solid line
3026	med-red-brown			LS(SOLD,3,med-red-brown)	red brown solid line
3028	med-red-brown			LS(DASH,2,med-red-brown)	red brown thin dash line
3031	dark-green			LS(SOLD,2,dark-green)	very dk green thin solid line
3036	dark-green			LC	very dk green thin line w/rectangles one side
3042	blue			LS(S-DASH,1,blue)	basic blue very thin short dash line
3047	blue			LS(L-DASH,2,blue)	basic blue thin long dash line
3050	blue			LC	basic blue dashed line w/ open cirs
3052	chmgd			LS(SOLD,2,CHMGD)	magenta thin solid line
3054	chmgf			LS(S-DASH,1,CHMGF)	lt magenta very thin short dash line
3061	chmgd			LS(DOTT,2,CHMGD)	magenta thin dotted line
3064	chmgd			LC	magenta thin wavy solid line
3069	aero-blue			LS(SOLD,1,aero-blue)	aero-blue very thin solid line
3070	aero-blue			LS(SOLD,2,aero-blue)	aero-blue thin solid line
3073	aero-blue			LS(S-DASH,2,aero-blue)	aero-blue thin short dash line
3074	med-purple			LC	purple thin solid line w/ dots on each side
3076	chgrf			LS(SOLD,2,CHGRF)	lt gray thin solid line
3077	chgrf			LS(DASH,1,CHGRF)	lt gray very thin dash line
3082	chgrd			LS(SOLD,1,CHGRD)	gray very thin solid line
3086	chgrd			LS(S-DASH,1,CHGRD)	gray very thin short dash line
3096	chgrd			LC	gray very rhin dash line w/ dot
3104	chred			LS(SOLD,3,CHRED)	red solid line
3106	depmd			LC	depth pale blue very thin solid line w/ ticks
3107	depmd			LS(SOLD,1,DEPMD)	depth pale blue very thin solid line
3108	depmd			LS(SOLD,2,DEPMD)	depth pale blue thin solid line
3109	depmd			LS(DOTT,2,DEPMD)	depth pale blue thin dotted line
3112	chblk			LS(SOLD,2,CHBLK)	black thin solid line
3113	chblk			LS(SOLD,3,CHBLK)	black solid line
3114	chblk			LS(S-DASH,1,CHBLK)	black very thin short dash line
3115	chblk			LS(S-DASH,2,CHBLK)	black thin short dash line
3116	chblk			LS(DASH,1,CHBLK)	black very thin dash line
3117	chblk			LS(DASH,2,CHBLK)	black thin dash line
3118	chblk			LS(DASH,3,CHBLK)	black dash line
3119	chblk			LS(L-DASH,1,CHBLK)	black very thin long dash line
3120	chblk			LS(L-DASH,2,CHBLK)	black thin long dash line
3121	chblk			LS(L-DASH,3,CHBLK)	black long dash line
3123	chblk			LC	black solid line w/ single tics both sides
3125	chblk			LC	black solid line w/ single tics alt sides
3127	chblk			LC	black solid line w/ double tics both sides
3129	chblk			LC	black solid line w/ double tics alt sides

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
3131	chblk			LC	black dash line w/ single tics both sides
3133	chblk			LC	black dash line w/ double tics both sides
3135	chblk			LC	black dash line w/ single tics alt sides
3137	chblk			LC	black dash line w/ double tics alt sides
3139	chblk			LS(DOTT,1,CHBLK)	black very thin dotted line
3141	chblk			LC	black three dash one dot very thin line
3142	chblk			LC	black parallel vy thin lines w/ tics (ladder patt)
3143	chblk			LC	black double dash very thin lines
3146	chblk			LC	black solid triangle line patt
3148	chblk			LC	black patt line -x -x -x
3153	beige-rose			LS(SOLD,2,beige-rose)	beige-rose thin solid line
3167	depmd			LS(S-DASH,2,DEPMD)	depth pale blue thin short dash line
3168	outll			LS(DOTT,2,OUTLL)	outline lt brown thin dotted line
3186	chblk			LC	black jagged line
3194	ninfo			LS(SOLD,1,NINFO)	nav orange very thin solid line
4002	light-beige			AC(light-beige)	lt beige solid fill
4003	med-beige			AC(med-beige)	beige solid fill
4005	med-beige			AP	beige stiple dot patt fill
4008	med-beige			AP	beige sand dune default
4009	med-beige			AP	beige sand dune crescent
4010	med-beige			AP	beige sand dune lateral
4011	med-beige			AP	beige sand dune mound
4012	med-beige			AP	beige sand dune ripple
4013	med-beige			AP	beige sand dune star
4014	med-beige			AP	beige sand dune transverse
4015	beige-rose			AC(beige-rose)	beige-rose solid fill
4018	light-tan			AC(light-tan)	lt tan solid fill
4025	landf			AC(LANDF)	feature brown solid fill
4027	chbrn			AP	brown wide left diag patt fill
4028	chbrn			AP	brown horizontal lines patt fill
4030	chbrn			AP	brown left diag thin line patt fill
4032	chbrn			AP	brown stipple dot patt fill
4034	chbrn			AP	brown heavy mixed stipple dot patt fill
4036	med-red-brown			AC(med-red-brown)	red brown solid fill

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
4037	med-red-brown			AP	red brown horizontal line patt fill
4045	chgrn			AC(CHGRN)	green solid fill
4051	dark-green			AP	very dk green squares in grid patt fill
4052	chgrn			AP	green bamboo patt fill
4054	dark-green			AP	very dk green offset grid/dot patt fill
4063	depit			AP	yellow-green stipple dot patt fill
4066	depit			AP	yellow-green variated stipple dot patt fill
4067	depit			AP	yellow-green dot patt fill
4068	depit			AP	yellow-green grass patt fill
4071	blue			AC(blue)	basic blue solid fill
4077	depvs			AP	depth med blue narrow rt diag line patt fill
4078	blue			AP	basic blue inundation area patt fill
4079	blue			AP	basic blue stipple dot patt fill
4080	blue			AP	basic blue marsh/swamp patt fill
4081	blue			AP	basic blue diag grid patt fill
4085	blue			AP	basic blue rice patt fill
4089	chmgd			AC(CHMGD)	magenta solid fill
4098	med-purple			AP	purple wide rt diag line patt fill
4100	chgrf			AC(CHGRF)	lt gray solid fill
4105	chgrf			AP	lt gray rt diag thin line patt fill
4107	chgrf			AP	lt gray dot patt fill
4108	chgrf			AP	lt gray land cover/ripple patt fill
4109	depcn			AC(DEPCN)	depth gray solid fill
4114	depcn			AP	depth gray horizontal lines patt fill
4123	depcn			AP	depth gray stiple patt fill
4124	depcn			AP	depth gray land cover/ripple patt fill
4128	chylw			AC(CHYLW)	yellow solid fill
4138	blue-4			AC(blue-4)	med blue solid fill
4145	depmd			AP	depth pale blue lft diag dash line patt fill
4150	depmd			AP	depth pale blue stiple dot patt fill
4151	blue			AP	basic blue ripple jagged patt fill
4152	blue-3			AC(blue-3)	lt blue solid fill
4154	blue-5			AC(blue-5)	dk blue solid fill
4156	chblk			AC(CHBLK)	black solid fill
4167	chblk			AP	black cross hatch patt fill
4170	blue-3			AP	lt blue mixed stipple dot patt fill
4175	aplrt			AC(APLRT)	lt orange solid fill
4178	dark-green			LS(SOLD,1,dark-green)	very dk green very thin solid line
4180	depmd			LS(S-DASH,1,DEPMD)	depth pale blue very thin short dash line
4183	chmgd			LS(SOLD,3,CHMGD)	magenta solid line

Symbol #	Token1	Token2	Token3	Symbol Name	Symbol Description
4184	chmgd			LS(S-DASH,1,CHMGD)	magenta very thin short dash line
4185	chmgd			LS(S-DASH,2,CHMGD)	magenta thin short dash line
4186	chmgd			LS(DASH,2,CHMGD)	magenta thin dash line
4194	aero-blue			LS(S-DASH,1,aero-blue)	aero-blue very thin short dash line
4201	depcn			LS(DASH,2,DEPCN)	depth gray thin dash line
4202	depcn			LS(DOTT,2,DEPCN)	depth gray thin dotted line
4203	depcn			LC	depth gray line w/ two dashes
4217	med-beige			LS(SOLD,1,med-beige)	beige very thin solid line
4220	beige			LS(SOLD,2,med-beige)	med-beige thin solid line
4230	depit			AP	yellow-green squares in grid patt fill
4236	med-beige			LS(SOLD,3,med-beige)	beige solid line
4240	chred			LS(SOLD,2,CHRED)	red solid thin line
4243	depsc			AC(DEPSC)	depth dk gray solid fill
4248	chgrf			AP	lt gray stipple dot patt fill
4249	chblk			AP	black x patt fill
4259	med-beige			LS(DASH,2,med-beige)	beige thin dash line
4262	med-purple			LS(DASH,2,med-purple)	purple thin dash line
4265	blue			LS(SOLD,2,blue)	basic blue thin solid line
4266	blue			LS(SOLD,1,blue)	basic blue very thin solid line
4279	ninfo			LS(S-DASH,2,NINFO)	nav orange thin short dash line
4289	blue			AP	basic blue stipple dot patt fill
5000	depit			SY(QUESMRK1)	yellow-green question mark
5001	depit			LC(QUESMRK1)	yellow-green thin line w/ question mark

SYMBOL TO PRODUCT CROSS-REFERENCE

D.1 SCOPE

D.1.1 Scope. This appendix provides a cross-reference between each symbol and the products/features that use that symbol. It is a mandatory part of the specification. The information contained herein is intended for compliance.

D.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

D.3 SYMBOL TO PRODUCT CROSS REFERENCE

This appendix is sorted by symbol number and VPF product to provide a cross-reference between each symbol and the products/features that use that symbol. This appendix is completely textual and contains no graphic depictions of the symbols. Refer to Appendix A or Appendix F for a graphic depiction of the symbols.

There are two sections to this appendix. This first section provides information on the full chart symbols and the second section provides information on the simplified symbols. At this time, the simplified symbol cross-reference will only contain the DNC product.

Symbol to Product Cross-Reference

Full Chart

0001	Point	SY(PRDINS02)			*feature brown mine symbol*	
DNC		P	AA010			mine/quarry
0002	Point	SY(BUISGL11)			*feature brown filled square w/ black outline*	
DNC		P	AD030			substation/tran.yard
DNC		P	AK160			stadium/amphitheater
DNC		P	AL015	bfc=81 AND sta=0or2or3or6or11		building - maritime station
DNC		P	AL018			building superstructure addition
DNC		P	AL200			ruins
DNC		P	AQ116			pumping station
DTOP		P	AL200			ruins
UVM		P	AL200			ruins
VML0		P	AL200			ruins
VML1		P	AL200			ruins
VML2		P	AL200			ruins
0003	Point	SY(CHIMNY11)			*black chimney symbol*	
DNC		P	AF010			chimney/smokestack
DTOP		P	AF010			chimney/smokestack
UVM		P	AF010			chimney/smokestack
VML1		P	AF010			chimney/smokestack
VML2		P	AF010			chimney/smokestack
0004	Point	SY(TOWERS03)			*black tower symbol*	
DNC		P	AF030			cooling tower
DNC		P	AL240			tower (non-communication)
DNC		P	AM030			grain elevator
DNC		P	AQ060			control tower
DNC		P	AT080			communication tower
DTOP		P	AM030			grain elevator
UVM		P	AM030			grain elevator
VML1		P	AM030			grain elevator
VML2		P	AM030			grain elevator
0005	Point	SY(CRANES01)			*feature brown crane symbol*	
DNC		P	AF040			crane
DTOP		P	AF040			crane
UVM		P	AF040			crane
VML1		P	AF040			crane
VML2		P	AF040			crane
0006	Point	SY(FLASTK11)			*black flare stack symbol*	
DNC		P	AF070			flare pipe
DTOP		P	AF070			flare pipe
UVM		P	AF070			flare pipe
VML1		P	AF070			flare pipe
VML2		P	AF070			flare pipe
0007	Point	SY(FORSTC11)			*black square*	
DNC		P	AH010			bastion/rampart/fortification
DNC		P	AH050			fortification
0008	Point	SY(WNDMIL12)			*black sm cir w/ X on top*	
DNC		P	AJ050			windmill
DTOP		P	AJ050			windmill
UVM		P	AJ050			windmill
VML1		P	AJ050			windmill
VML2		P	AJ050			windmill

Product	Delin	FCODE	Attribute Condition	Description
0009	Point	SY(POSGEN01)	*feature brown dot inside cir*	
DNC	P	BC010	nst=45	beacon - radar station
DNC	P	BC020	nst=45	buoy - radar station
DNC	P	BC040	nst=45	light - radar station
DNC	P	BC070	nst=45	light vessel/lightship - radar station
0010	Point	SY(BUIREL13)	*black 'iron cross'*	
DNC	P	AL015	bfc=7 AND hwt=0or2or3or4or7or22	building - house of worship
0011	Point	SY(BUIREL14)	*black X inscribed in rectangle*	
DNC	P	AL015	bfc=7 AND hwt=11or14or15or16or20or21	building - house of worship
UVM	P	AL015	bfc=7or114 AND hwt=11or14or15or16	building - house of worship
VML1	P	AL015	bfc=7 AND hwt=11or14or15or16	building - house of worship
VML2	P	AL015	bfc=7 AND hwt=11or14or15or16	building - house of worship
0012	Point	SY(BUIREL15)	*black mosque/minaret w/ dot in circle*	
DNC	P	AL015	bfc=7 AND hwt=5or6or9	building - house of worship
UVM	P	AL015	bfc=7or114 AND hwt=5or6or9	building - house of worship
VML1	P	AL015	bfc=7 AND hwt=5or6or9	building - house of worship
VML2	P	AL015	bfc=7 AND hwt=5or6or9	building - house of worship
0013	Point	SY(CGUSTA02)	*lt magenta CG in rectangle w/ pale green fill*	
DNC	P	AL015	bfc=81 AND sta=1	building - maritime station
0014	Point	SY(RSCSTA02)	*black filled diamond cntred on horizontal line*	
DNC	P	AL015	bfc=81 AND sta=5	building - maritime station
VML1	P	AL140		particle accelerator
0015	Point	SY(SISTAT02)	*lt magenta SS in rectangle w/ pale green fill*	
DNC	P	AL015	bfc=81 AND sta<>0and<>1and<>2and<>3and<>5and<>6and<>11	building - maritime station
DNC	P	BG020		tide gauge
0016	Point	SY(BUAARE02)	*feature brown filled cir*	
DNC	P	AL020		built-up area
0017	Point	SY(CAIRNS11)	*black three stacked sm cirs*	
DNC	P	AL025		cairn
DTOP	P	AL025		cairn
VML0	P	AL025		cairn
VML1	P	AL025		cairn
VML2	P	AL025		cairn
0018	Point	SY(NOTBRD11)	*black rectange above inverted T*	
DNC	P	AL050		display sign
0019	Point	SY(FLGSTF01)	*feature brown flag symbol*	
DNC	P	AL073		flagstaff/flagpole
0020	Point	SY(MONUMT12)	*black hatched trapazoid*	
DNC	P	AL130		monument
0021	Point	SY(SILBUI11)	*feature brown filled cir w/ black outline*	
DNC	P	AM020		grain bin/silo
0022	Point	SY(TNKCON12)	*black cir*	
DNC	P	AM070		tank
TOD4	P	BF012		hull integrity test site core site
0023	Point	SY(TOWERS12)	*black water tower symbol*	
DNC	P	AM080		water tower
0024	Point	SY(POSGEN03)	*black dot inside cir*	
DNC	P	AK020		amusement park attraction
DNC	P	AK080		drive in theater screen

Product	Delin	FCODE	Attribute Condition	Description
DNC	P	AQ020		aerial cableway pylon/ski pylon
DNC	P	AT040		power transmission pylon
DTOP	P	BI050		water intake tower
UVM	P	BI050		water intake tower
VML1	P	BI050		water intake tower
VML2	P	BI050		water intake tower
0025	Point	SY(GATCON04)		*traffic magenta lg cir, 2 horiz & 1 vert line*
DTOP	P	BI040		sluice gate
UVM	P	BI040		sluice gate
VML0	P	BI040		sluice gate
VML2	P	BI040		sluice gate
0026	Point	SY(MSTCON14)		*black tall slender triangle w/ cir at bottom*
DNC	P	AQ110		mooring mast
0027	Point	SY(QUARRY01)		*feature brown mine symbol inside circle*
DNC	A	AA010		mine/quarry
0028	Point	SY(DOMES011)+ SY(RDOSTA02)		*black dome inside lg magenta circle*
DNC	P	AT045	ssc=87	radar transmitter - dome
0029	Point	SY(RASCAN11)+ SY(RDOSTA02)		*black rectangle below T in lg magenta cir*
DNC	P	AT045	ssc=108	radar transmitter - scanner
0030	Point	SY(MSTCON14)+ SY(RD0STA02)		*black triangle w/ in lg magenta cir*
DNC	P	AT045	ssc=60	radar transmitter - mast
0031	Point	SY(TOWERS03)+ SY(RDOSTA02)		*black tower inside lg magenta cir*
DNC	P	AT045	ssc=107	radar transmitter - tower
0032	Point	SY(BRTHNO01)		*magenta circle*
DNC	P	BB020		berth
0033	Point	SY(BUISGL11)+ SY(RDOSTA02)		*feature brown fill sqr black otln in lg mgnta cir*
DNC	P	AT050		communication building
0035	Point	SY(LNDARE01)		*lt brown sm filled cir w/ gray outline*
DNC	P	BA030		island
0036	Point	SY(ACHARE02)		*magenta anchor*
DNC	P	BB010	mac<>12	anchorage - not anchoring berth
DTOP	P	BB010		anchorage
VML2	P	BB010		anchorage
0037	Point	SY(ACHBRT07)		*magenta anchor w/ sm cir on shaft*
DNC	P	BB010	mac=12	anchorage - anchoring berth
DNC	A	BB010	mac=12	anchorage - anchoring berth
0038	Point	SY(MORFAC03)		*lt brown filled square w/ black outline*
DNC	P	BB080		dolphin
DNC	P	BB160		mooring ring
0039	Point	SY(RDOCAL02)		*traffic magenta cir w/ 1 cone*
DNC	P	BB050	df3<>0	calling-in point - more than two-way traffic, 1st direction
DNC	P	BB050	df3<>0	calling-in point - more than two-way traffic, 2nd direction
DNC	P	BB050	df3<>0	calling-in point - more than two-way traffic, 3rd direction
DNC	P	BB050	df4<>0	calling-in point - more than two-way traffic, 4th direction
DNC	P	BB050	df1<>0 AND df2=0	calling-in point - one way traffic
0040	Point	SY(RDOCAL03)		*traffic magenta cir w/ 2 cones*
DNC	P	BB050	df2<>0 AND df3=0	calling-in point - two way traffic
0041	Point	SY(RCLDEF01)		*magenta cir w/ 2 cones and 2 ?*
DNC	P	BB050	df1=0	calling-in point - direction of traffic unknown

Product	Delin	FCODE	Attribute Condition	Description
0042	Point	SY(HRBFAC09)		*magenta fish w/ arcs above and below*
DNC	P	BB105		fishing harbor
0043	Point	SY(SMCFAC02)		*magenta yacht inside lg cir*
DNC	P	BB150		landing place
DNC	A	BB150		landing place
0044	Point	SY(BOYINB01)		*black installation buoy*
DNC	P	BB170		offshore loading facility
0045	Point	SY(MARCUL02)		*gray fish inside net*
DNC	P	BB180		oyster bed/mussel bed
0046	Point	SY(BRIDGE01)		*magenta small circle inside circle*
DNC	A	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
0047	Point	SY(FSHFAC02)		*gray rectangle w/ angle line on top*
DNC	A	BB110		fish traps/fish weirs
DNC	A	FC021	mac=56	maritime limit boundary - fish traps
0051	Point	SY(PILPNT02)		*black filled sm cir*
DNC	P	BB030		bollard
DNC	P	BC020	btc=35	buoy - articulated light (base)
DNC	P	BC040		light - base symbol
DNC	P	BC080		perches/stakes
DNC	P	BD100		pile/piling/post
0052	Point	SY(OBSTRN01)		*depth med blue fill cir w/ black dotted outline*
DNC	P	BD000	hdp=0	underwater danger/hazard - depth unknown
DNC	P	BD020	vrr=4 AND hdp=0	crib - submerged; depth unknown
DNC	P	BD030		discolored water
DNC	P	BD140	vrr=4 AND hdp=0	snags/stumps - submergerd; depth unknown
TOD4	P	BD005	wkt=35	miscellaneous underwater feature - obstruction
0053	Point	SY(DANGER01)		*depth med blue fill lg oval w/ black dot outline*
DNC	P	BD000	hdp>0and<=20	underwater danger/hazard - depth 20m or less
DNC	P	BD020	vrr=4 AND hdp>0and<=20	crib - submerged;depth 20m or less
DNC	P	BD130	vrr=4 AND hdp>0and<=20	rock - submerged; depth 20m or less
DNC	P	BD140	vrr=4 AND hdp>0and<=20	snags/stumps - submerged; depth 20m or less
DNC	P	BD180	vrr=4 AND hdp>0and<=20	wreck - submerged; depth 20m or less
0054	Point	SY(DANGER02)		*lg black oval w/ dotted outline*
DNC	P	BD000	hdp>20	underwater danger/hazard - depth greater than 20m
DNC	P	BD020	vrr=4 AND hdp>20	crib - submerged;depth greater than 20m
DNC	P	BD130	vrr=4 AND hdp>20	rock - submerged;depth greater than 20m
DNC	P	BD140	vrr=4 AND hdp>20	snags/stumps - submerged; depth greater than 20m
DNC	P	BD180	vrr=4 AND hdp>20	wreck - submerged; depth greater than 20m
0055	Point	SY(OBSTRN03)		*yellow-green solid circle w/ black dot outline*
DNC	P	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers; depth null
DNC	P	BD140	vrr=8 AND hdp=NULL	snags/stumps - covers and uncovers; depth null
0056	Point	SY(WATTUR02)		*gray waves symbol*
DNC	P	BD010		breakers
DNC	P	BD040		eddies
DNC	P	BD080		overfalls/tide rips
DNC	A	BD010		breakers
DNC	A	BD040		eddies
DNC	A	BD080		overfalls/tide rips
0057	Point	SY(OBSTRN11)		*lt brown square with dk gray outline*
DNC	P	BD020	vrr=1 AND hdp=NULL	crib - partly submerged/dry; depth null

Product	Delin	FCODE	Attribute Condition	Description
DNC	P	BD140	vrr=1 AND hdp=NULL	snags/stumps - partly submergerd/dry; depth null
0058	Point	SY(LOWACC01)	*black leader line w/ question mark*	
DNC	P	BD000	acc<>1	underwater danger/hazard - not accurate
DNC	P	BD020	acc<>1	crib - not accurate
DNC	P	BD030	acc<>1	discolored water - not accurate
DNC	P	BD130	acc<>1	rock - not accurate
DNC	P	BD140	acc<>1	snags/stumps - not accurate
DNC	P	BD180	acc<>1	wreck - not accurate
DNC	A	BD000	acc<>1	underwater danger/hazard - not accurate
DNC	A	BD020	acc<>1	crib - not accurate
DNC	A	BD030	acc<>1	discolored water - not accurate
DNC	A	BD100	acc<>1	pile/piling/post - not accurate
DNC	A	BD120	vrr<>8 AND acc<>1	reef - not covers and uncovers, not accurate
DNC	A	BD140	acc<>1	snags/stumps - not accurate
0059	Point	SY(FOULGND1)	*gray pound (#) symbol*	
DNC	P	BD050		foul ground
DNC	A	BD050		foul ground
0060	Point	SY(WEDKLP03)	*gray kelp symbol*	
DNC	P	BD060		kelp/seaweed
DNC	A	BD060		kelp/seaweed
0061	Point	SY(OFSPLF01)	*black dot inside square*	
DNC	P	BD110		platform
0062	Point	SY(UWTROC03)	*black cross in dotted cir, depth med blue fill*	
DNC	P	BD130	vrr=4 AND hdp=0	rock - submerged; depth unknown
0063	Point	SY(UWTROC04)	*black 6 point asterisk*	
DNC	P	BD130	hdp=NULL	rock - depth null
DTOP	P	BD130		rock
VML0	P	BD130		rock
VML1	P	BD130		rock
VML2	P	BD130		rock
0064	Point	SY(WRECKS01)	*gray wreck symbol*	
DNC	P	BD180	hdp=NULL AND vrr=1or2or8	wreck - not submerged; depth null
DNC	P	BD180	loc<>4 AND hdp=NULL	wreck - showing mast/ hull/ superstructure; depth null
0065	Point	SY(WRECKS05)	*blck bar 3 ticks in dotted depth med blue oval*	
DNC	P	BD180	hdp=NULL AND vrr=0	wreck - unknown; depth null
DNC	P	BD180	vrr=4 AND soh=1 AND hdp=0	wreck - submerged; dangerous; depth unknown
0066	Point	SY(WRECKS04)	*black horiz bar w/3 ticks*	
DNC	P	BD180	vrr=4 AND soh=2 AND hdp=0	wreck - submerged; not dangerous; depth unknown
TOD4	P	BD180		wreck
0071	Point	SY(CURDEF01)	*gray arrow w/ 2 feathers and 2 ?*	
DNC	P	BG010	cur=0 OR dof=0	current flow - general; direction unknown
TOD0	P	BG010	cur=0 OR dof=0	current flow - general; direction unknown
0072	Point	SY(CURENT01)	*gray arrow w/ two feathers*	
DNC	P	BG010	cur=3or5 AND dof<>0	current flow - general,ocean; direction known
TOD0	P	BG010	cur=5 AND dof<>0	current flow - ocean; direction known
0073	Point	SY(EBBSTR01)	*gray arrow w/ no feathers*	
DNC	P	BG010	cur=1 AND dof<>0	current flow - ebb; direction known
0074	Point	SY(FLDSTR01)	*gray arrow w/ one feather*	
DNC	P	BG010	cur=2 AND dof<>0	current flow - flood; direction known

Product	Delin	FCODE	Attribute Condition	Description
0076	Point	SY(TIDSTR01)	*gray diamond*	
DNC	P	BG030		tide data point
0077	Point	SY(HILTOP11)	*black radiating cones*	
DNC	P	BJ060		ice peak/nunatak
0078	Point	SY(POSGEN04)	*black sm cir*	
DNC	P	CA030		spot elevation
DTOP	P	AA050	pro<>116	well - not water
UVM	P	AA050	pro<>116	well - not water
VML0	P	AA050		well
VML1	P	AA050	pro<>116	well - not water
VML2	P	AA050	pro<>116	well - not water
0079	Point	SY(TREPNT04)	*feature brown side view of stylised tree*	
DNC	P	EC030		trees
0080	Point	SY(PILBOP02)	*magenta solid filled diamond inside cir*	
DNC	P	FC021	mac=48	maritime limit boundary - pilot boarding
DNC	A	FC021	mac=48	maritime limit boundary - pilot boarding
FFD	P	GB065		seaplane base
0081	Point	SY(INFARE51)	*lt magenta square w/ I*	
DNC	A	AL005		animal sanctuary
DNC	A	FC021	mac=30or35	maritime limit boundary - dumping, explosive dumping
DNC	A	FC021	mac=31	maritime limit boundary - incineration
DNC	A	FC021	mac=49	maritime limit boundary - cargo Xshipment
DNC	A	FC036	mac=21or23or61	restricted area - pipelines, sewer
DNC	A	FC036	mac=45or46	restricted area - outfall, intake
TOD0	A	FC031	mac=101	maritime area - marine sanctuary
0082	Point	SY(ENTRES51)	*traffic lt magenta cir w/ bar*	
DNC	P	FC031	mac=5	maritime area - entry prohibited
DNC	P	FC036	mac=43	restricted area - area to be avoided
DNC	A	FC031	mac=5	maritime area - entry prohibited
DNC	A	FC036	mac=43	restricted area - area to be avoided
0083	Point	SY(TSSRON51)	*traffic lt magenta arc w/ arrowhead*	
DNC	P	FC031	mac=40	maritime area - roundabout zone (TSS)
DNC	A	FC031	mac=40	maritime area - roundabout zone (TSS)
0084	Point	SY(CHINFO06)	*magenta cir w/ ! Inside*	
DNC	P	FC021	mac<>48	maritime limit boundary - not pilot boarding
DNC	P	FC031	mac=0	maritime area - unknown
0085	Point	SY(FSHRES51)	*lt magenta fish w/ intersecting diag line*	
DNC	P	FC036	mac=22	restricted area - fishing prohibited
DNC	A	FC036	mac=22	restricted area - fishing prohibited
0086	Point	SY(ACHRES51)	*lt magenta open anchor w/ intrsctng diag line*	
DNC	P	FC036	mac=15	restricted area - anchoring prohibited
DNC	A	FC036	mac=15	restricted area - anchoring prohibited
0087	Point	SY(RSRDEF51)	*traffic lt magenta ! In lg cir w/ magenta ?*	
DNC	P	FC031	mac=2	maritime area - dredged area
DNC	P	FC036	mac=0or999	restricted area - unknown or other
DNC	A	FC036	mac=0or999	restricted area - to be avoided, other
TOD0	A	FC031	mac=0or144or145or154or999	maritime area - restricted areas
TOD0	A	FC036		restricted area
0088	Point	SY(TSSLPT51)	*traffic magenta filled arrow*	
DNC	P	FC041		traffic separation scheme (TSS)

Product	Delin	FCODE	Attribute Condition	Description
0089	Point	SY(RTLDEF51)	*traffic magenta dashed arrow w/ 2 mgnta ?'s*	
DNC	P	FC165	dof=0	route (maritime) - direction unknown
0090	Point	SY(AIRARE02)	*feature brown outline of plane inside lg cir*	
DNC	P	GB005		airport/airfield
0091	Point	SY(RECDEF51)	*gray ? inside angle brackets inside dashes*	
DNC	A	FC170		safety fairway
TOD0	A	FC170		safety fairway
0092	Point	SY(PRCARE51)	*traffic lt magenta ! Inside triangle*	
DNC	A	FC021	mac=42	maritime limit boundary - precautionary
0093	Point	SY(CTYARE51)	*traffic lt magenta ! Inside lg circle*	
DNC	P	FC031	mac=4	maritime area - mine danger area
DNC	P	FC036	mac=37	restricted area - safety zone
DNC	A	FC021	mac=32or33	maritime limit boundary - oil field, gas field
DNC	A	FC021	mac=44	maritime limit boundary - deguassing
DNC	A	FC021	mac=27or28or29	maritime limit boundary - submarine exercise, mine laying, firing range
DNC	A	FC021	mac=24	maritime limit boundary - turning area
DNC	A	FC021	mac=58	maritime limit boundary - dredging area
DNC	A	FC031	mac=4	maritime area - mine danger
DNC	A	FC036	mac=37	restricted area - safety zone
DNC	A	GB070		seaplane landing/seaplane take-off area
TOD0	A	FC031	mac=143or148or149or158	maritime area - military area, minefield
TOD0	A	FC031	mac=27or28or115or116or140or146or147or150or151or152or153or157or159	maritime area - military practice areas
0094	Point	SY(CBLARE51)	*lt magenta angled line*	
DNC	A	FC036	mac=20	restricted area - cables
0095	Point	SY(SWPARE51)	*lt gray under bar w/ upward bar on ends*	
DNC	A	FC177		swept area
0096	Point	SY(CHINFO07)	*magenta square w/ i*	
DNC	P	AQ080		ferry site
0097	Point	SY(CTNARE51)	*traffic lt magenta ! Inside lg circle*	
DNC	A	FC021	mac=0or999	maritime limit boundary - unknown, other
DNC	A	FC031	mac=0or9	maritime area - unknown, work in progress
DNC	A	FC041	tsp=6or7	traffic separation scheme (TSS) - inbound or outbound area
DNC	A	FC165	rtt=0	route (maritime) - use unknown
TOD0	A	FC031	mac=141or142or155	maritime area - caution areas
0098	Point	SY(TWRDEF51)	*traffic magenta dash dbl head arrow w/ 2 ?'s*	
DNC	A	FC165	rtt=11	route (maritime) - 2-way
0100	Point	SY(BCNGEN01)	*black beacon/buoy base*	
DNC	P	BC010		beacon-base
0114	Point	SY(TOPMAR14)	*black topmark open parallelogram*	
DNC	P	BC010	tmc=19or31	beacon - rhombus/diamond
DNC	P	BC040	tmc=19or31	light - rhombus/diamond
0122	Point	SY(TOPMAR22)	*black topmark one cone up*	
DNC	P	BC010	tmc=16or21	beacon - 1 cone up
DNC	P	BC040	tmc=16or21	light - 1 cone up
0124	Point	SY(TOPMAR24)	*black topmark one cone down*	
DNC	P	BC010	tmc=22	beacon - 1 cone down
DNC	P	BC040	tmc=22	light - 1 cone down

Product	Delin	FCODE	Attribute Condition	Description
0125	Point	SY(TOPMAR25)		*black topmark two cones up*
DNC	P	BC010	tmc=3	beacon - 2 cones up
DNC	P	BC040	tmc=3	light - 2 cones up
0126	Point	SY(TOPMAR26)		*black topmark two cones down*
DNC	P	BC010	tmc=8	beacon - 2 cones down
DNC	P	BC040	tmc=8	light - 2 cones down
0127	Point	SY(TOPMAR27)		*black topmark two cones point out*
DNC	P	BC010	tmc=1	beacon - 2 cones out
DNC	P	BC040	tmc=1	light - 2 cones out
0128	Point	SY(TOPMAR28)		*black topmark two cones point in*
DNC	P	BC010	tmc=9	beacon - 2 cones in
DNC	P	BC040	tmc=9	light - 2 cones in
0130	Point	SY(TOPMAR30)		*black topmark one ball*
DNC	P	BC010	tmc=15or27or28	beacon - one ball
DNC	P	BC040	tmc=15or27or28	light - one ball
0132	Point	SY(TOPMAR32)		*black topmark two balls*
DNC	P	BC010	tmc=2	beacon - 2 balls
DNC	P	BC040	tmc=2	light - 2 balls
0133	Point	SY(TOPMAR33)		*black topmark can*
DNC	P	BC010	tmc=25or26or29	beacon - can
DNC	P	BC040	tmc=25or26or29	light - can
0150	Point	SY		*yellow-green filled sm cir w/ gray outline*
DNC	P	BA020		foreshore
0151	Point	SY(DAYSQR21)		*magenta box above inverted T with open cir*
DNC	P	BC055		marker
0154	Point	SY		*gray open cir,arrows pting out,represent only*
DNC	P	BG040		current diagram
0185	Point	SY(TOPMAR85)		*black topmark special X*
DNC	P	BC010	tmc=6	beacon - special (x)
DNC	P	BC040	tmc=6	light - special (x)
0186	Point	SY(TOPMAR86)		*black topmark cross*
DNC	P	BC010	tmc=23or30	beacon - upright cross
DNC	P	BC040	tmc=23or30	light - upright cross
0187	Point	SY(TOPMAR87)		*black topmark perch*
DNC	P	BC010	tmc=18	beacon - perch
DNC	P	BC040	tmc=18	light - perch
0188	Point	SY(TOPMAR88)		*black topmark broom up*
DNC	P	BC010	tmc=17	beacon - broom point up
DNC	P	BC040	tmc=17	light - broom point up
0199	Point	SY(TMARDEF1)		*black default topmark upright*
DNC	P	BC010	tmc=0or32or33	beacon - default topmark
DNC	P	BC040	tmc=0or32or33	light - default topmark
0202	Point	SY(TOPMAR02)		*black buoy topmark one cone up*
DNC	P	BC020	tmc=16or21	buoy - 1 cone up
0204	Point	SY(TOPMAR04)		*black buoy topmark one cone down*
DNC	P	BC020	tmc=22	buoy - 1 cone down
0205	Point	SY(TOPMAR05)		*black buoy topmark two cones up*
DNC	P	BC020	tmc=3	buoy - 2 cones up

Product	Delin	FCODE	Attribute Condition	Description
0206	Point	SY(TOPMAR06)		*black buoy topmark two cones down*
DNC	P	BC020	tmc=8	buoy - 2 cones down
0207	Point	SY(TOPMAR07)		*black buoy topmark two cones point out*
DNC	P	BC020	tmc=1	buoy - 2 cones out
0208	Point	SY(TOPMAR08)		*black buoy topmark two cones point in*
DNC	P	BC020	tmc=9	buoy - 2 cones in
0210	Point	SY(TOPMAR10)		*black buoy topmark one ball*
DNC	P	BC020	tmc=15or27or28	buoy - one ball
0212	Point	SY(TOPMAR12)		*black buoy topmark two balls*
DNC	P	BC020	tmc=2	buoy - 2 balls
0213	Point	SY(TOPMAR13)		*black buoy topmark can*
DNC	P	BC020	tmc=25or26or29	buoy - can
0214	Point	SY(TOPMAR14)	for buoys	*black buoy topmark open parallelogram*
DNC	P	BC020	tmc=19or31	buoy - rhombus/diamond
0217	Point	SY(TOPMAR17)		*black buoy topmark upright cross*
DNC	P	BC020	tmc=23or30	buoy - upright cross
0265	Point	SY(TOPMAR65)		*black buoy topmark special X*
DNC	P	BC020	tmc=6	buoy - special (x)
0299	Point	SY(TMARDEF2)		*black buoy default topmark*
DNC	P	BC020	tmc=0or17or18or32or33	buoy - default topmark
0300	Point	SY(BOYGEN03)		*black default buoy beside magenta ?*
DNC	P	BC020	btc=0 AND ssc=0or85or999	default buoy; type unknown
0301	Point	SY(BOYBAR01)		*black barrel buoy*
DNC	P	BC020	btc=0 AND ssc=1	buoy - barrel; type unknown
0302	Point	SY(BOYCAN01)		*black can buoy*
DNC	P	BC020	btc=0 AND ssc=7	buoy - can; type unknown
0303	Point	SY(BOYCON01)		*black cone buoy*
DNC	P	BC020	btc=0 AND ssc=6	buoy - conical; type unknown
0304	Point	SY(BOYMOR01)		*black mooring barrel buoy*
DNC	P	BC020	btc=7 AND ssc=1	buoy - mooring;barrel
0305	Point	SY(BOYMOR03)		*black mooring can buoy*
DNC	P	BC020	btc=7 AND ssc=7	buoy - mooring;can
0306	Point	SY(BOYPIL01)		*black pillar buoy*
DNC	P	BC020	btc=0 AND ssc=10	buoy - pillar; type unknown
0307	Point	SY(BOYSPH01)		*black spherical buoy*
DNC	P	BC020	btc=0 AND ssc=17	buoy - sphere; type unknown
0308	Point	SY(BOYSPR01)		*black spar buoy*
DNC	P	BC020	btc=0 AND ssc=16	buoy - spar; type unknown
0309	Point	SY(BOYSUP01)		*black superbuoy*
DNC	P	BC020	btc=0 AND ssc=73	buoy - superbuoy; type unknown
DNC	P	BC020	btc=10	buoy - ODAS
0310	Point	SY(BOYSUP03)		*black lanby*
DNC	P	BC020	btc=4	buoy - LANBY
0311	Point	SY(BOYMOR11)		*black mooring/installation buoy*
DNC	P	BC020	btc=7 AND ssc<>1and<>7	buoy - mooring;not barrel, not can
0401	Point	SY(FOGSIG01)	for water	*lt magenta arcs origin offset for beacons*
DNC	P	AL015	bfc=81 AND sta=5 AND sst<>16	building - maritime station (rescue), sound signal

Product	Delin	FCODE	Attribute Condition	Description
DNC	P	BC010	sst=1or2or3or4or6or9or14or15	beacon - sound signal
DNC	P	BC020	sst=1or2or3or4or6or9or14or15	buoy - sound signal
DNC	P	BC040	sst=1or2or3or4or6or9or14or15	light - sound signal
DNC	P	BC070	sst=1or2or3or4or6or9or14or15	light vessel/lightship - sound signal
0402	Point	SY(FOGSIG01) for land	*lt magenta arcs origin offset for buoys*	
DNC	P	AL015	bfc=81 AND sta<>5 AND sst<>16	building - maritime station (not rescue), sound signal
DNC	P	BD110	sst<>16	platform - sound signal
0500	Point	SY(LIGHTDEF)	*magenta flare*	
DNC	P	AL015	bfc<>81 AND col<>"UNK"	building - not maritime station, light flare
DNC	P	AL240	col<>"UNK"	tower - light flare
DNC	P	AM070	col<>"UNK"	tank - light flare
DNC	P	AT080	col<>"UNK"	communication tower - light flare
DNC	P	BB170	cha=21	offshore loading facility - light
DNC	P	BC040		light - flare
DNC	P	BC070		light vessel/lightship - default flare
DNC	P	BD110	cha=21	platform - lighted
0501	Point	SY(LIGHTS01)	*lights red flare*	
DNC	P	GA020		air obstruction light [DNC-specific]
0503	Point	SY(LIGHTS03)	*lights yellow flare*	
DNC	P	GB010		airport lighting
0510	Point	SY(RADRFL03)	*magenta arc w/ 5 ticks pointing upward*	
DNC	P	BC010	ref=1	beacon - radar reflector present
DNC	P	BC020	ref=1	buoy - radar reflector present
DNC	P	BC040	ref=1	light - radar reflector present
DNC	P	BC070	ref=1	light vessel/lightship - radar reflector present
0511	Point	SY(RDOSTA02)	*lg magenta cir*	
DNC	P	AT045	ssc=0or999	radar transmitter - other, unknown
DNC	P	BC010	nst=1or4or5or17or41or51or53	beacon - radio navigation system
DNC	P	BC020	nst=1or4or5or17or41or51or53	buoy - radio navigation system
DNC	P	BC040	nst=1or4or5or17or41or51or53	light - radio navigation system
DNC	P	BC070	nst=1or4or5or17or41or51or53	light vessel/lightship - radio navigation system
DNC	P	GA035		navaids (aeronautical)
0512	Point	SY(RTPBCN02)	*lg magenta dashed cir*	
DNC	P	BC010	nst=10or54	beacon - radar navigation system
DNC	P	BC020	nst=10or54	buoy - radar navigation system
DNC	P	BC040	nst=10or54	light - radar navigation system
DNC	P	BC070	nst=10or54	light vessel/lightship - radar navigation system
0513	Point	SY(LITFLT01)	*black lt float*	
DNC	P	BC020	btc=6	buoy - light float
0514	Point	SY(LITVES01)	*black lt vessel*	
DNC	P	BC070		light vessel/lightship
0517	Point	SY(NDB)	*purple circle with dot in center*	
TOD0	P	GA035	nst=17	navaids (aeronautical) - NDB
0518	Point	SY(VOR)	*purple hexagon with dot in center*	
TOD0	P	GA035	nst=20	navaids (aeronautical) - VOR
0519	Point	SY(VORDME)	*purpoe hexagon in square w/ dot in center*	
TOD0	P	GA035	nst=21	navaids (aeronautical) - VOR/DME
0520	Point	SY(VORTAC)	*purple hexagon, solid outer rectgls, cntr dot*	
TOD0	P	GA035	nst=22	navaids (aeronautical) - VORTAC

Product	Delin	FCODE	Attribute Condition	Description
0521	Point	SY(TACAN)		*purple hexagon, open outer rectgls, cntr dot*
TOD0	P	GA035	nst=23	navaids (aeronautical) - TACAN
0522	Point	SY		*oparea green open triangle*
TOD0	P	GA055	wpt<>10	waypoint/reporting-calling in point - non compulsory
0523	Point	SY		*oparea green solid triangle*
TOD0	P	GA055	wpt=10	waypoint/reporting-calling in point - compulsory
0524	Point	SY		*purple open circle w/ diagonal cross bar*
TOD1	P	BD005	exs=57	miscellaneous underwater feature - sonar confirmed
TOD1	P	BD180	exs=57	wreck - sonar confirmed
TOD2	P	BD005	exs=57	miscellaneous underwater feature - sonar confirmed
TOD2	P	BD180	exs=57	wreck - sonar confirmed
0525	Point	SY		*purple open very very thin circle*
TOD0	P	GA035	nst=0	navaids (aeronautical) - unknown
TOD1	P	BD005	exs=58	miscellaneous underwater feature - reported
TOD1	P	BD180	exs=58	wreck - reported
TOD2	P	BD005	exs=58	miscellaneous underwater feature - reported
TOD2	P	BD180	exs=58	wreck - reported
0526	Point	SY		*purple open very thin circle*
TOD4	P	BD005	wkt<>35	miscellaneous underwater feature - not obstruction
0527	Point	SY		*purple filled circle*
TOD4	P	FC180		hull integrity test site bottom feature
0600	Line	LS(SOLD,1,CHBLK)		*black very thin solid line*
DNC	L	AK020		amusement park attraction
DNC	L	AL070		fence
DNC	L	AL260		wall
DNC	L	BH020		canal
DNC	L	BH140		river/stream
DNC	L	BH210		inland shoreline
DNC	A	AC030		settling basin/sludge pond
DNC	A	AD010		power plant
DNC	A	AD030		substation/tran.yard
DNC	A	AH010		bastion/rampart/fortification
DNC	A	AH050		fortification
DNC	A	AK160		stadium/amphitheater
DNC	A	AL015		building
DNC	A	AL030		cemetery
DNC	A	AM030		grain elevator
DNC	A	AM070		tank
DNC	A	AQ116		pumping station
DNC	A	AT020		early warning radar site
DNC	A	BH020		canal
DNC	A	BH080		lake/pond
DNC	A	BH130		reservoir
DNC	A	BH140		river/stream
DNC	A	GB005		airport/airfield
DNC	A	GB055		runway
DTOP	A	AC030		settling basin/sludge pond
DTOP	A	AD010		power plant
DTOP	A	AD030		substation/tran.yard
DTOP	A	AK170		swimming pool
DTOP	A	AL030		cemetery
DTOP	A	BH020	<>sdr	canal

Product	Delin	FCODE		Attribute Condition	Description
DTOP	A	BH020	sdr	cda<>2	canal - not covered
DTOP	A	BH030	<>sdr		ditch
DTOP	A	BH030	sdr	cda<>2	ditch - not covered
DTOP	A	BH040			filtration beds/aeration beds
DTOP	A	BH080	<>sdr		lake/pond
DTOP	A	BH080	sdr	hyc=8	lake/pond - perennial
DTOP	A	BH130			reservoir
DTOP	A	BH140	<>sdr		river/stream
DTOP	A	BI030			lock
DTOP	A	BI050			water intake tower
FFD	A	AC030			settling basin/sludge pond
FFD	A	BH040			filtration beds/aeration beds
FFD	A	BH130			reservoir
FFD	A	BI030			lock
UVM	A	AC030			settling basin/sludge pond
UVM	A	AD010			power plant
UVM	A	AD030			substation/tran.yard
UVM	A	AK170			swimming pool
UVM	A	AL030			cemetery
UVM	A	AP020			interchange
UVM	A	AQ065			culvert
UVM	A	BH040			filtration beds/aeration beds
UVM	A	BH130			reservoir
UVM	A	BI030			lock
UVM	A	BI050			water intake tower
VML1	A	AC030			settling basin/sludge pond
VML1	A	BH040			filtration beds/aeration beds
VML1	A	BH130			reservoir
VML2	A	AC030			settling basin/sludge pond
VML2	A	AD010			power plant
VML2	A	AD030			substation/tran.yard
VML2	A	AK170			swimming pool
VML2	A	AL030			cemetery
VML2	A	BH040			filtration beds/aeration beds
VML2	A	BH130			reservoir
VML2	A	BI030			lock
VML2	A	BI050			water intake tower
WVS	L	ZD003			artifact location
0604	Line	LS(SOLD,1,LANDF)		*feature brown very thin solid line*	
DNC	L	CA010			contour line (land)
DNC	A	AL020			built-up area
DNC	A	BB150			landing place
VML0	A	AA052			oil/gas field
0605	Line	LS(SOLD,2,LANDF)		*feature brown thin solid line*	
DNC	L	AK130			race track
DNC	L	AN010			railroad
DNC	L	AP020			interchange
DNC	L	AP030			road
0606	Line	LS(SOLD,3,LANDF)		*feature brown solid line*	
DNC	L	GB055			runway
0607	Line	LS(SOLD,4,LANDF)		*feature brown thick solid line*	
DNC	L	BI020			dam/weir

Product	Delin	FCODE	Attribute Condition	Description
0608	Line	LS(SOLD,1,DEPCN)	*depth gray very thin solid line*	
DNC	L	BA020		foreshore
DNC	L	BE010	acc=1 AND crv<>ssdc	depth curve - accurate; not equal ssdc
TOD1	L	BE015	hqc<>1	depth contour - not index
TOD2	L	BE015	hqc<>1	depth contour - not index
TOD4	L	BE015	acc=1 AND hqc<>1	depth contour - accurate,not index
0609	Line	LS(SOLD,2,DEPSC)	*depth dk gray thin solid line*	
DNC	L	BE010	acc=1 AND crv=ssdc	depth curve - accurate; equals ssdc
TOD1	L	BE015	hqc=1	depth contour - index
TOD2	L	BE015	hqc=1	depth contour - index
TOD4	L	BE015	acc=1 AND hqc=1	depth contour - accurate, index
0610	Line	LS(SOLD,3,CHGRD)	*gray solid line*	
DNC	L	AQ113	loc=25	pipeline/pipe - above ground or water
DNC	L	BH010	loc=25	aqueduct - elevated
DNC	L	BH120		rapids
0611	Line	LS(SOLD,4,CHGRD)	*gray thick solid line*	
DNC	A	AQ040	bsc<>12 AND bot<>4and<>10and<>11	bridge/overpass/viaduct
DNC	A	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
DNC	A	AQ045		bridge span
0612	Line	LS(SOLD,1,CHGRF)	*lt gray very thin solid line*	
DTOP	L	FA090		geophysical prospecting grid
VML1	L	FA090		geophysical prospecting grid
VML2	L	FA090		geophysical prospecting grid
0613	Line	LS(DASH,2,DEPSC)	*depth dk gray thin dash line*	
DNC	L	BE010	acc=2 AND crv=ssdc	depth curve - not accurate; equals ssdc
0614	Line	LS(DASH,1,DEPCN)	*depth gray very thin dash line*	
DNC	L	BE010	acc=2 AND crv<>ssdc	depth curve - not accurate; not equal ssdc
0615	Line	LS(SOLD,3,CHWHT)	*pale green solid line*	
DNC	L	BH180		waterfall
0620	Line	LS(SOLD,6,TRFCF)	*traffic lt magenta very very thick solid line*	
DNC	L	FC041	tsp=4	traffic separation scheme (TSS) - separation zone line
0621	Line	LS(SOLD,1,DEPVS)	*depth med blue very thin solid line*	
DTOP	L	BA010	slt<>6and<>8	coastline/shoreline - not mangrove or marsh
DTOP	L	BH180		waterfall
FFD	L	BA010	acc=1	coastline/shoreline - accurate
FFD	L	BH030		ditch
UVM	L	BA010	slt<>6and<>8	coastline/shoreline - not mangrove or marsh
UVM	L	BH030	hyc=0or8	ditch - perennial, unknown
UVM	L	BH210	slt=0or10or11or13or14or15	inland shoreline - unknown, rocky, rubble, sandy, stony, other
VML0	L	BA010		coastline/shoreline
VML0	L	BH000		inland water
VML1	L	BA010	slt<>6and<>8	coastline/shoreline -not mangrove or marsh
VML1	L	BH030	hyc=0or8	ditch - perennial, unknown
VML1	L	BH180		waterfall
VML2	L	BA010	slt<>6and<>8	coastline.shoreline - not mangrove or marsh
VML2	L	BH030	hyc=0or8	ditch - perennial, unknown
VML2	L	BH180		waterfall
0622	Line	LS(SOLD,2,DEPVS)	*depth med blue thin solid line*	
DTOP	L	BH140	hyc=0or8	river/stream - perennial, unknown
FFD	L	BH140	hyc=0or8	river/stream - perennial, unknown

Product	Delin	FCODE	Attribute Condition	Description
UVM	L	BH140	hyc=0or8	river/stream - perennial, unknown
VML0	L	BH140	hyc=8	river/stream - perennial
VML1	L	BH140	hyc=0or8	river/stream - perennial, unknown
VML2	L	BH140	hyc=0or8	river/stream - perennial, unknown
0623	Line	LS(SOLD,2,CSTLN)	*dk gray thin solid line*	
DNC	L	BB040	vrr=1	breakwater/groyne - partly submerged at high water
DNC	L	BB140	vrr=1	jetty - partly submerged at high water
DNC	L	BB220	vrr=1	ramp (maritime) - partly submerged at high water
DNC	L	BB230		seawall
DNC	L	BB240	vrr=1	slipway/patent slip - partly submerged at high water
DNC	L	BI040		sluice gate
DNC	A	BB040	vrr=1	breakwater/groyne - partly submerged at high water
DNC	A	BB140	vrr=1	jetty - partly submerged at high water
DNC	A	BB220	vrr=1	ramp (maritime) - partly submerged at high water
DNC	A	BD020	vrr=1 AND hdp=NULL	crib - above surface
DNC	A	BD100	vrr=1	pile/piling/post - does not cover
DNC	A	BD140	vrr=1	snags/stumps - does not cover
DNC	A	BD180	vrr=1 AND hdp=NULL	wreck - does not cover; depth null
DNC	A	BI030		lock
DTOP	L	BB040		breakwater/groyne
DTOP	L	BB140		jetty
DTOP	L	BB220		ramp (maritime)
DTOP	L	BB230		seawall
DTOP	L	BI040		sluice gate
DTOP	A	BB040		breakwater/groyne
DTOP	A	BB140		jetty
DTOP	A	BB220		ramp (maritime)
UVM	L	BB040		breakwater/groyne
UVM	L	BB140		jetty
UVM	L	BB230		seawall
UVM	L	BB240		slipway/patent slip
UVM	L	BI040		sluice gate
UVM	A	BB040		breakwater/groyne
UVM	A	BB140		jetty
VML0	L	BB040		breakwater/groyne
VML0	L	BB230		seawall
VML1	L	BB040		breakwater/groyne
VML1	L	BB140	vrr=0or1	jetty - unknown, partly submerged at high water
VML1	L	BB230		seawall
VML2	L	BB040		breakwater/groyne
VML2	L	BB140		jetty
VML2	L	BB230		seawall
VML2	L	BB240		slipway/patent slip
VML2	L	BI040		sluice gate
VML2	A	BB040		breakwater/groyne
VML2	A	BB140		jetty
VML2	A	BB240		slipway/patent slip
0624	Line	LS(DASH,1,LANDF)	*feature brown very thin dash line*	
DNC	A	AA010		mine/quarry
DNC	A	AC000		processing plant/treatment plant
DNC	A	AM010		depot (storage)
DNC	A	AM040		mineral pile
DNC	A	EA040		orchard/plantation
DNC	A	EA050		vineyards

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	EC030	veg=19	trees - mangrove
DNC	A	EC030	veg<>19	trees - not mangrove
DTOP	A	AC000		processing plant/treatment plant
UVM	A	AC000		processing plant/treatment plant
VML1	A	AC000		processing plant/treatment plant
VML2	A	AC000		processing plant/treatment plant
0625	Line	LS(SOLD,4,CSTLN)	*dk gray thick solid line*	
DNC	L	BB170		offshore loading facility
DNC	L	BB190		pier/wharf/quay
DNC	A	BB170		offshore loading facility
DNC	A	BB190		pier/wharf/quay
DTOP	L	BB190		pier/wharf/quay
DTOP	A	BB190		pier/wharf/quay
FFD	L	BB190		pier/wharf/quay
FFD	A	BB190		pier/wharf/quay
UVM	L	BB190		pier/wharf/quay
UVM	A	BB190		pier/wharf/quay
VML0	L	BB190		pier/wharf/quay
VML1	L	BB190		pier/wharf/quay
VML1	A	BB190		pier/wharf/quay
VML2	L	BB190		pier/wharf/quay
VML2	A	BB190		pier/wharf/quay
0626	Line	LS(DASH,2,CSTLN)	*dk gray thin dash line*	
DNC	L	BB040	vrr=4or8	breakwater/groyne - submerged, covers and uncovers
DNC	L	BB140	vrr=4or8	jetty - submerged, covers and uncovers
DNC	L	BB220	vrr=4or8	ramp (maritime) - submerged, covers and uncovers
DNC	L	BB240	vrr=4or8	slipway/patent slip - submerged, covers and uncovers
DNC	A	BB040	vrr=4or8	breakwater/groyne - submerged, covers and uncovers
DNC	A	BB140	vrr=4or8	jetty - submerged, covers and uncovers
DNC	A	BB220	vrr=4or8	ramp (maritime) - submerged, covers and uncovers
DNC	A	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers
DNC	A	BD100	vrr=8	pile/piling/post - covers and uncovers
DNC	A	BD140	vrr=8	snags/stumps - covers and uncovers
DNC	A	BD180	vrr=8 AND hdp=NULL	wreck - covers and uncovers; depth null
VML1	L	BB140	vrr=8	jetty - covers and uncovers
0627	Line	LS(SOLD,5,CHGRD)	*gray very thick solid line*	
DNC	L	AQ040	bsc<>12 AND bot<>4and<>10and<>11	bridge/overpass/viaduct
DNC	L	AQ045		bridge span
0629	Line	LS(DASH,2,CHGRD)	*gray thin dash line*	
DNC	L	FC021	mac=56 AND mbl=NULL	maritime limit boundary - fish traps
DNC	L	FC021	mbl<>7and<>13 AND mac=NULL	maritime limit boundary - not clearing line
DNC	A	BD000	hdp>20	underwater danger/hazard - depth greater than 20m
DNC	A	BD020	vrr=4 AND hdp>20	crib - submerged;depth greater than 20m
DNC	A	BD120	vrr=4 AND hdp>20	reef - submerged, depth greater than 20m
0630	Line	LS(DOTT,2,CSTLN)	*dk gray thin dotted line*	
DNC	A	BD180	vrr=0or2 AND hdp=NULL	wreck - unknown; awash; depth null
DNC	A	BD180	vrr=4 AND hdp=0	wreck - submerged; depth unknown
0631	Line	LS(SOLD,2,CHGRD)	*gray thin solid line*	
DNC	L	FC021	mac=26 AND mbl=NULL	maritime limit boundary - unsurveyed
DNC	A	BE010	cvl=99999	depth area; depth unknown
DNC	A	FC021	mac=26	maritime limit boundary - unsurveyed

Product	Delin	FCODE	Attribute Condition	Description
0632	Line	LS(DASH,1,CSTLN)	*dk gray very thin dash line*	
DNC	L	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
0633	Line	LS(DASH,2,CHGRF)	*lt gray thin dash line*	
DNC	L	FC021	mac=57 AND mbl=NULL	maritime limit boundary - marine farm
FFD	A	FA001		administrative area
TOD0	L	FC021	mbl<>6	maritime limit boundary - other
TOD0	L	FC021	mbl=6	maritime limit boundary - limit of territorial waters
UVM	A	FA001		administrative area
VML0	A	FA001		administrative area
VML1	A	FA001		administrative area
VML2	A	FA001		administrative area
WVS	L	FC021	mbl=6	maritime limit boundary - territorial waters limits
WVS	A	FA001		administrative area
0634	Line	LS(DASH,1,CHMGD)	*magenta very thin dash line*	
DNC	L	FC021	mac=25 AND mbl=NULL	maritime limit boundary - spoil
DNC	L	FC021	mac=30or35 AND mbl=NULL	maritime limit boundary - dumping, explosive dumping
DNC	L	GB070		seaplane landing/seaplane take-off area
0635	Line	LS(DASH,1,CHMGF)	*lt magenta very thin dash line*	
DNC	L	FC021	mac=31 AND mbl=NULL	maritime limit boundary - incineration
DNC	L	FC021	mac=49 AND mbl=NULL	maritime limit boundary - cargo Xshipment
0656	Line	LS(DASH,1,CHGRD)	*gray very thin dash line*	
DNC	L	AQ130		tunnel
DNC	L	BC100		leading line
DNC	L	FC021	mbl=13 AND mac=NULL	maritime limit boundary - clearing line
DNC	L	FC021	mac=55 AND mbl=NULL	maritime limit boundary - fairway
DNC	L	FC100		measured distance line
DNC	L	FC177		swept area
DNC	A	BB115		gridiron
DNC	A	BD010		breakers
DNC	A	BD040		eddies
DNC	A	BD080		overfalls/tide rips
DNC	A	BJ030		glacier
DNC	A	BJ065		ice shelf
DNC	A	BJ100		snow field/ice field
DTOP	L	AP050		trail
FFD	L	AP050		trail
UVM	L	AK150		ski jump
UVM	L	AP050		trail
VML0	L	AP050		trail
VML1	L	AP050		trail
VML2	L	AK150		ski jump
VML2	L	AP050		trail
0657	Line	LS(DASH,4,CHGRD)	*gray thick dash line*	
DNC	L	AQ010		aerial cableway lines/ski lift lines
DNC	L	AT030		power transmission line
DNC	L	AT060		telephone line/telegraph line
DTOP	L	AQ010		aerial cableway lines/ski lift lines
UVM	L	AQ010		aerial cableway lines/ski lift lines
VML0	L	AQ010		aerial cableway lines/ski lift lines
VML1	L	AQ010		aerial cableway lines/ski lift lines
VML2	L	AQ010		aerial cableway lines/ski lift lines

Product	Delin	FCODE	Attribute Condition	Description
0663	Line	LS(DASH,2,TRFCD)		*traffic magenta thin dash line*
DNC	L	FC021	mac=0or999 AND mbl=NULL	maritime limit boundary - unknown, other
DNC	L	FC021	mac=42 AND mbl=NULL	maritime limit boundary - precautionary
DNC	L	FC031	mac=0or9	maritime area - unknown, work in progress
DNC	L	FC130		radar reference line
0665	Line	LS(DASH,4,TRFCD)		*traffic magenta thick dash line*
DNC	L	FC031	mac=40or41	maritime area - TSS
DNC	L	FC041	tsp=2	traffic separation scheme (TSS) - outer boundary
0669	Line	LS(DASH,1,DEPVS)		*depth med blue very thin dash line*
UVM	L	BH030	hyc=6	ditch - intermittent
VML1	L	BH030	hyc<>0and<>8	ditch - not perennial
VML2	L	BH030	hyc=6	ditch - intermittent
0670	Line	LS(DASH,2,DEPVS)		*depth med blue thin dash line*
TOD1	L	BE040		track line
TOD2	L	BE040		track line
0680	Line	LS(DOTT,2,CHBLK)		*black thin dotted line*
DNC	L	FA000	use=32	administrative boundary - insular
DNC	A	BC080		perches/stakes
DNC	A	BD000	hdp>0and<=20	underwater danger/hazard - depth 20m or less
DNC	A	BD000	hdp=0	underwater danger/hazard - depth unknown
DNC	A	BD020	vrr=4 AND hdp>0and<=20	crib - submerged;depth 20m or less
DNC	A	BD020	vrr=4 AND hdp=0	crib - submerged;depth unknown
DNC	A	BD030		discolored water
DNC	A	BD100	vrr=4	pile/piling/post - submerged
DNC	A	BD120	vrr<>8 AND hdp=0orNULL	reef - not covers and uncovers, depth unknown or null
DNC	A	BD120	vrr=4 AND hdp>0and<=20	reef - submerged, depth 20m or less
DNC	A	BD140	vrr=4	snags/stumps - submerged
DNC	A	BD180	vrr=4 AND hdp>0and<=20	wreck - submerged; depth 20m or less
DTOP	A	BD100		pile/piling/post
VML2	A	BD100		pile/piling/post
0681	Line	LS(SOLD,2,UINFB)		*UI very dk blue thin solid line*
TOD0	A	FC031	mac=104	maritime area - major op area
0682	Line	LS(SOLD,1,UINFB)		*UI very dk blue very thin solid line*
TOD0	A	FC031	mac=105	maritime area - minor op area
0683	Line	LS(DOTT,3,UINFB)		*UI very dk blue dotted line*
TOD0	A	FC031	mac=111	maritime area - pacific missile range
0684	Line	LS(SOLD,2,red)		*basic red thin solid line*
TOD0	L	FC101		theodolite line
0685	Line	LS(SOLD,2,opgreen)		*oparea green thin solid line*
TOD0	A	GA005	aua=39	airspace - upper control area
0686	Line	LS(SOLD,4,med-purple)		*purple thick solid line*
TOD4	L	FC180	htc<>507and<>509	hull integrity test site bottom feature - not cable, not slope > 10 degrees
0687	Line	LS(L-DASH,4,med-purple)		*purple thick long dash line*
TOD4	A	FC178		hull integrity test area
0688	Line	LS(L-DASH,2,DEPSC)		*depth dk gray thin long dash line*
TOD4	L	BE015	acc<>1 AND hqc=1	depth contour - not accurate, index
0689	Line	LS(L-DASH,1,DEPCN)		*depth gray very thin long dash line*
TOD4	L	BE015	acc<>1 AND hqc<>1	depth contour - not accurate, not index

Product	Delin	FCODE	Attribute Condition	Description
0700	Line	LC(FERYRT01)	*magenta dash very thin line w/ boat shape*	
DNC	L	AQ070	fer=2	ferry crossing - without cables
0701	Line	LC(FERYRT02)	*black dash very thin line w/ boat shape*	
DNC	L	AQ070	fer=1	ferry crossing - with cables
0704	Line	LC(PIPSOL06)	*gray dash very thin line w/ sm cir*	
DNC	L	AQ113	loc<>25 AND pro=116	pipeline/pipe - not above ground or water; water
DNC	L	AQ113	loc<>25 AND pro=95 OR plt=2or3	pipeline/pipe - not above ground or water; sewage, outfall, intake
DNC	L	BH010	loc<>25	aqueduct - not elevated
0705	Line	LC(PIPSOL05)	*magenta dash very thin line w/ cir*	
DNC	L	AQ113	loc<>25 AND pro<>95and<>116 AND plt<>2and<>3	pipeline/pipe - not above ground or water;not sewage or water
0708	Line	LC(CBLSUB06)	*magenta broken zig-zag line w/ flash symbol*	
DNC	L	AT005		cable
0711	Line	LC(ACHARE51)	*magenta dash/chevron line w/anchor symbol*	
DNC	L	BB010	mac<>12	anchorage - not anchoring berth
DNC	A	BB010	mac<>12	anchorage - not anchoring berth
DTOP	A	BB010		anchorage
VML2	A	BB010		anchorage
0712	Line	LC(FSHFAC02)	*gray L complex line*	
DNC	L	BB100		fish stakes
0713	Line	LC	*magenta compressed zig-zag line*	
DNC	L	BC040		light
0716	Line	LC(NAVARE51)	*gray dash/chevron line*	
DNC	A	BB110		fish traps/fish weirs
DNC	A	BB180		oyster bed/mussel bed
DNC	A	BD050		foul ground
DNC	A	BH050		fish hatchery/fish farm/marine farm
DNC	A	FC021	mac=25	maritime limit boundary - spoil
DNC	A	FC021	mac=55	maritime limit boundary - fairway
DNC	A	FC021	mac=56	maritime limit boundary - fish traps
DNC	A	FC021	mac=57	maritime limit boundary - marine farm
DNC	A	FC170		safety fairway
DNC	A	FC177		swept area
DNC	A	ZC040		magnetic disturbance area
TOD0	A	FC031	mac=156	maritime area - safety lane
TOD0	A	FC170		safety fairway
VML1	A	ZC040		magnetic disturbance area
0722	Line	LC(RESARE51)	*magenta dashed T line*	
DNC	L	FC036		restricted area
DNC	A	FC031	mac=41	maritime area - inshore traffic zone (TSS)
0723	Line	LC(DWRTCL08)	*traffic magenta solid line w/ > and DW*	
DNC	L	FC165	atn=1 AND exs=22 AND rtt=3	route (maritime) - marked;1-way;recomm for deep draft vessels
0724	Line	LC(DWRTCL07)	*traffic magenta dash line w/ > and DW*	
DNC	L	FC165	atn=2 AND exs=22 AND rtt=3	route (maritime) - unmarked;1-way;recomm for deep draft vessels
0725	Line	LC(DWRTCL06)	*traffic magenta solid line w/ < > and DW*	
DNC	L	FC165	atn=1 AND exs=23 AND rtt=3	route (maritime) - marked;2-way;recomm for deep draft vessels

Product	Delin	FCODE	Attribute Condition	Description
0726	Line	LC(DWRTCL05)	*traffic magenta dash line w/ < > and DW*	
DNC	L	FC165	atn=2 AND exs=23 AND rtt=3	route (maritime) - unmarked;2-way;recomm for deep draft vessels
0727	Line	LC(DWLDEF01)	*traffic magenta dash line w/ < ? > and DW*	
DNC	L	FC165	exs=0 AND rtt=3	route (maritime) - unknown;recomm for deep draft vessels
0728	Line	LC(RECTRC12)	*gray very thin line w/ >*	
DNC	L	FC165	atn=1 AND exs=22 AND rtt<>3	route (maritime) - marked;1-way;not recomm for deep draft vessels
0729	Line	LC(RECTRC11)	*gray very thin dash line w/ >*	
DNC	L	FC165	atn=2 AND exs=22 AND rtt<>3	route (maritime) - unmarked;1-way;not recomm for deep draft vessels
0730	Line	LC(RECTRC10)	*gray very thin line w/ < >*	
DNC	L	FC165	atn=1 AND exs=23 AND rtt<>3	route (maritime) - marked;2-way;not recomm for deep draft vessels
0731	Line	LC(RECTRC09)	*gray very thin dash line w/ < >*	
DNC	L	FC165	atn=2 AND exs=23 AND rtt<>3	route (maritime) - unmarked;2-way;not recomm for deep draft vessels
0732	Line	LC(RECDEF02)	*gray very thin dash line w/ < ? >*	
DNC	L	FC165	exs=0 AND rtt<>3	route (maritime) - unknown;not recomm for deep draft vessels
DNC	L	FC170		safety fairway
0733	Point	SY(LOCMAG51)	*lt magenta open flag*	
DNC	A	ZC040		magnetic disturbance area
VML1	A	ZC040		magnetic disturbance area
0734	Line	LC(CTYARE51)	*magenta dash/chevron line*	
DNC	A	AL005		animal sanctuary
DNC	A	FC021	mac=44	maritime limit boundary - deguassing
DNC	A	FC021	mac=49	maritime limit boundary - cargo Xshipment
DNC	A	FC021	mac=58	maritime limit boundary - dredging area
DNC	A	FC021	mac=48	maritime limit boundary - pilot boarding
DNC	A	FC021	mac=31	maritime limit boundary - incineration
DNC	A	FC021	mac=30or35	maritime limit boundary - dumping, explosive dumping
DNC	A	FC021	mac=24	maritime limit boundary - turning area
DNC	A	FC021	mac=27or28or29	maritime limit boundary - submarine exercise, mine laying, firing range
DNC	A	FC021	mac=32or33	maritime limit boundary - oil field, gas field
DNC	A	FC031	mac=4	maritime area - mine danger
DNC	A	FC031	mac=5	maritime area - entry prohibited
DNC	A	FC036	mac=0or999	restricted area - to be avoided, other
DNC	A	FC036	mac=37	restricted area - safety zone
DNC	A	FC036	mac=43	restricted area - area to be avoided
DNC	A	FC165	rtt=11	route (maritime) - 2-way
DNC	A	GB070		seaplane landing/seaplane take-off area
TOD0	A	FC031	mac=101	maritime area - marine sanctuary
TOD0	A	FC031	mac=143or148or149or158	maritime area - military area, minefield
TOD0	A	FC031	mac=0or144or145or154or999	maritime area - restricted areas
TOD0	A	FC031	mac=27or28or115or116or140or146or147or150or151or152or153or157or159	maritime area - military practice areas
TOD0	A	FC036		restricted area
0735	Line	LC(PIPARE51)	*magenta dash/chevron line w/ dash, cir*	
DNC	A	FC036	mac=21or23or61	restricted area - pipelines, sewer
0736	Line	LC(PIPARE61)	*gray dash/chevron line w/ dash, cir*	
DNC	A	FC036	mac=45or46	restricted area - outfall, intake

Product	Delin	FCODE	Attribute Condition	Description
0737	Line	LC(CBLARE51)		*magenta dash/chevron line w/ flash symbol*
DNC	A	FC036	mac=20	restricted area - cables
0738	Line	LC(PRCARE51)		*magenta dash/chev line w/precaution symbol*
DNC	A	FC021	mac=42	maritime limit boundary - precautionary
0739	Line	LC(ACHRES51)		*magenta T dash line w/ anchor symbol*
DNC	A	FC036	mac=15	restricted area - anchoring prohibited
0740	Line	LC(FSHRES51)		*magenta T dash line w/ fish symbol*
DNC	A	FC036	mac=22	restricted area - fishing prohibited
0741	Line	LC(DWRUTE51)		*traffic magenta dash/chevron line w/ DW*
DNC	A	FC165	rtt=4	route (maritime) - deep water
0742	Line	LC(CTNARE51)		*magenta dash/chevron line w/caution symbol*
DNC	A	FC021	mac=0or999	maritime limit boundary - unknown, other
DNC	A	FC031	mac=0or9	maritime area - unknown, work in progress
DNC	A	FC165	rtt=0	route (maritime) - use unknown
TOD0	A	FC031	mac=141or142or155	maritime area - caution areas
0743	Line	LC(LOWACC21)		*dk gray small open rectangle dash line*
DNC	L	BA010	acc=2 AND slt<>6and<>8	coastline/shoreline - approximate; not mangrove or marsh
0751	Line	LC		*black solid line w/ tick terminators*
DTOP	L	AQ040		bridge/overpass/viaduct
FFD	L	AQ040		bridge/overpass/viaduct
UVM	L	AQ040		bridge/overpass/viaduct
VITD	L	AQ040		bridge/overpass/viaduct
VML0	L	AQ040		bridge/overpass/viaduct
VML1	L	AQ040		bridge/overpass/viaduct
VML2	L	AQ040		bridge/overpass/viaduct
0752	Line	LC=LS(DASH,1,CHGRD)+ SY(WATTUR02)		*gray very thin dash line w/ cntred waves*
DNC	L	BD010		breakers
0753	Line	LC=LS(SOLD,5,CHGRD)+ SY(BRIDGE01)		*very thck gray line w/ cntrd magenta dbl cir*
DNC	L	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
0754	Line	LC(OPAREAASW)		*UI vy dk blue vy thin line w/5 rows dots inside*
TOD0	A	FC031	mac=106	maritime area - ASW area
0755	Line	LC(OPAREAsubOA)		*UI vy dk blue vy thin line w/vert inward ticks*
TOD0	A	FC031	mac=107	maritime area - submarine op area
0756	Line	LC(OPAREAstlsub)		*feature brown vy thin line w/vert inward ticks*
TOD0	A	FC031	mac=108	maritime area - submarine traffic lane submerged
0757	Line	LC(OPAREAstlsur)		*feature brown vy thin line w/3 rows dots ins*
TOD0	A	FC031	mac=109	maritime area - submarine traffic lane surface
0758	Line	LC(OPAREAsfl)		*feature brown 5 dot vy thin line*
TOD0	A	FC031	mac=110	maritime area - surface traffic lane
0759	Line	LC(OPAREAalcorr)		*oparea green thin line w/stagrd dots inside*
TOD0	A	GA005	aua=0or20or36	air lanes/corridors
0760	Line	LC(OPAREAADIZ)		*purple vy thin line w/ 3 row vert dots inside*
TOD0	A	GA005	aua=2	airspace - air defense zone
0761	Line	LC(OPAREActlas)		*oparea green vy thin line w/3 row vert dots*
TOD0	A	GA005	aua=9or21or22or23or43or46or70	airspace - controlled
0762	Line	LC(OPAREAFIR)		*oparea green thin line with ticks inside*
TOD0	A	GA005	aua=13	airspace - flight information region

Product	Delin	FCODE	Attribute Condition	Description
0763	Line	LC(OPAREAUIR)	*oparea green thin line with open tabs inside*	
TOD0	A	GA005	aua=40	airspace - upper flight information region
0764	Line	LC(OPAREAAWAB)	*purple thin line w/ rt angle ticks inside*	
TOD0	A	GA015	aul=0or5or6	special use airspace - warning area
0765	Line	LC(OPAREAARAB)	*purple thin line w/ lft angle ticks inside*	
TOD0	A	GA015	aul=2or3	special use airspace - prohibited,restricted
0766	Line	LC(HITSslope)	*purple very thin solid line with inward ticks*	
TOD4	L	FC180	htc=507	hull integrity test site bottom feature - slope > 10 degrees
TOD4	A	FC180	htc=507	hull integrity test site bottom feature - slope > 10 degrees
0767	Line	LC(CBLSUB06*)	*purple broken zig-zag line w/ flash symbol*	
TOD4	L	FC180	htc=509	hull integrity test site bottom feature - cable
TOD4	A	FC180	htc=509	hull integrity test site bottom feature - cable
0802	Area	AC(CHGRD)	*gray solid fill*	
DNC	A	AN060		railroad yard/marshalling yard
DTOP	A	AL105 pop		settlement
DTOP	A	AL135 pop		native settlement
DTOP	A	AN060		railroad yard/marshaling yard
FFD	A	AL105		settlement
FFD	A	AL135		native settlement
FFD	A	AN060		railroad yard/marshalling yard
UVM	A	AL135		native settlement
UVM	A	AN060		railroad yard/marshaling yard
UVM	A	AQ150		flight of steps
VITD	A	AN060		railroad yard/marshalling yard
VML0	A	AL135		native settlement
VML1	A	AL105		settlement
VML1	A	AL135		native settlement
VML1	A	AN060		railroad yard/marshalling yard
VML2	A	AL105		settlement
VML2	A	AL135		native settlement
VML2	A	AN060		railroad yard/marshalling yard
0803	Area	AC(DEPIT)	*yellow green solid fill*	
DNC	A	BA020		foreshore
DNC	A	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers
DNC	A	BD100	vrr=8	pile/piling/post - covers and uncovers
DNC	A	BD120	vrr=8	reef - covers and uncovers
DNC	A	BD140	vrr=8	snags/stumps - covers and uncovers
DNC	A	BD180	vrr=8 AND hdp=NULL	wreck - covers and uncovers; depth null
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DTOP	A	BA020		foreshore
TOD1	A	BE019	cvl=-32767	depth area - depth unknown
TOD2	A	BE019	cvl=-32767	depth area - depth unknown
TOD4	A	BE019	cvl=-32767	depth area - depth unknown
UVM	A	BA020		foreshore
VITD	A	SA050	gsc=1	slope polygon - 0 to >45%, dissected
VML1	A	BA020		foreshore
VML2	A	BA020		foreshore
0804	Area	AC(CHBRN)	*brown solid fill*	
DNC	A	AD010		power plant
DNC	A	AD030		substation/tran.yard

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	AH010		bastion/rampart/fortification
DNC	A	AH050		fortification
DNC	A	AK160		stadium/amphitheater
DNC	A	AL015		building
DNC	A	AL020		built-up area
DNC	A	AL030		cemetery
DNC	A	AM030		grain elevator
DNC	A	AM070		tank
DNC	A	AQ116		pumping station
DNC	A	AT020		early warning radar site
DNC	A	BB150		landing place
DNC	A	BB170		offshore loading facility
DNC	A	BD020	vrr=1 AND hdp=NULL	crib - above surface
DNC	A	BD100	vrr=1	pile/piling/post - does not cover
DNC	A	BD140	vrr=1	snags/stumps - does not cover
DNC	A	BD180	vrr=1 AND hdp=NULL	wreck - does not cover; depth null
DNC	A	BI030		lock
DNC	A	GB055		runway
DTOP	A	AD010		power plant
DTOP	A	AD030		substation/tran.yard
DTOP	A	AL030		cemetery
UVM	A	AD010		power plant
UVM	A	AD030		substation/tran.yard
UVM	A	AL030		cemetery
VML0	A	AA052		oil/gas field
VML2	A	AD010		power plant
VML2	A	AD030		substation/tran.yard
VML2	A	AL030		cemetery
0805	Area	AC(DEPDW)	*depth white fill*	
DNC	A	BE010	idsm=0 AND cvl>=msdcand<>99999	depth area (very deep); 4 shades
DNC	A	BE010	idsm=1 AND cvl>=ssdcand<>99999	depth area (deep water); 2 shades
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
TOD1	A	BE019	cvl>=200	depth area - depth greater than 200m
TOD2	A	BE019	cvl>=200	depth area - depth greater than 200m
TOD4	A	BE019	cvl>=123	depth area - depth greater than 123m
WVS	A	BA040		water (except inland)
0810	Area	AC(DEPVS)	*depth med blue solid fill*	
DNC	A	BC080		perches/stakes
DNC	A	BD000	hdp=0	underwater danger/hazard - depth unknown
DNC	A	BD020	vrr=4 AND hdp=0	crib - submerged;depth unknown
DNC	A	BD030		discolored water
DNC	A	BD100	vrr=4	pile/piling/post - submerged
DNC	A	BD120	vrr<>8 AND hdp=0orNULL	reef - not covers and uncovers, depth unknown or null
DNC	A	BD140	vrr=4	snags/stumps - submerged
DNC	A	BD180	vrr=0or2 AND hdp=NULL	wreck - unknown; awash; depth null
DNC	A	BD180	vrr=4 AND hdp=0	wreck - submerged; depth unknown
DNC	A	BE010	idsm=0 AND isdm=1 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode on
DNC	A	BE010	idsm=1 AND isdm=0 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode off
DNC	A	BE010	idsm=0 AND isdm=0 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode off
DNC	A	BE010	idsm=1 AND isdm=1 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode on
DNC	A	BH020		canal
DNC	A	BH080		lake/pond
DNC	A	BH130		reservoir

Product	Delin	FCODE		Attribute Condition	Description
DNC	A	BH140			river/stream
DNC	A	FC031		mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
DNC	A	FC031		mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
DNC	A	FC031		mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
DNC	A	FC031		mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
DTOP	A	BD100			pile/piling/post
DTOP	A	BI030			lock
FFD	A	BI030			lock
TOD1	A	BE019		cvl>0and<200	depth area - depth less than 200m
TOD2	A	BE019		cvl>0and<200	depth area - depth less than 200m
TOD4	A	BE019		cvl>0and<123	depth area - depth less than 123m
UVM	A	BI030			lock
VML2	A	BD100			pile/piling/post
VML2	A	BI030			lock
0820	Area	AC(DEPMD)		*depth pale blue solid fill*	
DNC	A	BE010		idsm=0 AND cvl>=ssdcand<msdc	depth area (medium deep); 4 shades
DNC	A	FC031		mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
TOD1	A	BE030			track swath
TOD2	A	BE030			track swath
WVS	A	BE019			depth area
0821	Area	AC(DEPMS)		*depth lt blue solid fill*	
DNC	A	BA040			water (except inland)
DNC	A	BE010		idsm=0 AND isdm=1 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode on
DNC	A	BE010		idsm=0 AND isdm=0 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode off
DNC	A	FC031		mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
DNC	A	FC031		mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
DTOP	A	BA040			water (except inland)
DTOP	A	BH030	sdr	cda<>2	ditch - not covered
DTOP	A	BH030	sdr	cda=2	ditch - covered
DTOP	A	BH030	<>sdr		ditch
FFD	A	BA040			water (except inland)
FFD	A	BH030			ditch
UVM	A	BA040			water (except inland)
UVM	A	BH030			ditch
VML0	A	BA040			water (except inland)
VML1	A	BA040			water (except inland)
VML2	A	BA040			water (except inland)
VML2	A	BH030			ditch
0822	Area	AC(LANDA)		*lt brown solid fill*	
DNC	A	AB000			disposal site/waste pile
DNC	A	AB010			wrecking yard/scrap yard
DNC	A	AK040			athletic field
DNC	A	AK090			fairgrounds
DNC	A	AK100			golf course
DNC	A	AK120			park
DNC	A	AK180			zoo/safari park
DNC	A	AL200			ruins
DNC	A	BA030			island
DNC	A	BB090			drydock

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	BJ110		tundra
DNC	A	DA010		ground surface element
DNC	A	DB180		volcano
DNC	A	GB005		airport/airfield
DTOP	A	AB000		disposal site/waste pile
DTOP	A	AB010		wrecking yard/scrap yard
DTOP	A	BA030		island
DTOP	A	EC030	veg=52	trees - clearing
FFD	A	BA030		island
UVM	A	AB000		disposal site/waste pile
UVM	A	AB010		wrecking yard/scrap yard
UVM	A	BA030		island
VML1	A	AB000		disposal site/waste pile
VML1	A	BA030		island
VML2	A	AB000		disposal site/waste pile
VML2	A	BA030		island
0823	Area	AC(NODTA)	*no data gray solid fill*	
DNC	A	BE010	cvl=99999	depth area; depth unknown
DNC	A	BJ030		glacier
DNC	A	BJ065		ice shelf
DNC	A	BJ100		snow field/ice field
DNC	A	FC021	mac=26	maritime limit boundary - unsurveyed
0824	Area	AC(TRFCF,3)	*traffic lt magenta solid fill*	
DNC	A	FC041	tsp=3	traffic separation scheme (TSS) - separation zone area
0825	Area	AC(purple21)	*21% purple solid fill*	
TOD4	A	FC180	htc<>503and<>507and<>509	hull integrity test site bottom feature - height not > 2m, not slope > 10 degrees, not cable
0826	Area	AC(purple42)	*42% purple solid fill*	
TOD4	A	FC180	htc=503	hull integrity test site bottom feature - height > 2m
0902	Point	SY(ACHARE51)	*lt magenta anchor*	
DNC	A	BB010	mac<>12	anchorage - not anchoring berth
DTOP	A	BB010		anchorage
VML2	A	BB010		anchorage
0904	Area	AP(MARCUL02)	*gray fish in net patt fill*	
DNC	A	BB180		oyster bed/mussel bed
DNC	A	BH050		fish hatchery/fish farm/marine farm
DNC	A	FC021	mac=57	maritime limit boundary - marine farm
0910	Area	AP(MARSHES1)	*brown marsh patt fill*	
DNC	A	BH095		marsh/swamp
0911	Area	AP	*depth med blue grid patt fill*	
DNC	A	BH155		salt evaporator
DTOP	A	BH155		salt evaporator
FFD	A	BH155		salt evaporator
UVM	A	BH150		salt pan
UVM	A	BH155		salt evaporator
VML0	A	BH155		salt evaporator
VML1	A	BH150		salt pan
VML1	A	BH155		salt evaporator
VML2	A	BH150		salt pan
VML2	A	BH155		salt evaporator
0912	Area	AP(ICEARE04)	*gray random line patt fill*	
DNC	A	BJ030		glacier

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	BJ065		ice shelf
DNC	A	BJ100		snow field/ice field
0913	Area	AP	*feature brown solid filled circle patt fill*	
DNC	A	DB090		embankment/fill
DNC	A	DB170		sand dune/sand hills
0914	Area	AP	*feature brown cirs patt fill*	
DNC	A	EA030		nursery
0915	Area	AP(VEGATN03)	*feature brown tree side-view patt fill*	
DNC	A	EA040		orchard/plantation
DNC	A	EA050		vineyards
DNC	A	EC030	veg<>19	trees - not mangrove
0916	Area	AP(VEGATN04)	*feature brown mangrove side-view patt fill*	
DNC	A	EC030	veg=19	trees - mangrove
0917	Area	AP(TSSJCT02)	*traffic lt magenta rt diag line patt fill*	
DNC	A	FC021	mac=42	maritime limit boundary - precautionary
DNC	A	FC031	mac=40	maritime area - roundabout zone (TSS)
DNC	A	FC041	tsp=6or7	traffic separation scheme (TSS) - inbound or outbound area
0919	Area	AP(DRGARE01)	*gray diag spaced dot patt fill*	
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
0932	Area	AP(AIRARE02)	*feature brown airplane patt fill*	
DNC	A	GB005		airport/airfield
0933	Area	AP(NODATA03)	*gray offset dash patt fill*	
DNC	A	FC021	mac=26	maritime limit boundary - unsurveyed
0934	Area	AP(PRTSUR01)	*gray dash wide patt fill*	
DNC	A	BE010	cvl=99999	depth area; depth unknown
0949	Area	AP(DIAMOND1)	*depth gray diamond patt fill*	
DNC	A	BA020	isdm=1	foreshore - shallow mode display on
DNC	A	BD120	vrr=8 AND isdm=1	reef - covers and uncovers, shallow display mode on
DNC	A	BE010	idsm=0 AND isdm=1 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode on
DNC	A	BE010	idsm=0 AND isdm=1 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode on
DNC	A	BE010	idsm=1 AND isdm=1 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
1001	Point	SY	*red filled square black outline*	
DTOP	P	AL015	bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96	building - generic
UVM	P	AL015	bfc=2or3or5or8or12or13or14or28or31or35or37or38or52or61or62or64or65or66or67or77or78or79or80or96or101or119or121or123or723	building - gov't
VML1	P	AL015	bfc=2or3or5or12or13or14	building - gov't
VML2	P	AL015	bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96	building - gov't
1002	Point	SY	*black filled cir w/ white cross inside*	
DTOP	P	AL015	bfc=6	building - hospital
UVM	P	AL015	bfc=6or100	building - hospital
VML2	P	AL015	bfc=6	building - hospital
1003	Point	SY	*black cross*	
DTOP	P	AL030		cemetery
UVM	P	AL030		cemetery
VML2	P	AL030		cemetery
1004	Point	SY	*black pencil shape symbol*	
UVM	P	AL120		missile site
1005	Point	SY	*black F inside boat*	
DTOP	P	AQ070		ferry crossing
FFD	P	AQ070		ferry crossing
UVM	P	AQ070		ferry crossing
VITD	P	AQ070		ferry crossing
VML0	P	AQ070		ferry crossing
VML1	P	AQ070		ferry crossing
VML2	P	AQ070		ferry crossing
1006	Point	SY	*basic blue line w/ arrow*	
UVM	P	BG010		current flow
1007	Point	SY	*basic blue cir*	
UVM	P	BH010		aqueduct
VML1	P	BH010		aqueduct
VML2	P	BH010		aqueduct
1008	Point	SY	*basic blue filled cir w/ tail below*	
DTOP	P	BH170		spring/water-hole
UVM	P	BH170		spring/water-hole
VML0	P	BH170		spring/water-hole
VML1	P	BH170		spring/water-hole
VML2	P	BH170		spring/water-hole
1009	Point	SY	*basic blue filled diamond*	
DTOP	P	BH180		waterfall
VML0	P	BH180		waterfall
VML1	P	BH180		waterfall
VML2	P	BH180		waterfall
1010	Point	SY	*basic blue solid square*	
DTOP	P	BI010		cistern
UVM	P	BI010		cistern
VML1	P	BI010		cistern
VML2	P	BI010		cistern

Product	Delin	FCODE	Attribute Condition	Description
1011	Point	SY		*black sm filled cir beside +-*
DTOP	P	CA030	ela<>1	spot elevation - not accurate
FFD	P	CA030	ela<>1	spot elevation - not accurate
UVM	P	CA030	ela<>1	spot elevation - not accurate
VML0	P	CA030	ela<>1	spot elevation - not accurate
VML1	P	CA030	ela<>1	spot elevation - not accurate
VML2	P	CA030	ela<>1	spot elevation - not accurate
1012	Point	SY		*aero blue solid filled star*
DTOP	P	GB010		airport lighting
UVM	P	GB010		airport lighting
VML1	P	GB010		airport lighting
VML2	P	GB010		airport lighting
1013	Point	SY		*black "H" inside black square*
DTOP	P	GB030		helicopter landing pad
UVM	P	GB030		helicopter landing pad
1171	Point	SY		*black opposing open equi triangles*
DTOP	P	AQ111		prepared raft or float bridge site
VITD	P	AQ058	wd1=40	constriction/expansion
VITD	P	AQ111		prepared raft or float bridge site
1172	Point	SY		*black diamond w/ curve staffed arrow*
DTOP	P	AQ118		sharp curve(s)
VITD	P	AQ118		sharp curve(s)
1202	Point	SY(BUISGL01)		*feature brown filled square w/ brown outln*
UVM	P	AL015	bfc=1or21or22or23or24or25or26or27or29or30or40or54or59or71or72or73or74or75or76	building - generic (industry)
UVM	P	AL015	bfc=81or83or84or85or86or89or90or94or102or104or110or112or113or116or120or124or125	building - generic (industry)
1205	Point	SY		*brown vert line w/ horizontal ticks on rt side*
DTOP	P	AL075		gallery
1206	Point	SY		*black line w/ indented rectangle*
DTOP	P	AL155		overhead obstruction location
1211	Point	SY		*black two rt pointing triangles*
DTOP	P	AQ120		steep grade
1220	Point	SY(RCTLPT52)		*traffic magenta dashed open arrow*
DNC	P	FC165	dof<>0	route (maritime) - direction known
1233	Point	SY		*black horiz line below triangle w/ B inside*
DNC	P	BF010	mcc=0 AND psc=0	bottom characteristics - surface unknown
1236	Point	SY(ITZARE51)		*lt magenta IT*
DNC	A	FC031	mac=41	maritime area - inshore traffic zone (TSS)
1238	Point	SY(DWRTPT51)+ SY(TSLDEF51)		*traffic lt mag DW filled arrow btwn 2 mgnta ?*
DNC	A	FC165	rtt=4	route (maritime) - deep water
1251	Point	SY(SOUND*C2)		*sounding gray circle*
DNC	P	BE020	acc<>1	sounding or drying height - circle (light) indicating low accuracy
TOD1	P	BE020	acc<>1	sounding - circle (light) indicating low accuracy
TOD2	P	BE020	acc<>1	sounding - circle (light) indicating low accuracy
TOD4	P	BE020	acc<>1	sounding - circle (light) indicating low accuracy
1256	Point	SY(SOUNDSA1)		*sounding black overbar*
DNC	P	BE020	hdh>=0 AND hdp=NULL	drying height overbar (dark)

Product	Delin	FCODE	Attribute Condition	Description
1301	Line	LC		*black line w/ squares*
DTOP	L	AL060		dragon teeth
DTOP	A	AL060		dragon teeth
VITD	L	AL060		dragon teeth
VITD	A	AL060		dragon teeth
VML2	L	AL060		dragon teeth
VML2	A	AL060		dragon teeth
1303	Line	LC		*basic blue thin dash line w/ circle*
UVM	L	AQ113	loc=4 AND pro=116	pipeline/pipe - undergound;water
VML1	L	AQ113	loc=4 AND pro=116	pipeline/pipe - undergound;water
VML2	L	AQ113	loc=4 AND pro=116	pipeline/pipe - undergound;water
1304	Line	LC		*basic blue thin dash line w/ dot*
DTOP	L	AQ113	pro=116	pipeline/pipe - water
UVM	L	AQ113	loc<>4 AND pro=116	pipeline/pipe - on or above ground;water
VML1	L	AQ113	loc<>4 AND pro=116	pipeline/pipe - not underground;water
VML2	L	AQ113	loc<>4 AND pro=116	pipeline/pipe - on or above ground;water
1305	Line	LC		*brown dash thin line w/ dot*
DTOP	L	AQ113	pro<>116	pipeline/pipe - not water
UVM	L	AQ113	loc<>4 AND pro<>116	pipeline/pipe - on or above ground;not water
VITD	L	AQ113		pipeline/pipe
VML0	L	AQ113	loc=8	pipeline/pipe - on ground
VML1	L	AQ113	loc<>4 AND pro<>116	pipeline/pipe - not underground;not water
VML2	L	AQ113	loc<>4 AND pro<>116	pipeline/pipe - on or above ground;not water
1306	Line	LS(L-DASH,1,med-red-brown)		*red brown very thin long dash line*
UVM	L	CA010	hqc=3or14	contour line (land) - supplementaL
VML0	L	CA010	hqc=4or13or19or20or21or22or23	contour line (land) - supplementary approx., carrying, supplemental dep., form lines
VML2	L	CA010	hqc=3or4or13or14	contour line (land) - supplementary (1/4, 1/2, approx), form lines
1307	Line	LC		*red brown vy thin line w/ ticks on inside*
FFD	L	CA010	hqc=5or6	contour line (land) - depression
UVM	L	CA010	hqc=5or6	contour line (land) - depression
VML0	L	CA010	hqc=6or18	contour line (land) - depression
VML2	L	CA010	hqc=5or6	contour line (land) - depression
1308	Line	LC		*black very thin line w/ ticks*
DTOP	L	DB070		cut
DTOP	L	DB080		depression
UVM	L	DB070		cut
VITD	L	DB070		cut
VML0	L	DB080		depression
VML1	L	DB070		cut
VML2	L	DB070		cut
1309	Line	LC		*black double lines w/ ticks pointing out*
DTOP	L	DB090		embankment/fill
UVM	L	DB090		embankment/fill
VITD	L	DB090		embankment/fill
VML0	L	DB090		embankment/fill
VML1	L	DB090		embankment/fill
VML2	L	DB090		embankment/fill
1310	Line	LC		*black one long dash two short dash line*
DNC	L	FA000	use=23	administrative boundary - international
DNC	L	FA060		defacto boundary

Product	Delin	FCODE		Attribute Condition	Description
DTOP	L	FA000		use=23	administrative boundary - international
DTOP	L	FA060			defacto boundary
FFD	L	FA000		use=23	administrative boundary - international
UVM	L	FA000		use=23	administrative boundary - international
VML0	L	FA000		use=23	administrative boundary - international
VML0	L	FA060			defacto boundary
VML1	L	FA000		use=4or23	administrative boundary - international
VML1	L	FA060			defacto boundary
VML2	L	FA000		use=23	administrative boundary - international
VML2	L	FA060			defacto boundary
WVS	L	FA000	coc	use=4or23	administrative boundary - national, international
WVS	L	FA060			defacto boundary
1311	Line	LC		*black long dash short dash line*	
DTOP	L	FA000		use=0or26	administrative boundary - primary, unknown
FFD	L	FA000		use=0or26	administrative boundary - primary, unknown
UVM	L	FA000		use=0or26or999	administrative boundary - primary, unknown, other
VML0	L	FA000		use=26	administrative boundary - primary
VML1	L	FA000		use=0or26	administrative boundary - primary, unknown
VML2	L	FA000		use=0or26	administrative boundary - primary, unknown
WVS	L	FA000	coc	use=0or26	administrative boundary - primary, unknown
1312	Line	LC		*black very thin sht dash very sht dash line*	
UVM	L	FA000		use=16	administrative boundary - city
1313	Line	LC		*purple line w/ squares*	
UVM	L	GB050			revetment (airfield)
1314	Line	LC		*red brown triple solid thin lines*	
UVM	L	AP030		exs=0or28 AND rst=1 AND use=26	road - op, hard, primary
VML1	L	AP030		exs=0or28 AND rst=1 AND use=23or37	road - op, hard, interstate/international
VML2	L	AP030		exs=0or28 AND rst=1 AND use=23or37	road - op, hard, interstate/international
1315	Line	LC		*red brown double solid thin lines*	
FFD	L	AP030		exs=0or28 AND rst=1	road - operational, hard
UVM	L	AP030		exs=0or28 AND rst=1 AND use=30	road - op, hard, secondary
VITD	L	AP030		fco=5or6 AND rst=0or1 AND wtc=0or1	road - w/ median, hard, all weather
VML0	L	AP030		exs=28 AND med=1	road - operational, w/median
VML1	L	AP030		exs=0or28 AND rst=1 AND use=4or5	road - op, hard, national/state
VML2	L	AP030		exs=0or28 AND rst=1 AND use=4or5	road - op, hard, national/state
1316	Line	LC		*red brown triple dash thin lines*	
UVM	L	AP030		exs<>0and<>28 AND rst=1 AND use=26	road - non-op, hard, primary
VML1	L	AP030		exs<>0and<>28 AND rst=1 AND use=23or37	road - non-op, hard, interstate/international
VML2	L	AP030		exs<>0and<>28 AND rst=1 AND use=23or37	road - non-op, hard, interstate/international
1317	Line	LC		*red brown double dash thin lines*	
FFD	L	AP030		exs<>0and<>28 AND rst=1	road - non-operational, hard
UVM	L	AP030		exs<>0and<>28 AND rst=1 AND use=30	road - non-op, hard, secondary
VML0	L	AP030		exs<>28 AND med=1	road - non-op, w/ median
VML1	L	AP030		exs<>0and<>28 AND rst=1 AND use=4or5	road - non-op, hard, national/state
VML2	L	AP030		exs<>0and<>28 AND rst=1 AND use=4or5	road - non-op, hard, national/state
1318	Line	LC		*black thin long dsh 2 shrt dsh line*	
VML1	L	FA000		use=30	administrative boundary - secondary
WVS	L	FA000	coc	use=30	administrative boundary - secondary
1319	Line	LC		*black thin long dash 3 dot line*	
VML1	L	FA000		use=31	administrative boundary - tertiary
WVS	L	FA000	coc	use=31	administrative boundary - tertiary

Product	Delin	FCODE	Attribute Condition	Description
1401	Line	LC		*black outline open line w/ rt diag fill*
DTOP	L	AL075		gallery
1403	Line	LC		*black line w/ open diamonds*
DTOP	L	DB145		miscellaneous obstacle
1406	Line	LS(SOLD,2,CHBRN)		*brown thin solid line*
DTOP	L	AL015	bfc=15	building - school
DTOP	A	BJ020		moraine
UVM	L	AL015	bfc=15or60or108	building - school
VITD	L	DB200		gully/gorge
VITD	A	DB200		gully/gorge
VML1	A	BJ020		moraine
VML2	L	AL015	bfc=15	building - school
VML2	A	BJ020		moraine
1408	Line	LC		*basic green vy thin long dash short dash line*
WVS	L	FA000 mab		administrative boundary
1412	Line	LS(SOLD,2,DEPIT)		*yellow green thin solid line*
VITD	A	EA010		cropland
VITD	A	EB020		scrub/brush
VITD	A	EC030		trees
1451	Line	LC		*purple dash line w/ tics both sides (- + -)*
FFD	L	FC021	mbl=9	maritime limit boundary - international (at sea)
WVS	L	FC021	mbl=9	maritime limit boundary - international (at sea)
1506	Line	LC		*basic blue jagged vy thin line*
VML1	A	BH190		lagoon/reef pool
1509	Line	LC		*black thin solid line ticks on inside*
VITD	A	DB080		depression
1511	Line	LC		*brown thin line outward ticks*
UVM	A	BH077		hummock
VML0	A	BH077		hummock
VML2	A	BH077		hummock
1512	Line	LC		*magenta vy thin line double ticks*
UVM	A	GB050		revetment (airfield)
1513	Line	LC		*magenta jagged line*
UVM	A	AT020		early warning radar site
UVM	A	AT045		radar transmitter
1516	Line	LC		*black thin line outward ticks*
UVM	A	DB090		embankment/fill
VML2	A	DB090		embankment/fill
1571	Line	LC		*brown vy thin dash/dotted line*
DTOP	L	AP030	exs=0or28 AND wtc=2	road - op,fair weather
1572	Line	LC		*black thin solid dbl lines w/ flares on ea end*
UVM	L	AQ065		culvert
UVM	A	AQ040		bridge/overpass/viaduct
1573	Line	LS(SOLD,1,CSTLN)		*dk gray very thin solid line*
DNC	L	BA010	acc=1 AND slt<>6and<>8	coastline/shoreline - accurate; not mangrove or marsh
DNC	A	BB090		drydock
WVS	L	BA010		coastline/shoreline
1601	Area	AC(CHRED)		*red solid fill*
DTOP	A	SA050	spr=7	slope polygon - > 60% and <= 85%

Product	Delin	FCODE		Attribute Condition	Description
UVM	A	AL015		bfc=2or3or5or8or28or52or121	building - gov't
1602	Area	AC(LITYW)		*lights yellow solid fill*	
UVM	A	AP020			interchange
1605	Area	AP		*yellow-green tree-top patt fill*	
DTOP	A	BH095		veg=24	marsh/swamp - deciduous
DTOP	A	EC030		veg=0or24	trees - deciduous, unknown
FFD	A	EC030		tre=0or1	trees - deciduous, unknown
UVM	A	EC030		tre=0or1or3	trees - deciduous, mixed, unknown
VML0	A	EC030		veg=0or24or50or999	trees - unknown, deciduous, mixed, other
VML1	A	EC030		veg=0or24or50or999	trees - unknown, deciduous, mixed, other
VML2	A	EC030		veg=0or24or50or999	trees - unknown, deciduous, mixed, other
1606	Area	AP		*yellow-green triangle tree patt fill*	
DTOP	A	BH095		veg=25or50	marsh/swamp - evergreen,mixed
DTOP	A	EC030		veg=25or50	trees - evergreen, mixed
FFD	A	EC030		tre=2or3	trees - evergreen, mixed
UVM	A	EC030		tre=2	trees - evergreen
VML0	A	EC030		veg=11or12or17or18or25or29or38	trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress
VML1	A	EC030		veg=11or12or17or18or29or38	trees - casuarina, coniferous, palm, filao, eucalyptus, cypress
VML2	A	EC030		veg=11or12or17or18or25or29or38	trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress
1608	Area	AP		*basic blue stipple dot patt fill*	
FFD	A	BH020		hyc<>8	canal - non-perennial, dry, unknown
FFD	A	BH140		hyc=3or6	river/stream - dry, non-perennial
UVM	A	BH020		exs<>32 OR hyc<>8	canal - not navigable or not perennial
UVM	A	BH140		hyc=3or6	river/stream - dry, intermittent
VITD	A	BH020		hyc<>8	canal - not perennial
VML1	A	BH140		hyc=3or6	river/stream - dry, intermittent
VML2	A	BH020		exs<>32 OR hyc<>8	canal - not navigable or not perennial
VML2	A	BH140		hyc=3or6	river/stream - dry, intermittent
1609	Area	AP		*basic blue diag grid patt fill*	
UVM	A	BH075			fountain
1610	Area	AP		*red left diag line patt fill*	
DTOP	A	AQ135			vehicle stopping area/rest area
DTOP	A	AQ140			vehicle storage/parking area
UVM	A	AQ140			vehicle storage/parking area
VML2	A	AQ135			vehicle stopping area/rest area
VML2	A	AQ140			vehicle storage/parking area
1611	Area	AP		*basic blue dot patt fill*	
DTOP	A	BH080	sdr	hyc<>8	lake/pond - not perennial
FFD	A	BH080		hyc=3	lake/pond - dry
UVM	A	BH080		hyc=3or6	lake/pond - dry, intermittent
VML1	A	BH080		hyc=3or6	lake/pond - dry, intermittent
VML2	A	BH080		hyc=3or6	lake/pond - dry, intermittent
1612	Area	AP		*magenta cross hatch patt fill*	
UVM	A	GB030			helicopter landing pad
1613	Area	AP		*yellow-green nipa patt fill*	
DTOP	A	BH095		veg=16or19	marsh/swamp - palm, mangrove
VML0	A	EC030		veg=16or19	trees - nipa palm, mangrove
VML1	A	EC030		veg=16or19	trees - nipa palm, mangrove
VML2	A	EC030		veg=16or19	trees - nipa palm, mangrove

Product	Delin	FCODE	Attribute Condition	Description
1651	Line	LS(DASH,2,TRFCF)	*traffic lt magenta thin dash line*	
DNC	L	FC021	mac=48 AND mbl=NULL	maritime limit boundary - pilot boarding
1655	Line	LS(DASH,2,blue)	*basic blue thin dash line*	
DTOP	A	BH080 sdr	hyc<>8	lake/pond - not perennial
DTOP	A	BH095	veg=16or19	marsh/swamp - palm, mangrove
FFD	A	BH080	hyc=3	lake/pond - dry
UVM	A	BH080	hyc=3or6	lake/pond - dry, intermittent
VITD	A	BH140	hyc=6	river/stream - intermittent
VITD	A	SA040		permanent snowfield
VML0	A	EC030	veg=16or19	trees - nipa palm, mangrove
VML1	A	BH080	hyc=3or6	lake/pond - dry, intermittent
VML1	A	EC030	veg=16or19	trees - nipa palm, mangrove
VML2	A	BH080	hyc=3or6	lake/pond - dry, intermittent
VML2	A	EC030	veg=16or19	trees - nipa palm, mangrove
1851	Line	LS(S-DASH,2,med-beige)	*beige thin short dash line*	
VITD	A	DA010	stp=5or6or7or8or9	ground surface element - sands
1855	Line	LS(SOLD,2,med-red-brown)	*red brown thin solid line*	
FFD	L	CA010	hqc=2	contour line (land) - intermediate
UVM	L	AP030	exs=0or28 AND rst=1 AND use=0	road - op, hard, unk
UVM	L	CA010	hqc=0or2or12	contour line (land) - intermediate
VITD	L	AP030	fco=0or7 AND rst=0or1 AND wtc=0or1	road - w/out median, hard, all weather
VML0	L	AP030	exs=28 AND med<>1	road - operational, w/o median
VML0	L	CA010	hqc=0or2or12	contour line (land) - intermediate, unknown
VML1	L	AP030	exs=0or28 AND rst=1 AND use=0or6or999	road - op, hard, private/other
VML2	L	AP030	exs=0or28 AND rst=1 AND use=0or6or999	road - op, hard, private/other
VML2	L	CA010	hqc=0or2or9or12	contour line (land) - intermediate, unknown
1901	Area	AC(UIAFF)	*ui lt brown solid fill*	
DTOP	A	SA050	spr=2	slope polygon - > 10% and <= 15%
TOD4	A	FC179		side scan sonar coverage
VITD	A	SA050	gsc=4	slope polygon - > 10% and <= 20%
1902	Area	AC(dark-beige)	*dk beige solid fill*	
DTOP	A	SA050	spr=3	slope polygon - > 15% and <= 20%
1903	Area	AC(med-rose)	*rose solid fill*	
DTOP	A	SA050	spr=4	slope polygon - > 20% and <= 30%
VITD	A	SA050	gsc=5	slope polygon - > 20% and <= 30%
1904	Area	AC(ADINF)	*golden yellow solid fill*	
DTOP	A	SA050	spr=5	slope polygon - > 30% and <= 45%
VITD	A	SA050	gsc=6	slope polygon - > 30% and <= 45%
1905	Area	AC(white)	*basic white solid fill*	
DTOP	A	SA050	spr=999	slope polygon - % unknown
VITD	A	SA050	gsc=0	slope polygon - % unknown
1906	Area	AC(lite-red-brown)	*lt red brown solid fill*	
DTOP	A	SA050	spr=8	slope polygon - > 85%
2001	Point	SY	*black pick & hammer*	
DTOP	P	AA010		mine
DTOP	P	AA012		quarry
DTOP	A	AA010		mine
DTOP	A	AA012		quarry
UVM	P	AA010		mine
UVM	P	AA012		quarry
UVM	A	AA010		mine

Product	Delin	FCODE	Attribute Condition	Description
UVM	A	AA012		quarry
VML0	P	AA010		mine/quarry
VML0	A	AA010		mine/quarry
VML1	P	AA010		mine/quarry
VML1	A	AA010		mine/quarry
VML2	P	AA010		mine/quarry
VML2	A	AA010		mine/quarry
2002	Point	SY	*black tower*	
DTOP	P	AA040		rig/superstructure
UVM	P	AA040		rig/superstructure
VML0	P	AA052		oil/gas field
VML0	P	AC040		oil/gas facilities
VML1	P	AA040		rig/superstructure
VML2	P	AA040		rig/superstructure
2003	Point	SY	*basic blue solid filled cir*	
DTOP	P	AA050	pro=116	well - water
UVM	P	AA050	pro=116	well - water
VML1	P	AA050	pro=116	well - water
VML2	P	AA050	pro=116	well - water
2005	Point	SY	*black building w/ 2 smokestacks above*	
DTOP	P	AC000		processing plant/treatment plant
DTOP	P	AC020		catalytic cracker
UVM	P	AC020		catalytic cracker
VML0	P	AC000		processing plant/treatment plant
VML1	P	AC000		processing plant/treatment plant
VML2	P	AC000		processing plant/treatment plant
VML2	P	AC020		catalytic cracker
2009	Point	SY	*black square w/ zap inside*	
VML0	P	AD010		power plant
VML1	P	AD010		power plant
2010	Point	SY	*black sun burst w/ dot inside*	
DTOP	P	AD020		solar panels
VML2	P	AD020		solar panels
2011	Point	SY	*black filled square w/ zap on top*	
DTOP	P	AD030		substation/tran.yard
UVM	P	AD030		substation/tran.yard
VML0	P	AD030		substation/tran.yard
VML2	P	AD030		substation/tran.yard
2016	Point	SY	*black dot inside double cir*	
DTOP	P	AF030		cooling tower
UVM	P	AF030		cooling tower
VML1	P	AF030		cooling tower
VML2	P	AF030		cooling tower
2019	Point	SY	*black sm filled cir*	
DTOP	P	AM070		tank
UVM	P	AM070		tank
VML0	P	AM070		tank
VML1	P	AM070		tank
VML2	P	AM070		tank
2026	Point	SY	*black tent*	
VML0	P	AI030		camp

Product	Delin	FCODE	Attribute Condition	Description
2029	Point	SY	*black ferris wheel*	
DTOP	P	AK020		amusement park attraction
UVM	P	AK020		amusement park attraction
VML1	P	AK020		amusement park attraction
VML2	P	AK020		amusement park attraction
2034	Point	SY	*black skier*	
UVM	P	AK150		ski jump
VML1	P	AK150		ski jump
VML2	P	AK150		ski jump
2035	Point	SY	*black dot inside cir*	
VML0	P	AK160		stadium/amphitheater
VML1	P	AK160		stadium/amphitheater
2036	Point	SY	*black sm filled square*	
DNC	P	AL015	bfc<>7and<>81	building - not house of worship,not maritime station
DTOP	P	AL015	bfc=90or91or92or93or95or98or999	building - generic
DTOP	P	AL015	bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36or53or59or69or70or83or85or86or87or88or89	building - generic
UVM	P	AL015	bfc=0or4or9or10or11or16or17or18or19or20or33or34or36or39or51or53or55or56or57or58	building - generic (population)
UVM	P	AL015	bfc=63or69or70or87or88or91or92or93or95or97or98or99or103or105or106or107or109or111or115or117or118or122or126or127or128or999	building - generic (population)
VML0	P	AL015		building
VML0	P	AN060		railroad yard/marshalling yard
VML1	P	AL015	bfc=0or1or4or9or10or11or16or17or18or19or20or22or23or24or27or83or999	building - generic
VML2	P	AL015	bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36	building - generic
VML2	P	AL015	bfc=53or59or69or70or83or85or86or87or88or89or90or91or92or93or95or98or999	building - generic
2038	Point	SY	*black dot w/ parallel lines inside circle*	
UVM	P	AP040		gate
UVM	P	AQ090		entrance/exit
2042	Point	SY	*black filled square w/ flag on top*	
DTOP	P	AL015	bfc=15	building - school
UVM	P	AL015	bfc=15or60or108	building - school,college,seminary
VML1	P	AL015	bfc=15	building - school
VML2	P	AL015	bfc=15	building - school
2043	Point	SY	*black four black squares w/ connection*	
DTOP	P	AH050		fortification
UVM	P	AH010		bastion/rampart/fortification
UVM	P	AH050		fortification
VML1	P	AH050		fortification
VML2	P	AH050		fortification
2044	Point	SY	*black lighthouse symbol*	
DTOP	P	AL015	bfc=82	building - lighthouse
UVM	P	AL015	bfc=82	building - lighthouse
UVM	P	BC050		lighthouse
VML0	P	BC050		lighthouse
VML2	P	AL015	bfc=82	building - lighthouse
2045	Point	SY	*black filled square w/ cross on top*	
DTOP	P	AL015	bfc=7	building - house of worship
UVM	P	AL015	bfc=7or114 AND hwt=0or2or3or4or7 OR bfc=50	building - house of worship

Product	Delin	FCODE	Attribute Condition	Description
VML1	P	AL015	bfc=7 AND hwt=0or2or3or4or7	building - house of worship
VML2	P	AL015	bfc=7 AND hwt=0or2or3or4or7	building - house of worship
2047	Point	SY	*black filled square w/ T on top*	
UVM	P	AL015	bfc=7or114 AND hwt=20	building - house of worship
VML1	P	AL015	bfc=7 AND hwt=20	building - house of worship
VML2	P	AL015	bfc=7 AND hwt=20	building - house of worship
2048	Point	SY	*black pinwheel*	
UVM	P	AL015	bfc=7or114 AND hwt=21	building - house of worship
VML1	P	AL015	bfc=7 AND hwt=21	building - house of worship
VML2	P	AL015	bfc=7 AND hwt=21	building - house of worship
2051	Point	SY	*black ramp symbol*	
DTOP	P	AL195		ramp
VITD	P	AL195		ramp
2053	Point	SY	*black sm open square w/ dot in center*	
VML0	P	AL020		built-up area
VML1	P	AL020		built-up area
2058	Point	SY	*gray filled square*	
DTOP	P	AL100		hut
UVM	P	AL100		hut
VML1	P	AL100		hut
VML2	P	AL100		hut
2060	Point	SY	*black square w/ S inside*	
UVM	P	AL135		native settlement
VML0	P	AL105		settlement
VML0	P	AL135		native settlement
VML2	P	AL105		settlement
2063	Point	SY	*black monument symbol*	
DTOP	P	AL130		monument
UVM	P	AL130		monument
VML0	P	AL130		monument
VML1	P	AL130		monument
VML2	P	AL130		monument
2070	Point	SY	*black diag bands in rectangle*	
DTOP	P	AL210		snow shed/rock shed
VML0	P	AL210		snow shed/rock shed
VML1	P	AL210		snow shed/rock shed
VML2	P	AL210		snow shed/rock shed
2071	Point	SY	*black dot inside cir*	
DTOP	P	AL240		tower (non-communication)
UVM	P	AL240		tower (non-communication)
VML0	P	AL240		tower (non-communication)
VML1	P	AL240		tower (non-communication)
VML2	P	AL240		tower (non-communication)
2072	Point	SY	*gray shadowed square*	
DTOP	P	AL250		underground dwelling
UVM	P	AH060		underground bunker
UVM	P	AL250		underground dwelling
VML2	P	AL250		underground dwelling
2073	Point	SY	*black square w/ diag line inside*	
UVM	P	AM010		depot (storage)
VML0	P	AM010		depot (storage)

Product	Delin	FCODE	Attribute Condition	Description
2074	Point	SY		*brown cir*
DTOP	P	AM020		grain bin/silo
UVM	P	AM020		grain bin/silo
VML1	P	AM020		grain bin/silo
VML2	P	AM020		grain bin/silo
2076	Point	SY		*red brown filled semicircle*
DTOP	P	AM060		storage bunker/storage mound
UVM	P	AM060		storage bunker/storage mound
VML2	P	AM060		storage bunker/storage mound
2078	Point	SY		*basic blue dot inside cir*
DTOP	P	AM080		water tower
UVM	P	AM080		water tower
VML0	P	AM080		water tower
VML1	P	AM080		water tower
VML2	P	AM080		water tower
2080	Point	SY		*black rt diag line inside cir*
DTOP	P	AN075		railroad turntable
VML2	P	AN075		railroad turntable
2081	Point	SY(SAE0002)		*black open square*
VML1	P	AP020		interchange
2083	Point	SY		*black double line with flares on ends*
DTOP	P	AQ040		bridge/overpass/viaduct
DTOP	P	AQ045		bridge span
FFD	P	AQ040		bridge/overpass/viaduct
UVM	P	AQ040		bridge/overpass/viaduct
VITD	P	AQ040		bridge/overpass/viaduct
VITD	P	AQ045		bridge span
VML0	P	AQ040		bridge/overpass/viaduct
VML1	P	AQ040		bridge/overpass/viaduct
VML2	P	AQ040		bridge/overpass/viaduct
2087	Point	SY		*black opposing solid triangles pnting in*
DTOP	P	AQ058		constriction/expansion
DTOP	P	BH070		ford
FFD	P	BH070		ford
UVM	P	BH070		ford
VITD	P	AQ058	wd1<40	constriction/expansion
VITD	P	BH070		ford
VML0	P	BH070		ford
VML1	P	BH070		ford
VML2	P	BH070		ford
2088	Point	SY		*purple dot inside cir*
DTOP	P	AQ060		control tower
UVM	P	AQ060		control tower
VML1	P	AQ060		control tower
VML2	P	AQ060		control tower
2089	Point	SY		*black cir w/ four outer tics and dot inside*
VML0	P	AQ064		causeway
2090	Point	SY		*black cir w/ C inside*
DTOP	P	AQ065		culvert
VML2	P	AQ065		culvert

Product	Delin	FCODE	Attribute Condition	Description
2094	Point	SY		*purple solid ellipse extending from pole*
DTOP	P	AQ110		mooring mast
UVM	P	AQ110		mooring mast
VML1	P	AQ110		mooring mast
VML2	P	AQ110		mooring mast
2097	Point	SY		*black sm square w/ P inside*
DTOP	P	AQ116		pumping station
UVM	P	AQ116		pumping station
VML0	P	AQ116		pumping station
VML1	P	AQ116		pumping station
VML2	P	AQ116		pumping station
2099	Point	SY		*black dot inside cir inside square*
UVM	P	AQ125		station (miscellaneous)
2100	Point	SY		*black cir w/ T inside*
DTOP	P	AQ130		tunnel
FFD	P	AQ130		tunnel
VITD	P	AQ130		tunnel
VML0	P	AQ130		tunnel
VML1	P	AQ130		tunnel
VML2	P	AQ130		tunnel
2101	Point	SY		*red brown octagon shape w/ "R" inside*
VML1	P	AQ135		vehicle stopping area/rest area
2102	Point	SY(DSHAER11)		*black satellite dish symbol*
DNC	P	AT010		disk/dish
DTOP	P	AT010		disk/dish
UVM	P	AT010		disk/dish
VML1	P	AT010		disk/dish
VML2	P	AT010		disk/dish
2104	Point	SY		*purple tower symbol*
UVM	P	AT040		power transmission pylon
2105	Point	SY		*black cir around satellite dish symbol*
UVM	P	AT020		early warning radar site
UVM	P	AT045		radar transmitter
2106	Point	SY		*black filled square w/ outward ticks*
DTOP	P	AT050		communication building
UVM	P	AT050		communication building
VML0	P	AT050		communication building
VML2	P	AT050		communication building
2107	Point	SY		*black vert line w/ two horiz lines at top*
UVM	P	AT070		telephone-telegraph pylon/pole
2108	Point	SY		*black tower w/ sound waves at top*
DTOP	P	AT080		communication tower
UVM	P	AT080		communication tower
VML0	P	AT080		communication tower
VML1	P	AT080		communication tower
VML2	P	AT080		communication tower
2111	Point	SY		*brown filled cir*
VML0	P	BA030		island
2212	Point	SY		*black solid filled shipwreck symbol*
DTOP	P	BD180		wreck

Product	Delin	FCODE	Attribute Condition	Description
VML0	P	BD180		wreck
VML1	P	BD180		wreck
VML2	P	BD180		wreck
2231	Point	SY		*basic blue open diamond*
DTOP	P	BH120		rapids
VML0	P	BH120		rapids
VML1	P	BH120		rapids
VML2	P	BH120		rapids
2232	Point	SY		*basic blue solid arrowhead*
DTOP	P	BH145		river stream vanishing point
VML1	P	BH145		river stream vanishing point
VML2	P	BH145		river stream vanishing point
2233	Point	SY		*basic blue square w/ grid inside*
VML0	P	BH155		salt evaporator
2234	Point	SY		*basic blue cir diagly half filled*
UVM	P	BH165		spillway
2238	Point	SY		*black vertical heavy weight line*
DTOP	P	BI020		dam/weir
FFD	P	BI020		dam/weir
VITD	P	BI020		dam/weir
VML0	P	BI020		dam/weir
VML1	P	BI020		dam/weir
VML2	P	BI020		dam/weir
2239	Point	SY		*black open arrowhead*
DTOP	P	BI030		lock
FFD	P	BI030		lock
VITD	P	BI030		lock
VML0	P	BI030		lock
VML2	P	BI030		lock
2242	Point	SY		*black 8 pt asterisk w/ open center*
DTOP	P	BJ060		ice peak/nunatak
VML1	P	BJ060		ice peak/nunatak
VML2	P	BJ060		ice peak/nunatak
2243	Point	SY		*black sm filled cir*
DTOP	P	CA030	ela=1	spot elevation - accurate
FFD	P	CA030	ela=1	spot elevation - accurate
UVM	P	CA030	ela=1	spot elevation - accurate
VML0	P	CA030	ela=1	spot elevation - accurate
VML1	P	CA030	ela=1	spot elevation - accurate
VML2	P	CA030	ela=1	spot elevation - accurate
2245	Point	SY		*basic blue sm filled cir*
VML0	P	CA035		inland water elevation
2247	Point	SY		*black diag line w/ "L" on top*
DTOP	P	DB030		cave
UVM	P	DB030		cave
VML1	P	DB030		cave
VML2	P	DB030		cave
2248	Point	SY		*sm brown filled cir w/ tail below*
DTOP	P	DB115		geothermal feature
VML1	P	DB115		geothermal feature
VML2	P	DB115		geothermal feature

Product	Delin	FCODE	Attribute Condition	Description
2249	Point	SY	*black)(symbol*	
DTOP	P	DB150		mountain pass
VML1	P	DB150		mountain pass
VML2	P	DB150		mountain pass
2250	Point	SY	*brown 6 pt asterisk w/ open center*	
DTOP	P	DB160		rock strata/rock formation
VML1	P	DB160		rock strata/rock formation
VML2	P	DB160		rock strata/rock formation
2251	Point	SY	*sm brown open cir w/ eight tics outside*	
DTOP	P	DB180		volcano
VML2	P	DB180		volcano
2252	Point	SY	*green palm tree symbol*	
DTOP	P	EC020		oasis
VML1	P	EC020		oasis
VML2	P	EC020		oasis
2253	Point	SY	*green triangle tree symbol*	
VML2	P	EC030		trees
2256	Point	SY	*black/white divided square*	
VML0	P	FA001		administrative area
2257	Point	SY	*magenta square w/ F*	
UVM	P	FA015		firing range/gunnery range
2264	Point	SY	*black cir*	
DTOP	P	BD100		pile/piling/post
VML2	P	BD100		pile/piling/post
2267	Point	SY	*aero-blue airplane*	
DTOP	P	GB005	use<>8and<>22 AND exs=28	airport/airfield - non military;operational
FFD	P	GB005	use<>8and<>22 AND exs=28	airport/airfield - civilian, operational
UVM	P	GB005	use<>8and<>22 AND exs=28	airport/airfield - non military;operational
VML0	P	GB005	use<>8and<>22	airport/airfield - non military
VML1	P	GB005	use<>8and<>22 AND exs=28	airport/airfield - operational; non military
VML2	P	GB005	use<>8and<>22 AND exs=28	airport/airfield - operational; non military
2268	Point	SY	*lt gray airplane*	
DTOP	P	GB005	exs<>28	airport/airfield - not operational
FFD	P	GB005	exs<>28	airport/airfield - non-operational
UVM	P	GB005	exs<>28	airport/airfield - not operational
VML1	P	GB005	exs<>28	airport/airfield - not operational
VML2	P	GB005	exs<>28	airport/airfield - not operational
2269	Point	SY	*magenta airplane*	
DTOP	P	GB005	use=8or22 AND exs=28	airport/airfield - military;operational
FFD	P	GB005	use=8or22 AND exs=28	airport/airfield - military, operational
UVM	P	GB005	use=8or22 AND exs=28	airport/airfield - military;operational
VML0	P	GB005	use=8or22	airport/airfield - military
VML1	P	GB005	use=8or22 AND exs=28	airport/airfield - operational; military
VML2	P	GB005	use=8or22 AND exs=28	airport/airfield - operational; military
2271	Point	SY(SAE0030)	*purple "H" inside cir*	
FFD	P	GB035		heliport
2273	Point	SY	*aero-blue solid cir w/ open diag band*	
VML1	P	GB055	exs=28	runway - operational
2274	Point	SY	*magenta M inside cir*	
VML0	P	SU001		military base

Product	Delin	FCODE	Attribute Condition	Description
2278	Point	SY	*black dot in square*	
DTOP	P	ZB030		boundary monument
VML2	P	ZB030		boundary monument
2279	Point	SY	*black triangle w/ dot inside*	
DTOP	P	ZB035		control point/control station
TOD0	P	ZB035		control point/control station
UVM	P	ZB020		benchmark
UVM	P	ZB035		control point/control station
VML1	P	ZB035		control point/control station
VML2	P	ZB035		control point/control station
2281	Point	SY	*gray cir w/ open diag band*	
VML1	P	GB055	exs<>28	runway - not operational
2320	Point	SY(SAE0028)	*basic blue sm cir in cir w/4 squares outside*	
UVM	P	BH075		fountain
2323	Point	SY	*black dot*	
VML0	P	AL260		wall
3000	Line	LS(DASH,2,CHMGF)	*lt magenta thin dash line*	
DNC	L	BB010	mac=12	anchorage - anchoring berth
DNC	A	BB010	mac=12	anchorage - anchoring berth
3001	Line	LS(SOLD,2,light-beige)	*lt beige thin solid line*	
DTOP	L	AL015	bfc=7	building - house of worship
UVM	L	AL015	bfc=7or114	building - house of worship
VML2	L	AL015	bfc=7	building - house of worship
3003	Line	LS(SOLD,1,med-tan)	*tan very thin solid line*	
DTOP	L	DB100		esker
VML1	L	DB100		esker
VML2	L	DB100		esker
3012	Line	LS(SOLD,1,CHBRN)	*brown very thin solid line*	
DTOP	L	AP030	exs=0or28 AND med=0or2 AND rst=1 AND wtc=0or1	road - op, no median, hard, all weather
3014	Line	LS(SOLD,3,CHBRN)	*brown solid line*	
DTOP	L	AP030	exs=0or28 AND med=1 AND rst=1 AND wtc=0or1	road - op, w/median, hard, all weather
DTOP	L	DB110		fault
UVM	L	DB110		fault
VML0	L	DB110		fault
VML1	L	DB110		fault
VML2	L	DB110		fault
3017	Line	LS(DASH,2,CHBRN)	*brown thin dash line*	
DTOP	L	AP030	exs<>0and<>28	road - under constr.
VML0	L	DB160		rock strata/rock formation
3021	Line	LS(DOTT,2,CHBRN)	*brown thin dotted line*	
DTOP	L	AP030	exs=0or28 AND rst=0or2 AND wtc=0or1	road - op, loose, all weather
3022	Line	LC	*brown thin dash line w/ open cir*	
UVM	L	AQ113	loc=4 AND pro<>116	pipeline/pipe - underground;not water
VML0	L	AQ113	loc=4	pipeline/pipe - underground
VML1	L	AQ113	loc=4 AND pro<>116	pipeline/pipe - underground;not water
VML2	L	AQ113	loc=4 AND pro<>116	pipeline/pipe - underground;not water
3024	Line	LS(SOLD,1,med-red-brown)	*red brown very thin solid line*	
DTOP	L	DB060		crevice/crevasse
FFD	L	AP030	rst<>1	road - loose
UVM	L	AP030	exs=0or28 AND rst<>1	road - op, loose

Product	Delin	FCODE	Attribute Condition	Description
VITD	L	AP030	fco=0or7 AND rst=2 AND wtc=0or1	road - w/out median, loose, all weather
VML1	L	AP030	exs=0or28 AND rst<>1	road - op/loose
VML1	L	DB060		crevice/crevasse
VML2	L	AP030	exs=0or28 AND rst<>1	road - op/loose
VML2	L	DB060		crevice/crevasse
3026	Line	LS(SOLD,3,med-red-brown)	*red brown solid line*	
FFD	L	CA010	hqc=0or1	contour line (land) - index, unknown
UVM	L	CA010	hqc=1or7	contour line (land) - index
VML1	L	CA010		contour line (land)
VML2	L	CA010	hqc=1or7or8	contour line (land) - index
3028	Line	LS(DASH,2,med-red-brown)	*red brown thin dash line*	
UVM	L	AP030	exs<>0and<>28 AND rst=1 AND use=0	road - non-op, hard, unk
VITD	L	AP030	fco=0or7 AND rst=2 AND wtc=2	road - w/out median, loose, fair weather
VML0	L	AP030	exs<>28 AND med<>1	road - non-op, w/o median
VML1	L	AP030	exs<>0and<>28 AND rst=1 AND use=0or6or999	road - non-op, hard, other
VML2	L	AP030	exs<>0and<>28 AND rst=1 AND use=0or6or999	road - non-op, hard, other
3031	Line	LS(SOLD,2,dark-green)	*very dk green thin solid line*	
VML1	L	EC030		trees
3036	Line	LC	*very dk green thin line w/rectangles one side*	
DTOP	L	EA020		hedgerow
UVM	L	EA020		hedgerow
VITD	L	EA020		hedgerow
VML0	L	EA020		hedgerow
VML2	L	EA020		hedgerow
3042	Line	LS(S-DASH,1,blue)	*basic blue very thin short dash line*	
DTOP	L	BA010	slt=6or8	coastline - mangrove, marsh
FFD	L	BA010	acc<>1	coastline/shoreline - not accurate
UVM	L	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
UVM	L	BH210	slt=6or8	inland shoreline - mangrove, marsh
VML1	L	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
VML2	L	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
3047	Line	LS(L-DASH,2,blue)	*basic blue thin long dash line*	
DTOP	L	BH140	hyc=3or6	river/stream - dry, intermittent
DTOP	L	BJ040		ice cliff
FFD	L	BH140	hyc=3or6	river/stream - dry, non-perennial
UVM	L	BH140	hyc=3or6	river/stream - dry, intermittent
VML0	L	BH140	hyc=6	river/stream - intermittent
VML0	L	BJ040		ice cliff
VML1	L	BH140	hyc=3or6	river/stream - dry, intermittent
VML1	L	BJ040		ice cliff
VML2	L	BH140	hyc=3or6	river/stream - dry, intermittent
VML2	L	BJ040		ice cliff
3050	Line	LC	*basic blue dashed line w/ open cirs*	
DTOP	L	BH010	loc<>25	aqueduct - not elevated
FFD	L	BH010	loc<>25	aqueduct - not elevated
UVM	L	BH010	loc<>25	aqueduct - not elevated
VML1	L	BH010	loc<>25	aqueduct - not elevated
VML2	L	BH010	loc<>25	aqueduct - not elevated
3052	Line	LS(SOLD,2,CHMGD)	*magenta thin solid line*	
UVM	L	AH010		bastion/rampart/fortification
UVM	L	AH050		fortification
UVM	A	GB030		helicopter landing pad

Product	Delin	FCODE	Attribute Condition	Description
3054	Line	LS(S-DASH,1,CHMGF)	*lt magenta very thin short dash line*	
FFD	L	FC021	mbl=0	maritime limit boundary - unknown
UVM	L	AH060		underground bunker
UVM	L	AL120		missile site
UVM	L	FA015		firing range/gunnery range
WVS	L	FC021	mbl=999	maritime limit boundary - other territorial baseline
3061	Line	LS(DOTT,2,CHMGD)	*magenta thin dotted line*	
UVM	L	AT045		radar transmitter
UVM	A	AL120		missile site
3064	Line	LC	*magenta thin wavy solid line*	
UVM	L	AT020		early warning radar site
3069	Line	LS(SOLD,1,aero-blue)	*aero-blue very thin solid line*	
UVM	L	GB055		runway
VITD	L	GB055		runway
VML1	L	GB055		runway
3070	Line	LS(SOLD,2,aero-blue)	*aero-blue thin solid line*	
DTOP	A	GB075		taxiway
UVM	L	GB075		taxiway
UVM	A	GB075		taxiway
VITD	A	GB055		runway
VML2	A	GB075		taxiway
3073	Line	LS(S-DASH,2,aero-blue)	*aero-blue thin short dash line*	
UVM	L	GB045		overrun/stopway
3074	Line	LC	*purple thin solid line w/ dots on each side*	
DTOP	L	AT030		power transmission line
UVM	L	AT030		power transmission line
VML0	L	AT030		power transmission line
VML1	L	AT030		power transmission line
VML2	L	AT030		power transmission line
3076	Line	LS(SOLD,2,CHGRF)	*lt gray thin solid line*	
UVM	L	EC040		cleared way/cut line/firebreak
VML0	L	EC040		cleared way/cut line/firebreak
VML1	L	EC040		cleared way/cut line/firebreak
VML2	L	EC040		cleared way/cut line/firebreak
3077	Line	LS(DASH,1,CHGRF)	*lt gray very thin dash line*	
DNC	L	FC021	mbl=7 AND mac=NULL	maritime limit boundary - territorial waters baseline
DNC	L	FC031	mac=2	maritime area - dredged channel
DNC	A	BD060		kelp/seaweed
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
WVS	L	FC021	mbl=7	maritime limit boundary - territorial waters baseline
3082	Line	LS(SOLD,1,CHGRD)	*gray very thin solid line*	
DNC	L	DB090		embankment/fill
DTOP	A	ZD020		void collection area
FFD	L	BE015		depth contour
FFD	A	ZD020		void collection area
TOD0	A	ZD020		void collection area
TOD1	A	ZD020		void collection area
TOD2	A	ZD020		void collection area
TOD4	A	ZD020		void collection area
UVM	L	BH165		spillway
VML0	L	BE015		depth contour
VML0	A	ZD020		void collection area
VML1	L	BE015		depth contour
VML1	A	ZD020		void collection area
VML2	L	BE015		depth contour
VML2	A	ZD020		void collection area
WVS	L	BE015		depth contour
3086	Line	LS(S-DASH,1,CHGRD)	*gray very thin short dash line*	
DTOP	L	AF020		conveyor
UVM	L	AF020		conveyor
VML1	L	AF020		conveyor
VML2	L	AF020		conveyor
3096	Line	LC	*gray very rhin dash line w/ dot*	
DTOP	L	AT060		telephone line/telegraph line
UVM	L	AT060		telephone line/telegraph line
VML0	L	AT060		telephone line/telegraph line
VML1	L	AT060		telephone line/telegraph line
VML2	L	AT060		telephone line/telegraph line
3104	Line	LS(SOLD,3,CHRED)	*red solid line*	
FFD	A	AL045		complex outline
UVM	L	AL015	bfc=2or3or5or8or28or52or121	building - gov't
UVM	A	AL045		complex outline
VML0	A	SU001		military base
3106	Line	LC	*depth pale blue very thin solid line w/ ticks*	
DTOP	L	BH060	loc=25	flume - elevated
DTOP	L	BH110	loc=25	penstock - elevated
UVM	L	BH060	loc=25	flume - elevated
UVM	L	BH110	loc=25	penstock - elevated
VML1	L	BH060	loc=25	flume - elevated
VML1	L	BH110	loc=25	penstock - elevated
VML2	L	BH060	loc=25	flume - elevated
VML2	L	BH110	loc=25	penstock - elevated
3107	Line	LS(SOLD,1,DEPMD)	*depth pale blue very thin solid line*	
DTOP	L	BH030		ditch
DTOP	L	BH060	loc<>25	flume - not elevated
DTOP	L	BH110	loc<>25	penstock - not elevated
UVM	L	BH060	loc<>25	flume - not elevated
UVM	L	BH110	loc<>25	penstock - not elevated

Product	Delin	FCODE		Attribute Condition	Description
VML1	L	BH060		loc<>25	flume - not elevated
VML1	L	BH110		loc<>25	penstock - not elevated
VML2	L	BH060		loc<>25	flume - not elevated
VML2	L	BH110		loc<>25	penstock - not elevated
3108	Line	LS(SOLD,2,DEPMD)		*depth pale blue thin solid line*	
DTOP	L	BH020		hyc=0or8	canal - perennial
FFD	L	BH020		hyc=8	canal - perennial
UVM	L	BH020		hyc=8	canal - perennial
VITD	L	BH020			canal
VML1	L	BH020		hyc=8	canal - perennial
VML2	L	BH020		hyc=8	canal - perennial
3109	Line	LS(DOTT,2,DEPMD)		*depth pale blue thin dotted line*	
DTOP	L	BH020		hyc=3	canal - dry
DTOP	L	BH200			miscellaneous surface drainage feature
3112	Line	LS(SOLD,2,CHBLK)		*black thin solid line*	
DTOP	L	AL015		bfc<>6and<>7and<>15	building - generic
DTOP	A	AL020	<>pop		built-up area
DTOP	A	AL105	<>pop		settlement
DTOP	A	AL135	<>pop		native settlement
DTOP	A	BB090			drydock
DTOP	A	BH050			fish hatchery/fish farm/marine farm
DTOP	A	BH140	sdr	hyc=0or8 AND tid<>1	river/stream - perennial;tidal
DTOP	A	DB145			miscellaneous obstacle
FFD	A	BH050			fish hatchery/fish farm/marine farm
TOD0	L	FC102			range center line
UVM	L	AL015		bfc<>2and<>3and<>5and<>8and<>15and<>28and<>52and<>121and<>6and<>7and<>114and<>100and<>60and<>108	building - generic
UVM	A	AQ130			tunnel
UVM	A	BB090			drydock
UVM	A	BH050			fish hatchery/fish farm/marine farm
VITD	L	BH140		hyc=8or14	river/stream - perennial, braided
VITD	L	DB190			volcanic dike
VITD	A	AL020			built-up area
VML0	A	BH050			fish hatchery/fish farm/marine farm
VML1	A	BH050			fish hatchery/fish farm/marine farm
VML2	L	AL015		bfc<>6and<>7and<>15	building - generic
VML2	A	BB090			drydock
VML2	A	BH050			fish hatchery/fish farm/marine farm
3113	Line	LS(SOLD,3,CHBLK)		*black solid line*	
DTOP	L	AK130			race track
DTOP	L	AL260			wall
DTOP	L	BI020			dam/weir
DTOP	A	AK160			stadium/amphitheater
FFD	L	BI020			dam/weir
UVM	L	AK130			race track
UVM	L	AL260			wall
UVM	L	BI020			dam/weir
UVM	A	AK130			race track
UVM	A	AK160			stadium/amphitheater
VITD	L	AL260			wall
VITD	L	BI020			dam/weir
VML0	L	AL260			wall
VML0	L	BI020			dam/weir

Product	Delin	FCODE		Attribute Condition	Description
VML0	A	AK130			race track
VML1	L	AK130			race track
VML1	L	AL260			wall
VML1	L	BI020			dam/weir
VML2	L	AK130			race track
VML2	L	AL260			wall
VML2	L	BI020			dam/weir
VML2	A	AK160			stadium/amphitheater
3114	Line	LS(S-DASH,1,CHBLK)		*black very thin short dash line*	
DTOP	L	AL155			overhead obstruction location
DTOP	L	BH070			ford
DTOP	A	AI020			mobile home/mobile home park
DTOP	A	AL200			ruins
FFD	L	BH070			ford
UVM	L	BH070			ford
UVM	A	AI020			mobile home/mobile home park
UVM	A	AL200			ruins
VITD	L	BH070			ford
VML0	L	BH070			ford
VML1	L	BH070			ford
VML1	A	AL200			ruins
VML2	L	BH070			ford
VML2	A	AI020			mobile home/mobile home park
VML2	A	AL200			ruins
3115	Line	LS(S-DASH,2,CHBLK)		*black thin short dash line*	
DTOP	L	AQ070			ferry crossing
FFD	L	AQ070			ferry crossing
UVM	L	AQ070			ferry crossing
VITD	L	AQ070			ferry crossing
VITD	L	AQ111			prepared raft or float bridge site
VML0	L	AQ070			ferry crossing
VML1	L	AQ070			ferry crossing
VML2	L	AQ070			ferry crossing
3116	Line	LS(DASH,1,CHBLK)		*black very thin dash line*	
DNC	A	BC060			light sector
DTOP	A	AA010			mine
DTOP	A	AA012			quarry
DTOP	A	BH020	sdr	cda=2	canal - covered
DTOP	A	BH030	sdr	cda=2	ditch - covered
FFD	L	AP010			cart track
UVM	L	AA010			mine
UVM	L	AA012			quarry
UVM	A	AA010			mine
UVM	A	AA012			quarry
VITD	L	AP010			cart track
VML0	A	AA010			mine/quarry
VML1	L	AP010			cart track
VML1	A	AA010			mine/quarry
VML2	A	AA010			mine/quarry
3117	Line	LS(DASH,2,CHBLK)		*black thin dash line*	
DNC	A	BD180		vrr=4 AND hdp>20	wreck - submerged; depth greater than 20m
DTOP	L	AP010			cart track
DTOP	L	BH120			rapids

Product	Delin	FCODE	Attribute Condition	Description
DTOP	A	AK030		amusement park
DTOP	A	AK060		campground/campsite
DTOP	A	AK120		park
DTOP	A	AK180		zoo/safari park
DTOP	A	AT050		communication building
UVM	L	AP010		cart track
UVM	A	AF030		cooling tower
UVM	A	AH060		underground bunker
UVM	A	AK030		amusement park
UVM	A	AK060		campground/campsite
UVM	A	AK120		park
UVM	A	AK180		zoo/safari park
UVM	A	AL250		underground dwelling
UVM	A	DB030		cave
VITD	L	SA060		covered drainage
VML1	L	BH120		rapids
VML1	A	AK120		park
VML1	A	BH140	hyc=0or8 AND tid=0or2	river/stream - perennial, unknown; tidal, unknown
VML2	L	AP010		cart track
VML2	L	BH120		rapids
VML2	A	AK030		amusement park
VML2	A	AK060		campground/campsite
VML2	A	AK120		park
VML2	A	AK180		zoo/safari park
VML2	A	AT050		communication building
VML2	A	BH140	hyc=0or8 AND tid<>1	river/stream - perennial, unknown; tidal
3118	Line	LS(DASH,3,CHBLK)	*black dash line*	
DTOP	A	FA170		zone of occupation
VITD	A	BH090		land subject to inundation
VITD	A	BH095		marsh/swamp
VML0	L	FA050		mandate line/convention line
VML0	A	FA170		zone of occupation
VML1	L	FA050		mandate line/convention line
VML1	A	FA170		zone of occupation
VML2	A	FA170		zone of occupation
WVS	L	FA050		mandate line/convention line
3119	Line	LS(L-DASH,1,CHBLK)	*black very thin long dash line*	
DNC	L	FA020		armistice line
DNC	L	FA110		international date line
DTOP	L	FA020		armistice line
DTOP	L	FA030		cease-fire line
DTOP	L	FA110		international date line
FFD	L	FA020		armistice line
FFD	L	FA030		cease-fire line
UVM	L	FA020		armistice line
VML0	L	FA020		armistice line
VML0	L	FA030		cease-fire line
VML0	L	FA110		international date line
VML1	L	FA020		armistice line
VML1	L	FA030		cease-fire line
VML1	L	FA110		international date line
VML2	L	FA020		armistice line
VML2	L	FA030		cease-fire line
VML2	L	FA110		international date line

Product	Delin	FCODE	Attribute Condition	Description
WVS	L	FA020		armistice line
WVS	L	FA030		cease-fire line
3120	Line	LS(L-DASH,2,CHBLK)	*black thin long dash line*	
DNC	L	FA040		claim line
VITD	L	BH140	hyc=0or6	river/stream - intermittent
VML0	L	FA040		claim line
WVS	L	FA040		claim line
3121	Line	LS(L-DASH,3,CHBLK)	*black long dash line*	
DTOP	L	AP020		interchange
UVM	L	AP020		interchange
VML2	L	AP020		interchange
3123	Line	LC	*black solid line w/ single tics both sides*	
DTOP	L	AN010	exs=0or28 AND ltn<2	RR - operational, unknown/1 lane
DTOP	L	AN050	rgc<>2	RR siding - normal,broad,unknown
FFD	L	AN010	exs=0or28 AND rgc<>2	RR - operational, normal/broad/unknown
FFD	L	AN050	rgc<>2	railroad siding/railroad spur - normal/broad/unknown
UVM	L	AN010	exs=0or28 AND rgc<>2	RR -op, unkn/norml/brd
UVM	L	AN050	rgc<>2	RR siding - normal,broad,unknown
VITD	L	AN010	exs=0or1 AND fco=0or3	RR - definite, unkn/single
VITD	L	AN050	exs=0or1 AND rrc=0or1or5	RR siding - normal/broad, definite
VITD	L	AN060		railroad yard/marshalling yard
VML0	L	AN010	exs=28 AND fco=0or3	RR -op, unkn/single
VML1	L	AN010	exs=0or28 AND fco=0or3 AND rgc<>2	RR -op, unkn/single, unkn/norml/brd
VML1	L	AN050	rgc<>2	RR siding - normal,broad,unknown
VML2	L	AN010	exs=0or28 AND fco=0or3 AND rgc<>2	RR -op, unkn/single, unkn/norml/brd
VML2	L	AN050	rgc<>2	RR siding - normal,broad,unknown
3125	Line	LC	*black solid line w/ single tics alt sides*	
DTOP	L	AN050	rgc=2	RR siding - narrow
FFD	L	AN010	exs=0or28 AND rgc=2	RR - operational, narrow
FFD	L	AN050	rgc=2	railroad siding/railroad spur - narrow
UVM	L	AN010	exs=0or28 AND rgc=2	RR -op, narrow
UVM	L	AN050	rgc=2	RR siding - narrow
VITD	L	AN050	exs=0or1 AND rrc=4	RR sidiing - narrow, definite
VML1	L	AN010	exs=0or28 AND fco=0or3 AND rgc=2	RR -op, unkn/single, narrow
VML1	L	AN050	rgc=2	RR siding - narrow
VML2	L	AN010	exs=0or28 AND fco=0or3 AND rgc=2	RR -op, unkn/single, narrow
VML2	L	AN050	rgc=2	RR siding - narrow
3127	Line	LC	*black solid line w/ double tics both sides*	
DTOP	L	AN010	exs=0or28 AND ltn>1	RR - operational, multiple lanes
VITD	L	AN010	exs=0or1 AND fco<>0and<>3	RR - definite, multi
VML0	L	AN010	exs=28 AND fco<>0and<>3	RR -op,multi
VML1	L	AN010	exs=0or28 AND fco<>0and<>3 AND rgc<>2	RR -op,multi, unkn/norml/brd
VML2	L	AN010	exs=0or28 AND fco<>0and<>3 AND rgc<>2	RR -op,multi, unkn/norml/brd
3129	Line	LC	*black solid line w/ double tics alt sides*	
VML1	L	AN010	exs=0or28 AND fco<>0and<>3 AND rgc=2	RR -op, mult, narrow
VML2	L	AN010	exs=0or28 AND fco<>0and<>3 AND rgc=2	RR -op, mult, narrow
3131	Line	LC	*black dash line w/ single tics both sides*	
DTOP	L	AN010	exs<>0and<>28	RR - other
FFD	L	AN010	exs<>0and<>28 AND rgc<>2	RR - non-operational, normal/broad/unknown
UVM	L	AN010	exs<>0and<>28 AND rgc<>2	RR -non-op, unkn/norml/brd
VITD	L	AN010	exs<>0and<>1	RR - dismantled, under construction
VML0	L	AN010	exs<>28 AND fco=0or3	RR -non-op, unkn/single

Product	Delin	FCODE	Attribute Condition	Description
VML1	L	AN010	exs<>0and<>28 AND fco=0or3 AND rgc<>2	RR -non-op, unkn/single, unkn/norml/brd
VML2	L	AN010	exs<>0and<>28 AND fco=0or3 AND rgc<>2	RR -non-op, unkn/single, unkn/norml/brd
3133	Line	LC	*black dash line w/ double tics both sides*	
VML0	L	AN010	exs<>28 AND fco<>0and<>3	RR -non-op, multi
VML1	L	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2	RR -non-op, multi, norml/brd/unkn
VML2	L	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2	RR -non-op, multi, norml/brd/unkn
3135	Line	LC	*black dash line w/ single tics alt sides*	
FFD	L	AN010	exs<>0and<>28 AND rgc=2	RR - non-operational, narrow
UVM	L	AN010	exs<>0and<>28 AND rgc=2	RR -non-op, narrow
VITD	L	AN050	exs<>0and<>1	RR siding - dismantled, under construction
VML1	L	AN010	exs<>0and<>28 AND fco=0or3 AND rgc=2	RR -non-op, single/unkn, narrow
VML2	L	AN010	exs<>0and<>28 AND fco=0or3 AND rgc=2	RR -non-op, single/unkn, narrow
3137	Line	LC	*black dash line w/ double tics alt sides*	
VML1	L	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc=2	RR -non-op, multi, narrow
VML2	L	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc=2	RR -non-op, multi, narrow
3139	Line	LS(DOTT,1,CHBLK)	*black very thin dotted line*	
VML0	L	BD000		underwater danger/hazard
3141	Line	LC	*black three dash one dot very thin line*	
DTOP	L	AQ130		tunnel
FFD	L	AQ130		tunnel
UVM	L	AQ130		tunnel
VITD	L	AQ130		tunnel
VML0	L	AQ130		tunnel
VML1	L	AQ130		tunnel
VML2	L	AQ130		tunnel
3142	Line	LC	*black parallel vy thin lines w/ tics (ladder patt)*	
DTOP	L	BH100		moat
VITD	L	BH100		moat
VML0	L	AQ064		causeway
3143	Line	LC	*black double dash very thin lines*	
DTOP	A	FA070		demilitarized zone
UVM	A	FA070		demilitarized zone
VML0	A	FA070		demilitarized zone
VML1	A	FA070		demilitarized zone
VML2	A	FA070		demilitarized zone
WVS	L	FA070	mbl=6	demilitarized zone
3146	Line	LC	*black solid triangle line patt*	
DTOP	L	AL210		snow shed/rock shed
DTOP	L	DB010		bluff/cliff/escarpment
UVM	L	DB010		bluff/cliff/escarpment
VITD	L	DB010		bluff/cliff/escarpment
VML0	L	AL210		snow shed/rock shed
VML0	L	DB010		bluff/cliff/escarpment
VML1	L	AL210		snow shed/rock shed
VML1	L	DB010		bluff/cliff/escarpment
VML2	L	AL210		snow shed/rock shed
VML2	L	DB010		bluff/cliff/escarpment
3148	Line	LC	*black patt line -x -x -x*	
DTOP	L	AL070		fence
UVM	L	AL070		fence
VML1	L	AL070		fence
VML2	L	AL070		fence

Product	Delin	FCODE	Attribute Condition	Description
3153	Line	LS(SOLD,2,beige-rose)	*beige-rose thin solid line*	
DTOP	L	AL015	bfc=6	building - hospital
UVM	L	AL015	bfc=6or100	building - hospital
VML2	L	AL015	bfc=6	building - hospital
3167	Line	LS(S-DASH,2,DEPMD)	*depth pale blue thin short dash line*	
FFD	L	BH020	hyc<>8	canal - not perennial
UVM	L	BH020	hyc<>8	canal - not perennial
VML1	L	BH020	hyc<>8	canal - not perennial
VML2	L	BH020	hyc<>8	canal - not perennial
3168	Line	LS(DOTT,2,OUTLL)	*outline lt brown thin dotted line*	
DTOP	L	DB190		volcanic dike
3186	Line	LC	*black jagged line*	
DTOP	L	BD120		reef
DTOP	A	BD120		reef
VML0	L	BD120		reef
VML1	L	BD120		reef
VML1	A	BD120		reef
VML2	L	BD120		reef
VML2	A	BD120		reef
3194	Line	LS(SOLD,1,NINFO)	*nav orange very thin solid line*	
VITD	L	BI030		lock
VML1	L	BI030		lock
4002	Area	AC(light-beige)	*lt beige solid fill*	
DTOP	A	AL015	bfc=7	building - house of worship
DTOP	A	SA050	spr=0	slope polygon - <= 3%
UVM	A	AL015	bfc=7or114	building - house of worship
VITD	A	SA050	gsc=2	slope polygon - <= 3%
VML1	A	AL015	bfc=7	building - house of worship
VML2	A	AL015	bfc=7	building - house of worship
4003	Area	AC(med-beige)	*beige solid fill*	
DTOP	A	DA020		barren ground
DTOP	A	SA050	spr=1	slope polygon - > 3% and <= 10%
UVM	A	DA010	mcc<>8and<>52and<>46and<>84and<>88	ground surface element - not rock, not lava, not sand
VITD	A	SA050	gsc=3	slope polygon - > 3% and <= 10%
VML0	A	DA010	mcc<>52and<>88	ground surface element - not lava, not sand
VML1	A	DA010	mcc<>8and<>52and<>88and<>46	ground surface element - not rock, not lava, not sand
VML2	A	DA010	mcc<>8and<>52and<>46and<>88	ground surface element - not rock, not lava, not sand
4005	Area	AP	*beige stiple dot patt fill*	
DTOP	A	BA060		beach zone
DTOP	A	DA010	smc<>84	ground surface element - not rocky
UVM	A	BA050		beach
UVM	A	DA010	mcc=88	ground surface element - sand
VML0	A	DA010	mcc=88	ground surface element - sand
VML1	A	DA010	mcc=88	ground surface element - sand
VML2	A	DA010	mcc=88	ground surface element - sand
4008	Area	AP	*beige sand dune default*	
DTOP	A	DB170	ssc=0	sand dune/sand hills - unknown
UVM	A	DB170	ssc=0	sand dune/sand hills - unknown
VML1	A	DB170	ssc=0	sand dune/sand hills - unknown
VML2	A	DB170	ssc=0	sand dune/sand hills - unknown

Product	Delin	FCODE	Attribute Condition	Description
4009	Area	AP		*beige sand dune crescent*
DTOP	A	DB170	ssc=22	sand dune/sand hills - crescent
UVM	A	DB170	ssc=22	sand dune/sand hills - crescent
VML1	A	DB170	ssc=22	sand dune/sand hills - crescent
VML2	A	DB170	ssc=22	sand dune/sand hills - crescent
4010	Area	AP		*beige sand dune lateral*
DTOP	A	DB170	ssc=26	sand dune/sand hills - lateral
UVM	A	DB170	ssc=26	sand dune/sand hills - lateral
VML1	A	DB170	ssc=26	sand dune/sand hills - lateral
VML2	A	DB170	ssc=26	sand dune/sand hills - lateral
4011	Area	AP		*beige sand dune mound*
DTOP	A	DB170	ssc=27	sand dune/sand hills - mounds
UVM	A	DB170	ssc=27	sand dune/sand hills - mounds
VML1	A	DB170	ssc=27	sand dune/sand hills - mounds
VML2	A	DB170	ssc=27	sand dune/sand hills - mounds
4012	Area	AP		*beige sand dune ripple*
DTOP	A	DB170	ssc=28	sand dune/sand hills - ripple
UVM	A	DB170	ssc=28	sand dune/sand hills - ripple
VML1	A	DB170	ssc=28	sand dune/sand hills - ripple
VML2	A	DB170	ssc=28	sand dune/sand hills - ripple
4013	Area	AP		*beige sand dune star*
DTOP	A	DB170	ssc=29	sand dune/sand hills - star
UVM	A	DB170	ssc=29	sand dune/sand hills - star
VML1	A	DB170	ssc=29	sand dune/sand hills - star
VML2	A	DB170	ssc=29	sand dune/sand hills - star
4014	Area	AP		*beige sand dune transverse*
DTOP	A	DB170	ssc=30	sand dune/sand hills - transverse
UVM	A	DB170	ssc=30	sand dune/sand hills - transverse
VML1	A	DB170	ssc=30	sand dune/sand hills - transverse
VML2	A	DB170	ssc=30	sand dune/sand hills - transverse
4015	Area	AC(beige-rose)		*beige-rose solid fill*
DTOP	A	AL015	bfc=6	building - hospital
UVM	A	AL015	bfc=6or100	building - hospital
VML2	A	AL015	bfc=6	building - hospital
4018	Area	AC(light-tan)		*lt tan solid fill*
DTOP	A	AL170		plaza/city square
UVM	A	AL170		plaza/city square
VML2	A	AL170		plaza/city square
4025	Area	AC(LANDF)		*feature brown solid fill*
DTOP	A	AL015	bfc=15	building - school
UVM	A	AL015	bfc=15or60or108	building - school
VML1	A	AL015	bfc=15	building - school
VML2	A	AL015	bfc=15	building - school
4027	Area	AP		*brown wide left diag patt fill*
UVM	A	DB200		gully/gorge
4028	Area	AP		*brown horizontal lines patt fill*
DTOP	A	AM010		depot (storage)
DTOP	A	AM020		grain bin/silo
DTOP	A	AM030		grain elevator
DTOP	A	DB160		rock strata/rock formation
UVM	A	AM010		depot (storage)

Product	Delin	FCODE	Attribute Condition	Description
UVM	A	AM020		grain bin/silo
UVM	A	AM030		grain elevator
VML2	A	AM010		depot (storage)
VML2	A	AM020		grain bin/silo
VML2	A	AM030		grain elevator
VML2	A	DB160		rock strata/rock formation
4030	Area	AP		*brown left diag thin line patt fill*
DTOP	A	DB060		crevice/crevasse
VML2	A	DB060		crevice/crevasse
4032	Area	AP		*brown stipple dot patt fill*
DTOP	A	BJ020		moraine
VML1	A	BJ020		moraine
VML2	A	BJ020		moraine
4034	Area	AP		*brown heavy mixed stipple dot patt fill*
UVM	A	DA010	mcc=46or84or8	ground surface element - boulders, gravel, rock
VML1	A	DA010	mcc=46or8	ground surface element - boulders, gravel
VML2	A	DA010	mcc=46or8	ground surface element - boulders, gravel
4036	Area	AC(med-red-brown)		*red brown solid fill*
UVM	A	AP030	exs=0or28or999	road - operational
4037	Area	AP		*red brown horizontal line patt fill*
UVM	A	AP030	exs=5or6or7	road - non-operational
4045	Area	AC(CHGRN)		*green solid fill*
DTOP	A	AK030		amusement park
DTOP	A	AK060		campground/campsite
DTOP	A	AK120		park
DTOP	A	AK180		zoo/safari park
UVM	A	AK030		amusement park
UVM	A	AK060		campground/campsite
UVM	A	AK120		park
UVM	A	AK180		zoo/safari park
VML1	A	AK120		park
VML2	A	AK030		amusement park
VML2	A	AK060		campground/campsite
VML2	A	AK120		park
VML2	A	AK180		zoo/safari park
4051	Area	AP		*very dk green squares in grid patt fill*
DTOP	A	EA040		orchard/plantation
FFD	A	EA040		orchard/plantation
UVM	A	EA040		orchard/plantation
VML0	A	EA040		orchard/plantation
VML1	A	EA040		orchard/plantation
VML2	A	EA040		orchard/plantation
4052	Area	AP		*green bamboo patt fill*
DTOP	A	EC010		bamboo/cane
UVM	A	EC010		bamboo/cane
VML0	A	EC010		bamboo/cane
VML2	A	EC010		bamboo/cane
4054	Area	AP		*very dk green offset grid/dot patt fill*
DTOP	A	EA050		vineyards
UVM	A	EA050		vineyards
UVM	A	EA055		hops
VML0	A	EA050		vineyards

Product	Delin	FCODE		Attribute Condition	Description
VML1	A	EA050			vineyards
VML2	A	EA050			vineyards
4063	Area	AP			*yellow-green stipple dot patt fill*
DTOP	A	EB020			scrub/brush
UVM	A	EB020			scrub/brush
UVM	A	EE000			miscellaneous vegetation
VML0	A	EB020			scrub/brush
VML2	A	EB020			scrub/brush
4066	Area	AP			*yellow-green variated stipple dot patt fill*
DTOP	A	BJ110			tundra
VML0	A	BJ110			tundra
VML1	A	BJ110			tundra
VML2	A	BJ110			tundra
4067	Area	AP			*yellow-green dot patt fill*
DTOP	A	EA010			cropland
UVM	A	EA010			cropland
VML0	A	EA010			cropland
VML1	A	EA010			cropland
VML2	A	EA010			cropland
4068	Area	AP			*yellow-green grass patt fill*
DTOP	A	EB010			grassland
UVM	A	EB010			grassland
VML0	A	EB010			grassland
VML1	A	EB010			grassland
VML2	A	EB010			grassland
4071	Area	AC(blue)			*basic blue solid fill*
DTOP	A	BH080	<>sdr		lake/pond
DTOP	A	BH080	sdr	hyc=8	lake/pond - perennial
DTOP	A	BH140	sdr	hyc=0or8 AND tid<>1	river/stream - perennial;tidal
FFD	A	BH080		hyc=0or8	lake/pond - perennial, unknown
UVM	A	BH080		hyc=0or8	lake/pond - perennial, unknown
VML1	A	BH080		hyc=0or8	lake/pond - perennial, unknown
VML1	A	BH140		hyc=0or8 AND tid=0or2	river/stream - perennial, unknown; tidal, unknown
VML2	A	BH080		hyc=0or8	lake/pond - perennial, unknown
VML2	A	BH140		hyc=0or8 AND tid<>1	river/stream - perennial, unknown; tidal
4077	Area	AP			*depth med blue narrow rt diag line patt fill*
DNC	A	AC030			settling basin/sludge pond
DTOP	A	AC030			settling basin/sludge pond
FFD	A	AC030			settling basin/sludge pond
UVM	A	AC030			settling basin/sludge pond
VML1	A	AC030			settling basin/sludge pond
VML1	A	AD010			power plant
VML2	A	AC030			settling basin/sludge pond
4078	Area	AP			*basic blue inundation area patt fill*
DNC	A	BH090			land subject to inundation
DTOP	A	BH090			land subject to inundation
FFD	A	BH090			land subject to inundation
UVM	A	BH090			land subject to inundation
VML0	A	BH090			land subject to inundation
VML1	A	BH090			land subject to inundation
VML2	A	BH090			land subject to inundation

Product	Delin	FCODE	Attribute Condition	Description
4079	Area	AP	*basic blue stipple dot patt fill*	
DTOP	A	BH140 sdr	hyc=3or6	river/stream - dry, intermittent
4080	Area	AP	*basic blue marsh/swamp patt fill*	
DTOP	A	BH095	veg=0or56	marsh/swamp - no trees
FFD	A	BH095		marsh/swamp
UVM	A	BH015		bog
UVM	A	BH095		marsh/swamp
VML0	A	BH015		bog
VML0	A	BH095		marsh/swamp
VML1	A	BH015		bog
VML1	A	BH095		marsh/swamp
VML2	A	BH015		bog
VML2	A	BH095		marsh/swamp
4081	Area	AP	*basic blue diag grid patt fill*	
DTOP	A	BH150		salt pan
4085	Area	AP	*basic blue rice patt fill*	
FFD	A	BH135		rice field
VITD	A	BH135		rice field
VML0	A	BH135		rice field
VML1	A	BH135		rice field
VML2	A	BH135		rice field
4089	Area	AC(CHMGD)	*magenta solid fill*	
DTOP	A	AL140		particle accelerator
DTOP	A	GB055		runway
FFD	A	GB055		runway
UVM	A	AL140		particle accelerator
UVM	A	AT010		disk/dish
UVM	A	AT050		communication building
UVM	A	GB055		runway
VML2	A	AL140		particle accelerator
VML2	A	GB055		runway
4098	Area	AP	*purple wide rt diag line patt fill*	
DTOP	A	GB045		overrun/stopway
UVM	A	GB045		overrun/stopway
VML2	A	GB045		overrun/stopway
4100	Area	AC(CHGRF)	*lt gray solid fill*	
UVM	A	AF030		cooling tower
UVM	A	AH060		underground bunker
UVM	A	AL250		underground dwelling
4105	Area	AP	*lt gray rt diag thin line patt fill*	
DTOP	A	ZD020		void collection area
FFD	A	ZD020		void collection area
TOD0	A	ZD020		void collection area
TOD1	A	ZD020		void collection area
TOD2	A	ZD020		void collection area
TOD4	A	ZD020		void collection area
VML0	A	ZD020		void collection area
VML1	A	ZD020		void collection area
VML2	A	ZD020		void collection area
4107	Area	AP	*lt gray dot patt fill*	
VML2	A	AB010		wrecking yard/scrap yard

Product	Delin	FCODE		Attribute Condition	Description
4108	Area	AP			*lt gray land cover/ripple patt fill*
UVM	A	DA010		mcc=52	ground surface element - lava
VML0	A	DA010		mcc=52	ground surface element - lava
VML1	A	DA010		mcc=52	ground surface element - lava
VML2	A	DA010		mcc=52	ground surface element - lava
4109	Area	AC(DEPCN)			*depth gray solid fill*
DTOP	A	AT050			communication building
VML2	A	AT050			communication building
4114	Area	AP			*depth gray horizontal lines patt fill*
DTOP	A	AM060			storage bunker/storage mound
UVM	A	AM060			storage bunker/storage mound
VML2	A	AM060			storage bunker/storage mound
4123	Area	AP			*depth gray stiple patt fill*
UVM	A	AM040			mineral pile
4124	Area	AP			*depth gray land cover/ripple patt fill*
DTOP	A	DA005			asphalt lake
UVM	A	DA005			asphalt lake
VML1	A	DA005			asphalt lake
VML2	A	DA005			asphalt lake
4128	Area	AC(CHYLW)			*yellow solid fill*
DTOP	A	AL020	pop		built-up area
FFD	A	AL020			built-up area
UVM	A	AL020			built-up area
VML0	A	AL020			built-up area
VML1	A	AL020			built-up area
VML2	A	AL020			built-up area
4138	Area	AC(blue-4)			*med blue solid fill*
DTOP	A	AK170			swimming pool
DTOP	A	BH020	<>sdr		canal
DTOP	A	BH020	sdr	cda<>2	canal - not covered
DTOP	A	BH020	sdr	cda=2	canal - covered
DTOP	A	BH050			fish hatchery/fish farm/marine farm
DTOP	A	BH130			reservoir
DTOP	A	BH140	<>sdr		river/stream
DTOP	A	BH140	sdr	hyc=0or8 AND tid=1	river/stream - perennial;non-tidal
FFD	A	BH020		hyc=8	canal - perennial
FFD	A	BH050			fish hatchery/fish farm/marine farm
FFD	A	BH130			reservoir
FFD	A	BH140		hyc=0or8	river/stream - perennial, unknown
UVM	A	AK170			swimming pool
UVM	A	BH020		exs=32 AND hyc=8	canal - navigable;perennial
UVM	A	BH050			fish hatchery/fish farm/marine farm
UVM	A	BH130			reservoir
UVM	A	BH140		hyc=0or8	river/stream - perennial, unknown
VML0	A	BH050			fish hatchery/fish farm/marine farm
VML1	A	BH050			fish hatchery/fish farm/marine farm
VML1	A	BH130			reservoir
VML1	A	BH140		hyc=0or8 AND tid=1	river/stream - perennial, unknown; non-tidal
VML2	A	AK170			swimming pool
VML2	A	BH020		exs=32 AND hyc=8	canal - navigable;perennial
VML2	A	BH050			fish hatchery/fish farm/marine farm
VML2	A	BH130			reservoir

Product	Delin	FCODE	Attribute Condition	Description
VML2	A	BH140	hyc=0or8 AND tid=1	river/stream - perennial, unknown; non-tidal
4145	Area	AP	*depth pale blue lft diag dash line patt fill*	
UVM	A	BH165		spillway
4150	Area	AP	*depth pale blue stiple dot patt fill*	
DTOP	A	BH200		miscellaneous surface drainage feature
DTOP	A	BJ030		glacier
VML1	A	BJ030		glacier
VML2	A	BJ030		glacier
4151	Area	AP	*basic blue ripple jagged patt fill*	
DTOP	A	BJ065		ice shelf
DTOP	A	BJ070		pack ice
VML0	A	BJ065		ice shelf
VML0	A	BJ070		pack ice
VML1	A	BJ065		ice shelf
VML1	A	BJ070		pack ice
VML2	A	BJ065		ice shelf
VML2	A	BJ070		pack ice
4152	Area	AC(blue-3)	*lt blue solid fill*	
UVM	A	BH100		moat
VML0	A	BH000		inland water
4154	Area	AC(blue-5)	*dk blue solid fill*	
DTOP	A	BH040		filtration beds/aeration beds
FFD	A	BH040		filtration beds/aeration beds
UVM	A	BH040		filtration beds/aeration beds
VML1	A	BH040		filtration beds/aeration beds
VML2	A	BH040		filtration beds/aeration beds
4156	Area	AC(CHBLK)	*black solid fill*	
DTOP	A	AL015	bfc<>6and<>7and<>15	building - generic
DTOP	A	AM070		tank
DTOP	A	BI020		dam/weir
FFD	A	BI020		dam/weir
UVM	A	AK110		grandstand
UVM	A	AL015	bfc<>2and<>3and<>5and<>8and<>28and<>52and<>121and<>15and<>6and<>7and<>114and<>100and<>60and<>108	building - generic
UVM	A	AM070		tank
UVM	A	AM080		water tower
UVM	A	AQ125		station (miscellaneous)
UVM	A	BI020		dam/weir
VML1	A	AL015	bfc<>7and<>15	building - generic
VML2	A	AL015	bfc<>6and<>7and<>15	building - generic
VML2	A	AM070		tank
VML2	A	BI020		dam/weir
4167	Area	AP	*black cross hatch patt fill*	
UVM	A	AN075		railroad turntable
4170	Area	AP	*lt blue mixed stipple dot patt fill*	
DTOP	A	EC020		oasis
VML0	A	EC020		oasis
VML2	A	EC020		oasis
4175	Area	AC(APLRT)	*lt orange solid fill*	
DTOP	A	SA050	spr=6	slope polygon - > 45% and <= 60%
UVM	A	AL130		monument

Product	Delin	FCODE	Attribute Condition	Description
VITD	A	SA050	gsc=7	slope polygon - > 45%
4178	Line	LS(SOLD,1,dark-green)	*very dk green very thin solid line*	
VITD	A	EA040		orchard/plantation
VITD	A	EA050		vineyards
VITD	A	EB010		grassland
VITD	A	EC010		bamboo/cane
4180	Line	LS(S-DASH,1,DEPMD)	*depth pale blue very thin short dash line*	
DTOP	A	BJ100		snow field/ice field
VML0	A	BJ100		snow field/ice field
VML1	A	BJ100		snow field/ice field
VML2	A	BJ100		snow field/ice field
4183	Line	LS(SOLD,3,CHMGD)	*magenta solid line*	
DTOP	A	GB005		airport/airfield
FFD	A	GB005		airport/airfield
UVM	A	GB005		airport/airfield
VML2	A	GB005		airport/airfield
4184	Line	LS(S-DASH,1,CHMGD)	*magenta very thin short dash line*	
FFD	A	GB035		heliport
UVM	A	GB035		heliport
4185	Line	LS(S-DASH,2,CHMGD)	*magenta thin short dash line*	
UVM	A	FA015		firing range/gunnery range
4186	Line	LS(DASH,2,CHMGD)	*magenta thin dash line*	
DNC	L	FC021	mac=24 AND mbl=NULL	maritime limit boundary - turning area
DNC	L	FC021	mac=27or28or29 AND mbl=NULL	maritime limit boundary - submarine exercise, mine laying, firing range
DNC	L	FC021	mac=32or33 AND mbl=NULL	maritime limit boundary - oil field, gas field
DNC	L	FC021	mac=44 AND mbl=NULL	maritime limit boundary - deguassing
DNC	L	FC021	mac=58 AND mbl=NULL	maritime limit boundary - dredging
DNC	L	FC031	mac=5	maritime area - entry prohibited
DNC	L	FC031	mac=4	maritime area - mine danger
DTOP	A	AH050		fortification
FFD	A	GB065		seaplane base
UVM	A	AH010		bastion/rampart/fortification
UVM	A	AH050		fortification
VML1	A	AH050		fortification
VML2	A	AH050		fortification
4194	Line	LS(S-DASH,1,aero-blue)	*aero-blue very thin short dash line*	
DTOP	A	GB015		apron/hardstand
UVM	A	GB015		apron/hardstand
VML2	A	GB015		apron/hardstand
4201	Line	LS(DASH,2,DEPCN)	*depth gray thin dash line*	
VITD	A	DA020		barren ground
4202	Line	LS(DOTT,2,DEPCN)	*depth gray thin dotted line*	
VITD	A	SA030		exposed bedrock
4203	Line	LC	*depth gray line w/ two dashes*	
VITD	A	SA020		disturbed soil
4217	Line	LS(SOLD,1,med-beige)	*beige very thin solid line*	
DTOP	A	AJ030		feedlot/stockyard/holding pen
UVM	A	AJ030		feedlot/stockyard/holding pen
VML2	A	AJ030		feedlot/stockyard/holding pen

Product	Delin	FCODE	Attribute Condition	Description
4220	Line	LS(SOLD,2,med-beige)	*med-beige thin solid line*	
DTOP	A	BA060		beach zone
UVM	A	BA050		beach
UVM	A	DA010	mcc=88	ground surface element - sand
VML0	A	DA010	mcc=88	ground surface element - sand
VML1	A	DA010	mcc=88	ground surface element - sand
VML2	A	DA010	mcc=88	ground surface element - sand
4230	Area	AP	*yellow-green squares in grid patt fill*	
DTOP	A	EA030		nursery
UVM	A	EA030		nursery
VML0	A	EA030		nursery
VML2	A	EA030		nursery
4236	Line	LS(SOLD,3,med-beige)	*beige solid line*	
VITD	A	BA030		island
VITD	A	DA010	stp<>1and<>2and<>3and<>4and<>5and<>6and<>7and<>8 and<>9	ground surface element - silts, clays, evaporites, other
4240	Line	LS(SOLD,2,CHRED)	*red solid thin line*	
DTOP	A	AQ135		vehicle stopping area/rest area
DTOP	A	AQ140		vehicle storage/parking area
UVM	A	AQ140		vehicle storage/parking area
VML2	A	AQ135		vehicle stopping area/rest area
VML2	A	AQ140		vehicle storage/parking area
4243	Area	AC(DEPSC)	*depth dk gray solid fill*	
DTOP	A	AL020 <>pop		built-up area
DTOP	A	AL105 <>pop		settlement
DTOP	A	AL135 <>pop		native settlement
4248	Area	AP	*lt gray stipple dot patt fill*	
DTOP	A	DA010	smc=84	ground surface element - rocky
4249	Area	AP	*black x patt fill*	
DTOP	A	DB145		miscellaneous obstacle
UVM	A	DB030		cave
4259	Line	LS(DASH,2,med-beige)	*beige thin dash line*	
VITD	A	DA010	stp=1or2or3or4	ground surface element - gravels
4262	Line	LS(DASH,2,med-purple)	*purple thin dash line*	
DTOP	A	AQ116		pumping station
UVM	A	AQ116		pumping station
VML2	A	AQ116		pumping station
4265	Line	LS(SOLD,2,blue)	*basic blue thin solid line*	
FFD	A	BH020	hyc<>8	canal - non-perennial, dry, unknown
FFD	A	BH140	hyc=3or6	river/stream - dry, non-perennial
UVM	A	BH020	exs<>32 OR hyc<>8	canal - not navigable or not perennial
UVM	A	BH140	hyc=3or6	river/stream - dry, intermittent
VITD	A	BH020	hyc<>8	canal - not perennial
VITD	A	BH020	hyc=8	canal - perennial
VITD	A	BH140	hyc=0or8or14	river/stream - perennial, braided
VITD	A	SA010		common open water
VML1	A	BH140	hyc=3or6	river/stream - dry, intermittent
VML2	A	BH020	exs<>32 OR hyc<>8	canal - not navigable or not perennial
VML2	A	BH140	hyc=3or6	river/stream - dry, intermittent
4266	Line	LS(SOLD,1,blue)	*basic blue very thin solid line*	
DTOP	L	BH010	loc=25	aqueduct - elevated

Product	Delin	FCODE	Attribute Condition	Description
FFD	L	BH010	loc=25	aqueduct - elevated
UVM	L	BH010	loc=25	aqueduct - elevated
UVM	A	BH075		fountain
VML1	L	BH010	loc=25	aqueduct - elevated
VML2	L	BH010	loc=25	aqueduct - elevated
4279	Line	LS(S-DASH,2,NINFO)	*nav orange thin short dash line*	
DTOP	A	AK040		athletic field
DTOP	A	AK090		fairgrounds
DTOP	A	AK100		golf course
UVM	A	AK040		athletic field
UVM	A	AK070		drive in theater
UVM	A	AK090		fairgrounds
UVM	A	AK100		golf course
VML0	A	AK040		athletic field
VML2	A	AK040		athletic field
VML2	A	AK070		drive in theater
VML2	A	AK090		fairgrounds
VML2	A	AK100		golf course
4289	Area	AP	*basic blue stipple dot patt fill*	
DTOP	A	BH160		sebkha
DTOP	A	BJ080		polar ice
UVM	A	BH160		sebkha
VML0	A	BJ080		polar ice
VML1	A	BH160		sebkha
VML1	A	BJ080		polar ice
VML2	A	BH160		sebkha
VML2	A	BJ080		polar ice

Symbol to Product Cross-Reference

Simplified

0001	Point	SY(PRDINS02)			*feature brown mine symbol*	
DNC		P	AA010			mine/quarry
0002	Point	SY(BUISGL11)			*feature brown filled square w/ black outline*	
DNC		P	AD030			substation/tran.yard
DNC		P	AK160			stadium/amphitheater
DNC		P	AL015	bfc=81 AND sta=0or2or3or6or11		building - maritime station
DNC		P	AL018			building superstructure addition
DNC		P	AL200			ruins
DNC		P	AQ116			pumping station
0003	Point	SY(CHIMNY11)			*black chimney symbol*	
DNC		P	AF010			chimney/smokestack
0004	Point	SY(TOWERS03)			*black tower symbol*	
DNC		P	AF030			cooling tower
DNC		P	AL240			tower (non-communication)
DNC		P	AM030			grain elevator
DNC		P	AQ060			control tower
DNC		P	AT080			communication tower
0005	Point	SY(CRANES01)			*feature brown crane symbol*	
DNC		P	AF040			crane
0006	Point	SY(FLASTK11)			*black flare stack symbol*	
DNC		P	AF070			flare pipe
0007	Point	SY(FORSTC11)			*black square*	
DNC		P	AH010			bastion/rampart/fortification
DNC		P	AH050			fortification
0008	Point	SY(WNDMIL12)			*black sm cir w/ X on top*	
DNC		P	AJ050			windmill
0009	Point	SY(POSGEN01)			*feature brown dot inside cir*	
DNC		P	BC010	nst=45		beacon - radar station
DNC		P	BC020	nst=45		buoy - radar station
DNC		P	BC040	nst=45		light - radar station
DNC		P	BC070	nst=45		light vessel/lightship - radar station
0010	Point	SY(BUIREL13)			*black 'iron cross'*	
DNC		P	AL015	bfc=7 AND hwt=0or2or3or4or7or22		building - house of worship
0011	Point	SY(BUIREL14)			*black X inscribed in rectangle*	
DNC		P	AL015	bfc=7 AND hwt=11or14or15or16or20or21		building - house of worship
0012	Point	SY(BUIREL15)			*black mosque/minaret w/ dot in circle*	
DNC		P	AL015	bfc=7 AND hwt=5or6or9		building - house of worship
0013	Point	SY(CGUSTA02)			*lt magenta CG in rectangle w/ pale green fill*	
DNC		P	AL015	bfc=81 AND sta=1		building - maritime station
0014	Point	SY(RSCSTA02)			*black filled diamond cntred on horizontal line*	
DNC		P	AL015	bfc=81 AND sta=5		building - maritime station
0015	Point	SY(SISTAT02)			*lt magenta SS in rectangle w/ pale green fill*	
DNC		P	AL015	bfc=81 AND sta<>0and<>1and<>2and<>3and<>5and<>6and<>11		building - maritime station
DNC		P	BG020			tide gauge
0016	Point	SY(BUAARE02)			*feature brown filled cir*	
DNC		P	AL020			built-up area
0017	Point	SY(CAIRNS11)			*black three stacked sm cirs*	
DNC		P	AL025			cairn

Product	Delin	FCODE	Attribute Condition	Description
0018	Point	SY(NOTBRD11)		*black rectange above inverted T*
DNC	P	AL050		display sign
0019	Point	SY(FLGSTF01)		*feature brown flag symbol*
DNC	P	AL073		flagstaff/flagpole
0020	Point	SY(MONUMT12)		*black hatched trapazoid*
DNC	P	AL130		monument
0021	Point	SY(SILBUI11)		*feature brown filled cir w/ black outline*
DNC	P	AM020		grain bin/silo
0022	Point	SY(TNKCON12)		*black cir*
DNC	P	AM070		tank
0023	Point	SY(TOWERS12)		*black water tower symbol*
DNC	P	AM080		water tower
0024	Point	SY(POSGEN03)		*black dot inside cir*
DNC	P	AK020		amusement park attraction
DNC	P	AK080		drive in theater screen
DNC	P	AQ020		aerial cableway pylon/ski pylon
DNC	P	AT040		power transmission pylon
0026	Point	SY(MSTCON14)		*black tall slender triangle w/ cir at bottom*
DNC	P	AQ110		mooring mast
0027	Point	SY(QUARRY01)		*feature brown mine symbol inside circle*
DNC	A	AA010		mine/quarry
0028	Point	SY(DOMES011)+ SY(RDOSTA02)		*black dome inside lg magenta circle*
DNC	P	AT045	ssc=87	radar transmitter - dome
0029	Point	SY(RASCAN11)+ SY(RDOSTA02)		*black rectangle below T in lg magenta cir*
DNC	P	AT045	ssc=108	radar transmitter - scanner
0030	Point	SY(MSTCON14)+ SY(RD0STA02)		*black triangle w/ in lg magenta cir*
DNC	P	AT045	ssc=60	radar transmitter - mast
0031	Point	SY(TOWERS03)+ SY(RDOSTA02)		*black tower inside lg magenta cir*
DNC	P	AT045	ssc=107	radar transmitter - tower
0032	Point	SY(BRTHNO01)		*magenta circle*
DNC	P	BB020		berth
0033	Point	SY(BUISGL11)+ SY(RDOSTA02)		*feature brown fill sqr black otln in lg mgnta cir*
DNC	P	AT050		communication building
0035	Point	SY(LNDARE01)		*lt brown sm filled cir w/ gray outline*
DNC	P	BA030		island
0036	Point	SY(ACHARE02)		*magenta anchor*
DNC	P	BB010	mac<>12	anchorage - not anchoring berth
0037	Point	SY(ACHBRT07)		*magenta anchor w/ sm cir on shaft*
DNC	P	BB010	mac=12	anchorage - anchoring berth
DNC	A	BB010	mac=12	anchorage - anchoring berth
0038	Point	SY(MORFAC03)		*lt brown filled square w/ black outline*
DNC	P	BB080		dolphin
DNC	P	BB160		mooring ring
0039	Point	SY(RDOCAL02)		*traffic magenta cir w/ 1 cone*
DNC	P	BB050	df1<>0 AND df2=0	calling-in point - one way traffic
DNC	P	BB050	df3<>0	calling-in point - more than two-way traffic, 1st direction
DNC	P	BB050	df3<>0	calling-in point - more than two-way traffic, 2nd direction
DNC	P	BB050	df3<>0	calling-in point - more than two-way traffic, 3rd direction

Product	Delin	FCODE	Attribute Condition	Description
DNC	P	BB050	df4<>0	calling-in point - more than two-way traffic, 4th direction
0040	Point	SY(RDOCAL03)	*traffic magenta cir w/ 2 cones*	
DNC	P	BB050	df2<>0 AND df3=0	calling-in point - two way traffic
0041	Point	SY(RCLDEF01)	*magenta cir w/ 2 cones and 2 ?*	
DNC	P	BB050	df1=0	calling-in point - direction of traffic unknown
0042	Point	SY(HRBFAC09)	*magenta fish w/ arcs above and below*	
DNC	P	BB105		fishing harbor
0043	Point	SY(SMCFAC02)	*magenta yacht inside lg cir*	
DNC	P	BB150		landing place
DNC	A	BB150		landing place
0045	Point	SY(MARCUL02)	*gray fish inside net*	
DNC	P	BB180		oyster bed/mussel bed
0046	Point	SY(BRIDGE01)	*magenta small circle inside circle*	
DNC	A	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
0051	Point	SY(PILPNT02)	*black filled sm cir*	
DNC	P	BB030		bollard
DNC	P	BC020	btc=35	buoy - articulated light (base)
DNC	P	BC040		light - base symbol
DNC	P	BC080		perches/stakes
DNC	P	BD100		pile/piling/post
0052	Point	SY(OBSTRN01)	*depth med blue fill cir w/ black dotted outline*	
DNC	P	BD000	hdp=0	underwater danger/hazard - depth unknown
DNC	P	BD020	vrr=4 AND hdp=0	crib - submerged; depth unknown
DNC	P	BD030		discolored water
DNC	P	BD140	vrr=4 AND hdp=0	snags/stumps - submergerd; depth unknown
0053	Point	SY(DANGER01)	*depth med blue fill lg oval w/ black dot outline*	
DNC	P	BD000	hdp>0and<=20	underwater danger/hazard - depth 20m or less
DNC	P	BD020	vrr=4 AND hdp>0and<=20	crib - submerged;depth 20m or less
DNC	P	BD130	vrr=4 AND hdp>0and<=20	rock - submerged; depth 20m or less
DNC	P	BD140	vrr=4 AND hdp>0and<=20	snags/stumps - submerged; depth 20m or less
DNC	P	BD180	vrr=4 AND hdp>0and<=20	wreck - submerged; depth 20m or less
0054	Point	SY(DANGER02)	*lg black oval w/ dotted outline*	
DNC	P	BD000	hdp>20	underwater danger/hazard - depth greater than 20m
DNC	P	BD020	vrr=4 AND hdp>20	crib - submerged;depth greater than 20m
DNC	P	BD130	vrr=4 AND hdp>20	rock - submerged;depth greater than 20m
DNC	P	BD140	vrr=4 AND hdp>20	snags/stumps - submerged; depth greater than 20m
DNC	P	BD180	vrr=4 AND hdp>20	wreck - submerged; depth greater than 20m
0055	Point	SY(OBSTRN03)	*yellow-green solid circle w/ black dot outline*	
DNC	P	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers; depth null
DNC	P	BD140	vrr=8 AND hdp=NULL	snags/stumps - covers and uncovers; depth null
0056	Point	SY(WATTUR02)	*gray waves symbol*	
DNC	P	BD010		breakers
DNC	P	BD040		eddies
DNC	P	BD080		overfalls/tide rips
DNC	A	BD010		breakers
DNC	A	BD040		eddies
DNC	A	BD080		overfalls/tide rips
0057	Point	SY(OBSTRN11)	*lt brown square with dk gray outline*	
DNC	P	BD020	vrr=1 AND hdp=NULL	crib - partly submerged/dry; depth null
DNC	P	BD140	vrr=1 AND hdp=NULL	snags/stumps - partly submergerd/dry; depth null

Product	Delin	FCODE	Attribute Condition	Description
0058	Point	SY(LOWACC01)		*black leader line w/ question mark*
DNC	P	BD000	acc<>1	underwater danger/hazard - not accurate
DNC	P	BD020	acc<>1	crib - not accurate
DNC	P	BD030	acc<>1	discolored water - not accurate
DNC	P	BD130	acc<>1	rock - not accurate
DNC	P	BD140	acc<>1	snags/stumps - not accurate
DNC	P	BD180	acc<>1	wreck - not accurate
DNC	A	BD000	acc<>1	underwater danger/hazard - not accurate
DNC	A	BD020	acc<>1	crib - not accurate
DNC	A	BD030	acc<>1	discolored water - not accurate
DNC	A	BD100	acc<>1	pile/piling/post - not accurate
DNC	A	BD120	vrr<>8 AND acc<>1	reef - not covers and uncovers, not accurate
DNC	A	BD140	acc<>1	snags/stumps - not accurate
0059	Point	SY(FOULGND1)		*gray pound (#) symbol*
DNC	P	BD050		foul ground
DNC	A	BD050		foul ground
0060	Point	SY(WEDKLP03)		*gray kelp symbol*
DNC	P	BD060		kelp/seaweed
DNC	A	BD060		kelp/seaweed
0061	Point	SY(OFSPLF01)		*black dot inside square*
DNC	P	BD110		platform
0062	Point	SY(UWTROC03)		*black cross in dotted cir, depth med blue fill*
DNC	P	BD130	vrr=4 AND hdp=0	rock - submerged; depth unknown
0063	Point	SY(UWTROC04)		*black 6 point asterisk*
DNC	P	BD130	hdp=NULL	rock - depth null
0064	Point	SY(WRECKS01)		*gray wreck symbol*
DNC	P	BD180	hdp=NULL AND vrr=1or2or8	wreck - not submerged; depth null
DNC	P	BD180	loc<>4 AND hdp=NULL	wreck - showing mast/ hull/ superstructure; depth null
0065	Point	SY(WRECKS05)		*blck bar 3 ticks in dotted depth med blue oval*
DNC	P	BD180	vrr=4 AND soh=1 AND hdp=0	wreck - submerged; dangerous; depth unknown
DNC	P	BD180	hdp=NULL AND vrr=0	wreck - unknown; depth null
0066	Point	SY(WRECKS04)		*black horiz bar w/3 ticks*
DNC	P	BD180	vrr=4 AND soh=2 AND hdp=0	wreck - submerged; not dangerous; depth unknown
0071	Point	SY(CURDEF01)		*gray arrow w/ 2 feathers and 2 ?*
DNC	P	BG010	cur=0 OR dof=0	current flow - general; direction unknown
0072	Point	SY(CURENT01)		*gray arrow w/ two feathers*
DNC	P	BG010	cur=3or5 AND dof<>0	current flow - general,ocean; direction known
0073	Point	SY(EBBSTR01)		*gray arrow w/ no feathers*
DNC	P	BG010	cur=1 AND dof<>0	current flow - ebb; direction known
0074	Point	SY(FLDSTR01)		*gray arrow w/ one feather*
DNC	P	BG010	cur=2 AND dof<>0	current flow - flood; direction known
0076	Point	SY(TIDSTR01)		*gray diamond*
DNC	P	BG030		tide data point
0077	Point	SY(HILTOP11)		*black radiating cones*
DNC	P	BJ060		ice peak/nunatak
0078	Point	SY(POSGEN04)		*black sm cir*
DNC	P	CA030		spot elevation
0079	Point	SY(TREPNT04)		*feature brown side view of stylised tree*
DNC	P	EC030		trees

Product	Delin	FCODE	Attribute Condition	Description
0080	Point	SY(PILBOP02)		*magenta solid filled diamond inside cir*
DNC	P	FC021	mac=48	maritime limit boundary - pilot boarding
DNC	A	FC021	mac=48	maritime limit boundary - pilot boarding
0081	Point	SY(INFARE51)		*lt magenta square w/ I*
DNC	A	AL005		animal sanctuary
DNC	A	FC021	mac=30or35	maritime limit boundary - dumping, explosive dumping
DNC	A	FC021	mac=31	maritime limit boundary - incineration
DNC	A	FC021	mac=49	maritime limit boundary - cargo Xshipment
DNC	A	FC036	mac=21or23or61	restricted area - pipelines, sewer
DNC	A	FC036	mac=45or46	restricted area - outfall, intake
0082	Point	SY(ENTRES51)		*traffic lt magenta cir w/ bar*
DNC	P	FC031	mac=5	maritime area - entry prohibited
DNC	P	FC036	mac=43	restricted area - area to be avoided
DNC	A	FC031	mac=5	maritime area - entry prohibited
DNC	A	FC036	mac=43	restricted area - area to be avoided
0083	Point	SY(TSSRON51)		*traffic lt magenta arc w/ arrowhead*
DNC	P	FC031	mac=40	maritime area - roundabout zone (TSS)
DNC	A	FC031	mac=40	maritime area - roundabout zone (TSS)
0084	Point	SY(CHINFO06)		*magenta cir w/ ! Inside*
DNC	P	FC021	mac<>48	maritime limit boundary - not pilot boarding
DNC	P	FC031	mac=0	maritime area - unknown
0085	Point	SY(FSHRES51)		*lt magenta fish w/ intersecting diag line*
DNC	P	FC036	mac=22	restricted area - fishing prohibited
DNC	A	FC036	mac=22	restricted area - fishing prohibited
0086	Point	SY(ACHRES51)		*lt magenta open anchor w/ intrsctng diag line*
DNC	P	FC036	mac=15	restricted area - anchoring prohibited
DNC	A	FC036	mac=15	restricted area - anchoring prohibited
0087	Point	SY(RSRDEF51)		*traffic lt magenta ! In lg cir w/ magenta ?*
DNC	P	FC031	mac=2	maritime area - dredged area
DNC	P	FC036	mac=0or999	restricted area - unknown or other
DNC	A	FC036	mac=0or999	restricted area - to be avoided, other
0088	Point	SY(TSSLPT51)		*traffic magenta filled arrow*
DNC	P	FC041		traffic separation scheme (TSS)
0089	Point	SY(RTLDEF51)		*traffic magenta dashed arrow w/ 2 mgnta ?'s*
DNC	P	FC165	dof=0	route (maritime) - direction unknown
0090	Point	SY(AIRARE02)		*feature brown outline of plane inside lg cir*
DNC	P	GB005		airport/airfield
0091	Point	SY(RECDEF51)		*gray ? inside angle brackets inside dashes*
DNC	A	FC170		safety fairway
0092	Point	SY(PRCARE51)		*traffic lt magenta ! Inside triangle*
DNC	A	FC021	mac=42	maritime limit boundary - precautionary
0093	Point	SY(CTYARE51)		*traffic lt magenta ! Inside lg circle*
DNC	P	FC031	mac=4	maritime area - mine danger area
DNC	P	FC036	mac=37	restricted area - safety zone
DNC	A	FC021	mac=44	maritime limit boundary - deguassing
DNC	A	FC021	mac=58	maritime limit boundary - dredging area
DNC	A	FC021	mac=24	maritime limit boundary - turning area
DNC	A	FC021	mac=27or28or29	maritime limit boundary - submarine exercise, mine laying, firing range
DNC	A	FC021	mac=32or33	maritime limit boundary - oil field, gas field

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	FC031	mac=4	maritime area - mine danger
DNC	A	FC036	mac=37	restricted area - safety zone
DNC	A	GB070		seaplane landing/seaplane take-off area
0094	Point	SY(CBLARE51)	*lt magenta angled line*	
DNC	A	FC036	mac=20	restricted area - cables
0095	Point	SY(SWPARE51)	*lt gray under bar w/ upward bar on ends*	
DNC	A	FC177		swept area
0096	Point	SY(CHINFO07)	*magenta square w/ i*	
DNC	P	AQ080		ferry site
0097	Point	SY(CTNARE51)	*traffic lt magenta ! Inside lg circle*	
DNC	A	FC021	mac=0or999	maritime limit boundary - unknown, other
DNC	A	FC031	mac=0or9	maritime area - unknown, work in progress
DNC	A	FC041	tsp=6or7	traffic separation scheme (TSS) - inbound or outbound area
DNC	A	FC165	rtt=0	route (maritime) - use unknown
0098	Point	SY(TWRDEF51)	*traffic magenta dash dbl head arrow w/ 2 ?'s*	
DNC	A	FC165	rtt=11	route (maritime) - 2-way
0101	Point	SY(BCNSPP21)	*yellow rectangle w/ outline black outline*	
DNC	P	BC010		beacon-base
0150	Point	SY	*yellow-green filled sm cir w/ gray outline*	
DNC	P	BA020		foreshore
0152	Point	SY(DAYSQR01)	*magenta box w/ dot and line below*	
DNC	P	BC055		marker
0154	Point	SY	*gray open cir,arrows pting out,represent only*	
DNC	P	BG040		current diagram
0311	Point	SY(BOYMOR11)	*black mooring/installation buoy*	
DNC	P	BB170		offshore loading facility
DNC	P	BC020	btc=7 AND ssc<>1and<>7	buoy - mooring;not barrel, not can
DNC	P	BC020	btc=7 AND ssc=1	buoy - mooring;barrel
DNC	P	BC020	btc=7 AND ssc=7	buoy - mooring;can
0312	Point	SY(BOYSUP02)	*black superbuoy - simplified*	
DNC	P	BC020	btc=4	buoy - LANBY
DNC	P	BC020	btc=10	buoy - ODAS
DNC	P	BC020	btc=0 AND ssc=73	buoy - superbuoy; type unknown
0313	Point	SY(BOYSPP11)	*yellow circle w/ outline black outline*	
DNC	P	BC020	btc=0 AND ssc=1	buoy - barrel; type unknown
DNC	P	BC020	btc=0 AND ssc=10	buoy - pillar; type unknown
DNC	P	BC020	btc=0 AND ssc=16	buoy - spar; type unknown
DNC	P	BC020	btc=0 AND ssc=17	buoy - sphere; type unknown
DNC	P	BC020	btc=0 AND ssc=6	buoy - conical; type unknown
DNC	P	BC020	btc=0 AND ssc=7	buoy - can; type unknown
DNC	P	BC020	btc=0 AND ssc=0or85or999	default buoy; type unknown
0401	Point	SY(FOGSIG01) for water	*lt magenta arcs origin offset for beacons*	
DNC	P	AL015	bfc=81 AND sta=5 AND sst<>16	building - maritime station (rescue), sound signal
DNC	P	BC010	sst=1or2or3or4or6or9or14or15	beacon - sound signal
DNC	P	BC020	sst=1or2or3or4or6or9or14or15	buoy - sound signal
DNC	P	BC040	sst=1or2or3or4or6or9or14or15	light - sound signal
DNC	P	BC070	sst=1or2or3or4or6or9or14or15	light vessel/lightship - sound signal
0402	Point	SY(FOGSIG01) for land	*lt magenta arcs origin offset for buoys*	
DNC	P	AL015	bfc=81 AND sta<>5 AND sst<>16	building - maritime station (not rescue), sound signal

Product	Delin	FCODE	Attribute Condition		Description
DNC	P	BD110	sst<>16		platform - sound signal
0500	Point	SY(LIGHTDEF)		*magenta flare*	
DNC	P	AL015	bfc<>81 AND col<>"UNK"		building - not maritime station, light flare
DNC	P	AL240	col<>"UNK"		tower - light flare
DNC	P	AM070	col<>"UNK"		tank - light flare
DNC	P	AT080	col<>"UNK"		communication tower - light flare
DNC	P	BB170	cha=21		offshore loading facility - light
DNC	P	BC040			light - flare
DNC	P	BC070			light vessel/lightship - default flare
DNC	P	BD110	cha=21		platform - lighted
0501	Point	SY(LIGHTS01)		*lights red flare*	
DNC	P	GA020			air obstruction light [DNC-specific]
0503	Point	SY(LIGHTS03)		*lights yellow flare*	
DNC	P	GB010			airport lighting
0510	Point	SY(RADRFL03)		*magenta arc w/ 5 ticks pointing upward*	
DNC	P	BC010	ref=1		beacon - radar reflector present
DNC	P	BC020	ref=1		buoy - radar reflector present
DNC	P	BC040	ref=1		light - radar reflector present
DNC	P	BC070	ref=1		light vessel/lightship - radar reflector present
0511	Point	SY(RDOSTA02)		*lg magenta cir*	
DNC	P	AT045	ssc=0or999		radar transmitter - other, unknown
DNC	P	BC010	nst=1or4or5or17or41or51or53		beacon - radio navigation system
DNC	P	BC020	nst=1or4or5or17or41or51or53		buoy - radio navigation system
DNC	P	BC040	nst=1or4or5or17or41or51or53		light - radio navigation system
DNC	P	BC070	nst=1or4or5or17or41or51or53		light vessel/lightship - radio navigation system
DNC	P	GA035			navaids (aeronautical)
0512	Point	SY(RTPBCN02)		*lg magenta dashed cir*	
DNC	P	BC010	nst=10or54		beacon - radar navigation system
DNC	P	BC020	nst=10or54		buoy - radar navigation system
DNC	P	BC040	nst=10or54		light - radar navigation system
DNC	P	BC070	nst=10or54		light vessel/lightship - radar navigation system
0515	Point	SY(LITFLT02)		*black lt float, simplified*	
DNC	P	BC020	btc=6		buoy - light float
0516	Point	SY(LITVES02)		*black lt vessel, simplified*	
DNC	P	BC070			light vessel/lightship
0600	Line	LS(SOLD,1,CHBLK)		*black very thin solid line*	
DNC	L	AK020			amusement park attraction
DNC	L	AL070			fence
DNC	L	AL260			wall
DNC	L	BH020			canal
DNC	L	BH140			river/stream
DNC	L	BH210			inland shoreline
DNC	A	AC030			settling basin/sludge pond
DNC	A	AD010			power plant
DNC	A	AD030			substation/tran.yard
DNC	A	AH010			bastion/rampart/fortification
DNC	A	AH050			fortification
DNC	A	AK160			stadium/amphitheater
DNC	A	AL015			building
DNC	A	AL030			cemetery
DNC	A	AM030			grain elevator
DNC	A	AM070			tank

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	AQ116		pumping station
DNC	A	AT020		early warning radar site
DNC	A	BH020		canal
DNC	A	BH080		lake/pond
DNC	A	BH130		reservoir
DNC	A	BH140		river/stream
DNC	A	GB005		airport/airfield
DNC	A	GB055		runway
0604	Line	LS(SOLD,1,LANDF)		*feature brown very thin solid line*
DNC	L	CA010		contour line (land)
DNC	A	AL020		built-up area
DNC	A	BB150		landing place
0605	Line	LS(SOLD,2,LANDF)		*feature brown thin solid line*
DNC	L	AK130		race track
DNC	L	AN010		railroad
DNC	L	AP020		interchange
DNC	L	AP030		road
0606	Line	LS(SOLD,3,LANDF)		*feature brown solid line*
DNC	L	GB055		runway
0607	Line	LS(SOLD,4,LANDF)		*feature brown thick solid line*
DNC	L	BI020		dam/weir
0608	Line	LS(SOLD,1,DEPCN)		*depth gray very thin solid line*
DNC	L	BA020		foreshore
DNC	L	BE010	acc=1 AND crv<>ssdc	depth curve - accurate; not equal ssdc
0609	Line	LS(SOLD,2,DEPSC)		*depth dk gray thin solid line*
DNC	L	BE010	acc=1 AND crv=ssdc	depth curve - accurate; equals ssdc
0610	Line	LS(SOLD,3,CHGRD)		*gray solid line*
DNC	L	AQ113	loc=25	pipeline/pipe - above ground or water
DNC	L	BH010	loc=25	aqueduct - elevated
DNC	L	BH120		rapids
0611	Line	LS(SOLD,4,CHGRD)		*gray thick solid line*
DNC	A	AQ040	bsc<>12 AND bot<>4and<>10and<>11	bridge/overpass/viaduct
DNC	A	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
DNC	A	AQ045		bridge span
0613	Line	LS(DASH,2,DEPSC)		*depth dk gray thin dash line*
DNC	L	BE010	acc=2 AND crv=ssdc	depth curve - not accurate; equals ssdc
0614	Line	LS(DASH,1,DEPCN)		*depth gray very thin dash line*
DNC	L	BE010	acc=2 AND crv<>ssdc	depth curve - not accurate; not equal ssdc
0615	Line	LS(SOLD,3,CHWHT)		*pale green solid line*
DNC	L	BH180		waterfall
0620	Line	LS(SOLD,6,TRFCF)		*traffic lt magenta very very thick solid line*
DNC	L	FC041	tsp=4	traffic separation scheme (TSS) - separation zone line
0623	Line	LS(SOLD,2,CSTLN)		*dk gray thin solid line*
DNC	L	BB040	vrr=1	breakwater/groyne - partly submerged at high water
DNC	L	BB140	vrr=1	jetty - partly submerged at high water
DNC	L	BB220	vrr=1	ramp (maritime) - partly submerged at high water
DNC	L	BB230		seawall
DNC	L	BB240	vrr=1	slipway/patent slip - partly submerged at high water
DNC	L	BI040		sluice gate
DNC	A	BB040	vrr=1	breakwater/groyne - partly submerged at high water

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	BB140	vrr=1	jetty - partly submerged at high water
DNC	A	BB220	vrr=1	ramp (maritime) - partly submerged at high water
DNC	A	BD020	vrr=1 AND hdp=NULL	crib - above surface
DNC	A	BD100	vrr=1	pile/piling/post - does not cover
DNC	A	BD140	vrr=1	snags/stumps - does not cover
DNC	A	BD180	vrr=1 AND hdp=NULL	wreck - does not cover; depth null
DNC	A	BI030		lock
0624	Line	LS(DASH,1,LANDF)	*feature brown very thin dash line*	
DNC	A	AA010		mine/quarry
DNC	A	AC000		processing plant/treatment plant
DNC	A	AM010		depot (storage)
DNC	A	AM040		mineral pile
DNC	A	EA040		orchard/plantation
DNC	A	EA050		vineyards
DNC	A	EC030	veg<>19	trees - not mangrove
DNC	A	EC030	veg=19	trees - mangrove
0625	Line	LS(SOLD,4,CSTLN)	*dk gray thick solid line*	
DNC	L	BB170		offshore loading facility
DNC	L	BB190		pier/wharf/quay
DNC	A	BB170		offshore loading facility
DNC	A	BB190		pier/wharf/quay
0626	Line	LS(DASH,2,CSTLN)	*dk gray thin dash line*	
DNC	L	BB040	vrr=4or8	breakwater/groyne - submerged, covers and uncovers
DNC	L	BB140	vrr=4or8	jetty - submerged, covers and uncovers
DNC	L	BB220	vrr=4or8	ramp (maritime) - submerged, covers and uncovers
DNC	L	BB240	vrr=4or8	slipway/patent slip - submerged, covers and uncovers
DNC	A	BB040	vrr=4or8	breakwater/groyne - submerged, covers and uncovers
DNC	A	BB140	vrr=4or8	jetty - submerged, covers and uncovers
DNC	A	BB220	vrr=4or8	ramp (maritime) - submerged, covers and uncovers
DNC	A	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers
DNC	A	BD100	vrr=8	pile/piling/post - covers and uncovers
DNC	A	BD140	vrr=8	snags/stumps - covers and uncovers
DNC	A	BD180	vrr=8 AND hdp=NULL	wreck - covers and uncovers; depth null
0627	Line	LS(SOLD,5,CHGRD)	*gray very thick solid line*	
DNC	L	AQ040	bsc<>12 AND bot<>4and<>10and<>11	bridge/overpass/viaduct
DNC	L	AQ045		bridge span
0629	Line	LS(DASH,2,CHGRD)	*gray thin dash line*	
DNC	L	FC021	mac=56 AND mbl=NULL	maritime limit boundary - fish traps
DNC	L	FC021	mbl<>7and<>13 AND mac=NULL	maritime limit boundary - not clearing line
DNC	A	BD000	hdp>20	underwater danger/hazard - depth greater than 20m
DNC	A	BD020	vrr=4 AND hdp>20	crib - submerged;depth greater than 20m
DNC	A	BD120	vrr=4 AND hdp>20	reef - submerged, depth greater than 20m
DNC	A	FC036	mac=45or46	restricted area - outfall, intake
0630	Line	LS(DOTT,2,CSTLN)	*dk gray thin dotted line*	
DNC	A	BD180	vrr=0or2 AND hdp=NULL	wreck - unknown; awash; depth null
DNC	A	BD180	vrr=4 AND hdp=0	wreck - submerged; depth unknown
0631	Line	LS(SOLD,2,CHGRD)	*gray thin solid line*	
DNC	L	FC021	mac=26 AND mbl=NULL	maritime limit boundary - unsurveyed
DNC	A	BE010	cvl=99999	depth area; depth unknown
DNC	A	FC021	mac=26	maritime limit boundary - unsurveyed
0632	Line	LS(DASH,1,CSTLN)	*dk gray very thin dash line*	
DNC	L	BA010	slt=6or8	coastline/shoreline - mangrove, marsh

Product	Delin	FCODE	Attribute Condition	Description
0633	Line	LS(DASH,2,CHGRF)	*lt gray thin dash line*	
DNC	L	FC021	mac=57 AND mbl=NULL	maritime limit boundary - marine farm
0634	Line	LS(DASH,1,CHMGD)	*magenta very thin dash line*	
DNC	L	FC021	mac=25 AND mbl=NULL	maritime limit boundary - spoil
DNC	L	FC021	mac=30or35 AND mbl=NULL	maritime limit boundary - dumping, explosive dumping
DNC	L	GB070		seaplane landing/seaplane take-off area
DNC	A	FC021	mac=30or35	maritime limit boundary - dumping, explosive dumping
DNC	A	FC021	mac=25	maritime limit boundary - spoil
DNC	A	GB070		seaplane landing/seaplane take-off area
0635	Line	LS(DASH,1,CHMGF)	*lt magenta very thin dash line*	
DNC	L	FC021	mac=49 AND mbl=NULL	maritime limit boundary - cargo Xshipment
DNC	L	FC021	mac=31 AND mbl=NULL	maritime limit boundary - incineration
DNC	A	FC021	mac=49	maritime limit boundary - cargo Xshipment
DNC	A	FC021	mac=31	maritime limit boundary - incineration
0656	Line	LS(DASH,1,CHGRD)	*gray very thin dash line*	
DNC	L	AQ130		tunnel
DNC	L	BC100		leading line
DNC	L	FC021	mac=55 AND mbl=NULL	maritime limit boundary - fairway
DNC	L	FC021	mbl=13 AND mac=NULL	maritime limit boundary - clearing line
DNC	L	FC100		measured distance line
DNC	L	FC177		swept area
DNC	A	BB110		fish traps/fish weirs
DNC	A	BB115		gridiron
DNC	A	BB180		oyster bed/mussel bed
DNC	A	BD010		breakers
DNC	A	BD040		eddies
DNC	A	BD050		foul ground
DNC	A	BD080		overfalls/tide rips
DNC	A	BH050		fish hatchery/fish farm/marine farm
DNC	A	BJ030		glacier
DNC	A	BJ065		ice shelf
DNC	A	BJ100		snow field/ice field
DNC	A	FC021	mac=55	maritime limit boundary - fairway
DNC	A	FC021	mac=56	maritime limit boundary - fish traps
DNC	A	FC021	mac=57	maritime limit boundary - marine farm
DNC	A	FC170		safety fairway
DNC	A	FC177		swept area
DNC	A	ZC040		magnetic disturbance area
0657	Line	LS(DASH,4,CHGRD)	*gray thick dash line*	
DNC	L	AQ010		aerial cableway lines/ski lift lines
DNC	L	AT030		power transmission line
DNC	L	AT060		telephone line/telegraph line
0661	Line	LS(DASH,3,TRFCD)	*traffic magenta dash line*	
DNC	A	FC165	rtt=4	route (maritime) - deep water
0662	Line	LS(DASH,1,TRFCD)	*traffic magenta very thin dash line*	
DNC	A	FC031	mac=41	maritime area - inshore traffic zone (TSS)
0663	Line	LS(DASH,2,TRFCD)	*traffic magenta thin dash line*	
DNC	L	FC021	mac=0or999 AND mbl=NULL	maritime limit boundary - unknown, other
DNC	L	FC021	mac=42 AND mbl=NULL	maritime limit boundary - precautionary
DNC	L	FC031	mac=0or9	maritime area - unknown, work in progress
DNC	L	FC130		radar reference line
DNC	A	FC021	mac=0or999	maritime limit boundary - unknown, other

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	FC021	mac=42	maritime limit boundary - precautionary
DNC	A	FC031	mac=0or9	maritime area - unknown, work in progress
DNC	A	FC165	rtt=0	route (maritime) - use unknown
0665	Line	LS(DASH,4,TRFCD)	*traffic magenta thick dash line*	
DNC	L	FC031	mac=40or41	maritime area - TSS
DNC	L	FC041	tsp=2	traffic separation scheme (TSS) - outer boundary
DNC	A	FC165	rtt=11	route (maritime) - 2-way
0680	Line	LS(DOTT,2,CHBLK)	*black thin dotted line*	
DNC	L	FA000	use=32	administrative boundary - insular
DNC	A	BC080		perches/stakes
DNC	A	BD000	hdp=0	underwater danger/hazard - depth unknown
DNC	A	BD000	hdp>0and<=20	underwater danger/hazard - depth 20m or less
DNC	A	BD020	vrr=4 AND hdp=0	crib - submerged;depth unknown
DNC	A	BD020	vrr=4 AND hdp>0and<=20	crib - submerged;depth 20m or less
DNC	A	BD030		discolored water
DNC	A	BD100	vrr=4	pile/piling/post - submerged
DNC	A	BD120	vrr=4 AND hdp>0and<=20	reef - submerged, depth 20m or less
DNC	A	BD120	vrr<>8 AND hdp=0orNULL	reef - not covers and uncovers, depth unknown or null
DNC	A	BD140	vrr=4	snags/stumps - submerged
DNC	A	BD180	vrr=4 AND hdp>0and<=20	wreck - submerged; depth 20m or less
0700	Line	LC(FERYRT01)	*magenta dash very thin line w/ boat shape*	
DNC	L	AQ070	fer=2	ferry crossing - without cables
0701	Line	LC(FERYRT02)	*black dash very thin line w/ boat shape*	
DNC	L	AQ070	fer=1	ferry crossing - with cables
0704	Line	LC(PIPSOL06)	*gray dash very thin line w/ sm cir*	
DNC	L	AQ113	loc<>25 AND pro=116	pipeline/pipe - not above ground or water; water
DNC	L	AQ113	loc<>25 AND pro=95 OR plt=2or3	pipeline/pipe - not above ground or water; sewage, outfall, intake
DNC	L	BH010	loc<>25	aqueduct - not elevated
0705	Line	LC(PIPSOL05)	*magenta dash very thin line w/ cir*	
DNC	L	AQ113	loc<>25 AND pro<>95and<>116 AND plt<>2and<>3	pipeline/pipe - not above ground or water;not sewage or water
0708	Line	LC(CBLSUB06)	*magenta broken zig-zag line w/ flash symbol*	
DNC	L	AT005		cable
0712	Line	LC(FSHFAC02)	*gray L complex line*	
DNC	L	BB100		fish stakes
0713	Line	LC	*magenta compressed zig-zag line*	
DNC	L	BC040		light
0722	Line	LC(RESARE51)	*magenta dashed T line*	
DNC	L	FC036		restricted area
0723	Line	LC(DWRTCL08)	*traffic magenta solid line w/ > and DW*	
DNC	L	FC165	atn=1 AND exs=22 AND rtt=3	route (maritime) - marked;1-way;recomm for deep draft vessels
0724	Line	LC(DWRTCL07)	*traffic magenta dash line w/ > and DW*	
DNC	L	FC165	atn=2 AND exs=22 AND rtt=3	route (maritime) - unmarked;1-way;recomm for deep draft vessels
0725	Line	LC(DWRTCL06)	*traffic magenta solid line w/ < > and DW*	
DNC	L	FC165	atn=1 AND exs=23 AND rtt=3	route (maritime) - marked;2-way;recomm for deep draft vessels
0726	Line	LC(DWRTCL05)	*traffic magenta dash line w/ < > and DW*	
DNC	L	FC165	atn=2 AND exs=23 AND rtt=3	route (maritime) - unmarked;2-way;recomm for deep draft vessels

Product	Delin	FCODE	Attribute Condition	Description
0727	Line	LC(DWLDEF01)		*traffic magenta dash line w/ < ? > and DW*
DNC	L	FC165	exs=0 AND rtt=3	route (maritime) - unknown;recomm for deep draft vessels
0728	Line	LC(RECTRC12)		*gray very thin line w/ >*
DNC	L	FC165	atn=1 AND exs=22 AND rtt<>3	route (maritime) - marked;1-way;not recomm for deep draft vessels
0729	Line	LC(RECTRC11)		*gray very thin dash line w/ >*
DNC	L	FC165	atn=2 AND exs=22 AND rtt<>3	route (maritime) - unmarked;1-way;not recomm for deep draft vessels
0730	Line	LC(RECTRC10)		*gray very thin line w/ < >*
DNC	L	FC165	atn=1 AND exs=23 AND rtt<>3	route (maritime) - marked;2-way;not recomm for deep draft vessels
0731	Line	LC(RECTRC09)		*gray very thin dash line w/ < >*
DNC	L	FC165	atn=2 AND exs=23 AND rtt<>3	route (maritime) - unmarked;2-way;not recomm for deep draft vessels
0732	Line	LC(RECDEF02)		*gray very thin dash line w/ < ? >*
DNC	L	FC165	exs=0 AND rtt<>3	route (maritime) - unknown;not recomm for deep draft vessels
DNC	L	FC170		safety fairway
0733	Point	SY(LOCMAG51)		*lt magenta open flag*
DNC	A	ZC040		magnetic disturbance area
0743	Line	LC(LOWACC21)		*dk gray small open rectangle dash line*
DNC	L	BA010	acc=2 AND slt<>6and<>8	coastline/shoreline - approximate; not mangrove or marsh
0752	Line	LC=LS(DASH,1,CHGRD)+ SY(WATTUR02)		*gray very thin dash line w/ cntred waves*
DNC	L	BD010		breakers
0753	Line	LC=LS(SOLD,5,CHGRD)+ SY(BRIDGE01)		*very thck gray line w/ cntrd magenta dbl cir*
DNC	L	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
0802	Area	AC(CHGRD)		*gray solid fill*
DNC	A	AN060		railroad yard/marshalling yard
0803	Area	AC(DEPIT)		*yellow green solid fill*
DNC	A	BA020		foreshore
DNC	A	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers
DNC	A	BD100	vrr=8	pile/piling/post - covers and uncovers
DNC	A	BD120	vrr=8	reef - covers and uncovers
DNC	A	BD140	vrr=8	snags/stumps - covers and uncovers
DNC	A	BD180	vrr=8 AND hdp=NULL	wreck - covers and uncovers; depth null
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
0804	Area	AC(CHBRN)		*brown solid fill*
DNC	A	AC030		settling basin/sludge pond
DNC	A	AD010		power plant
DNC	A	AD030		substation/tran.yard
DNC	A	AH010		bastion/rampart/fortification
DNC	A	AH050		fortification
DNC	A	AK160		stadium/amphitheater
DNC	A	AL015		building
DNC	A	AL020		built-up area
DNC	A	AL030		cemetery
DNC	A	AM030		grain elevator

Product	Delin	FCODE	Attribute Condition	Description
DNC	A	AM070		tank
DNC	A	AQ116		pumping station
DNC	A	AT020		early warning radar site
DNC	A	BB150		landing place
DNC	A	BB170		offshore loading facility
DNC	A	BD020	vrr=1 AND hdp=NULL	crib - above surface
DNC	A	BD100	vrr=1	pile/piling/post - does not cover
DNC	A	BD140	vrr=1	snags/stumps - does not cover
DNC	A	BD180	vrr=1 AND hdp=NULL	wreck - does not cover; depth null
DNC	A	BI030		lock
DNC	A	GB055		runway
0805	Area	AC(DEPDW)	*depth white fill*	
DNC	A	BE010	idsm=0 AND cvl>=msdcand<>99999	depth area (very deep); 4 shades
DNC	A	BE010	idsm=1 AND cvl>=ssdcand<>99999	depth area (deep water); 2 shades
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
0810	Area	AC(DEPVS)	*depth med blue solid fill*	
DNC	A	BC080		perches/stakes
DNC	A	BD000	hdp=0	underwater danger/hazard - depth unknown
DNC	A	BD020	vrr=4 AND hdp=0	crib - submerged;depth unknown
DNC	A	BD030		discolored water
DNC	A	BD100	vrr=4	pile/piling/post - submerged
DNC	A	BD120	vrr<>8 AND hdp=0orNULL	reef - not covers and uncovers, depth unknown or null
DNC	A	BD140	vrr=4	snags/stumps - submerged
DNC	A	BD180	vrr=0or2 AND hdp=NULL	wreck - unknown; awash; depth null
DNC	A	BD180	vrr=4 AND hdp=0	wreck - submerged; depth unknown
DNC	A	BE010	idsm=0 AND isdm=0 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode off
DNC	A	BE010	idsm=1 AND isdm=1 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode on
DNC	A	BE010	idsm=0 AND isdm=1 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode on
DNC	A	BE010	idsm=1 AND isdm=0 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode off
DNC	A	BH020		canal
DNC	A	BH080		lake/pond
DNC	A	BH130		reservoir
DNC	A	BH140		river/stream
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
0820	Area	AC(DEPMD)	*depth pale blue solid fill*	
DNC	A	BE010	idsm=0 AND cvl>=ssdcand<msdc	depth area (medium deep); 4 shades
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
0821	Area	AC(DEPMS)	*depth lt blue solid fill*	
DNC	A	BA040		water (except inland)
DNC	A	BE010	idsm=0 AND isdm=0 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode off
DNC	A	BE010	idsm=0 AND isdm=1 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on

Product	Delin	FCODE	Attribute Condition	Description
0822	Area	AC(LANDA)	*lt brown solid fill*	
DNC	A	AB000		disposal site/waste pile
DNC	A	AB010		wrecking yard/scrap yard
DNC	A	AK040		athletic field
DNC	A	AK090		fairgrounds
DNC	A	AK100		golf course
DNC	A	AK120		park
DNC	A	AK180		zoo/safari park
DNC	A	AL200		ruins
DNC	A	BA030		island
DNC	A	BB090		drydock
DNC	A	BJ110		tundra
DNC	A	DA010		ground surface element
DNC	A	DB180		volcano
DNC	A	GB005		airport/airfield
0823	Area	AC(NODTA)	*no data gray solid fill*	
DNC	A	BE010	cvl=99999	depth area; depth unknown
DNC	A	BJ030		glacier
DNC	A	BJ065		ice shelf
DNC	A	BJ100		snow field/ice field
DNC	A	FC021	mac=26	maritime limit boundary - unsurveyed
0824	Area	AC(TRFCF,3)	*traffic lt magenta solid fill*	
DNC	A	FC041	tsp=3	traffic separation scheme (TSS) - separation zone area
0902	Point	SY(ACHARE51)	*lt magenta anchor*	
DNC	A	BB010	mac<>12	anchorage - not anchoring berth
0903	Area	AP(FSHFAC04)	*gray fish trap patt fill*	
DNC	A	BB110		fish traps/fish weirs
DNC	A	FC021	mac=56	maritime limit boundary - fish traps
0904	Area	AP(MARCUL02)	*gray fish in net patt fill*	
DNC	A	BB180		oyster bed/mussel bed
DNC	A	BH050		fish hatchery/fish farm/marine farm
DNC	A	FC021	mac=57	maritime limit boundary - marine farm
0910	Area	AP(MARSHES1)	*brown marsh patt fill*	
DNC	A	BH095		marsh/swamp
0911	Area	AP	*depth med blue grid patt fill*	
DNC	A	BH155		salt evaporator
0912	Area	AP(ICEARE04)	*gray random line patt fill*	
DNC	A	BJ030		glacier
DNC	A	BJ065		ice shelf
DNC	A	BJ100		snow field/ice field
0913	Area	AP	*feature brown solid filled circle patt fill*	
DNC	A	DB090		embankment/fill
DNC	A	DB170		sand dune/sand hills
0914	Area	AP	*feature brown cirs patt fill*	
DNC	A	EA030		nursery
0915	Area	AP(VEGATN03)	*feature brown tree side-view patt fill*	
DNC	A	EA040		orchard/plantation
DNC	A	EA050		vineyards
DNC	A	EC030	veg<>19	trees - not mangrove

Product	Delin	FCODE	Attribute Condition	Description
0916	Area	AP(VEGATN04)	*feature brown mangrove side-view patt fill*	
DNC	A	EC030	veg=19	trees - mangrove
0919	Area	AP(DRGARE01)	*gray diag spaced dot patt fill*	
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
0932	Area	AP(AIRARE02)	*feature brown airplane patt fill*	
DNC	A	GB005		airport/airfield
0933	Area	AP(NODATA03)	*gray offset dash patt fill*	
DNC	A	FC021	mac=26	maritime limit boundary - unsurveyed
0934	Area	AP(PRTSUR01)	*gray dash wide patt fill*	
DNC	A	BE010	cvl=99999	depth area; depth unknown
0949	Area	AP(DIAMOND1)	*depth gray diamond patt fill*	
DNC	A	BA020	isdm=1	foreshore - shallow mode display on
DNC	A	BD120	vrr=8 AND isdm=1	reef - covers and uncovers, shallow display mode on
DNC	A	BE010	idsm=1 AND isdm=1 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode on
DNC	A	BE010	idsm=0 AND isdm=1 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode on
DNC	A	BE010	idsm=0 AND isdm=1 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode on
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
1220	Point	SY(RCTLPT52)	*traffic magenta dashed open arrow*	
DNC	P	FC165	dof<>0	route (maritime) - direction known
1233	Point	SY	*black horiz line below triangle w/ B inside*	
DNC	P	BF010	mcc=0 AND psc=0	bottom characteristics - surface unknown
1236	Point	SY(ITZARE51)	*lt magenta IT*	
DNC	A	FC031	mac=41	maritime area - inshore traffic zone (TSS)
1238	Point	SY(DWRTPT51)+ SY(TSLDEF51)	*traffic lt mag DW filled arrow btwn 2 mgnta ?*	
DNC	A	FC165	rtt=4	route (maritime) - deep water
1251	Point	SY(SOUND*C2)	*sounding gray circle*	
DNC	P	BE020	acc<>1	sounding or drying height - circle (light) indicating low accuracy

Product	Delin	FCODE	Attribute Condition	Description
1256	Point	SY(SOUNDSA1)	*sounding black overbar*	
DNC	P	BE020	hdh>=0 AND hdp=NULL	drying height overbar (dark)
1310	Line	LC	*black one long dash two short dash line*	
DNC	L	FA000	use=23	administrative boundary - international
DNC	L	FA060		defacto boundary
1573	Line	LS(SOLD,1,CSTLN)	*dk gray very thin solid line*	
DNC	L	BA010	acc=1 AND slt<>6and<>8	coastline/shoreline - accurate; not mangrove or marsh
DNC	A	BB090		drydock
1651	Line	LS(DASH,2,TRFCF)	*traffic lt magenta thin dash line*	
DNC	L	FC021	mac=48 AND mbl=NULL	maritime limit boundary - pilot boarding
DNC	A	FC021	mac=48	maritime limit boundary - pilot boarding
2036	Point	SY	*black sm filled square*	
DNC	P	AL015	bfc<>7and<>81	building - not house of worship,not maritime station
2102	Point	SY(DSHAER11)	*black satellite dish symbol*	
DNC	P	AT010		disk/dish
3000	Line	LS(DASH,2,CHMGF)	*lt magenta thin dash line*	
DNC	L	BB010	mac<>12	anchorage - not anchoring berth
DNC	L	BB010	mac=12	anchorage - anchoring berth
DNC	A	BB010	mac<>12	anchorage - not anchoring berth
DNC	A	BB010	mac=12	anchorage - anchoring berth
3077	Line	LS(DASH,1,CHGRF)	*lt gray very thin dash line*	
DNC	L	FC021	mbl=7 AND mac=NULL	maritime limit boundary - territorial waters baseline
DNC	L	FC031	mac=2	maritime area - dredged channel
DNC	A	BD060		kelp/seaweed
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
DNC	A	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
DNC	A	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
3082	Line	LS(SOLD,1,CHGRD)	*gray very thin solid line*	
DNC	L	DB090		embankment/fill
3116	Line	LS(DASH,1,CHBLK)	*black very thin dash line*	
DNC	A	BC060		light sector
3117	Line	LS(DASH,2,CHBLK)	*black thin dash line*	
DNC	A	BD180	vrr=4 AND hdp>20	wreck - submerged; depth greater than 20m
3119	Line	LS(L-DASH,1,CHBLK)	*black very thin long dash line*	
DNC	L	FA020		armistice line
DNC	L	FA110		international date line

Product	Delin	FCODE	Attribute Condition	Description
3120	Line	LS(L-DASH,2,CHBLK)	*black thin long dash line*	
DNC	L	FA040		claim line
4078	Area	AP	*basic blue inundation area patt fill*	
DNC	A	BH090		land subject to inundation
4186	Line	LS(DASH,2,CHMGD)	*magenta thin dash line*	
DNC	L	FC021	mac=24 AND mbl=NULL	maritime limit boundary - turning area
DNC	L	FC021	mac=58 AND mbl=NULL	maritime limit boundary - dredging
DNC	L	FC021	mac=44 AND mbl=NULL	maritime limit boundary - deguassing
DNC	L	FC021	mac=32or33 AND mbl=NULL	maritime limit boundary - oil field, gas field
DNC	L	FC021	mac=27or28or29 AND mbl=NULL	maritime limit boundary - submarine exercise, mine laying, firing range
DNC	L	FC031	mac=4	maritime area - mine danger
DNC	L	FC031	mac=5	maritime area - entry prohibited
DNC	A	AL005		animal sanctuary
DNC	A	FC021	mac=32or33	maritime limit boundary - oil field, gas field
DNC	A	FC021	mac=44	maritime limit boundary - deguassing
DNC	A	FC021	mac=27or28or29	maritime limit boundary - submarine exercise, mine laying, firing range
DNC	A	FC021	mac=24	maritime limit boundary - turning area
DNC	A	FC021	mac=58	maritime limit boundary - dredging area
DNC	A	FC031	mac=5	maritime area - entry prohibited
DNC	A	FC031	mac=4	maritime area - mine danger
DNC	A	FC036	mac=15	restricted area - anchoring prohibited
DNC	A	FC036	mac=20	restricted area - cables
DNC	A	FC036	mac=21or23or61	restricted area - pipelines, sewer
DNC	A	FC036	mac=22	restricted area - fishing prohibited
DNC	A	FC036	mac=37	restricted area - safety zone
DNC	A	FC036	mac=43	restricted area - area to be avoided
DNC	A	FC036	mac=0or999	restricted area - to be avoided, other

PRODUCT SYMBOLIZATION REFERENCE

E.1 SCOPE

E.1.1 Scope. This appendix provides a product-based symbolization reference showing the symbol(s) used to symbolize each feature in that product. It is a mandatory part of the specification. The information contained herein is intended for compliance.

E.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

E.3 PRODUCT SYMBOLIZATION REFERENCE

This appendix is organized by VPF product and sorted by fcode/delineation. The assigned full chart symbology for that fcode/delineation is presented textually in a single row. For those products that also have simplified symbology, there will be an additional row of symbology identified.

Product Symbolization Reference

DNC

Point Symbology	Line Symbology	Area Symbology

AA010 AA010

Area

mine/quarry

Full Chart Symbology:
0027 feature brown mine symbol inside circle 0624 feature brown very thin dash line

Simplified Symbology:
0027 feature brown mine symbol inside circle 0624 feature brown very thin dash line

Point

mine/quarry

Full Chart Symbology:
0001 feature brown mine symbol

Simplified Symbology:
0001 feature brown mine symbol

AB000 AB000

Area

disposal site/waste pile

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

AB010 AB010

Area

wrecking yard/scrap yard

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

AC000 AC000

Area

processing plant/treatment plant

Full Chart Symbology:
0624 feature brown very thin dash line

Simplified Symbology:
0624 feature brown very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

AC030 AC030

Area

settling basin/sludge pond

Full Chart Symbology:

0600 black very thin solid line — 4077 depth med blue narrow rt diag line patt fill

Simplified Symbology:

0600 black very thin solid line — 0804 brown solid fill

AD010 AD010

Area

power plant

Full Chart Symbology:

0600 black very thin solid line — 0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line — 0804 brown solid fill

AD030 AD030

Area

substation/tran.yard

Full Chart Symbology:

0600 black very thin solid line — 0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line — 0804 brown solid fill

Point

substation/tran.yard

Full Chart Symbology:

0002 feature brown filled square w/ black outline

Simplified Symbology:

0002 feature brown filled square w/ black outline

AF010 AF010

Point

chimney/smokestack

Full Chart Symbology:

0003 black chimney symbol

Simplified Symbology:

0003 black chimney symbol

DNC

Point Symbology	Line Symbology	Area Symbology

AF030 AF030

Point

cooling tower

Full Chart Symbology:
0004 black tower symbol

Simplified Symbology:
0004 black tower symbol

AF040 AF040

Point

crane

Full Chart Symbology:
0005 feature brown crane symbol

Simplified Symbology:
0005 feature brown crane symbol

AF070 AF070

Point

flare pipe

Full Chart Symbology:
0006 black flare stack symbol

Simplified Symbology:
0006 black flare stack symbol

AH010 AH010

Area

bastion/rampart/fortification

Full Chart Symbology:

0600 black very thin solid line	0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line	0804 brown solid fill

Point

bastion/rampart/fortification

Full Chart Symbology:
0007 black square

Simplified Symbology:
0007 black square

DNC

Point Symbology	Line Symbology	Area Symbology

AH050 AH050

Area

fortification

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line 0804 brown solid fill

Point

fortification

Full Chart Symbology:

0007 black square

Simplified Symbology:

0007 black square

AJ050 AJ050

Point

windmill

Full Chart Symbology:

0008 black sm cir w/ X on top

Simplified Symbology:

0008 black sm cir w/ X on top

AK020 AK020

Line

amusement park attraction

Full Chart Symbology:

0600 black very thin solid line

Simplified Symbology:

0600 black very thin solid line

Point

amusement park attraction

Full Chart Symbology:

0024 black dot inside cir

Simplified Symbology:

0024 black dot inside cir

DNC

Point Symbology	Line Symbology	Area Symbology

AK040 AK040

Area

athletic field

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

AK080 AK080

Point

drive in theater screen

Full Chart Symbology:
0024 black dot inside cir

Simplified Symbology:
0024 black dot inside cir

AK090 AK090

Area

fairgrounds

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

AK100 AK100

Area

golf course

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

AK120 AK120

Area

park

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

DNC

Point Symbology	Line Symbology	Area Symbology

AK130 AK130

Line

race track

Full Chart Symbology:

0605 feature brown thin solid line

Simplified Symbology:

0605 feature brown thin solid line

AK160 AK160

Area

stadium/amphitheater

Full Chart Symbology:

0600 black very thin solid line
0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line
0804 brown solid fill

Point

stadium/amphitheater

Full Chart Symbology:

0002 feature brown filled square w/ black outline

Simplified Symbology:

0002 feature brown filled square w/ black outline

AK180 AK180

Area

zoo/safari park

Full Chart Symbology:

0822 lt brown solid fill

Simplified Symbology:

0822 lt brown solid fill

AL005 AL005

Area

animal sanctuary

Full Chart Symbology:

0081 lt magenta square w/ l
0734 magenta dash/chevron line

Simplified Symbology:

0081 lt magenta square w/ l
4186 magenta thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology
AL015		**AL015**

Area

building

Full Chart Symbology:

0600 black very thin solid line — 0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line — 0804 brown solid fill

Point

building - house of worship — bfc=7 AND hwt=0or2or3or4or7or22

Full Chart Symbology:

0010 black 'iron cross'

Simplified Symbology:

0010 black 'iron cross'

building - house of worship — bfc=7 AND hwt=11or14or15or16or20or21

Full Chart Symbology:

0011 black X inscribed in rectangle

Simplified Symbology:

0011 black X inscribed in rectangle

building - house of worship — bfc=7 AND hwt=5or6or9

Full Chart Symbology:

0012 black mosque/minaret w/ dot in circle

Simplified Symbology:

0012 black mosque/minaret w/ dot in circle

building - maritime station (not rescue), sound signal — bfc=81 AND sta<>5 AND sst<>16

Full Chart Symbology:

0402 lt magenta arcs origin offset for buoys

Simplified Symbology:

0402 lt magenta arcs origin offset for buoys

building - maritime station (rescue), sound signal — bfc=81 AND sta=5 AND sst<>16

Full Chart Symbology:

0401 lt magenta arcs origin offset for beacons

Simplified Symbology:

0401 lt magenta arcs origin offset for beacons

DNC

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

building - maritime station — **bfc=81 AND sta<>0and<>1and<>2and<>3and<>5and<>6and<>11**

Full Chart Symbology:
0015 lt magenta SS in rectangle w/ pale green fill

Simplified Symbology:
0015 lt magenta SS in rectangle w/ pale green fill

building - maritime station — **bfc=81 AND sta=0or2or3or6or11**

Full Chart Symbology:
0002 feature brown filled square w/ black outline

Simplified Symbology:
0002 feature brown filled square w/ black outline

building - maritime station — **bfc=81 AND sta=1**

Full Chart Symbology:
0013 lt magenta CG in rectangle w/ pale green fill

Simplified Symbology:
0013 lt magenta CG in rectangle w/ pale green fill

building - maritime station — **bfc=81 AND sta=5**

Full Chart Symbology:
0014 black filled diamond cntred on horizontal line

Simplified Symbology:
0014 black filled diamond cntred on horizontal line

building - not house of worship,not maritime station — **bfc<>7and<>81**

Full Chart Symbology:
2036 black sm filled square

Simplified Symbology:
2036 black sm filled square

building - not maritime station, light flare — **bfc<>81 AND col<>"UNK"**

Full Chart Symbology:
0500 magenta flare

Simplified Symbology:
0500 magenta flare

DNC

Point Symbology	Line Symbology	Area Symbology

AL018 AL018

Point

building superstructure addition

Full Chart Symbology:
0002 feature brown filled square w/ black outline

Simplified Symbology:
0002 feature brown filled square w/ black outline

AL020 AL020

Area

built-up area

Full Chart Symbology:
0604 feature brown very thin solid line
0804 brown solid fill

Simplified Symbology:
0604 feature brown very thin solid line
0804 brown solid fill

Point

built-up area

Full Chart Symbology:
0016 feature brown filled cir

Simplified Symbology:
0016 feature brown filled cir

AL025 AL025

Point

cairn

Full Chart Symbology:
0017 black three stacked sm cirs

Simplified Symbology:
0017 black three stacked sm cirs

AL030 AL030

Area

cemetery

Full Chart Symbology:
0600 black very thin solid line
0804 brown solid fill

Simplified Symbology:
0600 black very thin solid line
0804 brown solid fill

DNC

Point Symbology	Line Symbology	Area Symbology

AL050 AL050

Point

display sign

Full Chart Symbology:
0018 black rectange above inverted T

Simplified Symbology:
0018 black rectange above inverted T

AL070 AL070

Line

fence

Full Chart Symbology:
0600 black very thin solid line

Simplified Symbology:
0600 black very thin solid line

AL073 AL073

Point

flagstaff/flagpole

Full Chart Symbology:
0019 feature brown flag symbol

Simplified Symbology:
0019 feature brown flag symbol

AL130 AL130

Point

monument

Full Chart Symbology:
0020 black hatched trapazoid

Simplified Symbology:
0020 black hatched trapazoid

DNC

Point Symbology	Line Symbology	Area Symbology

AL200 AL200

Area

ruins

Full Chart Symbology:

0822 lt brown solid fill

Simplified Symbology:

0822 lt brown solid fill

Point

ruins

Full Chart Symbology:

0002 feature brown filled square w/ black outline

Simplified Symbology:

0002 feature brown filled square w/ black outline

AL240 AL240

Point

tower (non-communication)

Full Chart Symbology:

0004 black tower symbol

Simplified Symbology:

0004 black tower symbol

tower - light flare col<>"UNK"

Full Chart Symbology:

0500 magenta flare

Simplified Symbology:

0500 magenta flare

AL260 AL260

Line

wall

Full Chart Symbology:

0600 black very thin solid line

Simplified Symbology:

0600 black very thin solid line

DNC

Point Symbology	Line Symbology	Area Symbology

AM010 AM010

Area

depot (storage)

Full Chart Symbology:

0624 feature brown very thin dash line

Simplified Symbology:

0624 feature brown very thin dash line

AM020 AM020

Point

grain bin/silo

Full Chart Symbology:

0021 feature brown filled cir w/ black outline

Simplified Symbology:

0021 feature brown filled cir w/ black outline

AM030 AM030

Area

grain elevator

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line 0804 brown solid fill

Point

grain elevator

Full Chart Symbology:

0004 black tower symbol

Simplified Symbology:

0004 black tower symbol

AM040 AM040

Area

mineral pile

Full Chart Symbology:

0624 feature brown very thin dash line

Simplified Symbology:

0624 feature brown very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

AM070 AM070

Area

tank

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line 0804 brown solid fill

Point

tank

Full Chart Symbology:

0022 black cir

Simplified Symbology:

0022 black cir

tank - light flare col<>"UNK"

Full Chart Symbology:

0500 magenta flare

Simplified Symbology:

0500 magenta flare

AM080 AM080

Point

water tower

Full Chart Symbology:

0023 black water tower symbol

Simplified Symbology:

0023 black water tower symbol

AN010 AN010

Line

railroad

Full Chart Symbology:

0605 feature brown thin solid line

Simplified Symbology:

0605 feature brown thin solid line

DNC

Point Symbology	Line Symbology	Area Symbology

AN060 AN060

Area

railroad yard/marshalling yard

Full Chart Symbology:
0802 gray solid fill

Simplified Symbology:
0802 gray solid fill

AP020 AP020

Line

interchange

Full Chart Symbology:
0605 feature brown thin solid line

Simplified Symbology:
0605 feature brown thin solid line

AP030 AP030

Line

road

Full Chart Symbology:
0605 feature brown thin solid line

Simplified Symbology:
0605 feature brown thin solid line

AQ010 AQ010

Line

aerial cableway lines/ski lift lines

Full Chart Symbology:
0657 gray thick dash line

Simplified Symbology:
0657 gray thick dash line

AQ020 AQ020

Point

aerial cableway pylon/ski pylon

Full Chart Symbology:
0024 black dot inside cir

Simplified Symbology:
0024 black dot inside cir

DNC

Point Symbology	Line Symbology	Area Symbology

AQ040 AQ040

Area

bridge/overpass/viaduct **bsc<>12 AND bot<>4and<>10and<>11**

Full Chart Symbology:
0611 gray thick solid line

Simplified Symbology:
0611 gray thick solid line

bridge/overpass/viaduct **bsc=12 OR bot=4or10or11**

Full Chart Symbology:
0046 magenta small circle inside circle
0611 gray thick solid line

Simplified Symbology:
0046 magenta small circle inside circle
0611 gray thick solid line

Line

bridge/overpass/viaduct **bsc<>12 AND bot<>4and<>10and<>11**

Full Chart Symbology:
0627 gray very thick solid line

Simplified Symbology:
0627 gray very thick solid line

bridge/overpass/viaduct **bsc=12 OR bot=4or10or11**

Full Chart Symbology:
0753 very thck gray line w/ cntrd magenta dbl cir

Simplified Symbology:
0753 very thck gray line w/ cntrd magenta dbl cir

DNC

Point Symbology	Line Symbology	Area Symbology

AQ045 AQ045

Area

bridge span

Full Chart Symbology:
0611 gray thick solid line

Simplified Symbology:
0611 gray thick solid line

Line

bridge span

Full Chart Symbology:
0627 gray very thick solid line

Simplified Symbology:
0627 gray very thick solid line

AQ060 AQ060

Point

control tower

Full Chart Symbology:
0004 black tower symbol

Simplified Symbology:
0004 black tower symbol

AQ070 AQ070

Line

ferry crossing - with cables **fer=1**

Full Chart Symbology:
0701 black dash very thin line w/ boat shape

Simplified Symbology:
0701 black dash very thin line w/ boat shape

ferry crossing - without cables **fer=2**

Full Chart Symbology:
0700 magenta dash very thin line w/ boat shape

Simplified Symbology:
0700 magenta dash very thin line w/ boat shape

DNC

Point Symbology	Line Symbology	Area Symbology

AQ080 AQ080

Point

ferry site

Full Chart Symbology:
0096 magenta square w/ i

Simplified Symbology:
0096 magenta square w/ i

AQ110 AQ110

Point

mooring mast

Full Chart Symbology:
0026 black tall slender triangle w/ cir at bottom

Simplified Symbology:
0026 black tall slender triangle w/ cir at bottom

DNC

Point Symbology	Line Symbology	Area Symbology

AQ113 AQ113

Line

pipeline/pipe - above ground or water **loc=25**

Full Chart Symbology:
0610 gray solid line

Simplified Symbology:
0610 gray solid line

pipeline/pipe - not above ground or water; sewage, outfall, intake **loc<>25 AND pro=95 OR plt=2or3**

Full Chart Symbology:
0704 gray dash very thin line w/ sm cir

Simplified Symbology:
0704 gray dash very thin line w/ sm cir

pipeline/pipe - not above ground or water; water **loc<>25 AND pro=116**

Full Chart Symbology:
0704 gray dash very thin line w/ sm cir

Simplified Symbology:
0704 gray dash very thin line w/ sm cir

pipeline/pipe - not above ground or water;not sewage or water **loc<>25 AND pro<>95and<>116 AND plt<>2and<>3**

Full Chart Symbology:
0705 magenta dash very thin line w/ cir

Simplified Symbology:
0705 magenta dash very thin line w/ cir

DNC

Point Symbology	Line Symbology	Area Symbology

AQ116 AQ116

Area

pumping station

Full Chart Symbology:

0600 black very thin solid line

0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line

0804 brown solid fill

Point

pumping station

Full Chart Symbology:

0002 feature brown filled square w/ black outline

Simplified Symbology:

0002 feature brown filled square w/ black outline

AQ130 AQ130

Line

tunnel

Full Chart Symbology:

0656 gray very thin dash line

Simplified Symbology:

0656 gray very thin dash line

AT005 AT005

Line

cable

Full Chart Symbology:

0708 magenta broken zig-zag line w/ flash symbol

Simplified Symbology:

0708 magenta broken zig-zag line w/ flash symbol

DNC

Point Symbology	Line Symbology	Area Symbology

AT010 AT010

Point

disk/dish

Full Chart Symbology:
2102 black satellite dish symbol

Simplified Symbology:
2102 black satellite dish symbol

AT020 AT020

Area

early warning radar site

Full Chart Symbology:

0600 black very thin solid line	0804 brown solid fill

Simplified Symbology:

0600 black very thin solid line	0804 brown solid fill

AT030 AT030

Line

power transmission line

Full Chart Symbology:
0657 gray thick dash line

Simplified Symbology:
0657 gray thick dash line

AT040 AT040

Point

power transmission pylon

Full Chart Symbology:
0024 black dot inside cir

Simplified Symbology:
0024 black dot inside cir

DNC

Point Symbology	Line Symbology	Area Symbology

AT045 AT045

Point

radar transmitter - dome **ssc=87**

Full Chart Symbology:
0028 black dome inside lg magenta circle

Simplified Symbology:
0028 black dome inside lg magenta circle

radar transmitter - mast **ssc=60**

Full Chart Symbology:
0030 black triangle w/ in lg magenta cir

Simplified Symbology:
0030 black triangle w/ in lg magenta cir

radar transmitter - other, unknown **ssc=0or999**

Full Chart Symbology:
0511 lg magenta cir

Simplified Symbology:
0511 lg magenta cir

radar transmitter - scanner **ssc=108**

Full Chart Symbology:
0029 black rectangle below T in lg magenta cir

Simplified Symbology:
0029 black rectangle below T in lg magenta cir

radar transmitter - tower **ssc=107**

Full Chart Symbology:
0031 black tower inside lg magenta cir

Simplified Symbology:
0031 black tower inside lg magenta cir

AT050 AT050

Point

communication building

Full Chart Symbology:
0033 feature brown fill sqr black otln in lg mgnta cir

Simplified Symbology:
0033 feature brown fill sqr black otln in lg mgnta cir

DNC

Point Symbology | Line Symbology | Area Symbology

AT060 AT060

Line

telephone line/telegraph line

Full Chart Symbology:
0657 gray thick dash line

Simplified Symbology:
0657 gray thick dash line

AT080 AT080

Point

communication tower

Full Chart Symbology:
0004 black tower symbol

Simplified Symbology:
0004 black tower symbol

communication tower - light flare **col<>"UNK"**

Full Chart Symbology:
0500 magenta flare

Simplified Symbology:
0500 magenta flare

BA010 BA010

Line

coastline/shoreline - accurate; not mangrove or marsh **acc=1 AND slt<>6and<>8**

Full Chart Symbology:
1573 dk gray very thin solid line

Simplified Symbology:
1573 dk gray very thin solid line

coastline/shoreline - approximate; not mangrove or marsh **acc=2 AND slt<>6and<>8**

Full Chart Symbology:
0743 dk gray small open rectangle dash line

Simplified Symbology:
0743 dk gray small open rectangle dash line

coastline/shoreline - mangrove, marsh **slt=6or8**

Full Chart Symbology:
0632 dk gray very thin dash line

Simplified Symbology:
0632 dk gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

BA020 BA020

Area

foreshore

Full Chart Symbology:
0803 yellow green solid fill

Simplified Symbology:
0803 yellow green solid fill

foreshore - shallow mode display on isdm=1

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

Line

foreshore

Full Chart Symbology:
0608 depth gray very thin solid line

Simplified Symbology:
0608 depth gray very thin solid line

Point

foreshore

Full Chart Symbology:
0150 yellow-green filled sm cir w/ gray outline

Simplified Symbology:
0150 yellow-green filled sm cir w/ gray outline

DNC

Point Symbology	Line Symbology	Area Symbology

BA030 BA030

Area

island

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

Point

island

Full Chart Symbology:
0035 lt brown sm filled cir w/ gray outline

Simplified Symbology:
0035 lt brown sm filled cir w/ gray outline

BA040 BA040

Area

water (except inland)

Full Chart Symbology:
0821 depth lt blue solid fill

Simplified Symbology:
0821 depth lt blue solid fill

DNC

Point Symbology	Line Symbology	Area Symbology

BB010 BB010

Area

anchorage - anchoring berth **mac=12**

Full Chart Symbology:
0037 magenta anchor w/ sm cir on shaft
3000 lt magenta thin dash line

Simplified Symbology:
0037 magenta anchor w/ sm cir on shaft
3000 lt magenta thin dash line

anchorage - not anchoring berth **mac<>12**

Full Chart Symbology:
0902 lt magenta anchor
0711 magenta dash/chevron line w/anchor symbol

Simplified Symbology:
0902 lt magenta anchor
3000 lt magenta thin dash line

Line

anchorage - anchoring berth **mac=12**

Full Chart Symbology:
3000 lt magenta thin dash line

Simplified Symbology:
3000 lt magenta thin dash line

anchorage - not anchoring berth **mac<>12**

Full Chart Symbology:
0711 magenta dash/chevron line w/anchor symbol

Simplified Symbology:
3000 lt magenta thin dash line

Point

anchorage - anchoring berth **mac=12**

Full Chart Symbology:
0037 magenta anchor w/ sm cir on shaft

Simplified Symbology:
0037 magenta anchor w/ sm cir on shaft

anchorage - not anchoring berth **mac<>12**

Full Chart Symbology:
0036 magenta anchor

Simplified Symbology:
0036 magenta anchor

DNC

Point Symbology	Line Symbology	Area Symbology

BB020 BB020

Point

berth

Full Chart Symbology:
0032 magenta circle

Simplified Symbology:
0032 magenta circle

BB030 BB030

Point

bollard

Full Chart Symbology:
0051 black filled sm cir

Simplified Symbology:
0051 black filled sm cir

DNC

Point Symbology	Line Symbology	Area Symbology
BB040		**BB040**

Area

breakwater/groyne - partly submerged at high water **vrr=1**

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

breakwater/groyne - submerged, covers and uncovers **vrr=4or8**

Full Chart Symbology:
0626 dk gray thin dash line

Simplified Symbology:
0626 dk gray thin dash line

Line

breakwater/groyne - partly submerged at high water **vrr=1**

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

breakwater/groyne - submerged, covers and uncovers **vrr=4or8**

Full Chart Symbology:
0626 dk gray thin dash line

Simplified Symbology:
0626 dk gray thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

BB050 BB050

Point

calling-in point - direction of traffic unknown **df1=0**

Full Chart Symbology:
0041 magenta cir w/ 2 cones and 2 ?

Simplified Symbology:
0041 magenta cir w/ 2 cones and 2 ?

calling-in point - more than two-way traffic, 1st direction **df3<>0**

Full Chart Symbology:
0039 traffic magenta cir w/ 1 cone

Simplified Symbology:
0039 traffic magenta cir w/ 1 cone

calling-in point - more than two-way traffic, 2nd direction **df3<>0**

Full Chart Symbology:
0039 traffic magenta cir w/ 1 cone

Simplified Symbology:
0039 traffic magenta cir w/ 1 cone

calling-in point - more than two-way traffic, 3rd direction **df3<>0**

Full Chart Symbology:
0039 traffic magenta cir w/ 1 cone

Simplified Symbology:
0039 traffic magenta cir w/ 1 cone

calling-in point - more than two-way traffic, 4th direction **df4<>0**

Full Chart Symbology:
0039 traffic magenta cir w/ 1 cone

Simplified Symbology:
0039 traffic magenta cir w/ 1 cone

calling-in point - one way traffic **df1<>0 AND df2=0**

Full Chart Symbology:
0039 traffic magenta cir w/ 1 cone

Simplified Symbology:
0039 traffic magenta cir w/ 1 cone

calling-in point - two way traffic **df2<>0 AND df3=0**

Full Chart Symbology:
0040 traffic magenta cir w/ 2 cones

Simplified Symbology:
0040 traffic magenta cir w/ 2 cones

DNC

Point Symbology	Line Symbology	Area Symbology

BB080 BB080

Point

dolphin

Full Chart Symbology:
0038 lt brown filled square w/ black outline

Simplified Symbology:
0038 lt brown filled square w/ black outline

BB090 BB090

Area

drydock

Full Chart Symbology:
1573 dk gray very thin solid line
0822 lt brown solid fill

Simplified Symbology:
1573 dk gray very thin solid line
0822 lt brown solid fill

BB100 BB100

Line

fish stakes

Full Chart Symbology:
0712 gray L complex line

Simplified Symbology:
0712 gray L complex line

BB105 BB105

Point

fishing harbor

Full Chart Symbology:
0042 magenta fish w/ arcs above and below

Simplified Symbology:
0042 magenta fish w/ arcs above and below

BB110 BB110

Area

fish traps/fish weirs

Full Chart Symbology:
0047 gray rectangle w/ angle line on top
0716 gray dash/chevron line

Simplified Symbology:
0656 gray very thin dash line
0903 gray fish trap patt fill

DNC

Point Symbology	Line Symbology	Area Symbology

BB115 BB115

Area

gridiron

Full Chart Symbology:
0656 gray very thin dash line

Simplified Symbology:
0656 gray very thin dash line

BB140 BB140

Area

jetty - partly submerged at high water **vrr=1**

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

jetty - submerged, covers and uncovers **vrr=4or8**

Full Chart Symbology:
0626 dk gray thin dash line

Simplified Symbology:
0626 dk gray thin dash line

Line

jetty - partly submerged at high water **vrr=1**

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

jetty - submerged, covers and uncovers **vrr=4or8**

Full Chart Symbology:
0626 dk gray thin dash line

Simplified Symbology:
0626 dk gray thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

BB150 BB150

Area

landing place

Full Chart Symbology:

0043 magenta yacht inside lg cir	0604 feature brown very thin solid line	0804 brown solid fill

Simplified Symbology:

0043 magenta yacht inside lg cir	0604 feature brown very thin solid line	0804 brown solid fill

Point

landing place

Full Chart Symbology:

0043 magenta yacht inside lg cir

Simplified Symbology:

0043 magenta yacht inside lg cir

BB160 BB160

Point

mooring ring

Full Chart Symbology:

0038 lt brown filled square w/ black outline

Simplified Symbology:

0038 lt brown filled square w/ black outline

DNC

Point Symbology	Line Symbology	Area Symbology
BB170		**BB170**

Area

offshore loading facility

Full Chart Symbology:

0625 dk gray thick solid line 0804 brown solid fill

Simplified Symbology:

0625 dk gray thick solid line 0804 brown solid fill

Line

offshore loading facility

Full Chart Symbology:

0625 dk gray thick solid line

Simplified Symbology:

0625 dk gray thick solid line

Point

offshore loading facility

Full Chart Symbology:

0044 black installation buoy

Simplified Symbology:

0311 black mooring/installation buoy

offshore loading facility - light cha=21

Full Chart Symbology:

0500 magenta flare

Simplified Symbology:

0500 magenta flare

DNC

Point Symbology	Line Symbology	Area Symbology

BB180 BB180

Area

oyster bed/mussel bed

Full Chart Symbology:

0716 gray dash/chevron line 0904 gray fish in net patt fill

Simplified Symbology:

0656 gray very thin dash line 0904 gray fish in net patt fill

Point

oyster bed/mussel bed

Full Chart Symbology:

0045 gray fish inside net

Simplified Symbology:

0045 gray fish inside net

BB190 BB190

Area

pier/wharf/quay

Full Chart Symbology:

0625 dk gray thick solid line

Simplified Symbology:

0625 dk gray thick solid line

Line

pier/wharf/quay

Full Chart Symbology:

0625 dk gray thick solid line

Simplified Symbology:

0625 dk gray thick solid line

DNC

Point Symbology	Line Symbology	Area Symbology

BB220 BB220

Area

ramp (maritime) - partly submerged at high water **vrr=1**

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

ramp (maritime) - submerged, covers and uncovers **vrr=4or8**

Full Chart Symbology:
0626 dk gray thin dash line

Simplified Symbology:
0626 dk gray thin dash line

Line

ramp (maritime) - partly submerged at high water **vrr=1**

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

ramp (maritime) - submerged, covers and uncovers **vrr=4or8**

Full Chart Symbology:
0626 dk gray thin dash line

Simplified Symbology:
0626 dk gray thin dash line

BB230 BB230

Line

seawall

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

DNC

Point Symbology	Line Symbology	Area Symbology
BB240		**BB240**

Line

slipway/patent slip - partly submerged at high water **vrr=1**

Full Chart Symbology:

0623 dk gray thin solid line

Simplified Symbology:

0623 dk gray thin solid line

slipway/patent slip - submerged, covers and uncovers **vrr=4or8**

Full Chart Symbology:

0626 dk gray thin dash line

Simplified Symbology:

0626 dk gray thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

BC010 BC010

Point

beacon - 1 cone down **tmc=22**

Full Chart Symbology:
0124 black topmark one cone down

beacon - 1 cone up **tmc=16or21**

Full Chart Symbology:
0122 black topmark one cone up

beacon - 2 balls **tmc=2**

Full Chart Symbology:
0132 black topmark two balls

beacon - 2 cones down **tmc=8**

Full Chart Symbology:
0126 black topmark two cones down

beacon - 2 cones in **tmc=9**

Full Chart Symbology:
0128 black topmark two cones point in

beacon - 2 cones out **tmc=1**

Full Chart Symbology:
0127 black topmark two cones point out

beacon - 2 cones up **tmc=3**

Full Chart Symbology:
0125 black topmark two cones up

beacon - broom point up **tmc=17**

Full Chart Symbology:
0188 black topmark broom up

beacon - can **tmc=25or26or29**

Full Chart Symbology:
0133 black topmark can

beacon - default topmark **tmc=0or32or33**

Full Chart Symbology:
0199 black default topmark upright

beacon - one ball **tmc=15or27or28**

Full Chart Symbology:
0130 black topmark one ball

DNC

Point Symbology	Line Symbology	Area Symbology

BC010 BC010

beacon - perch tmc=18

Full Chart Symbology:
0187 black topmark perch

beacon - radar navigation system nst=10or54

Full Chart Symbology:
0512 lg magenta dashed cir

Simplified Symbology:
0512 lg magenta dashed cir

beacon - radar reflector present ref=1

Full Chart Symbology:
0510 magenta arc w/ 5 ticks pointing upward

Simplified Symbology:
0510 magenta arc w/ 5 ticks pointing upward

beacon - radar station nst=45

Full Chart Symbology:
0009 feature brown dot inside cir

Simplified Symbology:
0009 feature brown dot inside cir

beacon - radio navigation system nst=1or4or5or17or41or51or53

Full Chart Symbology:
0511 lg magenta cir

Simplified Symbology:
0511 lg magenta cir

beacon - rhombus/diamond tmc=19or31

Full Chart Symbology:
0114 black topmark open parallelogram

beacon - sound signal sst=1or2or3or4or6or9or14or15

Full Chart Symbology:
0401 lt magenta arcs origin offset for beacons

Simplified Symbology:
0401 lt magenta arcs origin offset for beacons

beacon - special (x) tmc=6

Full Chart Symbology:
0185 black topmark special X

beacon - upright cross tmc=23or30

Full Chart Symbology:
0186 black topmark cross

DNC

Point Symbology	Line Symbology	Area Symbology

BC010 BC010

beacon-base

Full Chart Symbology:
0100 black beacon/buoy base

Simplified Symbology:
0101 yellow rectangle w/ outline black outline

DNC

Point Symbology	Line Symbology	Area Symbology

BC020 BC020

Point

buoy - 1 cone down **tmc=22**

Full Chart Symbology:
0204 black buoy topmark one cone down

buoy - 1 cone up **tmc=16or21**

Full Chart Symbology:
0202 black buoy topmark one cone up

buoy - 2 balls **tmc=2**

Full Chart Symbology:
0212 black buoy topmark two balls

buoy - 2 cones down **tmc=8**

Full Chart Symbology:
0206 black buoy topmark two cones down

buoy - 2 cones in **tmc=9**

Full Chart Symbology:
0208 black buoy topmark two cones point in

buoy - 2 cones out **tmc=1**

Full Chart Symbology:
0207 black buoy topmark two cones point out

buoy - 2 cones up **tmc=3**

Full Chart Symbology:
0205 black buoy topmark two cones up

buoy - articulated light (base) **btc=35**

Full Chart Symbology:
0051 black filled sm cir

Simplified Symbology:
0051 black filled sm cir

buoy - barrel; type unknown **btc=0 AND ssc=1**

Full Chart Symbology:
0301 black barrel buoy

Simplified Symbology:
0313 yellow circle w/ outline black outline

DNC

Point Symbology	Line Symbology	Area Symbology

BC020 BC020

buoy - can; type unknown btc=0 AND ssc=7

Full Chart Symbology:
0302 black can buoy

Simplified Symbology:
0313 yellow circle w/ outline black outline

buoy - can tmc=25or26or29

Full Chart Symbology:
0213 black buoy topmark can

buoy - conical; type unknown btc=0 AND ssc=6

Full Chart Symbology:
0303 black cone buoy

Simplified Symbology:
0313 yellow circle w/ outline black outline

buoy - default topmark tmc=0or17or18or32or33

Full Chart Symbology:
0299 black buoy default topmark

buoy - LANBY btc=4

Full Chart Symbology:
0310 black lanby

Simplified Symbology:
0312 black superbuoy - simplified

buoy - light float btc=6

Full Chart Symbology:
0513 black lt float

Simplified Symbology:
0515 black lt float, simplified

buoy - mooring;barrel btc=7 AND ssc=1

Full Chart Symbology:
0304 black mooring barrel buoy

Simplified Symbology:
0311 black mooring/installation buoy

buoy - mooring;can btc=7 AND ssc=7

Full Chart Symbology:
0305 black mooring can buoy

Simplified Symbology:
0311 black mooring/installation buoy

DNC

Point Symbology	Line Symbology	Area Symbology

BC020 BC020

buoy - mooring;not barrel, not can btc=7 AND ssc<>1and<>7

Full Chart Symbology:
0311 black mooring/installation buoy

Simplified Symbology:
0311 black mooring/installation buoy

buoy - ODAS btc=10

Full Chart Symbology:
0309 black superbuoy

Simplified Symbology:
0312 black superbuoy - simplified

buoy - one ball tmc=15or27or28

Full Chart Symbology:
0210 black buoy topmark one ball

buoy - pillar; type unknown btc=0 AND ssc=10

Full Chart Symbology:
0306 black pillar buoy

Simplified Symbology:
0313 yellow circle w/ outline black outline

buoy - radar navigation system nst=10or54

Full Chart Symbology:
0512 lg magenta dashed cir

Simplified Symbology:
0512 lg magenta dashed cir

buoy - radar reflector present ref=1

Full Chart Symbology:
0510 magenta arc w/ 5 ticks pointing upward

Simplified Symbology:
0510 magenta arc w/ 5 ticks pointing upward

buoy - radar station nst=45

Full Chart Symbology:
0009 feature brown dot inside cir

Simplified Symbology:
0009 feature brown dot inside cir

DNC

Point Symbology	Line Symbology	Area Symbology

BC020 BC020

buoy - radio navigation system — nst=1or4or5or17or41or51or53

Full Chart Symbology:
0511 lg magenta cir

Simplified Symbology:
0511 lg magenta cir

buoy - rhombus/diamond — tmc=19or31

Full Chart Symbology:
0214 black buoy topmark open parallelogram

buoy - sound signal — sst=1or2or3or4or6or9or14or15

Full Chart Symbology:
0401 lt magenta arcs origin offset for beacons

Simplified Symbology:
0401 lt magenta arcs origin offset for beacons

buoy - spar; type unknown — btc=0 AND ssc=16

Full Chart Symbology:
0308 black spar buoy

Simplified Symbology:
0313 yellow circle w/ outline black outline

buoy - special (x) — tmc=6

Full Chart Symbology:
0265 black buoy topmark special X

buoy - sphere; type unknown — btc=0 AND ssc=17

Full Chart Symbology:
0307 black spherical buoy

Simplified Symbology:
0313 yellow circle w/ outline black outline

buoy - superbuoy; type unknown — btc=0 AND ssc=73

Full Chart Symbology:
0309 black superbuoy

Simplified Symbology:
0312 black superbuoy - simplified

buoy - upright cross — tmc=23or30

Full Chart Symbology:
0217 black buoy topmark upright cross

DNC

Point Symbology	Line Symbology	Area Symbology
BC020		**BC020**
default buoy; type unknown		**btc=0 AND ssc=0or85or999**

Full Chart Symbology:
0300 black default buoy beside magenta ?

Simplified Symbology:
0313 yellow circle w/ outline black outline

DNC

Point Symbology	Line Symbology	Area Symbology
BC040		**BC040**

Line

light

Full Chart Symbology:
0713 magenta compressed zig-zag line

Simplified Symbology:
0713 magenta compressed zig-zag line

Point

light - 1 cone down — tmc=22

Full Chart Symbology:
0124 black topmark one cone down

light - 1 cone up — tmc=16or21

Full Chart Symbology:
0122 black topmark one cone up

light - 2 balls — tmc=2

Full Chart Symbology:
0132 black topmark two balls

light - 2 cones down — tmc=8

Full Chart Symbology:
0126 black topmark two cones down

light - 2 cones in — tmc=9

Full Chart Symbology:
0128 black topmark two cones point in

light - 2 cones out — tmc=1

Full Chart Symbology:
0127 black topmark two cones point out

light - 2 cones up — tmc=3

Full Chart Symbology:
0125 black topmark two cones up

light - base symbol

Full Chart Symbology:
0051 black filled sm cir

Simplified Symbology:
0051 black filled sm cir

DNC

Point Symbology	Line Symbology	Area Symbology

BC040 BC040

light - broom point up tmc=17

Full Chart Symbology:
0188 black topmark broom up

light - can tmc=25or26or29

Full Chart Symbology:
0133 black topmark can

light - default topmark tmc=0or32or33

Full Chart Symbology:
0199 black default topmark upright

light - flare

Full Chart Symbology:
0500 magenta flare

Simplified Symbology:
0500 magenta flare

light - one ball tmc=15or27or28

Full Chart Symbology:
0130 black topmark one ball

light - perch tmc=18

Full Chart Symbology:
0187 black topmark perch

light - radar navigation system nst=10or54

Full Chart Symbology:
0512 lg magenta dashed cir

Simplified Symbology:
0512 lg magenta dashed cir

light - radar reflector present ref=1

Full Chart Symbology:
0510 magenta arc w/ 5 ticks pointing upward

Simplified Symbology:
0510 magenta arc w/ 5 ticks pointing upward

light - radar station nst=45

Full Chart Symbology:
0009 feature brown dot inside cir

Simplified Symbology:
0009 feature brown dot inside cir

DNC

Point Symbology | Line Symbology | Area Symbology

BC040 BC040

light - radio navigation system nst=1or4or5or17or41or51or53

Full Chart Symbology:
0511 lg magenta cir

Simplified Symbology:
0511 lg magenta cir

light - rhombus/diamond tmc=19or31

Full Chart Symbology:
0114 black topmark open parallelogram

light - sound signal sst=1or2or3or4or6or9or14or15

Full Chart Symbology:
0401 lt magenta arcs origin offset for beacons

Simplified Symbology:
0401 lt magenta arcs origin offset for beacons

light - special (x) tmc=6

Full Chart Symbology:
0185 black topmark special X

light - upright cross tmc=23or30

Full Chart Symbology:
0186 black topmark cross

BC055 BC055

Point

marker

Full Chart Symbology:
0151 magenta box above inverted T with open cir

Simplified Symbology:
0152 magenta box w/ dot and line below

BC060 BC060

Area

light sector

Full Chart Symbology:
3116 black very thin dash line

Simplified Symbology:
3116 black very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

BC070 BC070

Point

light vessel/lightship

Full Chart Symbology:
0514 black lt vessel

Simplified Symbology:
0516 black lt vessel, simplified

light vessel/lightship - default flare

Full Chart Symbology:
0500 magenta flare

Simplified Symbology:
0500 magenta flare

light vessel/lightship - radar navigation system nst=10or54

Full Chart Symbology:
0512 lg magenta dashed cir

Simplified Symbology:
0512 lg magenta dashed cir

light vessel/lightship - radar reflector present ref=1

Full Chart Symbology:
0510 magenta arc w/ 5 ticks pointing upward

Simplified Symbology:
0510 magenta arc w/ 5 ticks pointing upward

light vessel/lightship - radar station nst=45

Full Chart Symbology:
0009 feature brown dot inside cir

Simplified Symbology:
0009 feature brown dot inside cir

light vessel/lightship - radio navigation system nst=1or4or5or17or41or51or53

Full Chart Symbology:
0511 lg magenta cir

Simplified Symbology:
0511 lg magenta cir

light vessel/lightship - sound signal sst=1or2or3or4or6or9or14or15

Full Chart Symbology:
0401 lt magenta arcs origin offset for beacons

Simplified Symbology:
0401 lt magenta arcs origin offset for beacons

DNC

Point Symbology	Line Symbology	Area Symbology

BC080 BC080

Area

perches/stakes

Full Chart Symbology:

0680 black thin dotted line 0810 depth med blue solid fill

Simplified Symbology:

0680 black thin dotted line 0810 depth med blue solid fill

Point

perches/stakes

Full Chart Symbology:

0051 black filled sm cir

Simplified Symbology:

0051 black filled sm cir

BC100 BC100

Line

leading line

Full Chart Symbology:

0656 gray very thin dash line

Simplified Symbology:

0656 gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology
BD000		**BD000**

Area

underwater danger/hazard - depth 20m or less — hdp>0and<=20

Full Chart Symbology:
0680 black thin dotted line

Simplified Symbology:
0680 black thin dotted line

underwater danger/hazard - depth greater than 20m — hdp>20

Full Chart Symbology:
0629 gray thin dash line

Simplified Symbology:
0629 gray thin dash line

underwater danger/hazard - depth unknown — hdp=0

Full Chart Symbology:
0680 black thin dotted line
0810 depth med blue solid fill

Simplified Symbology:
0680 black thin dotted line
0810 depth med blue solid fill

underwater danger/hazard - not accurate — acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

Point

underwater danger/hazard - depth 20m or less — hdp>0and<=20

Full Chart Symbology:
0053 depth med blue fill lg oval w/ black dot outline

Simplified Symbology:
0053 depth med blue fill lg oval w/ black dot outline

underwater danger/hazard - depth greater than 20m — hdp>20

Full Chart Symbology:
0054 lg black oval w/ dotted outline

Simplified Symbology:
0054 lg black oval w/ dotted outline

DNC

Point Symbology	Line Symbology	Area Symbology

BD000 BD000

underwater danger/hazard - depth unknown hdp=0

Full Chart Symbology:
0052 depth med blue fill cir w/ black dotted outline

Simplified Symbology:
0052 depth med blue fill cir w/ black dotted outline

underwater danger/hazard - not accurate acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

BD010 BD010

Area

breakers

Full Chart Symbology:
0056 gray waves symbol
0656 gray very thin dash line

Simplified Symbology:
0056 gray waves symbol
0656 gray very thin dash line

Line

breakers

Full Chart Symbology:
0752 gray very thin dash line w/ cntred waves

Simplified Symbology:
0752 gray very thin dash line w/ cntred waves

Point

breakers

Full Chart Symbology:
0056 gray waves symbol

Simplified Symbology:
0056 gray waves symbol

DNC

Point Symbology	Line Symbology	Area Symbology
BD020		**BD020**

Area

crib - above surface — vrr=1 AND hdp=NULL

Full Chart Symbology:
0623 dk gray thin solid line — 0804 brown solid fill

Simplified Symbology:
0623 dk gray thin solid line — 0804 brown solid fill

crib - covers and uncovers — vrr=8 AND hdp=NULL

Full Chart Symbology:
0626 dk gray thin dash line — 0803 yellow green solid fill

Simplified Symbology:
0626 dk gray thin dash line — 0803 yellow green solid fill

crib - not accurate — acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

crib - submerged;depth 20m or less — vrr=4 AND hdp>0and<=20

Full Chart Symbology:
0680 black thin dotted line

Simplified Symbology:
0680 black thin dotted line

crib - submerged;depth greater than 20m — vrr=4 AND hdp>20

Full Chart Symbology:
0629 gray thin dash line

Simplified Symbology:
0629 gray thin dash line

crib - submerged;depth unknown — vrr=4 AND hdp=0

Full Chart Symbology:
0680 black thin dotted line — 0810 depth med blue solid fill

Simplified Symbology:
0680 black thin dotted line — 0810 depth med blue solid fill

DNC

Point Symbology	Line Symbology	Area Symbology

BD020 BD020

Point

crib - covers and uncovers; depth null — **vrr=8 AND hdp=NULL**

Full Chart Symbology:
0055 yellow-green solid circle w/ black dot outline

Simplified Symbology:
0055 yellow-green solid circle w/ black dot outline

crib - not accurate — **acc<>1**

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

crib - partly submerged/dry; depth null — **vrr=1 AND hdp=NULL**

Full Chart Symbology:
0057 lt brown square with dk gray outline

Simplified Symbology:
0057 lt brown square with dk gray outline

crib - submerged; depth unknown — **vrr=4 AND hdp=0**

Full Chart Symbology:
0052 depth med blue fill cir w/ black dotted outline

Simplified Symbology:
0052 depth med blue fill cir w/ black dotted outline

crib - submerged;depth 20m or less — **vrr=4 AND hdp>0and<=20**

Full Chart Symbology:
0053 depth med blue fill lg oval w/ black dot outline

Simplified Symbology:
0053 depth med blue fill lg oval w/ black dot outline

crib - submerged;depth greater than 20m — **vrr=4 AND hdp>20**

Full Chart Symbology:
0054 lg black oval w/ dotted outline

Simplified Symbology:
0054 lg black oval w/ dotted outline

DNC

Point Symbology	Line Symbology	Area Symbology
BD030		**BD030**

Area

discolored water

Full Chart Symbology:

0680 black thin dotted line

0810 depth med blue solid fill

Simplified Symbology:

0680 black thin dotted line

0810 depth med blue solid fill

discolored water - not accurate

acc<>1

Full Chart Symbology:

0058 black leader line w/ question mark

Simplified Symbology:

0058 black leader line w/ question mark

Point

discolored water

Full Chart Symbology:

0052 depth med blue fill cir w/ black dotted outline

Simplified Symbology:

0052 depth med blue fill cir w/ black dotted outline

discolored water - not accurate

acc<>1

Full Chart Symbology:

0058 black leader line w/ question mark

Simplified Symbology:

0058 black leader line w/ question mark

DNC

Point Symbology	Line Symbology	Area Symbology

BD040 BD040

Area

eddies

Full Chart Symbology:
0056 gray waves symbol
0656 gray very thin dash line

Simplified Symbology:
0056 gray waves symbol
0656 gray very thin dash line

Point

eddies

Full Chart Symbology:
0056 gray waves symbol

Simplified Symbology:
0056 gray waves symbol

BD050 BD050

Area

foul ground

Full Chart Symbology:
0059 gray pound (#) symbol
0716 gray dash/chevron line

Simplified Symbology:
0059 gray pound (#) symbol
0656 gray very thin dash line

Point

foul ground

Full Chart Symbology:
0059 gray pound (#) symbol

Simplified Symbology:
0059 gray pound (#) symbol

DNC

Point Symbology	Line Symbology	Area Symbology

BD060 BD060

Area

kelp/seaweed

Full Chart Symbology:
0060 gray kelp symbol 3077 lt gray very thin dash line

Simplified Symbology:
0060 gray kelp symbol 3077 lt gray very thin dash line

Point

kelp/seaweed

Full Chart Symbology:
0060 gray kelp symbol

Simplified Symbology:
0060 gray kelp symbol

BD080 BD080

Area

overfalls/tide rips

Full Chart Symbology:
0056 gray waves symbol 0656 gray very thin dash line

Simplified Symbology:
0056 gray waves symbol 0656 gray very thin dash line

Point

overfalls/tide rips

Full Chart Symbology:
0056 gray waves symbol

Simplified Symbology:
0056 gray waves symbol

DNC

Point Symbology	Line Symbology	Area Symbology
BD100		**BD100**

Area

pile/piling/post - covers and uncovers vrr=8

Full Chart Symbology:

	0626 dk gray thin dash line	0803 yellow green solid fill

Simplified Symbology:

	0626 dk gray thin dash line	0803 yellow green solid fill

pile/piling/post - does not cover vrr=1

Full Chart Symbology:

	0623 dk gray thin solid line	0804 brown solid fill

Simplified Symbology:

	0623 dk gray thin solid line	0804 brown solid fill

pile/piling/post - not accurate acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

pile/piling/post - submerged vrr=4

Full Chart Symbology:

	0680 black thin dotted line	0810 depth med blue solid fill

Simplified Symbology:

	0680 black thin dotted line	0810 depth med blue solid fill

Point

pile/piling/post

Full Chart Symbology:
0051 black filled sm cir

Simplified Symbology:
0051 black filled sm cir

DNC

Point Symbology	Line Symbology	Area Symbology
BD110		**BD110**

Point

platform

Full Chart Symbology:
0061 black dot inside square

Simplified Symbology:
0061 black dot inside square

platform - lighted — cha=21

Full Chart Symbology:
0500 magenta flare

Simplified Symbology:
0500 magenta flare

platform - sound signal — sst<>16

Full Chart Symbology:
0402 lt magenta arcs origin offset for buoys

Simplified Symbology:
0402 lt magenta arcs origin offset for buoys

DNC

Point Symbology	Line Symbology	Area Symbology
BD120		**BD120**

Area

reef - covers and uncovers, shallow display mode on — vrr=8 AND isdm=1

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

reef - covers and uncovers — vrr=8

Full Chart Symbology:
0803 yellow green solid fill

Simplified Symbology:
0803 yellow green solid fill

reef - not covers and uncovers, depth unknown or null — vrr<>8 AND hdp=0orNULL

Full Chart Symbology:
0680 black thin dotted line
0810 depth med blue solid fill

Simplified Symbology:
0680 black thin dotted line
0810 depth med blue solid fill

reef - not covers and uncovers, not accurate — vrr<>8 AND acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

reef - submerged, depth 20m or less — vrr=4 AND hdp>0and<=20

Full Chart Symbology:
0680 black thin dotted line

Simplified Symbology:
0680 black thin dotted line

reef - submerged, depth greater than 20m — vrr=4 AND hdp>20

Full Chart Symbology:
0629 gray thin dash line

Simplified Symbology:
0629 gray thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology
BD130		**BD130**

Point

rock - depth null — hdp=NULL

Full Chart Symbology:
0063 black 6 point asterisk

Simplified Symbology:
0063 black 6 point asterisk

rock - not accurate — acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

rock - submerged; depth 20m or less — vrr=4 AND hdp>0and<=20

Full Chart Symbology:
0053 depth med blue fill lg oval w/ black dot outline

Simplified Symbology:
0053 depth med blue fill lg oval w/ black dot outline

rock - submerged; depth unknown — vrr=4 AND hdp=0

Full Chart Symbology:
0062 black cross in dotted cir, depth med blue fill

Simplified Symbology:
0062 black cross in dotted cir, depth med blue fill

rock - submerged;depth greater than 20m — vrr=4 AND hdp>20

Full Chart Symbology:
0054 lg black oval w/ dotted outline

Simplified Symbology:
0054 lg black oval w/ dotted outline

DNC

Point Symbology	Line Symbology	Area Symbology
BD140		**BD140**

Area

snags/stumps - covers and uncovers — vrr=8

Full Chart Symbology:

0626 dk gray thin dash line	0803 yellow green solid fill

Simplified Symbology:

0626 dk gray thin dash line	0803 yellow green solid fill

snags/stumps - does not cover — vrr=1

Full Chart Symbology:

0623 dk gray thin solid line	0804 brown solid fill

Simplified Symbology:

0623 dk gray thin solid line	0804 brown solid fill

snags/stumps - not accurate — acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

snags/stumps - submerged — vrr=4

Full Chart Symbology:

0680 black thin dotted line	0810 depth med blue solid fill

Simplified Symbology:

0680 black thin dotted line	0810 depth med blue solid fill

Point

snags/stumps - covers and uncovers; depth null — vrr=8 AND hdp=NULL

Full Chart Symbology:
0055 yellow-green solid circle w/ black dot outline

Simplified Symbology:
0055 yellow-green solid circle w/ black dot outline

snags/stumps - not accurate — acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

DNC

Point Symbology	Line Symbology	Area Symbology

BD140 BD140

snags/stumps - partly submergerd/dry; depth null **vrr=1 AND hdp=NULL**

Full Chart Symbology:
0057 lt brown square with dk gray outline

Simplified Symbology:
0057 lt brown square with dk gray outline

snags/stumps - submerged; depth 20m or less **vrr=4 AND hdp>0and<=20**

Full Chart Symbology:
0053 depth med blue fill lg oval w/ black dot outline

Simplified Symbology:
0053 depth med blue fill lg oval w/ black dot outline

snags/stumps - submerged; depth greater than 20m **vrr=4 AND hdp>20**

Full Chart Symbology:
0054 lg black oval w/ dotted outline

Simplified Symbology:
0054 lg black oval w/ dotted outline

snags/stumps - submergerd; depth unknown **vrr=4 AND hdp=0**

Full Chart Symbology:
0052 depth med blue fill cir w/ black dotted outline

Simplified Symbology:
0052 depth med blue fill cir w/ black dotted outline

DNC

Point Symbology	Line Symbology	Area Symbology
BD180		**BD180**

Area

wreck - covers and uncovers; depth null — vrr=8 AND hdp=NULL

Full Chart Symbology:
0626 dk gray thin dash line — 0803 yellow green solid fill

Simplified Symbology:
0626 dk gray thin dash line — 0803 yellow green solid fill

wreck - does not cover; depth null — vrr=1 AND hdp=NULL

Full Chart Symbology:
0623 dk gray thin solid line — 0804 brown solid fill

Simplified Symbology:
0623 dk gray thin solid line — 0804 brown solid fill

wreck - submerged; depth 20m or less — vrr=4 AND hdp>0and<=20

Full Chart Symbology:
0680 black thin dotted line

Simplified Symbology:
0680 black thin dotted line

wreck - submerged; depth greater than 20m — vrr=4 AND hdp>20

Full Chart Symbology:
3117 black thin dash line

Simplified Symbology:
3117 black thin dash line

wreck - submerged; depth unknown — vrr=4 AND hdp=0

Full Chart Symbology:
0630 dk gray thin dotted line — 0810 depth med blue solid fill

Simplified Symbology:
0630 dk gray thin dotted line — 0810 depth med blue solid fill

wreck - unknown; awash; depth null — vrr=0or2 AND hdp=NULL

Full Chart Symbology:
0630 dk gray thin dotted line — 0810 depth med blue solid fill

Simplified Symbology:
0630 dk gray thin dotted line — 0810 depth med blue solid fill

Point

wreck - not accurate — acc<>1

Full Chart Symbology:
0058 black leader line w/ question mark

Simplified Symbology:
0058 black leader line w/ question mark

DNC

Point Symbology	Line Symbology	Area Symbology

BD180 BD180

wreck - not submerged; depth null — hdp=NULL AND vrr=1or2or8

Full Chart Symbology:
0064 gray wreck symbol

Simplified Symbology:
0064 gray wreck symbol

wreck - showing mast/ hull/ superstructure; depth null — loc<>4 AND hdp=NULL

Full Chart Symbology:
0064 gray wreck symbol

Simplified Symbology:
0064 gray wreck symbol

wreck - submerged; dangerous; depth unknown — vrr=4 AND soh=1 AND hdp=0

Full Chart Symbology:
0065 blck bar 3 ticks in dotted depth med blue oval

Simplified Symbology:
0065 blck bar 3 ticks in dotted depth med blue oval

wreck - submerged; depth 20m or less — vrr=4 AND hdp>0and<=20

Full Chart Symbology:
0053 depth med blue fill lg oval w/ black dot outline

Simplified Symbology:
0053 depth med blue fill lg oval w/ black dot outline

wreck - submerged; depth greater than 20m — vrr=4 AND hdp>20

Full Chart Symbology:
0054 lg black oval w/ dotted outline

Simplified Symbology:
0054 lg black oval w/ dotted outline

wreck - submerged; not dangerous; depth unknown — vrr=4 AND soh=2 AND hdp=0

Full Chart Symbology:
0066 black horiz bar w/3 ticks

Simplified Symbology:
0066 black horiz bar w/3 ticks

DNC

Point Symbology	Line Symbology	Area Symbology
BD180		**BD180**
wreck - unknown; depth null		**hdp=NULL AND vrr=0**

Full Chart Symbology:
0065 blck bar 3 ticks in dotted depth med blue oval

Simplified Symbology:
0065 blck bar 3 ticks in dotted depth med blue oval

DNC

Point Symbology	Line Symbology	Area Symbology

BE010 BE010

Area

depth area (deep water); 2 shades — **idsm=1 AND cvl>=ssdcand<>99999**

Full Chart Symbology:
0805 depth white fill

Simplified Symbology:
0805 depth white fill

depth area (medium deep); 4 shades — **idsm=0 AND cvl>=ssdcand<msdc**

Full Chart Symbology:
0820 depth pale blue solid fill

Simplified Symbology:
0820 depth pale blue solid fill

depth area (medium shallow); 4 shades; shallow mode off — **idsm=0 AND isdm=0 AND cvl>=msscand<ssdc**

Full Chart Symbology:
0821 depth lt blue solid fill

Simplified Symbology:
0821 depth lt blue solid fill

depth area (medium shallow); 4 shades; shallow mode on — **idsm=0 AND isdm=1 AND cvl>=msscand<ssdc**

Full Chart Symbology:
0821 depth lt blue solid fill

Simplified Symbology:
0821 depth lt blue solid fill

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

depth area (very deep); 4 shades — **idsm=0 AND cvl>=msdcand<>99999**

Full Chart Symbology:
0805 depth white fill

Simplified Symbology:
0805 depth white fill

depth area (very shallow); 2 shades; shallow mode off — **idsm=1 AND isdm=0 AND cvl<ssdc**

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

DNC

Point Symbology	Line Symbology	Area Symbology

BE010 BE010

depth area (very shallow); 2 shades; shallow mode on — idsm=1 AND isdm=1 AND cvl<ssdc

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

depth area (very shallow); 4 shades; shallow mode off — idsm=0 AND isdm=0 AND cvl<mssc

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

depth area (very shallow); 4 shades; shallow mode on — idsm=0 AND isdm=1 AND cvl<mssc

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

depth area; depth unknown — cvl=99999

Full Chart Symbology:
0823 no data gray solid fill

Simplified Symbology:
0823 no data gray solid fill

Full Chart Symbology:
0934 gray dash wide patt fill

Simplified Symbology:
0934 gray dash wide patt fill

Full Chart Symbology:
0631 gray thin solid line

Simplified Symbology:
0631 gray thin solid line

DNC

Point Symbology	Line Symbology	Area Symbology

BE010 BE010

Line

depth curve - accurate; equals ssdc — **acc=1 AND crv=ssdc**

Full Chart Symbology:
0609 depth dk gray thin solid line

Simplified Symbology:
0609 depth dk gray thin solid line

depth curve - accurate; not equal ssdc — **acc=1 AND crv<>ssdc**

Full Chart Symbology:
0608 depth gray very thin solid line

Simplified Symbology:
0608 depth gray very thin solid line

depth curve - not accurate; equals ssdc — **acc=2 AND crv=ssdc**

Full Chart Symbology:
0613 depth dk gray thin dash line

Simplified Symbology:
0613 depth dk gray thin dash line

depth curve - not accurate; not equal ssdc — **acc=2 AND crv<>ssdc**

Full Chart Symbology:
0614 depth gray very thin dash line

Simplified Symbology:
0614 depth gray very thin dash line

BE020 BE020

Point

drying height overbar (dark) — **hdh>=0 AND hdp=NULL**

Full Chart Symbology:
1256 sounding black overbar

Simplified Symbology:
1256 sounding black overbar

sounding or drying height - circle (light) indicating low accuracy — **acc<>1**

Full Chart Symbology:
1251 sounding gray circle

Simplified Symbology:
1251 sounding gray circle

DNC

Point Symbology | Line Symbology | Area Symbology

BF010 BF010

Point

bottom characteristics - surface unknown **mcc=0 AND psc=0**

Full Chart Symbology:
1233 black horiz line below triangle w/ B inside

Simplified Symbology:
1233 black horiz line below triangle w/ B inside

BG010 BG010

Point

current flow - ebb; direction known **cur=1 AND dof<>0**

Full Chart Symbology:
0073 gray arrow w/ no feathers

Simplified Symbology:
0073 gray arrow w/ no feathers

current flow - flood; direction known **cur=2 AND dof<>0**

Full Chart Symbology:
0074 gray arrow w/ one feather

Simplified Symbology:
0074 gray arrow w/ one feather

current flow - general,ocean; direction known **cur=3or5 AND dof<>0**

Full Chart Symbology:
0072 gray arrow w/ two feathers

Simplified Symbology:
0072 gray arrow w/ two feathers

current flow - general; direction unknown **cur=0 OR dof=0**

Full Chart Symbology:
0071 gray arrow w/ 2 feathers and 2 ?

Simplified Symbology:
0071 gray arrow w/ 2 feathers and 2 ?

DNC

Point Symbology	Line Symbology	Area Symbology

BG020 BG020

Point

tide gauge

Full Chart Symbology:
0015 lt magenta SS in rectangle w/ pale green fill

Simplified Symbology:
0015 lt magenta SS in rectangle w/ pale green fill

BG030 BG030

Point

tide data point

Full Chart Symbology:
0076 gray diamond

Simplified Symbology:
0076 gray diamond

BG040 BG040

Point

current diagram

Full Chart Symbology:
0154 gray open cir,arrows pting out,represent only

Simplified Symbology:
0154 gray open cir,arrows pting out,represent only

BH010 BH010

Line

aqueduct - elevated **loc=25**

Full Chart Symbology:
0610 gray solid line

Simplified Symbology:
0610 gray solid line

aqueduct - not elevated **loc<>25**

Full Chart Symbology:
0704 gray dash very thin line w/ sm cir

Simplified Symbology:
0704 gray dash very thin line w/ sm cir

DNC

Point Symbology	Line Symbology	Area Symbology

BH020 BH020

Area

canal

Full Chart Symbology:

0600 black very thin solid line 0810 depth med blue solid fill

Simplified Symbology:

0600 black very thin solid line 0810 depth med blue solid fill

Line

canal

Full Chart Symbology:

0600 black very thin solid line

Simplified Symbology:

0600 black very thin solid line

BH050 BH050

Area

fish hatchery/fish farm/marine farm

Full Chart Symbology:

0716 gray dash/chevron line 0904 gray fish in net patt fill

Simplified Symbology:

0656 gray very thin dash line 0904 gray fish in net patt fill

BH080 BH080

Area

lake/pond

Full Chart Symbology:

0600 black very thin solid line 0810 depth med blue solid fill

Simplified Symbology:

0600 black very thin solid line 0810 depth med blue solid fill

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:

4078 basic blue inundation area patt fill

Simplified Symbology:

4078 basic blue inundation area patt fill

DNC

Point Symbology	Line Symbology	Area Symbology

BH095 BH095

Area

marsh/swamp

Full Chart Symbology:

0910 brown marsh patt fill

Simplified Symbology:

0910 brown marsh patt fill

BH120 BH120

Line

rapids

Full Chart Symbology:

0610 gray solid line

Simplified Symbology:

0610 gray solid line

BH130 BH130

Area

reservoir

Full Chart Symbology:

0600 black very thin solid line
0810 depth med blue solid fill

Simplified Symbology:

0600 black very thin solid line
0810 depth med blue solid fill

BH140 BH140

Area

river/stream

Full Chart Symbology:

0600 black very thin solid line
0810 depth med blue solid fill

Simplified Symbology:

0600 black very thin solid line
0810 depth med blue solid fill

Line

river/stream

Full Chart Symbology:

0600 black very thin solid line

Simplified Symbology:

0600 black very thin solid line

DNC

Point Symbology	Line Symbology	Area Symbology

BH155 BH155

Area

salt evaporator

Full Chart Symbology:

0911 depth med blue grid patt fill

Simplified Symbology:

0911 depth med blue grid patt fill

BH180 BH180

Line

waterfall

Full Chart Symbology:

0615 pale green solid line

Simplified Symbology:

0615 pale green solid line

BH210 BH210

Line

inland shoreline

Full Chart Symbology:

0600 black very thin solid line

Simplified Symbology:

0600 black very thin solid line

BI020 BI020

Line

dam/weir

Full Chart Symbology:

0607 feature brown thick solid line

Simplified Symbology:

0607 feature brown thick solid line

BI030 BI030

Area

lock

Full Chart Symbology:

0623 dk gray thin solid line 0804 brown solid fill

Simplified Symbology:

0623 dk gray thin solid line 0804 brown solid fill

DNC

Point Symbology	Line Symbology	Area Symbology

BI040 BI040

Line

sluice gate

Full Chart Symbology:
0623 dk gray thin solid line

Simplified Symbology:
0623 dk gray thin solid line

BJ030 BJ030

Area

glacier

Full Chart Symbology:
0656 gray very thin dash line
0912 gray random line patt fill

Simplified Symbology:
0656 gray very thin dash line
0912 gray random line patt fill

Full Chart Symbology:
0823 no data gray solid fill

Simplified Symbology:
0823 no data gray solid fill

BJ060 BJ060

Point

ice peak/nunatak

Full Chart Symbology:
0077 black radiating cones

Simplified Symbology:
0077 black radiating cones

BJ065 BJ065

Area

ice shelf

Full Chart Symbology:
0823 no data gray solid fill

Simplified Symbology:
0823 no data gray solid fill

Full Chart Symbology:
0656 gray very thin dash line
0912 gray random line patt fill

Simplified Symbology:
0656 gray very thin dash line
0912 gray random line patt fill

DNC

Point Symbology	Line Symbology	Area Symbology

BJ100 BJ100

Area

snow field/ice field

Full Chart Symbology:

0656 gray very thin dash line

0912 gray random line patt fill

Simplified Symbology:

0656 gray very thin dash line

0912 gray random line patt fill

Full Chart Symbology:

0823 no data gray solid fill

Simplified Symbology:

0823 no data gray solid fill

BJ110 BJ110

Area

tundra

Full Chart Symbology:

0822 lt brown solid fill

Simplified Symbology:

0822 lt brown solid fill

CA010 CA010

Line

contour line (land)

Full Chart Symbology:

0604 feature brown very thin solid line

Simplified Symbology:

0604 feature brown very thin solid line

CA030 CA030

Point

spot elevation

Full Chart Symbology:

0078 black sm cir

Simplified Symbology:

0078 black sm cir

DNC

Point Symbology	Line Symbology	Area Symbology

DA010 DA010

Area

ground surface element

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

DB090 DB090

Area

embankment/fill

Full Chart Symbology:
0913 feature brown solid filled circle patt fill

Simplified Symbology:
0913 feature brown solid filled circle patt fill

Line

embankment/fill

Full Chart Symbology:
3082 gray very thin solid line

Simplified Symbology:
3082 gray very thin solid line

DB170 DB170

Area

sand dune/sand hills

Full Chart Symbology:
0913 feature brown solid filled circle patt fill

Simplified Symbology:
0913 feature brown solid filled circle patt fill

DB180 DB180

Area

volcano

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

DNC

Point Symbology	Line Symbology	Area Symbology

EA030 EA030

Area

nursery

Full Chart Symbology:

0914 feature brown cirs patt fill

Simplified Symbology:

0914 feature brown cirs patt fill

EA040 EA040

Area

orchard/plantation

Full Chart Symbology:

0624 feature brown very thin dash line

0915 feature brown tree side-view patt fill

Simplified Symbology:

0624 feature brown very thin dash line

0915 feature brown tree side-view patt fill

EA050 EA050

Area

vineyards

Full Chart Symbology:

0624 feature brown very thin dash line

0915 feature brown tree side-view patt fill

Simplified Symbology:

0624 feature brown very thin dash line

0915 feature brown tree side-view patt fill

DNC

Point Symbology	Line Symbology	Area Symbology

EC030 EC030

Area

trees - mangrove **veg=19**

Full Chart Symbology:
0624 feature brown very thin dash line
0916 feature brown mangrove side-view patt fill

Simplified Symbology:
0624 feature brown very thin dash line
0916 feature brown mangrove side-view patt fill

trees - not mangrove **veg<>19**

Full Chart Symbology:
0624 feature brown very thin dash line
0915 feature brown tree side-view patt fill

Simplified Symbology:
0624 feature brown very thin dash line
0915 feature brown tree side-view patt fill

Point

trees

Full Chart Symbology:
0079 feature brown side view of stylised tree

Simplified Symbology:
0079 feature brown side view of stylised tree

FA000 FA000

Line

administrative boundary - insular **use=32**

Full Chart Symbology:
0680 black thin dotted line

Simplified Symbology:
0680 black thin dotted line

administrative boundary - international **use=23**

Full Chart Symbology:
1310 black one long dash two short dash line

Simplified Symbology:
1310 black one long dash two short dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FA020 FA020

Line

armistice line

Full Chart Symbology:

3119 black very thin long dash line

Simplified Symbology:

3119 black very thin long dash line

FA040 FA040

Line

claim line

Full Chart Symbology:

3120 black thin long dash line

Simplified Symbology:

3120 black thin long dash line

FA060 FA060

Line

defacto boundary

Full Chart Symbology:

1310 black one long dash two short dash line

Simplified Symbology:

1310 black one long dash two short dash line

FA110 FA110

Line

international date line

Full Chart Symbology:

3119 black very thin long dash line

Simplified Symbology:

3119 black very thin long dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC021 FC021

Area

maritime limit boundary - cargo Xshipment **mac=49**

Full Chart Symbology:
0081 lt magenta square w/ I 0734 magenta dash/chevron line

Simplified Symbology:
0081 lt magenta square w/ I 0635 lt magenta very thin dash line

maritime limit boundary - deguassing **mac=44**

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle 0734 magenta dash/chevron line

Simplified Symbology:
0093 traffic lt magenta ! Inside lg circle 4186 magenta thin dash line

maritime limit boundary - dredging area **mac=58**

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle 0734 magenta dash/chevron line

Simplified Symbology:
0093 traffic lt magenta ! Inside lg circle 4186 magenta thin dash line

maritime limit boundary - dumping, explosive dumping **mac=30or35**

Full Chart Symbology:
0081 lt magenta square w/ I 0734 magenta dash/chevron line

Simplified Symbology:
0081 lt magenta square w/ I 0634 magenta very thin dash line

maritime limit boundary - fairway **mac=55**

Full Chart Symbology:
0716 gray dash/chevron line

Simplified Symbology:
0656 gray very thin dash line

maritime limit boundary - fish traps **mac=56**

Full Chart Symbology:
0047 gray rectangle w/ angle line on top 0716 gray dash/chevron line

Simplified Symbology:
0656 gray very thin dash line 0903 gray fish trap patt fill

maritime limit boundary - incineration **mac=31**

Full Chart Symbology:
0081 lt magenta square w/ I 0734 magenta dash/chevron line

Simplified Symbology:
0081 lt magenta square w/ I 0635 lt magenta very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC021 FC021

maritime limit boundary - marine farm mac=57

Full Chart Symbology:

	0716 gray dash/chevron line	0904 gray fish in net patt fill

Simplified Symbology:

	0656 gray very thin dash line	0904 gray fish in net patt fill

maritime limit boundary - oil field, gas field mac=32or33

Full Chart Symbology:

0093 traffic lt magenta ! Inside lg circle	0734 magenta dash/chevron line	

Simplified Symbology:

0093 traffic lt magenta ! Inside lg circle	4186 magenta thin dash line	

maritime limit boundary - pilot boarding mac=48

Full Chart Symbology:

0080 magenta solid filled diamond inside cir	0734 magenta dash/chevron line	

Simplified Symbology:

0080 magenta solid filled diamond inside cir	1651 traffic lt magenta thin dash line	

maritime limit boundary - precautionary mac=42

Full Chart Symbology:

0092 traffic lt magenta ! Inside triangle	0738 magenta dash/chev line w/precaution symbol	0917 traffic lt magenta rt diag line patt fill

Simplified Symbology:

0092 traffic lt magenta ! Inside triangle	0663 traffic magenta thin dash line	

maritime limit boundary - spoil mac=25

Full Chart Symbology:

	0716 gray dash/chevron line	

Simplified Symbology:

	0634 magenta very thin dash line	

maritime limit boundary - submarine exercise, mine laying, firing range mac=27or28or29

Full Chart Symbology:

0093 traffic lt magenta ! Inside lg circle	0734 magenta dash/chevron line	

Simplified Symbology:

0093 traffic lt magenta ! Inside lg circle	4186 magenta thin dash line	

maritime limit boundary - turning area mac=24

Full Chart Symbology:

0093 traffic lt magenta ! Inside lg circle	0734 magenta dash/chevron line	

Simplified Symbology:

0093 traffic lt magenta ! Inside lg circle	4186 magenta thin dash line	

DNC

Point Symbology	Line Symbology	Area Symbology

FC021 FC021

maritime limit boundary - unknown, other mac=0or999

Full Chart Symbology:
0097 traffic lt magenta ! Inside lg circle
0742 magenta dash/chevron line w/caution symbol

Simplified Symbology:
0097 traffic lt magenta ! Inside lg circle
0663 traffic magenta thin dash line

maritime limit boundary - unsurveyed mac=26

Full Chart Symbology:
0823 no data gray solid fill

Simplified Symbology:
0823 no data gray solid fill

Full Chart Symbology:
0933 gray offset dash patt fill

Simplified Symbology:
0933 gray offset dash patt fill

Full Chart Symbology:
0631 gray thin solid line

Simplified Symbology:
0631 gray thin solid line

Line

maritime limit boundary - cargo Xshipment mac=49 AND mbl=NULL

Full Chart Symbology:
0635 lt magenta very thin dash line

Simplified Symbology:
0635 lt magenta very thin dash line

maritime limit boundary - clearing line mbl=13 AND mac=NULL

Full Chart Symbology:
0656 gray very thin dash line

Simplified Symbology:
0656 gray very thin dash line

maritime limit boundary - deguassing mac=44 AND mbl=NULL

Full Chart Symbology:
4186 magenta thin dash line

Simplified Symbology:
4186 magenta thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC021 FC021

maritime limit boundary - dredging mac=58 AND mbl=NULL

Full Chart Symbology:
4186 magenta thin dash line

Simplified Symbology:
4186 magenta thin dash line

maritime limit boundary - dumping, explosive dumping mac=30or35 AND mbl=NULL

Full Chart Symbology:
0634 magenta very thin dash line

Simplified Symbology:
0634 magenta very thin dash line

maritime limit boundary - fairway mac=55 AND mbl=NULL

Full Chart Symbology:
0656 gray very thin dash line

Simplified Symbology:
0656 gray very thin dash line

maritime limit boundary - fish traps mac=56 AND mbl=NULL

Full Chart Symbology:
0629 gray thin dash line

Simplified Symbology:
0629 gray thin dash line

maritime limit boundary - incineration mac=31 AND mbl=NULL

Full Chart Symbology:
0635 lt magenta very thin dash line

Simplified Symbology:
0635 lt magenta very thin dash line

maritime limit boundary - marine farm mac=57 AND mbl=NULL

Full Chart Symbology:
0633 lt gray thin dash line

Simplified Symbology:
0633 lt gray thin dash line

maritime limit boundary - not clearing line mbl<>7and<>13 AND mac=NULL

Full Chart Symbology:
0629 gray thin dash line

Simplified Symbology:
0629 gray thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC021 FC021

maritime limit boundary - oil field, gas field — mac=32or33 AND mbl=NULL

Full Chart Symbology:
4186 magenta thin dash line

Simplified Symbology:
4186 magenta thin dash line

maritime limit boundary - pilot boarding — mac=48 AND mbl=NULL

Full Chart Symbology:
1651 traffic lt magenta thin dash line

Simplified Symbology:
1651 traffic lt magenta thin dash line

maritime limit boundary - precautionary — mac=42 AND mbl=NULL

Full Chart Symbology:
0663 traffic magenta thin dash line

Simplified Symbology:
0663 traffic magenta thin dash line

maritime limit boundary - spoil — mac=25 AND mbl=NULL

Full Chart Symbology:
0634 magenta very thin dash line

Simplified Symbology:
0634 magenta very thin dash line

maritime limit boundary - submarine exercise, mine laying, firing range — mac=27or28or29 AND mbl=NULL

Full Chart Symbology:
4186 magenta thin dash line

Simplified Symbology:
4186 magenta thin dash line

maritime limit boundary - territorial waters baseline — mbl=7 AND mac=NULL

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

maritime limit boundary - turning area — mac=24 AND mbl=NULL

Full Chart Symbology:
4186 magenta thin dash line

Simplified Symbology:
4186 magenta thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC021 FC021

maritime limit boundary - unknown, other — mac=0or999 AND mbl=NULL

Full Chart Symbology:
0663 traffic magenta thin dash line

Simplified Symbology:
0663 traffic magenta thin dash line

maritime limit boundary - unsurveyed — mac=26 AND mbl=NULL

Full Chart Symbology:
0631 gray thin solid line

Simplified Symbology:
0631 gray thin solid line

Point

maritime limit boundary - not pilot boarding — mac<>48

Full Chart Symbology:
0084 magenta cir w/ ! Inside

Simplified Symbology:
0084 magenta cir w/ ! Inside

maritime limit boundary - pilot boarding — mac=48

Full Chart Symbology:
0080 magenta solid filled diamond inside cir

Simplified Symbology:
0080 magenta solid filled diamond inside cir

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

Area

maritime area - dredged channel, 2 shades, deep water **mac=2 AND idsm=1 AND hdp>=ssdc**

Full Chart Symbology:
0805 depth white fill

Simplified Symbology:
0805 depth white fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

maritime area - dredged channel, 2 shades, very shallow, shallow mode off **mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0**

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

maritime area - dredged channel, 2 shades, very shallow, shallow mode on — **mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1**

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

maritime area - dredged channel, 4 shades, deep water — **mac=2 AND idsm=0 AND hdp>=msdc**

Full Chart Symbology:
0805 depth white fill

Simplified Symbology:
0805 depth white fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

maritime area - dredged channel, 4 shades, medium deep **mac=2 AND idsm=0 AND hdp>=ssdcand<msdc**

Full Chart Symbology:
0820 depth pale blue solid fill

Simplified Symbology:
0820 depth pale blue solid fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

maritime area - dredged channel, 4 shades, medium shallow, shallow mode off **mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0**

Full Chart Symbology:
0821 depth lt blue solid fill

Simplified Symbology:
0821 depth lt blue solid fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

maritime area - dredged channel, 4 shades, medium shallow, shallow mode on — **mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1**

Full Chart Symbology:
0821 depth lt blue solid fill

Simplified Symbology:
0821 depth lt blue solid fill

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

maritime area - dredged channel, 4 shades, very shallow, shallow mode off — **mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0**

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

maritime area - dredged channel, 4 shades, very shallow, shallow mode on — **mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1**

Full Chart Symbology:
0810 depth med blue solid fill

Simplified Symbology:
0810 depth med blue solid fill

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

maritime area - dredged channel, depth unknown, shallow mode off — **mac=2 AND hdp=0 AND isdm=0**

Full Chart Symbology:
0803 yellow green solid fill

Simplified Symbology:
0803 yellow green solid fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

maritime area - dredged channel, depth unknown, shallow mode on — mac=2 AND hdp=0 AND isdm=1

Full Chart Symbology:
0803 yellow green solid fill

Simplified Symbology:
0803 yellow green solid fill

Full Chart Symbology:
0949 depth gray diamond patt fill

Simplified Symbology:
0949 depth gray diamond patt fill

Full Chart Symbology:
0919 gray diag spaced dot patt fill

Simplified Symbology:
0919 gray diag spaced dot patt fill

Full Chart Symbology:
3077 lt gray very thin dash line

Simplified Symbology:
3077 lt gray very thin dash line

maritime area - entry prohibited — mac=5

Full Chart Symbology:
0082 traffic lt magenta cir w/ bar
0734 magenta dash/chevron line

Simplified Symbology:
0082 traffic lt magenta cir w/ bar
4186 magenta thin dash line

maritime area - inshore traffic zone (TSS) — mac=41

Full Chart Symbology:
1236 lt magenta IT
0722 magenta dashed T line

Simplified Symbology:
1236 lt magenta IT
0662 traffic magenta very thin dash line

maritime area - mine danger — mac=4

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle
0734 magenta dash/chevron line

Simplified Symbology:
0093 traffic lt magenta ! Inside lg circle
4186 magenta thin dash line

maritime area - roundabout zone (TSS) — mac=40

Full Chart Symbology:
0083 traffic lt magenta arc w/ arrowhead
0917 traffic lt magenta rt diag line patt fill

Simplified Symbology:
0083 traffic lt magenta arc w/ arrowhead

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

maritime area - unknown, work in progress mac=0or9

Full Chart Symbology:

0097 traffic lt magenta ! Inside lg circle

0742 magenta dash/chevron line w/caution symbol

Simplified Symbology:

0097 traffic lt magenta ! Inside lg circle

0663 traffic magenta thin dash line

Line

maritime area - dredged channel mac=2

Full Chart Symbology:

3077 lt gray very thin dash line

Simplified Symbology:

3077 lt gray very thin dash line

maritime area - entry prohibited mac=5

Full Chart Symbology:

4186 magenta thin dash line

Simplified Symbology:

4186 magenta thin dash line

maritime area - mine danger mac=4

Full Chart Symbology:

4186 magenta thin dash line

Simplified Symbology:

4186 magenta thin dash line

maritime area - TSS mac=40or41

Full Chart Symbology:

0665 traffic magenta thick dash line

Simplified Symbology:

0665 traffic magenta thick dash line

maritime area - unknown, work in progress mac=0or9

Full Chart Symbology:

0663 traffic magenta thin dash line

Simplified Symbology:

0663 traffic magenta thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

Point

maritime area - dredged area **mac=2**

Full Chart Symbology:
0087 traffic lt magenta ! In lg cir w/ magenta ?

Simplified Symbology:
0087 traffic lt magenta ! In lg cir w/ magenta ?

maritime area - entry prohibited **mac=5**

Full Chart Symbology:
0082 traffic lt magenta cir w/ bar

Simplified Symbology:
0082 traffic lt magenta cir w/ bar

maritime area - mine danger area **mac=4**

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle

Simplified Symbology:
0093 traffic lt magenta ! Inside lg circle

maritime area - roundabout zone (TSS) **mac=40**

Full Chart Symbology:
0083 traffic lt magenta arc w/ arrowhead

Simplified Symbology:
0083 traffic lt magenta arc w/ arrowhead

maritime area - unknown **mac=0**

Full Chart Symbology:
0084 magenta cir w/ ! Inside

Simplified Symbology:
0084 magenta cir w/ ! Inside

DNC

Point Symbology	Line Symbology	Area Symbology

FC036 FC036

Area

restricted area - anchoring prohibited mac=15

Full Chart Symbology:

0086 lt magenta open anchor w/ intrsctng diag line
0739 magenta T dash line w/ anchor symbol

Simplified Symbology:

0086 lt magenta open anchor w/ intrsctng diag line
4186 magenta thin dash line

restricted area - area to be avoided mac=43

Full Chart Symbology:

0082 traffic lt magenta cir w/ bar
0734 magenta dash/chevron line

Simplified Symbology:

0082 traffic lt magenta cir w/ bar
4186 magenta thin dash line

restricted area - cables mac=20

Full Chart Symbology:

0094 lt magenta angled line
0737 magenta dash/chevron line w/ flash symbol

Simplified Symbology:

0094 lt magenta angled line
4186 magenta thin dash line

restricted area - fishing prohibited mac=22

Full Chart Symbology:

0085 lt magenta fish w/ intersecting diag line
0740 magenta T dash line w/ fish symbol

Simplified Symbology:

0085 lt magenta fish w/ intersecting diag line
4186 magenta thin dash line

restricted area - outfall, intake mac=45or46

Full Chart Symbology:

0081 lt magenta square w/ I
0736 gray dash/chevron line w/ dash, cir

Simplified Symbology:

0081 lt magenta square w/ I
0629 gray thin dash line

restricted area - pipelines, sewer mac=21or23or61

Full Chart Symbology:

0081 lt magenta square w/ I
0735 magenta dash/chevron line w/ dash, cir

Simplified Symbology:

0081 lt magenta square w/ I
4186 magenta thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC036 FC036

restricted area - safety zone mac=37

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle 0734 magenta dash/chevron line

Simplified Symbology:
0093 traffic lt magenta ! Inside lg circle 4186 magenta thin dash line

restricted area - to be avoided, other mac=0or999

Full Chart Symbology:
0087 traffic lt magenta ! In lg cir w/ magenta ? 0734 magenta dash/chevron line

Simplified Symbology:
0087 traffic lt magenta ! In lg cir w/ magenta ? 4186 magenta thin dash line

Line

restricted area

Full Chart Symbology:
0722 magenta dashed T line

Simplified Symbology:
0722 magenta dashed T line

Point

restricted area - anchoring prohibited mac=15

Full Chart Symbology:
0086 lt magenta open anchor w/ intrsctng diag line

Simplified Symbology:
0086 lt magenta open anchor w/ intrsctng diag line

restricted area - area to be avoided mac=43

Full Chart Symbology:
0082 traffic lt magenta cir w/ bar

Simplified Symbology:
0082 traffic lt magenta cir w/ bar

restricted area - fishing prohibited mac=22

Full Chart Symbology:
0085 lt magenta fish w/ intersecting diag line

Simplified Symbology:
0085 lt magenta fish w/ intersecting diag line

DNC

Point Symbology	Line Symbology	Area Symbology
FC036		**FC036**

restricted area - safety zone **mac=37**

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle

Simplified Symbology:
0093 traffic lt magenta ! Inside lg circle

restricted area - unknown or other **mac=0or999**

Full Chart Symbology:
0087 traffic lt magenta ! In lg cir w/ magenta ?

Simplified Symbology:
0087 traffic lt magenta ! In lg cir w/ magenta ?

DNC

Point Symbology	Line Symbology	Area Symbology

FC041 FC041

Area

traffic separation scheme (TSS) - inbound or outbound area **tsp=6or7**

Full Chart Symbology:
0097 traffic lt magenta ! Inside lg circle
0917 traffic lt magenta rt diag line patt fill

Simplified Symbology:
0097 traffic lt magenta ! Inside lg circle

traffic separation scheme (TSS) - separation zone area **tsp=3**

Full Chart Symbology:
0824 traffic lt magenta solid fill

Simplified Symbology:
0824 traffic lt magenta solid fill

Line

traffic separation scheme (TSS) - outer boundary **tsp=2**

Full Chart Symbology:
0665 traffic magenta thick dash line

Simplified Symbology:
0665 traffic magenta thick dash line

traffic separation scheme (TSS) - separation zone line **tsp=4**

Full Chart Symbology:
0620 traffic lt magenta very very thick solid line

Simplified Symbology:
0620 traffic lt magenta very very thick solid line

Point

traffic separation scheme (TSS)

Full Chart Symbology:
0088 traffic magenta filled arrow

Simplified Symbology:
0088 traffic magenta filled arrow

FC100 FC100

Line

measured distance line

Full Chart Symbology:
0656 gray very thin dash line

Simplified Symbology:
0656 gray very thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology
FC130		**FC130**

Line

radar reference line

Full Chart Symbology:

0663 traffic magenta thin dash line

Simplified Symbology:

0663 traffic magenta thin dash line

DNC

Point Symbology	Line Symbology	Area Symbology

FC165 FC165

Area

route (maritime) - 2-way **rtt=11**

Full Chart Symbology:

0098 traffic magenta dash dbl head arrow w/ 2 ?'s

0734 magenta dash/chevron line

Simplified Symbology:

0098 traffic magenta dash dbl head arrow w/ 2 ?'s

0665 traffic magenta thick dash line

route (maritime) - deep water **rtt=4**

Full Chart Symbology:

1238 traffic lt mag DW filled arrow btwn 2 mgnta ?

0741 traffic magenta dash/chevron line w/ DW

Simplified Symbology:

1238 traffic lt mag DW filled arrow btwn 2 mgnta ?

0661 traffic magenta dash line

route (maritime) - use unknown **rtt=0**

Full Chart Symbology:

0097 traffic lt magenta ! Inside lg circle

0742 magenta dash/chevron line w/caution symbol

Simplified Symbology:

0097 traffic lt magenta ! Inside lg circle

0663 traffic magenta thin dash line

Line

route (maritime) - marked;1-way;not recomm for deep draft vessels **atn=1 AND exs=22 AND rtt<>3**

Full Chart Symbology:

0728 gray very thin line w/ >

Simplified Symbology:

0728 gray very thin line w/ >

route (maritime) - marked;1-way;recomm for deep draft vessels **atn=1 AND exs=22 AND rtt=3**

Full Chart Symbology:

0723 traffic magenta solid line w/ > and DW

Simplified Symbology:

0723 traffic magenta solid line w/ > and DW

DNC

Point Symbology	Line Symbology	Area Symbology

FC165 FC165

route (maritime) - marked;2-way;not recomm for deep draft vessels — **atn=1 AND exs=23 AND rtt<>3**

Full Chart Symbology:
0730 gray very thin line w/ < >

Simplified Symbology:
0730 gray very thin line w/ < >

route (maritime) - marked;2-way;recomm for deep draft vessels — **atn=1 AND exs=23 AND rtt=3**

Full Chart Symbology:
0725 traffic magenta solid line w/ < > and DW

Simplified Symbology:
0725 traffic magenta solid line w/ < > and DW

route (maritime) - unknown;not recomm for deep draft vessels — **exs=0 AND rtt<>3**

Full Chart Symbology:
0732 gray very thin dash line w/ < ? >

Simplified Symbology:
0732 gray very thin dash line w/ < ? >

route (maritime) - unknown;recomm for deep draft vessels — **exs=0 AND rtt=3**

Full Chart Symbology:
0727 traffic magenta dash line w/ < ? > and DW

Simplified Symbology:
0727 traffic magenta dash line w/ < ? > and DW

route (maritime) - unmarked;1-way;not recomm for deep draft vessels — **atn=2 AND exs=22 AND rtt<>3**

Full Chart Symbology:
0729 gray very thin dash line w/ >

Simplified Symbology:
0729 gray very thin dash line w/ >

route (maritime) - unmarked;1-way;recomm for deep draft vessels — **atn=2 AND exs=22 AND rtt=3**

Full Chart Symbology:
0724 traffic magenta dash line w/ > and DW

Simplified Symbology:
0724 traffic magenta dash line w/ > and DW

DNC

Point Symbology	Line Symbology	Area Symbology

FC165 FC165

route (maritime) - unmarked;2-way;not recomm for deep draft vessels **atn=2 AND exs=23 AND rtt<>3**

Full Chart Symbology:
0731 gray very thin dash line w/ < >

Simplified Symbology:
0731 gray very thin dash line w/ < >

route (maritime) - unmarked;2-way;recomm for deep draft vessels **atn=2 AND exs=23 AND rtt=3**

Full Chart Symbology:
0726 traffic magenta dash line w/ < > and DW

Simplified Symbology:
0726 traffic magenta dash line w/ < > and DW

Point

route (maritime) - direction known **dof<>0**

Full Chart Symbology:
1220 traffic magenta dashed open arrow

Simplified Symbology:
1220 traffic magenta dashed open arrow

route (maritime) - direction unknown **dof=0**

Full Chart Symbology:
0089 traffic magenta dashed arrow w/ 2 mgnta
?'s

Simplified Symbology:
0089 traffic magenta dashed arrow w/ 2 mgnta
?'s

DNC

Point Symbology	Line Symbology	Area Symbology

FC170 FC170

Area

safety fairway

Full Chart Symbology:

0091 gray ? inside angle brackets inside dashes

0716 gray dash/chevron line

Simplified Symbology:

0091 gray ? inside angle brackets inside dashes

0656 gray very thin dash line

Line

safety fairway

Full Chart Symbology:

0732 gray very thin dash line w/ < ? >

Simplified Symbology:

0732 gray very thin dash line w/ < ? >

FC177 FC177

Area

swept area

Full Chart Symbology:

0095 lt gray under bar w/ upward bar on ends

0716 gray dash/chevron line

Simplified Symbology:

0095 lt gray under bar w/ upward bar on ends

0656 gray very thin dash line

Line

swept area

Full Chart Symbology:

0656 gray very thin dash line

Simplified Symbology:

0656 gray very thin dash line

GA020 GA020

Point

air obstruction light [DNC-specific]

Full Chart Symbology:

0501 lights red flare

Simplified Symbology:

0501 lights red flare

DNC

Point Symbology	Line Symbology	Area Symbology

GA035 GA035

Point

navaids (aeronautical)

Full Chart Symbology:
0511 lg magenta cir

Simplified Symbology:
0511 lg magenta cir

GB005 GB005

Area

airport/airfield

Full Chart Symbology:
0822 lt brown solid fill

Simplified Symbology:
0822 lt brown solid fill

Full Chart Symbology:
0600 black very thin solid line
0932 feature brown airplane patt fill

Simplified Symbology:
0600 black very thin solid line
0932 feature brown airplane patt fill

Point

airport/airfield

Full Chart Symbology:
0090 feature brown outline of plane inside lg cir

Simplified Symbology:
0090 feature brown outline of plane inside lg cir

GB010 GB010

Point

airport lighting

Full Chart Symbology:
0503 lights yellow flare

Simplified Symbology:
0503 lights yellow flare

DNC

Point Symbology	Line Symbology	Area Symbology

GB055 GB055

Area

runway

Full Chart Symbology:

	0600 black very thin solid line	0804 brown solid fill

Simplified Symbology:

	0600 black very thin solid line	0804 brown solid fill

Line

runway

Full Chart Symbology:

	0606 feature brown solid line	

Simplified Symbology:

	0606 feature brown solid line	

GB070 GB070

Area

seaplane landing/seaplane take-off area

Full Chart Symbology:

0093 traffic lt magenta ! Inside lg circle	0734 magenta dash/chevron line	

Simplified Symbology:

0093 traffic lt magenta ! Inside lg circle	0634 magenta very thin dash line	

Line

seaplane landing/seaplane take-off area

Full Chart Symbology:

	0634 magenta very thin dash line	

Simplified Symbology:

	0634 magenta very thin dash line	

ZC040 ZC040

Area

magnetic disturbance area

Full Chart Symbology:

0733 lt magenta open flag	0716 gray dash/chevron line	

Simplified Symbology:

0733 lt magenta open flag	0656 gray very thin dash line	

DTOP

Point Symbology	Line Symbology	Area Symbology

AA010 AA010

Area

mine

Full Chart Symbology:
2001 black pick & hammer 3116 black very thin dash line

Point

mine

Full Chart Symbology:
2001 black pick & hammer

AA012 AA012

Area

quarry

Full Chart Symbology:
2001 black pick & hammer 3116 black very thin dash line

Point

quarry

Full Chart Symbology:
2001 black pick & hammer

AA040 AA040

Point

rig/superstructure

Full Chart Symbology:
2002 black tower

AA050 AA050

Point

well - not water **pro<>116**

Full Chart Symbology:
0078 black sm cir

well - water **pro=116**

Full Chart Symbology:
2003 basic blue solid filled cir

DTOP

Point Symbology	Line Symbology	Area Symbology

AB000 — AB000

Area

disposal site/waste pile

Full Chart Symbology:

0822 lt brown solid fill

AB010 — AB010

Area

wrecking yard/scrap yard

Full Chart Symbology:

0822 lt brown solid fill

AC000 — AC000

Area

processing plant/treatment plant

Full Chart Symbology:

0624 feature brown very thin dash line

Point

processing plant/treatment plant

Full Chart Symbology:

2005 black building w/ 2 smokestacks above

AC020 — AC020

Point

catalytic cracker

Full Chart Symbology:

2005 black building w/ 2 smokestacks above

AC030 — AC030

Area

settling basin/sludge pond

Full Chart Symbology:

0600 black very thin solid line

4077 depth med blue narrow rt diag line patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

AD010 AD010

Area

power plant

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

AD020 AD020

Point

solar panels

Full Chart Symbology:

2010 black sun burst w/ dot inside

AD030 AD030

Area

substation/tran.yard

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

Point

substation/tran.yard

Full Chart Symbology:

2011 black filled square w/ zap on top

AF010 AF010

Point

chimney/smokestack

Full Chart Symbology:

0003 black chimney symbol

AF020 AF020

Line

conveyor

Full Chart Symbology:

3086 gray very thin short dash line

DTOP

Point Symbology | Line Symbology | Area Symbology

AF030 AF030

Point

cooling tower

Full Chart Symbology:
2016 black dot inside double cir

AF040 AF040

Point

crane

Full Chart Symbology:
0005 feature brown crane symbol

AF070 AF070

Point

flare pipe

Full Chart Symbology:
0006 black flare stack symbol

AH050 AH050

Area

fortification

Full Chart Symbology:
4186 magenta thin dash line

Point

fortification

Full Chart Symbology:
2043 black four black squares w/ connection

AI020 AI020

Area

mobile home/mobile home park

Full Chart Symbology:
3114 black very thin short dash line

DTOP

Point Symbology	Line Symbology	Area Symbology

AJ030 AJ030

Area

feedlot/stockyard/holding pen

Full Chart Symbology:
4217 beige very thin solid line

AJ050 AJ050

Point

windmill

Full Chart Symbology:
0008 black sm cir w/ X on top

AK020 AK020

Point

amusement park attraction

Full Chart Symbology:
2029 black ferris wheel

AK030 AK030

Area

amusement park

Full Chart Symbology:
3117 black thin dash line
4045 green solid fill

AK040 AK040

Area

athletic field

Full Chart Symbology:
4279 nav orange thin short dash line

AK060 AK060

Area

campground/campsite

Full Chart Symbology:
3117 black thin dash line
4045 green solid fill

DTOP

Point Symbology	Line Symbology	Area Symbology

AK090 AK090

Area

fairgrounds

Full Chart Symbology:

4279 nav orange thin short dash line

AK100 AK100

Area

golf course

Full Chart Symbology:

4279 nav orange thin short dash line

AK120 AK120

Area

park

Full Chart Symbology:

3117 black thin dash line

4045 green solid fill

AK130 AK130

Line

race track

Full Chart Symbology:

3113 black solid line

AK160 AK160

Area

stadium/amphitheater

Full Chart Symbology:

3113 black solid line

AK170 AK170

Area

swimming pool

Full Chart Symbology:

0600 black very thin solid line

4138 med blue solid fill

DTOP

Point Symbology	Line Symbology	Area Symbology
AK180		**AK180**

Area

zoo/safari park

Full Chart Symbology:

3117 black thin dash line	4045 green solid fill

DTOP

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

Area

building - generic **bfc<>6and<>7and<>15**

Full Chart Symbology:
4156 black solid fill

building - hospital **bfc=6**

Full Chart Symbology:
4015 beige-rose solid fill

building - house of worship **bfc=7**

Full Chart Symbology:
4002 lt beige solid fill

building - school **bfc=15**

Full Chart Symbology:
4025 feature brown solid fill

Line

building - generic **bfc<>6and<>7and<>15**

Full Chart Symbology:
3112 black thin solid line

building - hospital **bfc=6**

Full Chart Symbology:
3153 beige-rose thin solid line

building - house of worship **bfc=7**

Full Chart Symbology:
3001 lt beige thin solid line

building - school **bfc=15**

Full Chart Symbology:
1406 brown thin solid line

Point

building - generic **bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36or53or59or69or70or83or85or86or87or88or89**

Full Chart Symbology:
2036 black sm filled square

DTOP

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

building - generic — **bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96**

Full Chart Symbology:
1001 red filled square black outline

building - generic — **bfc=90or91or92or93or95or98or999**

Full Chart Symbology:
2036 black sm filled square

building - hospital — **bfc=6**

Full Chart Symbology:
1002 black filled cir w/ white cross inside

building - house of worship — **bfc=7**

Full Chart Symbology:
2045 black filled square w/ cross on top

building - lighthouse — **bfc=82**

Full Chart Symbology:
2044 black lighthouse symbol

building - school — **bfc=15**

Full Chart Symbology:
2042 black filled square w/ flag on top

AL020 AL020

Area

built-up area

Full Chart Symbology:
4128 yellow solid fill

Full Chart Symbology:
3112 black thin solid line
4243 depth dk gray solid fill

AL025 AL025

Point

cairn

Full Chart Symbology:
0017 black three stacked sm cirs

DTOP

Point Symbology	Line Symbology	Area Symbology

AL030 AL030

Area

cemetery

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

Point

cemetery

Full Chart Symbology:

1003 black cross

AL060 AL060

Area

dragon teeth

Full Chart Symbology:

1301 black line w/ squares

Line

dragon teeth

Full Chart Symbology:

1301 black line w/ squares

AL070 AL070

Line

fence

Full Chart Symbology:

3148 black patt line -x -x -x

AL075 AL075

Line

gallery

Full Chart Symbology:

1401 black outline open line w/ rt diag fill

Point

gallery

Full Chart Symbology:

1205 brown vert line w/ horizontal ticks on rt side

DTOP

Point Symbology	Line Symbology	Area Symbology

AL100 AL100

Point

hut

Full Chart Symbology:
2058 gray filled square

AL105 AL105

Area

settlement

Full Chart Symbology:
0802 gray solid fill

Full Chart Symbology:
3112 black thin solid line
4243 depth dk gray solid fill

AL130 AL130

Point

monument

Full Chart Symbology:
2063 black monument symbol

AL135 AL135

Area

native settlement

Full Chart Symbology:
3112 black thin solid line
4243 depth dk gray solid fill

Full Chart Symbology:
0802 gray solid fill

AL140 AL140

Area

particle accelerator

Full Chart Symbology:
4089 magenta solid fill

DTOP

Point Symbology | Line Symbology | Area Symbology

AL155 AL155

Line

overhead obstruction location

Full Chart Symbology:
3114 black very thin short dash line

Point

overhead obstruction location

Full Chart Symbology:
1206 black line w/ indented rectangle

AL170 AL170

Area

plaza/city square

Full Chart Symbology:
4018 lt tan solid fill

AL195 AL195

Point

ramp

Full Chart Symbology:
2051 black ramp symbol

AL200 AL200

Area

ruins

Full Chart Symbology:
3114 black very thin short dash line

Point

ruins

Full Chart Symbology:
0002 feature brown filled square w/ black outline

DTOP

Point Symbology | Line Symbology | Area Symbology

AL210 AL210

Line

snow shed/rock shed

Full Chart Symbology:
3146 black solid triangle line patt

Point

snow shed/rock shed

Full Chart Symbology:
2070 black diag bands in rectangle

AL240 AL240

Point

tower (non-communication)

Full Chart Symbology:
2071 black dot inside cir

AL250 AL250

Point

underground dwelling

Full Chart Symbology:
2072 gray shadowed square

AL260 AL260

Line

wall

Full Chart Symbology:
3113 black solid line

AM010 AM010

Area

depot (storage)

Full Chart Symbology:
4028 brown horizontal lines patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

AM020 AM020

Area

grain bin/silo

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

grain bin/silo

Full Chart Symbology:
2074 brown cir

AM030 AM030

Area

grain elevator

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

grain elevator

Full Chart Symbology:
0004 black tower symbol

AM060 AM060

Area

storage bunker/storage mound

Full Chart Symbology:
4114 depth gray horizontal lines patt fill

Point

storage bunker/storage mound

Full Chart Symbology:
2076 red brown filled semicircle

DTOP

Point Symbology	Line Symbology	Area Symbology

AM070 AM070

Area

tank

Full Chart Symbology:
4156 black solid fill

Point

tank

Full Chart Symbology:
2019 black sm filled cir

AM080 AM080

Point

water tower

Full Chart Symbology:
2078 basic blue dot inside cir

AN010 AN010

Line

RR - operational, multiple lanes **exs=0or28 AND ltn>1**

Full Chart Symbology:
3127 black solid line w/ double tics both sides

RR - operational, unknown/1 lane **exs=0or28 AND ltn<2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

RR - other **exs<>0and<>28**

Full Chart Symbology:
3131 black dash line w/ single tics both sides

AN050 AN050

Line

RR siding - narrow **rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR siding - normal,broad,unknown **rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

DTOP

Point Symbology	Line Symbology	Area Symbology

AN060 AN060

Area

railroad yard/marshaling yard

Full Chart Symbology:
0802 gray solid fill

AN075 AN075

Point

railroad turntable

Full Chart Symbology:
2080 black rt diag line inside cir

AP010 AP010

Line

cart track

Full Chart Symbology:
3117 black thin dash line

AP020 AP020

Line

interchange

Full Chart Symbology:
3121 black long dash line

DTOP

Point Symbology	Line Symbology	Area Symbology

AP030 AP030

Line

road - op, loose, all weather — **exs=0or28 AND rst=0or2 AND wtc=0or1**

Full Chart Symbology:
3021 brown thin dotted line

road - op, no median, hard, all weather — **exs=0or28 AND med=0or2 AND rst=1 AND wtc=0or1**

Full Chart Symbology:
3012 brown very thin solid line

road - op, w/median, hard, all weather — **exs=0or28 AND med=1 AND rst=1 AND wtc=0or1**

Full Chart Symbology:
3014 brown solid line

road - op,fair weather — **exs=0or28 AND wtc=2**

Full Chart Symbology:
1571 brown vy thin dash/dotted line

road - under constr. — **exs<>0and<>28**

Full Chart Symbology:
3017 brown thin dash line

AP050 AP050

Line

trail

Full Chart Symbology:
0656 gray very thin dash line

AQ010 AQ010

Line

aerial cableway lines/ski lift lines

Full Chart Symbology:
0657 gray thick dash line

DTOP

Point Symbology | Line Symbology | Area Symbology

AQ040 AQ040

Line

bridge/overpass/viaduct

Full Chart Symbology:
0751 black solid line w/ tick terminators

Point

bridge/overpass/viaduct

Full Chart Symbology:
2083 black double line with flares on ends

AQ045 AQ045

Point

bridge span

Full Chart Symbology:
2083 black double line with flares on ends

AQ058 AQ058

Point

constriction/expansion

Full Chart Symbology:
2087 black opposing solid triangles pnting in

AQ060 AQ060

Point

control tower

Full Chart Symbology:
2088 purple dot inside cir

AQ065 AQ065

Point

culvert

Full Chart Symbology:
2090 black cir w/ C inside

DTOP

Point Symbology	Line Symbology	Area Symbology

AQ070 AQ070

Line

ferry crossing

Full Chart Symbology:
3115 black thin short dash line

Point

ferry crossing

Full Chart Symbology:
1005 black F inside boat

AQ110 AQ110

Point

mooring mast

Full Chart Symbology:
2094 purple solid ellipse extending from pole

AQ111 AQ111

Point

prepared raft or float bridge site

Full Chart Symbology:
1171 black opposing open equi triangles

AQ113 AQ113

Line

pipeline/pipe - not water **pro<>116**

Full Chart Symbology:
1305 brown dash thin line w/ dot

pipeline/pipe - water **pro=116**

Full Chart Symbology:
1304 basic blue thin dash line w/ dot

DTOP

Point Symbology	Line Symbology	Area Symbology

AQ116 AQ116

Area

pumping station

Full Chart Symbology:
4262 purple thin dash line

Point

pumping station

Full Chart Symbology:
2097 black sm square w/ P inside

AQ118 AQ118

Point

sharp curve(s)

Full Chart Symbology:
1172 black diamond w/ curve staffed arrow

AQ120 AQ120

Point

steep grade

Full Chart Symbology:
1211 black two rt pointing triangles

AQ130 AQ130

Line

tunnel

Full Chart Symbology:
3141 black three dash one dot very thin line

Point

tunnel

Full Chart Symbology:
2100 black cir w/ T inside

AQ135 AQ135

Area

vehicle stopping area/rest area

Full Chart Symbology:
4240 red solid thin line
1610 red left diag line patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

AQ140 AQ140

Area

vehicle storage/parking area

Full Chart Symbology:

Line Symbology	Area Symbology
4240 red solid thin line	1610 red left diag line patt fill

AT010 AT010

Point

disk/dish

Full Chart Symbology:
2102 black satellite dish symbol

AT030 AT030

Line

power transmission line

Full Chart Symbology:

Line Symbology
3074 purple thin solid line w/ dots on each side

AT050 AT050

Area

communication building

Full Chart Symbology:

Line Symbology	Area Symbology
3117 black thin dash line	4109 depth gray solid fill

Point

communication building

Full Chart Symbology:
2106 black filled square w/ outward ticks

AT060 AT060

Line

telephone line/telegraph line

Full Chart Symbology:

Line Symbology
3096 gray very rhin dash line w/ dot

DTOP

Point Symbology	Line Symbology	Area Symbology

AT080 AT080

Point

communication tower

Full Chart Symbology:
2108 black tower w/ sound waves at top

BA010 BA010

Line

coastline - mangrove, marsh **slt=6or8**

Full Chart Symbology:
3042 basic blue very thin short dash line

coastline/shoreline - not mangrove or marsh **slt<>6and<>8**

Full Chart Symbology:
0621 depth med blue very thin solid line

BA020 BA020

Area

foreshore

Full Chart Symbology:
0803 yellow green solid fill

BA030 BA030

Area

island

Full Chart Symbology:
0822 lt brown solid fill

BA040 BA040

Area

water (except inland)

Full Chart Symbology:
0821 depth lt blue solid fill

BA060 BA060

Area

beach zone

Full Chart Symbology:
4220 med-beige thin solid line 4005 beige stiple dot patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

BB010 BB010

Area

anchorage

Full Chart Symbology:

0902 lt magenta anchor

0711 magenta dash/chevron line w/anchor symbol

Point

anchorage

Full Chart Symbology:

0036 magenta anchor

BB040 BB040

Area

breakwater/groyne

Full Chart Symbology:

0623 dk gray thin solid line

Line

breakwater/groyne

Full Chart Symbology:

0623 dk gray thin solid line

BB090 BB090

Area

drydock

Full Chart Symbology:

3112 black thin solid line

BB140 BB140

Area

jetty

Full Chart Symbology:

0623 dk gray thin solid line

Line

jetty

Full Chart Symbology:

0623 dk gray thin solid line

DTOP

Point Symbology	Line Symbology	Area Symbology

BB190 BB190

Area

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

Line

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

BB220 BB220

Area

ramp (maritime)

Full Chart Symbology:
0623 dk gray thin solid line

Line

ramp (maritime)

Full Chart Symbology:
0623 dk gray thin solid line

BB230 BB230

Line

seawall

Full Chart Symbology:
0623 dk gray thin solid line

BD100 BD100

Area

pile/piling/post

Full Chart Symbology:
0680 black thin dotted line
0810 depth med blue solid fill

Point

pile/piling/post

Full Chart Symbology:
2264 black cir

DTOP

Point Symbology	Line Symbology	Area Symbology

BD120 BD120

Area

reef

Full Chart Symbology:
3186 black jagged line

Line

reef

Full Chart Symbology:
3186 black jagged line

BD130 BD130

Point

rock

Full Chart Symbology:
0063 black 6 point asterisk

BD180 BD180

Point

wreck

Full Chart Symbology:
2212 black solid filled shipwreck symbol

BH010 BH010

Line

aqueduct - elevated **loc=25**

Full Chart Symbology:
4266 basic blue very thin solid line

aqueduct - not elevated **loc<>25**

Full Chart Symbology:
3050 basic blue dashed line w/ open cirs

DTOP

Point Symbology	Line Symbology	Area Symbology

BH020 BH020

Area

canal

Full Chart Symbology:
0600 black very thin solid line 4138 med blue solid fill

canal - covered **cda=2**

Full Chart Symbology:
3116 black very thin dash line 4138 med blue solid fill

canal - not covered **cda<>2**

Full Chart Symbology:
0600 black very thin solid line 4138 med blue solid fill

Line

canal - dry **hyc=3**

Full Chart Symbology:
3109 depth pale blue thin dotted line

canal - perennial **hyc=0or8**

Full Chart Symbology:
3108 depth pale blue thin solid line

BH030 BH030

Area

ditch

Full Chart Symbology:
0600 black very thin solid line 0821 depth lt blue solid fill

ditch - covered **cda=2**

Full Chart Symbology:
3116 black very thin dash line 0821 depth lt blue solid fill

ditch - not covered **cda<>2**

Full Chart Symbology:
0600 black very thin solid line 0821 depth lt blue solid fill

Line

ditch

Full Chart Symbology:
3107 depth pale blue very thin solid line

DTOP

Point Symbology	Line Symbology	Area Symbology

BH040 BH040

Area

filtration beds/aeration beds

Full Chart Symbology:

0600 black very thin solid line 4154 dk blue solid fill

BH050 BH050

Area

fish hatchery/fish farm/marine farm

Full Chart Symbology:

3112 black thin solid line 4138 med blue solid fill

BH060 BH060

Line

flume - elevated **loc=25**

Full Chart Symbology:

3106 depth pale blue very thin solid line w/ ticks

flume - not elevated **loc<>25**

Full Chart Symbology:

3107 depth pale blue very thin solid line

BH070 BH070

Line

ford

Full Chart Symbology:

3114 black very thin short dash line

Point

ford

Full Chart Symbology:

2087 black opposing solid triangles pnting in

DTOP

Point Symbology	Line Symbology	Area Symbology

BH080 BH080

Area

lake/pond

Full Chart Symbology:

0600 black very thin solid line — 4071 basic blue solid fill

lake/pond - not perennial — **hyc<>8**

Full Chart Symbology:

1655 basic blue thin dash line — 1611 basic blue dot patt fill

lake/pond - perennial — **hyc=8**

Full Chart Symbology:

0600 black very thin solid line — 4071 basic blue solid fill

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:

4078 basic blue inundation area patt fill

BH095 BH095

Area

marsh/swamp - deciduous — **veg=24**

Full Chart Symbology:

1605 yellow-green tree-top patt fill

marsh/swamp - evergreen,mixed — **veg=25or50**

Full Chart Symbology:

1606 yellow-green triangle tree patt fill

marsh/swamp - no trees — **veg=0or56**

Full Chart Symbology:

4080 basic blue marsh/swamp patt fill

marsh/swamp - palm, mangrove — **veg=16or19**

Full Chart Symbology:

1655 basic blue thin dash line — 1613 yellow-green nipa patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

BH100 BH100

Line

moat

Full Chart Symbology:

3142 black parallel vy thin lines w/ tics (ladder patt)

BH110 BH110

Line

penstock - elevated **loc=25**

Full Chart Symbology:

3106 depth pale blue very thin solid line w/ ticks

penstock - not elevated **loc<>25**

Full Chart Symbology:

3107 depth pale blue very thin solid line

BH120 BH120

Line

rapids

Full Chart Symbology:

3117 black thin dash line

Point

rapids

Full Chart Symbology:

2231 basic blue open diamond

BH130 BH130

Area

reservoir

Full Chart Symbology:

0600 black very thin solid line

4138 med blue solid fill

DTOP

Point Symbology	Line Symbology	Area Symbology

BH140 BH140

Area

river/stream

Full Chart Symbology:
0600 black very thin solid line
4138 med blue solid fill

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:
4079 basic blue stipple dot patt fill

river/stream - perennial;non-tidal **hyc=0or8 AND tid=1**

Full Chart Symbology:
4138 med blue solid fill

river/stream - perennial;tidal **hyc=0or8 AND tid<>1**

Full Chart Symbology:
3112 black thin solid line
4071 basic blue solid fill

Line

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:
3047 basic blue thin long dash line

river/stream - perennial, unknown **hyc=0or8**

Full Chart Symbology:
0622 depth med blue thin solid line

BH145 BH145

Point

river stream vanishing point

Full Chart Symbology:
2232 basic blue solid arrowhead

BH150 BH150

Area

salt pan

Full Chart Symbology:
4081 basic blue diag grid patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

BH155 BH155

Area

salt evaporator

Full Chart Symbology:
0911 depth med blue grid patt fill

BH160 BH160

Area

sebkha

Full Chart Symbology:
4289 basic blue stipple dot patt fill

BH170 BH170

Point

spring/water-hole

Full Chart Symbology:
1008 basic blue filled cir w/ tail below

BH180 BH180

Line

waterfall

Full Chart Symbology:
0621 depth med blue very thin solid line

Point

waterfall

Full Chart Symbology:
1009 basic blue filled diamond

BH200 BH200

Area

miscellaneous surface drainage feature

Full Chart Symbology:
4150 depth pale blue stiple dot patt fill

Line

miscellaneous surface drainage feature

Full Chart Symbology:
3109 depth pale blue thin dotted line

DTOP

Point Symbology	Line Symbology	Area Symbology

BI010 BI010

Point

cistern

Full Chart Symbology:
1010 basic blue solid square

BI020 BI020

Area

dam/weir

Full Chart Symbology:
4156 black solid fill

Line

dam/weir

Full Chart Symbology:
3113 black solid line

Point

dam/weir

Full Chart Symbology:
2238 black vertical heavy weight line

BI030 BI030

Area

lock

Full Chart Symbology:
0600 black very thin solid line
0810 depth med blue solid fill

Point

lock

Full Chart Symbology:
2239 black open arrowhead

DTOP

Point Symbology	Line Symbology	Area Symbology

BI040 BI040

Line

sluice gate

Full Chart Symbology:
0623 dk gray thin solid line

Point

sluice gate

Full Chart Symbology:
0025 traffic magenta lg cir, 2 horiz & 1 vert line

BI050 BI050

Area

water intake tower

Full Chart Symbology:
0600 black very thin solid line

Point

water intake tower

Full Chart Symbology:
0024 black dot inside cir

BJ020 BJ020

Area

moraine

Full Chart Symbology:
1406 brown thin solid line
4032 brown stipple dot patt fill

BJ030 BJ030

Area

glacier

Full Chart Symbology:
4150 depth pale blue stiple dot patt fill

BJ040 BJ040

Line

ice cliff

Full Chart Symbology:
3047 basic blue thin long dash line

DTOP

Point Symbology	Line Symbology	Area Symbology

BJ060 BJ060

Point

ice peak/nunatak

Full Chart Symbology:
2242 black 8 pt asterisk w/ open center

BJ065 BJ065

Area

ice shelf

Full Chart Symbology:
4151 basic blue ripple jagged patt fill

BJ070 BJ070

Area

pack ice

Full Chart Symbology:
4151 basic blue ripple jagged patt fill

BJ080 BJ080

Area

polar ice

Full Chart Symbology:
4289 basic blue stipple dot patt fill

BJ100 BJ100

Area

snow field/ice field

Full Chart Symbology:
4180 depth pale blue very thin short dash line

BJ110 BJ110

Area

tundra

Full Chart Symbology:
4066 yellow-green variated stipple dot patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

CA030 CA030

Point

spot elevation - accurate **ela=1**

Full Chart Symbology:
2243 black sm filled cir

spot elevation - not accurate **ela<>1**

Full Chart Symbology:
1011 black sm filled cir beside +-

DA005 DA005

Area

asphalt lake

Full Chart Symbology:
4124 depth gray land cover/ripple patt fill

DA010 DA010

Area

ground surface element - not rocky **smc<>84**

Full Chart Symbology:
4005 beige stiple dot patt fill

ground surface element - rocky **smc=84**

Full Chart Symbology:
4248 lt gray stipple dot patt fill

DA020 DA020

Area

barren ground

Full Chart Symbology:
4003 beige solid fill

DB010 DB010

Line

bluff/cliff/escarpment

Full Chart Symbology:
3146 black solid triangle line patt

DTOP

Point Symbology	Line Symbology	Area Symbology

DB030 DB030

Point

cave

Full Chart Symbology:
2247 black diag line w/ "L" on top

DB060 DB060

Area

crevice/crevasse

Full Chart Symbology:
4030 brown left diag thin line patt fill

Line

crevice/crevasse

Full Chart Symbology:
3024 red brown very thin solid line

DB070 DB070

Line

cut

Full Chart Symbology:
1308 black very thin line w/ ticks

DB080 DB080

Line

depression

Full Chart Symbology:
1308 black very thin line w/ ticks

DB090 DB090

Line

embankment/fill

Full Chart Symbology:
1309 black double lines w/ ticks pointing out

DTOP

Point Symbology	Line Symbology	Area Symbology

DB100 DB100

Line

esker

Full Chart Symbology:

3003 tan very thin solid line

DB110 DB110

Line

fault

Full Chart Symbology:

3014 brown solid line

DB115 DB115

Point

geothermal feature

Full Chart Symbology:

2248 sm brown filled cir w/ tail below

DB145 DB145

Area

miscellaneous obstacle

Full Chart Symbology:

3112 black thin solid line

4249 black x patt fill

Line

miscellaneous obstacle

Full Chart Symbology:

1403 black line w/ open diamonds

DB150 DB150

Point

mountain pass

Full Chart Symbology:

2249 black)(symbol

DTOP

Point Symbology	Line Symbology	Area Symbology

DB160 DB160

Area

rock strata/rock formation

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

rock strata/rock formation

Full Chart Symbology:
2250 brown 6 pt asterisk w/ open center

DB170 DB170

Area

sand dune/sand hills - crescent **ssc=22**

Full Chart Symbology:
4009 beige sand dune crescent

sand dune/sand hills - lateral **ssc=26**

Full Chart Symbology:
4010 beige sand dune lateral

sand dune/sand hills - mounds **ssc=27**

Full Chart Symbology:
4011 beige sand dune mound

sand dune/sand hills - ripple **ssc=28**

Full Chart Symbology:
4012 beige sand dune ripple

sand dune/sand hills - star **ssc=29**

Full Chart Symbology:
4013 beige sand dune star

sand dune/sand hills - transverse **ssc=30**

Full Chart Symbology:
4014 beige sand dune transverse

sand dune/sand hills - unknown **ssc=0**

Full Chart Symbology:
4008 beige sand dune default

DTOP

Point Symbology | Line Symbology | Area Symbology

DB180 DB180

Point

volcano

Full Chart Symbology:
2251 sm brown open cir w/ eight tics outside

DB190 DB190

Line

volcanic dike

Full Chart Symbology:
3168 outline lt brown thin dotted line

EA010 EA010

Area

cropland

Full Chart Symbology:
4067 yellow-green dot patt fill

EA020 EA020

Line

hedgerow

Full Chart Symbology:
3036 very dk green thin line w/rectangles one side

EA030 EA030

Area

nursery

Full Chart Symbology:
4230 yellow-green squares in grid patt fill

EA040 EA040

Area

orchard/plantation

Full Chart Symbology:
4051 very dk green squares in grid patt fill

DTOP

Point Symbology	Line Symbology	Area Symbology

EA050 EA050

Area

vineyards

Full Chart Symbology:
4054 very dk green offset grid/dot patt fill

EB010 EB010

Area

grassland

Full Chart Symbology:
4068 yellow-green grass patt fill

EB020 EB020

Area

scrub/brush

Full Chart Symbology:
4063 yellow-green stipple dot patt fill

EC010 EC010

Area

bamboo/cane

Full Chart Symbology:
4052 green bamboo patt fill

EC020 EC020

Area

oasis

Full Chart Symbology:
4170 lt blue mixed stipple dot patt fill

Point

oasis

Full Chart Symbology:
2252 green palm tree symbol

DTOP

Point Symbology	Line Symbology	Area Symbology

EC030 EC030

Area

trees - clearing **veg=52**

Full Chart Symbology:
0822 lt brown solid fill

trees - deciduous, unknown **veg=0or24**

Full Chart Symbology:
1605 yellow-green tree-top patt fill

trees - evergreen, mixed **veg=25or50**

Full Chart Symbology:
1606 yellow-green triangle tree patt fill

FA000 FA000

Line

administrative boundary - international **use=23**

Full Chart Symbology:
1310 black one long dash two short dash line

administrative boundary - primary, unknown **use=0or26**

Full Chart Symbology:
1311 black long dash short dash line

FA020 FA020

Line

armistice line

Full Chart Symbology:
3119 black very thin long dash line

FA030 FA030

Line

cease-fire line

Full Chart Symbology:
3119 black very thin long dash line

FA060 FA060

Line

defacto boundary

Full Chart Symbology:
1310 black one long dash two short dash line

DTOP

Point Symbology	Line Symbology	Area Symbology

FA070 FA070

Area

demilitarized zone

Full Chart Symbology:

3143 black double dash very thin lines

FA090 FA090

Line

geophysical prospecting grid

Full Chart Symbology:

0612 lt gray very thin solid line

FA110 FA110

Line

international date line

Full Chart Symbology:

3119 black very thin long dash line

FA170 FA170

Area

zone of occupation

Full Chart Symbology:

3118 black dash line

DTOP

Point Symbology	Line Symbology	Area Symbology

GB005 GB005

Area

airport/airfield

Full Chart Symbology:
4183 magenta solid line

Point

airport/airfield - military;operational **use=8or22 AND exs=28**

Full Chart Symbology:
2269 magenta airplane

airport/airfield - non military;operational **use<>8and<>22 AND exs=28**

Full Chart Symbology:
2267 aero-blue airplane

airport/airfield - not operational **exs<>28**

Full Chart Symbology:
2268 lt gray airplane

GB010 GB010

Point

airport lighting

Full Chart Symbology:
1012 aero blue solid filled star

GB015 GB015

Area

apron/hardstand

Full Chart Symbology:
4194 aero-blue very thin short dash line

GB030 GB030

Point

helicopter landing pad

Full Chart Symbology:
1013 black "H" inside black square

DTOP

Point Symbology	Line Symbology	Area Symbology

GB045 GB045

Area

overrun/stopway

Full Chart Symbology:

4098 purple wide rt diag line patt fill

GB055 GB055

Area

runway

Full Chart Symbology:

4089 magenta solid fill

GB075 GB075

Area

taxiway

Full Chart Symbology:

3070 aero-blue thin solid line

DTOP

Point Symbology	Line Symbology	Area Symbology

SA050 SA050

Area

slope polygon - % unknown **spr=999**

Full Chart Symbology:
1905 basic white solid fill

slope polygon - <= 3% **spr=0**

Full Chart Symbology:
4002 lt beige solid fill

slope polygon - > 10% and <= 15% **spr=2**

Full Chart Symbology:
1901 ui lt brown solid fill

slope polygon - > 15% and <= 20% **spr=3**

Full Chart Symbology:
1902 dk beige solid fill

slope polygon - > 20% and <= 30% **spr=4**

Full Chart Symbology:
1903 rose solid fill

slope polygon - > 3% and <= 10% **spr=1**

Full Chart Symbology:
4003 beige solid fill

slope polygon - > 30% and <= 45% **spr=5**

Full Chart Symbology:
1904 golden yellow solid fill

slope polygon - > 45% and <= 60% **spr=6**

Full Chart Symbology:
4175 lt orange solid fill

slope polygon - > 60% and <= 85% **spr=7**

Full Chart Symbology:
1601 red solid fill

slope polygon - > 85% **spr=8**

Full Chart Symbology:
1906 lt red brown solid fill

DTOP

Point Symbology	Line Symbology	Area Symbology

ZB030 ZB030

Point

boundary monument

Full Chart Symbology:
2278 black dot in square

ZB035 ZB035

Point

control point/control station

Full Chart Symbology:
2279 black triangle w/ dot inside

ZD020 ZD020

Area

void collection area

Full Chart Symbology:

	3082 gray very thin solid line	4105 lt gray rt diag thin line patt fill

FFD

Point Symbology	Line Symbology	Area Symbology

AC030 AC030

Area

settling basin/sludge pond

Full Chart Symbology:

0600 black very thin solid line

4077 depth med blue narrow rt diag line patt fill

AL020 AL020

Area

built-up area

Full Chart Symbology:

4128 yellow solid fill

AL045 AL045

Area

complex outline

Full Chart Symbology:

3104 red solid line

AL105 AL105

Area

settlement

Full Chart Symbology:

0802 gray solid fill

AL135 AL135

Area

native settlement

Full Chart Symbology:

0802 gray solid fill

FFD

Point Symbology	Line Symbology	Area Symbology

AN010 AN010

Line

RR - non-operational, narrow **exs<>0and<>28 AND rgc=2**

Full Chart Symbology:
3135 black dash line w/ single tics alt sides

RR - non-operational, normal/broad/unknown **exs<>0and<>28 AND rgc<>2**

Full Chart Symbology:
3131 black dash line w/ single tics both sides

RR - operational, narrow **exs=0or28 AND rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR - operational, normal/broad/unknown **exs=0or28 AND rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

AN050 AN050

Line

railroad siding/railroad spur - narrow **rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

railroad siding/railroad spur - normal/broad/unknown **rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

AN060 AN060

Area

railroad yard/marshalling yard

Full Chart Symbology:
0802 gray solid fill

AP010 AP010

Line

cart track

Full Chart Symbology:
3116 black very thin dash line

FFD

Point Symbology | Line Symbology | Area Symbology

AP030 AP030

Line

road - loose rst<>1

Full Chart Symbology:
3024 red brown very thin solid line

road - non-operational, hard exs<>0and<>28 AND rst=1

Full Chart Symbology:
1317 red brown double dash thin lines

road - operational, hard exs=0or28 AND rst=1

Full Chart Symbology:
1315 red brown double solid thin lines

AP050 AP050

Line

trail

Full Chart Symbology:
0656 gray very thin dash line

AQ040 AQ040

Line

bridge/overpass/viaduct

Full Chart Symbology:
0751 black solid line w/ tick terminators

Point

bridge/overpass/viaduct

Full Chart Symbology:
2083 black double line with flares on ends

AQ070 AQ070

Line

ferry crossing

Full Chart Symbology:
3115 black thin short dash line

Point

ferry crossing

Full Chart Symbology:
1005 black F inside boat

FFD

Point Symbology | Line Symbology | Area Symbology

AQ130 AQ130

Line

tunnel

Full Chart Symbology:
3141 black three dash one dot very thin line

Point

tunnel

Full Chart Symbology:
2100 black cir w/ T inside

BA010 BA010

Line

coastline/shoreline - accurate **acc=1**

Full Chart Symbology:
0621 depth med blue very thin solid line

coastline/shoreline - not accurate **acc<>1**

Full Chart Symbology:
3042 basic blue very thin short dash line

BA030 BA030

Area

island

Full Chart Symbology:
0822 lt brown solid fill

BA040 BA040

Area

water (except inland)

Full Chart Symbology:
0821 depth lt blue solid fill

FFD

Point Symbology	Line Symbology	Area Symbology

BB190 BB190

Area

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

Line

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

BE015 BE015

Line

depth contour

Full Chart Symbology:
3082 gray very thin solid line

BH010 BH010

Line

aqueduct - elevated **loc=25**

Full Chart Symbology:
4266 basic blue very thin solid line

aqueduct - not elevated **loc<>25**

Full Chart Symbology:
3050 basic blue dashed line w/ open cirs

FFD

Point Symbology	Line Symbology	Area Symbology

BH020 BH020

Area

canal - non-perennial, dry, unknown **hyc<>8**

Full Chart Symbology:
4265 basic blue thin solid line
1608 basic blue stipple dot patt fill

canal - perennial **hyc=8**

Full Chart Symbology:
4138 med blue solid fill

Line

canal - not perennial **hyc<>8**

Full Chart Symbology:
3167 depth pale blue thin short dash line

canal - perennial **hyc=8**

Full Chart Symbology:
3108 depth pale blue thin solid line

BH030 BH030

Area

ditch

Full Chart Symbology:
0821 depth lt blue solid fill

Line

ditch

Full Chart Symbology:
0621 depth med blue very thin solid line

BH040 BH040

Area

filtration beds/aeration beds

Full Chart Symbology:
0600 black very thin solid line
4154 dk blue solid fill

BH050 BH050

Area

fish hatchery/fish farm/marine farm

Full Chart Symbology:
3112 black thin solid line
4138 med blue solid fill

FFD

Point Symbology	Line Symbology	Area Symbology

BH070 BH070

Line

ford

Full Chart Symbology:
3114 black very thin short dash line

Point

ford

Full Chart Symbology:
2087 black opposing solid triangles pnting in

BH080 BH080

Area

lake/pond - dry **hyc=3**

Full Chart Symbology:
1655 basic blue thin dash line
1611 basic blue dot patt fill

lake/pond - perennial, unknown **hyc=0or8**

Full Chart Symbology:
4071 basic blue solid fill

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:
4078 basic blue inundation area patt fill

BH095 BH095

Area

marsh/swamp

Full Chart Symbology:
4080 basic blue marsh/swamp patt fill

BH130 BH130

Area

reservoir

Full Chart Symbology:
0600 black very thin solid line
4138 med blue solid fill

FFD

Point Symbology	Line Symbology	Area Symbology

BH135 BH135

Area

rice field

Full Chart Symbology:

4085 basic blue rice patt fill

BH140 BH140

Area

river/stream - dry, non-perennial **hyc=3or6**

Full Chart Symbology:

4265 basic blue thin solid line

1608 basic blue stipple dot patt fill

river/stream - perennial, unknown **hyc=0or8**

Full Chart Symbology:

4138 med blue solid fill

Line

river/stream - dry, non-perennial **hyc=3or6**

Full Chart Symbology:

3047 basic blue thin long dash line

river/stream - perennial, unknown **hyc=0or8**

Full Chart Symbology:

0622 depth med blue thin solid line

BH155 BH155

Area

salt evaporator

Full Chart Symbology:

0911 depth med blue grid patt fill

FFD

Point Symbology	Line Symbology	Area Symbology

BI020 BI020

Area

dam/weir

Full Chart Symbology:
4156 black solid fill

Line

dam/weir

Full Chart Symbology:
3113 black solid line

Point

dam/weir

Full Chart Symbology:
2238 black vertical heavy weight line

BI030 BI030

Area

lock

Full Chart Symbology:
0600 black very thin solid line
0810 depth med blue solid fill

Point

lock

Full Chart Symbology:
2239 black open arrowhead

CA010 CA010

Line

contour line (land) - depression **hqc=5or6**

Full Chart Symbology:
1307 red brown vy thin line w/ ticks on inside

contour line (land) - index, unknown **hqc=0or1**

Full Chart Symbology:
3026 red brown solid line

contour line (land) - intermediate **hqc=2**

Full Chart Symbology:
1855 red brown thin solid line

FFD

Point Symbology | Line Symbology | Area Symbology

CA030 CA030

Point

spot elevation - accurate **ela=1**

Full Chart Symbology:
2243 black sm filled cir

spot elevation - not accurate **ela<>1**

Full Chart Symbology:
1011 black sm filled cir beside +-

EA040 EA040

Area

orchard/plantation

Full Chart Symbology:
4051 very dk green squares in grid patt fill

EC030 EC030

Area

trees - deciduous, unknown **tre=0or1**

Full Chart Symbology:
1605 yellow-green tree-top patt fill

trees - evergreen, mixed **tre=2or3**

Full Chart Symbology:
1606 yellow-green triangle tree patt fill

FA000 FA000

Line

administrative boundary - international **use=23**

Full Chart Symbology:
1310 black one long dash two short dash line

administrative boundary - primary, unknown **use=0or26**

Full Chart Symbology:
1311 black long dash short dash line

FA001 FA001

Area

administrative area

Full Chart Symbology:
0633 lt gray thin dash line

FFD

Point Symbology | Line Symbology | Area Symbology

FA020 FA020

Line

armistice line

Full Chart Symbology:
3119 black very thin long dash line

FA030 FA030

Line

cease-fire line

Full Chart Symbology:
3119 black very thin long dash line

FC021 FC021

Line

maritime limit boundary - international (at sea) **mbl=9**

Full Chart Symbology:
1451 purple dash line w/ tics both sides (- + -)

maritime limit boundary - unknown **mbl=0**

Full Chart Symbology:
3054 lt magenta very thin short dash line

GB005 GB005

Area

airport/airfield

Full Chart Symbology:
4183 magenta solid line

Point

airport/airfield - civilian, operational **use<>8and<>22 AND exs=28**

Full Chart Symbology:
2267 aero-blue airplane

airport/airfield - military, operational **use=8or22 AND exs=28**

Full Chart Symbology:
2269 magenta airplane

airport/airfield - non-operational **exs<>28**

Full Chart Symbology:
2268 lt gray airplane

FFD

Point Symbology	Line Symbology	Area Symbology

GB035 GB035

Area

heliport

Full Chart Symbology:

4184 magenta very thin short dash line

Point

heliport

Full Chart Symbology:

2271 purple "H" inside cir

GB055 GB055

Area

runway

Full Chart Symbology:

4089 magenta solid fill

GB065 GB065

Area

seaplane base

Full Chart Symbology:

4186 magenta thin dash line

Point

seaplane base

Full Chart Symbology:

0080 magenta solid filled diamond inside cir

ZD020 ZD020

Area

void collection area

Full Chart Symbology:

3082 gray very thin solid line

4105 lt gray rt diag thin line patt fill

TOD Level 0

Point Symbology	Line Symbology	Area Symbology

BG010 BG010

Point

current flow - general; direction unknown **cur=0 OR dof=0**

Full Chart Symbology:
0071 gray arrow w/ 2 feathers and 2 ?

current flow - ocean; direction known **cur=5 AND dof<>0**

Full Chart Symbology:
0072 gray arrow w/ two feathers

FC021 FC021

Line

maritime limit boundary - limit of territorial waters **mbl=6**

Full Chart Symbology:
0633 lt gray thin dash line

maritime limit boundary - other **mbl<>6**

Full Chart Symbology:
0633 lt gray thin dash line

TOD Level 0

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

Area

maritime area - ASW area **mac=106**

Full Chart Symbology:
0754 UI vy dk blue vy thin line w/5 rows dots inside

maritime area - caution areas **mac=141or142or155**

Full Chart Symbology:
0097 traffic lt magenta ! Inside lg circle
0742 magenta dash/chevron line w/caution symbol

maritime area - major op area **mac=104**

Full Chart Symbology:
0681 UI very dk blue thin solid line

maritime area - marine sanctuary **mac=101**

Full Chart Symbology:
0081 lt magenta square w/ I
0734 magenta dash/chevron line

maritime area - military area, minefield **mac=143or148or149or158**

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle
0734 magenta dash/chevron line

maritime area - military practice areas **mac=27or28or115or116or140or146or147or150or151or152or153or157or159**

Full Chart Symbology:
0093 traffic lt magenta ! Inside lg circle
0734 magenta dash/chevron line

maritime area - minor op area **mac=105**

Full Chart Symbology:
0682 UI very dk blue very thin solid line

maritime area - pacific missile range **mac=111**

Full Chart Symbology:
0683 UI very dk blue dotted line

maritime area - restricted areas **mac=0or144or145or154or999**

Full Chart Symbology:
0087 traffic lt magenta ! In lg cir w/ magenta ?
0734 magenta dash/chevron line

maritime area - safety lane **mac=156**

Full Chart Symbology:
0716 gray dash/chevron line

TOD Level 0

Point Symbology	Line Symbology	Area Symbology

FC031 FC031

maritime area - submarine op area mac=107

Full Chart Symbology:

0755 UI vy dk blue vy thin line w/vert inward ticks

maritime area - submarine traffic lane submerged mac=108

Full Chart Symbology:

0756 feature brown vy thin line w/vert inward ticks

maritime area - submarine traffic lane surface mac=109

Full Chart Symbology:

0757 feature brown vy thin line w/3 rows dots ins

maritime area - surface traffic lane mac=110

Full Chart Symbology:

0758 feature brown 5 dot vy thin line

FC036 FC036

Area

restricted area

Full Chart Symbology:

0087 traffic lt magenta ! In lg cir w/ magenta ? 0734 magenta dash/chevron line

FC101 FC101

Line

theodolite line

Full Chart Symbology:

0684 basic red thin solid line

FC102 FC102

Line

range center line

Full Chart Symbology:

3112 black thin solid line

TOD Level 0

Point Symbology	Line Symbology	Area Symbology

FC170 FC170

Area

safety fairway

Full Chart Symbology:

0091 gray ? inside angle brackets inside dashes

0716 gray dash/chevron line

GA005 GA005

Area

air lanes/corridors **aua=0or20or36**

Full Chart Symbology:

0759 oparea green thin line w/stagrd dots inside

airspace - air defense zone **aua=2**

Full Chart Symbology:

0760 purple vy thin line w/ 3 row vert dots inside

airspace - controlled **aua=9or21or22or23or43or46or70**

Full Chart Symbology:

0761 oparea green vy thin line w/3 row vert dots

airspace - flight information region **aua=13**

Full Chart Symbology:

0762 oparea green thin line with ticks inside

airspace - upper control area **aua=39**

Full Chart Symbology:

0685 oparea green thin solid line

airspace - upper flight information region **aua=40**

Full Chart Symbology:

0763 oparea green thin line with open tabs inside

TOD Level 0

Point Symbology	Line Symbology	Area Symbology

GA015 GA015

Area

special use airspace - prohibited,restricted **aul=2or3**

Full Chart Symbology:
0765 purple thin line w/ lft angle ticks inside

special use airspace - warning area **aul=0or5or6**

Full Chart Symbology:
0764 purple thin line w/ rt angle ticks inside

GA035 GA035

Point

navaids (aeronautical) - NDB **nst=17**

Full Chart Symbology:
0517 purple circle with dot in center

navaids (aeronautical) - TACAN **nst=23**

Full Chart Symbology:
0521 purple hexagon, open outer rectgls, cntr dot

navaids (aeronautical) - unknown **nst=0**

Full Chart Symbology:
0525 purple open very very thin circle

navaids (aeronautical) - VOR/DME **nst=21**

Full Chart Symbology:
0519 purpoe hexagon in square w/ dot in center

navaids (aeronautical) - VOR **nst=20**

Full Chart Symbology:
0518 purple hexagon with dot in center

navaids (aeronautical) - VORTAC **nst=22**

Full Chart Symbology:
0520 purple hexagon, solid outer rectgls, cntr dot

TOD Level 0

Point Symbology	Line Symbology	Area Symbology

GA055 GA055

Point

waypoint/reporting-calling in point - compulsory **wpt=10**

Full Chart Symbology:
0523 oparea green solid triangle

waypoint/reporting-calling in point - non compulsory **wpt<>10**

Full Chart Symbology:
0522 oparea green open triangle

ZB035 ZB035

Point

control point/control station

Full Chart Symbology:
2279 black triangle w/ dot inside

ZD020 ZD020

Area

void collection area

Full Chart Symbology:

3082 gray very thin solid line	4105 lt gray rt diag thin line patt fill

TOD Level 1

Point Symbology	Line Symbology	Area Symbology

BD005 BD005

Point

miscellaneous underwater feature - reported **exs=58**

Full Chart Symbology:
0525 purple open very very thin circle

miscellaneous underwater feature - sonar confirmed **exs=57**

Full Chart Symbology:
0524 purple open circle w/ diagonal cross bar

BD180 BD180

Point

wreck - reported **exs=58**

Full Chart Symbology:
0525 purple open very very thin circle

wreck - sonar confirmed **exs=57**

Full Chart Symbology:
0524 purple open circle w/ diagonal cross bar

BE015 BE015

Line

depth contour - index **hqc=1**

Full Chart Symbology:
0609 depth dk gray thin solid line

depth contour - not index **hqc<>1**

Full Chart Symbology:
0608 depth gray very thin solid line

TOD Level 1

Point Symbology	Line Symbology	Area Symbology

BE019 BE019

Area

depth area - depth unknown **cvl=-32767**

Full Chart Symbology:
0803 yellow green solid fill

depth area - depth less than 200m **cvl>0and<200**

Full Chart Symbology:
0810 depth med blue solid fill

depth area - depth greater than 200m **cvl>=200**

Full Chart Symbology:
0805 depth white fill

BE020 BE020

Point

sounding - circle (light) indicating low accuracy **acc<>1**

Full Chart Symbology:
1251 sounding gray circle

BE030 BE030

Area

track swath

Full Chart Symbology:
0820 depth pale blue solid fill

BE040 BE040

Line

track line

Full Chart Symbology:
0670 depth med blue thin dash line

ZD020 ZD020

Area

void collection area

Full Chart Symbology:
3082 gray very thin solid line
4105 lt gray rt diag thin line patt fill

TOD Level 2

Point Symbology	Line Symbology	Area Symbology

BD005 BD005

Point

miscellaneous underwater feature - reported **exs=58**

Full Chart Symbology:
0525 purple open very very thin circle

miscellaneous underwater feature - sonar confirmed **exs=57**

Full Chart Symbology:
0524 purple open circle w/ diagonal cross bar

BD180 BD180

Point

wreck - reported **exs=58**

Full Chart Symbology:
0525 purple open very very thin circle

wreck - sonar confirmed **exs=57**

Full Chart Symbology:
0524 purple open circle w/ diagonal cross bar

BE015 BE015

Line

depth contour - index **hqc=1**

Full Chart Symbology:
0609 depth dk gray thin solid line

depth contour - not index **hqc<>1**

Full Chart Symbology:
0608 depth gray very thin solid line

TOD Level 2

Point Symbology	Line Symbology	Area Symbology

BE019 BE019

Area

depth area - depth unknown **cvl=-32767**

Full Chart Symbology:
0803 yellow green solid fill

depth area - depth less than 200m **cvl>0and<200**

Full Chart Symbology:
0810 depth med blue solid fill

depth area - depth greater than 200m **cvl>=200**

Full Chart Symbology:
0805 depth white fill

BE020 BE020

Point

sounding - circle (light) indicating low accuracy **acc<>1**

Full Chart Symbology:
1251 sounding gray circle

BE030 BE030

Area

track swath

Full Chart Symbology:
0820 depth pale blue solid fill

BE040 BE040

Line

track line

Full Chart Symbology:
0670 depth med blue thin dash line

ZD020 ZD020

Area

void collection area

Full Chart Symbology:
3082 gray very thin solid line
4105 lt gray rt diag thin line patt fill

TOD Level 4

Point Symbology	Line Symbology	Area Symbology

BD005 BD005

Point

miscellaneous underwater feature - not obstruction **wkt<>35**

Full Chart Symbology:
0526 purple open very thin circle

miscellaneous underwater feature - obstruction **wkt=35**

Full Chart Symbology:
0052 depth med blue fill cir w/ black dotted outline

BD180 BD180

Point

wreck

Full Chart Symbology:
0066 black horiz bar w/3 ticks

BE015 BE015

Line

depth contour - accurate, index **acc=1 AND hqc=1**

Full Chart Symbology:
0609 depth dk gray thin solid line

depth contour - accurate,not index **acc=1 AND hqc<>1**

Full Chart Symbology:
0608 depth gray very thin solid line

depth contour - not accurate, index **acc<>1 AND hqc=1**

Full Chart Symbology:
0688 depth dk gray thin long dash line

depth contour - not accurate, not index **acc<>1 AND hqc<>1**

Full Chart Symbology:
0689 depth gray very thin long dash line

TOD Level 4

Point Symbology	Line Symbology	Area Symbology

BE019 BE019

Area

depth area - depth unknown **cvl=-32767**

Full Chart Symbology:
0803 yellow green solid fill

depth area - depth less than 123m **cvl>0and<123**

Full Chart Symbology:
0810 depth med blue solid fill

depth area - depth greater than 123m **cvl>=123**

Full Chart Symbology:
0805 depth white fill

BE020 BE020

Point

sounding - circle (light) indicating low accuracy **acc<>1**

Full Chart Symbology:
1251 sounding gray circle

BF012 BF012

Point

hull integrity test site core site

Full Chart Symbology:
0022 black cir

FC178 FC178

Area

hull integrity test area

Full Chart Symbology:
0687 purple thick long dash line

FC179 FC179

Area

side scan sonar coverage

Full Chart Symbology:
1901 ui lt brown solid fill

TOD Level 4

Point Symbology	Line Symbology	Area Symbology

FC180 FC180

Area

hull integrity test site bottom feature - cable **htc=509**

Full Chart Symbology:
0767 purple broken zig-zag line w/ flash symbol

hull integrity test site bottom feature - height > 2m **htc=503**

Full Chart Symbology:
0826 42% purple solid fill

hull integrity test site bottom feature - height not > 2m, not slope > 10 degrees, not cable **htc<>503and<>507and<>509**

Full Chart Symbology:
0825 21% purple solid fill

hull integrity test site bottom feature - slope > 10 degrees **htc=507**

Full Chart Symbology:
0766 purple very thin solid line with inward ticks

Line

hull integrity test site bottom feature - cable **htc=509**

Full Chart Symbology:
0767 purple broken zig-zag line w/ flash symbol

hull integrity test site bottom feature - not cable, not slope > 10 degrees **htc<>507and<>509**

Full Chart Symbology:
0686 purple thick solid line

hull integrity test site bottom feature - slope > 10 degrees **htc=507**

Full Chart Symbology:
0766 purple very thin solid line with inward ticks

Point

hull integrity test site bottom feature

Full Chart Symbology:
0527 purple filled circle

TOD Level 4

Point Symbology	Line Symbology	Area Symbology
ZD020		**ZD020**

Area

void collection area

Full Chart Symbology:

3082 gray very thin solid line	4105 lt gray rt diag thin line patt fill

UVMap

Point Symbology	Line Symbology	Area Symbology

AA010 AA010

Area

mine

Full Chart Symbology:
2001 black pick & hammer 3116 black very thin dash line

Line

mine

Full Chart Symbology:
3116 black very thin dash line

Point

mine

Full Chart Symbology:
2001 black pick & hammer

AA012 AA012

Area

quarry

Full Chart Symbology:
2001 black pick & hammer 3116 black very thin dash line

Line

quarry

Full Chart Symbology:
3116 black very thin dash line

Point

quarry

Full Chart Symbology:
2001 black pick & hammer

AA040 AA040

Point

rig/superstructure

Full Chart Symbology:
2002 black tower

UVMap

Point Symbology	Line Symbology	Area Symbology

AA050 AA050

Point

well - not water **pro<>116**

Full Chart Symbology:
0078 black sm cir

well - water **pro=116**

Full Chart Symbology:
2003 basic blue solid filled cir

AB000 AB000

Area

disposal site/waste pile

Full Chart Symbology:
0822 lt brown solid fill

AB010 AB010

Area

wrecking yard/scrap yard

Full Chart Symbology:
0822 lt brown solid fill

AC000 AC000

Area

processing plant/treatment plant

Full Chart Symbology:
0624 feature brown very thin dash line

AC020 AC020

Point

catalytic cracker

Full Chart Symbology:
2005 black building w/ 2 smokestacks above

AC030 AC030

Area

settling basin/sludge pond

Full Chart Symbology:
0600 black very thin solid line
4077 depth med blue narrow rt diag line patt fill

UVMap

Point Symbology	Line Symbology	Area Symbology

AD010 AD010

Area

power plant

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

AD030 AD030

Area

substation/tran.yard

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

Point

substation/tran.yard

Full Chart Symbology:

2011 black filled square w/ zap on top

AF010 AF010

Point

chimney/smokestack

Full Chart Symbology:

0003 black chimney symbol

AF020 AF020

Line

conveyor

Full Chart Symbology:

3086 gray very thin short dash line

AF030 AF030

Area

cooling tower

Full Chart Symbology:

3117 black thin dash line 4100 lt gray solid fill

Point

cooling tower

Full Chart Symbology:

2016 black dot inside double cir

UVMap

Point Symbology	Line Symbology	Area Symbology

AF040 AF040

Point

crane

Full Chart Symbology:
0005 feature brown crane symbol

AF070 AF070

Point

flare pipe

Full Chart Symbology:
0006 black flare stack symbol

AH010 AH010

Area

bastion/rampart/fortification

Full Chart Symbology:
4186 magenta thin dash line

Line

bastion/rampart/fortification

Full Chart Symbology:
3052 magenta thin solid line

Point

bastion/rampart/fortification

Full Chart Symbology:
2043 black four black squares w/ connection

UVMap

Point Symbology	Line Symbology	Area Symbology

AH050 AH050

Area

fortification

Full Chart Symbology:
4186 magenta thin dash line

Line

fortification

Full Chart Symbology:
3052 magenta thin solid line

Point

fortification

Full Chart Symbology:
2043 black four black squares w/ connection

AH060 AH060

Area

underground bunker

Full Chart Symbology:
3117 black thin dash line
4100 lt gray solid fill

Line

underground bunker

Full Chart Symbology:
3054 lt magenta very thin short dash line

Point

underground bunker

Full Chart Symbology:
2072 gray shadowed square

AI020 AI020

Area

mobile home/mobile home park

Full Chart Symbology:
3114 black very thin short dash line

UVMap

Point Symbology	Line Symbology	Area Symbology

AJ030 AJ030

Area

feedlot/stockyard/holding pen

Full Chart Symbology:

4217 beige very thin solid line

AJ050 AJ050

Point

windmill

Full Chart Symbology:

0008 black sm cir w/ X on top

AK020 AK020

Point

amusement park attraction

Full Chart Symbology:

2029 black ferris wheel

AK030 AK030

Area

amusement park

Full Chart Symbology:

3117 black thin dash line

4045 green solid fill

AK040 AK040

Area

athletic field

Full Chart Symbology:

4279 nav orange thin short dash line

AK060 AK060

Area

campground/campsite

Full Chart Symbology:

3117 black thin dash line

4045 green solid fill

UVMap

Point Symbology	Line Symbology	Area Symbology

AK070 AK070

Area

drive in theater

Full Chart Symbology:

4279 nav orange thin short dash line

AK090 AK090

Area

fairgrounds

Full Chart Symbology:

4279 nav orange thin short dash line

AK100 AK100

Area

golf course

Full Chart Symbology:

4279 nav orange thin short dash line

AK110 AK110

Area

grandstand

Full Chart Symbology:

4156 black solid fill

AK120 AK120

Area

park

Full Chart Symbology:

3117 black thin dash line

4045 green solid fill

UVMap

Point Symbology	Line Symbology	Area Symbology

AK130 AK130

Area

race track

Full Chart Symbology:
3113 black solid line

Line

race track

Full Chart Symbology:
3113 black solid line

AK150 AK150

Line

ski jump

Full Chart Symbology:
0656 gray very thin dash line

Point

ski jump

Full Chart Symbology:
2034 black skier

AK160 AK160

Area

stadium/amphitheater

Full Chart Symbology:
3113 black solid line

AK170 AK170

Area

swimming pool

Full Chart Symbology:
0600 black very thin solid line
4138 med blue solid fill

AK180 AK180

Area

zoo/safari park

Full Chart Symbology:
3117 black thin dash line
4045 green solid fill

UVMap

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

Area

building - generic — **bfc<>2and<>3and<>5and<>8and<>28and<>52and<>121and<>15and<>6and<>7and<>114and<>100and<>60and<>108**

Full Chart Symbology:
4156 black solid fill

building - gov't — **bfc=2or3or5or8or28or52or121**

Full Chart Symbology:
1601 red solid fill

building - hospital — **bfc=6or100**

Full Chart Symbology:
4015 beige-rose solid fill

building - house of worship — **bfc=7or114**

Full Chart Symbology:
4002 lt beige solid fill

building - school — **bfc=15or60or108**

Full Chart Symbology:
4025 feature brown solid fill

Line

building - generic — **bfc<>2and<>3and<>5and<>8and<>15and<>28and<>52and<>121and<>6and<>7and<>114and<>100and<>60and<>108**

Full Chart Symbology:
3112 black thin solid line

building - gov't — **bfc=2or3or5or8or28or52or121**

Full Chart Symbology:
3104 red solid line

building - hospital — **bfc=6or100**

Full Chart Symbology:
3153 beige-rose thin solid line

building - house of worship — **bfc=7or114**

Full Chart Symbology:
3001 lt beige thin solid line

building - school — **bfc=15or60or108**

Full Chart Symbology:
1406 brown thin solid line

UVMap

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

Point

building - generic (industry) — **bfc=1or21or22or23or24or25or26or27or29or30or40or54or59or71or72or73or74or75or76**

Full Chart Symbology:
1202 feature brown filled square w/ brown outln

building - generic (industry) — **bfc=81or83or84or85or86or89or90or94or102or104or110or112or113or116or120or124or125**

Full Chart Symbology:
1202 feature brown filled square w/ brown outln

building - generic (population) — **bfc=0or4or9or10or11or16or17or18or19or20or33or34or36or39or51or53or55or56or57or58**

Full Chart Symbology:
2036 black sm filled square

building - generic (population) — **bfc=63or69or70or87or88or91or92or93or95or97or98or99or103or105or106or107or109or111or115or117or118or122or126or127or128or999**

Full Chart Symbology:
2036 black sm filled square

building - gov't — **bfc=2or3or5or8or12or13or14or28or31or35or37or38or52or61or62or64or65or66or67or77or78or79or80or96or101or119or121or123or723**

Full Chart Symbology:
1001 red filled square black outline

building - hospital — **bfc=6or100**

Full Chart Symbology:
1002 black filled cir w/ white cross inside

building - house of worship — **bfc=7or114 AND hwt=0or2or3or4or7 OR bfc=50**

Full Chart Symbology:
2045 black filled square w/ cross on top

building - house of worship — **bfc=7or114 AND hwt=11or14or15or16**

Full Chart Symbology:
0011 black X inscribed in rectangle

building - house of worship — **bfc=7or114 AND hwt=20**

Full Chart Symbology:
2047 black filled square w/ T on top

UVMap

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

building - house of worship bfc=7or114 AND hwt=21

Full Chart Symbology:
2048 black pinwheel

building - house of worship bfc=7or114 AND hwt=5or6or9

Full Chart Symbology:
0012 black mosque/minaret w/ dot in circle

building - lighthouse bfc=82

Full Chart Symbology:
2044 black lighthouse symbol

building - school,college,seminary bfc=15or60or108

Full Chart Symbology:
2042 black filled square w/ flag on top

AL020 AL020

Area

built-up area

Full Chart Symbology:
4128 yellow solid fill

AL030 AL030

Area

cemetery

Full Chart Symbology:
0600 black very thin solid line
0804 brown solid fill

Point

cemetery

Full Chart Symbology:
1003 black cross

AL045 AL045

Area

complex outline

Full Chart Symbology:
3104 red solid line

UVMap

Point Symbology | Line Symbology | Area Symbology

AL070 AL070

Line

fence

Full Chart Symbology:
3148 black patt line -x -x -x

AL100 AL100

Point

hut

Full Chart Symbology:
2058 gray filled square

AL120 AL120

Area

missile site

Full Chart Symbology:
3061 magenta thin dotted line

Line

missile site

Full Chart Symbology:
3054 lt magenta very thin short dash line

Point

missile site

Full Chart Symbology:
1004 black pencil shape symbol

AL130 AL130

Area

monument

Full Chart Symbology:
4175 lt orange solid fill

Point

monument

Full Chart Symbology:
2063 black monument symbol

UVMap

Point Symbology	Line Symbology	Area Symbology

AL135 AL135

Area

native settlement

Full Chart Symbology:
0802 gray solid fill

Point

native settlement

Full Chart Symbology:
2060 black square w/ S inside

AL140 AL140

Area

particle accelerator

Full Chart Symbology:
4089 magenta solid fill

AL170 AL170

Area

plaza/city square

Full Chart Symbology:
4018 lt tan solid fill

AL200 AL200

Area

ruins

Full Chart Symbology:
3114 black very thin short dash line

Point

ruins

Full Chart Symbology:
0002 feature brown filled square w/ black outline

UVMap

Point Symbology	Line Symbology	Area Symbology

AL240 AL240

Point

tower (non-communication)

Full Chart Symbology:
2071 black dot inside cir

AL250 AL250

Area

underground dwelling

Full Chart Symbology:
3117 black thin dash line
4100 lt gray solid fill

Point

underground dwelling

Full Chart Symbology:
2072 gray shadowed square

AL260 AL260

Line

wall

Full Chart Symbology:
3113 black solid line

AM010 AM010

Area

depot (storage)

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

depot (storage)

Full Chart Symbology:
2073 black square w/ diag line inside

UVMap

Point Symbology | Line Symbology | Area Symbology

AM020 AM020

Area

grain bin/silo

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

grain bin/silo

Full Chart Symbology:
2074 brown cir

AM030 AM030

Area

grain elevator

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

grain elevator

Full Chart Symbology:
0004 black tower symbol

AM040 AM040

Area

mineral pile

Full Chart Symbology:
4123 depth gray stiple patt fill

AM060 AM060

Area

storage bunker/storage mound

Full Chart Symbology:
4114 depth gray horizontal lines patt fill

Point

storage bunker/storage mound

Full Chart Symbology:
2076 red brown filled semicircle

UVMap

Point Symbology	Line Symbology	Area Symbology

AM070 AM070

Area

tank

Full Chart Symbology:
4156 black solid fill

Point

tank

Full Chart Symbology:
2019 black sm filled cir

AM080 AM080

Area

water tower

Full Chart Symbology:
4156 black solid fill

Point

water tower

Full Chart Symbology:
2078 basic blue dot inside cir

AN010 AN010

Line

RR -non-op, narrow **exs<>0and<>28 AND rgc=2**

Full Chart Symbology:
3135 black dash line w/ single tics alt sides

RR -non-op, unkn/norml/brd **exs<>0and<>28 AND rgc<>2**

Full Chart Symbology:
3131 black dash line w/ single tics both sides

RR -op, narrow **exs=0or28 AND rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR -op, unkn/norml/brd **exs=0or28 AND rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

UVMap

Point Symbology	Line Symbology	Area Symbology

AN050 AN050

Line

RR siding - narrow **rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR siding - normal,broad,unknown **rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

AN060 AN060

Area

railroad yard/marshaling yard

Full Chart Symbology:
0802 gray solid fill

AN075 AN075

Area

railroad turntable

Full Chart Symbology:
4167 black cross hatch patt fill

AP010 AP010

Line

cart track

Full Chart Symbology:
3117 black thin dash line

AP020 AP020

Area

interchange

Full Chart Symbology:
0600 black very thin solid line
1602 lights yellow solid fill

Line

interchange

Full Chart Symbology:
3121 black long dash line

UVMap

Point Symbology	Line Symbology	Area Symbology

AP030 AP030

Area

road - non-operational exs=5or6or7

Full Chart Symbology:
4037 red brown horizontal line patt fill

road - operational exs=0or28or999

Full Chart Symbology:
4036 red brown solid fill

Line

road - non-op, hard, primary exs<>0and<>28 AND rst=1 AND use=26

Full Chart Symbology:
1316 red brown triple dash thin lines

road - non-op, hard, secondary exs<>0and<>28 AND rst=1 AND use=30

Full Chart Symbology:
1317 red brown double dash thin lines

road - non-op, hard, unk exs<>0and<>28 AND rst=1 AND use=0

Full Chart Symbology:
3028 red brown thin dash line

road - op, hard, primary exs=0or28 AND rst=1 AND use=26

Full Chart Symbology:
1314 red brown triple solid thin lines

road - op, hard, secondary exs=0or28 AND rst=1 AND use=30

Full Chart Symbology:
1315 red brown double solid thin lines

road - op, hard, unk exs=0or28 AND rst=1 AND use=0

Full Chart Symbology:
1855 red brown thin solid line

road - op, loose exs=0or28 AND rst<>1

Full Chart Symbology:
3024 red brown very thin solid line

AP040 AP040

Point

gate

Full Chart Symbology:
2038 black dot w/ parallel lines inside circle

UVMap

Point Symbology | Line Symbology | Area Symbology

AP050 AP050

Line

trail

Full Chart Symbology:
0656 gray very thin dash line

AQ010 AQ010

Line

aerial cableway lines/ski lift lines

Full Chart Symbology:
0657 gray thick dash line

AQ040 AQ040

Area

bridge/overpass/viaduct

Full Chart Symbology:
1572 black thin solid dbl lines w/ flares on ea end

Line

bridge/overpass/viaduct

Full Chart Symbology:
0751 black solid line w/ tick terminators

Point

bridge/overpass/viaduct

Full Chart Symbology:
2083 black double line with flares on ends

AQ060 AQ060

Point

control tower

Full Chart Symbology:
2088 purple dot inside cir

UVMap

Point Symbology	Line Symbology	Area Symbology

AQ065 AQ065

Area

culvert

Full Chart Symbology:
0600 black very thin solid line

Line

culvert

Full Chart Symbology:
1572 black thin solid dbl lines w/ flares on ea end

AQ070 AQ070

Line

ferry crossing

Full Chart Symbology:
3115 black thin short dash line

Point

ferry crossing

Full Chart Symbology:
1005 black F inside boat

AQ090 AQ090

Point

entrance/exit

Full Chart Symbology:
2038 black dot w/ parallel lines inside circle

AQ110 AQ110

Point

mooring mast

Full Chart Symbology:
2094 purple solid ellipse extending from pole

UVMap

Point Symbology	Line Symbology	Area Symbology

AQ113 AQ113

Line

pipeline/pipe - on or above ground;not water **loc<>4 AND pro<>116**

Full Chart Symbology:
1305 brown dash thin line w/ dot

pipeline/pipe - on or above ground;water **loc<>4 AND pro=116**

Full Chart Symbology:
1304 basic blue thin dash line w/ dot

pipeline/pipe - undergound;water **loc=4 AND pro=116**

Full Chart Symbology:
1303 basic blue thin dash line w/ circle

pipeline/pipe - underground;not water **loc=4 AND pro<>116**

Full Chart Symbology:
3022 brown thin dash line w/ open cir

AQ116 AQ116

Area

pumping station

Full Chart Symbology:
4262 purple thin dash line

Point

pumping station

Full Chart Symbology:
2097 black sm square w/ P inside

AQ125 AQ125

Area

station (miscellaneous)

Full Chart Symbology:
4156 black solid fill

Point

station (miscellaneous)

Full Chart Symbology:
2099 black dot inside cir inside square

UVMap

Point Symbology	Line Symbology	Area Symbology

AQ130 AQ130

Area

tunnel

Full Chart Symbology:
3112 black thin solid line

Line

tunnel

Full Chart Symbology:
3141 black three dash one dot very thin line

AQ140 AQ140

Area

vehicle storage/parking area

Full Chart Symbology:
4240 red solid thin line
1610 red left diag line patt fill

AQ150 AQ150

Area

flight of steps

Full Chart Symbology:
0802 gray solid fill

AT010 AT010

Area

disk/dish

Full Chart Symbology:
4089 magenta solid fill

Point

disk/dish

Full Chart Symbology:
2102 black satellite dish symbol

UVMap

Point Symbology	Line Symbology	Area Symbology

AT020 AT020

Area

early warning radar site

Full Chart Symbology:
1513 magenta jagged line

Line

early warning radar site

Full Chart Symbology:
3064 magenta thin wavy solid line

Point

early warning radar site

Full Chart Symbology:
2105 black cir around satellite dish symbol

AT030 AT030

Line

power transmission line

Full Chart Symbology:
3074 purple thin solid line w/ dots on each side

AT040 AT040

Point

power transmission pylon

Full Chart Symbology:
2104 purple tower symbol

UVMap

Point Symbology | Line Symbology | Area Symbology

AT045 AT045

Area

radar transmitter

Full Chart Symbology:
1513 magenta jagged line

Line

radar transmitter

Full Chart Symbology:
3061 magenta thin dotted line

Point

radar transmitter

Full Chart Symbology:
2105 black cir around satellite dish symbol

AT050 AT050

Area

communication building

Full Chart Symbology:
4089 magenta solid fill

Point

communication building

Full Chart Symbology:
2106 black filled square w/ outward ticks

AT060 AT060

Line

telephone line/telegraph line

Full Chart Symbology:
3096 gray very rhin dash line w/ dot

AT070 AT070

Point

telephone-telegraph pylon/pole

Full Chart Symbology:
2107 black vert line w/ two horiz lines at top

UVMap

Point Symbology	Line Symbology	Area Symbology

AT080 — AT080

Point

communication tower

Full Chart Symbology:
2108 black tower w/ sound waves at top

BA010 — BA010

Line

coastline/shoreline - mangrove, marsh — **slt=6or8**

Full Chart Symbology:
3042 basic blue very thin short dash line

coastline/shoreline - not mangrove or marsh — **slt<>6and<>8**

Full Chart Symbology:
0621 depth med blue very thin solid line

BA020 — BA020

Area

foreshore

Full Chart Symbology:
0803 yellow green solid fill

BA030 — BA030

Area

island

Full Chart Symbology:
0822 lt brown solid fill

BA040 — BA040

Area

water (except inland)

Full Chart Symbology:
0821 depth lt blue solid fill

BA050 — BA050

Area

beach

Full Chart Symbology:
4220 med-beige thin solid line
4005 beige stiple dot patt fill

UVMap

Point Symbology	Line Symbology	Area Symbology

BB040 BB040

Area

breakwater/groyne

Full Chart Symbology:
0623 dk gray thin solid line

Line

breakwater/groyne

Full Chart Symbology:
0623 dk gray thin solid line

BB090 BB090

Area

drydock

Full Chart Symbology:
3112 black thin solid line

BB140 BB140

Area

jetty

Full Chart Symbology:
0623 dk gray thin solid line

Line

jetty

Full Chart Symbology:
0623 dk gray thin solid line

BB190 BB190

Area

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

Line

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

UVMap

Point Symbology	Line Symbology	Area Symbology

BB230 BB230

Line

seawall

Full Chart Symbology:
0623 dk gray thin solid line

BB240 BB240

Line

slipway/patent slip

Full Chart Symbology:
0623 dk gray thin solid line

BC050 BC050

Point

lighthouse

Full Chart Symbology:
2044 black lighthouse symbol

BG010 BG010

Point

current flow

Full Chart Symbology:
1006 basic blue line w/ arrow

BH010 BH010

Line

aqueduct - elevated **loc=25**

Full Chart Symbology:
4266 basic blue very thin solid line

aqueduct - not elevated **loc<>25**

Full Chart Symbology:
3050 basic blue dashed line w/ open cirs

Point

aqueduct

Full Chart Symbology:
1007 basic blue cir

UVMap

Point Symbology	Line Symbology	Area Symbology

BH015 BH015

Area

bog

Full Chart Symbology:
4080 basic blue marsh/swamp patt fill

BH020 BH020

Area

canal - navigable;perennial exs=32 AND hyc=8

Full Chart Symbology:
4138 med blue solid fill

canal - not navigable or not perennial exs<>32 OR hyc<>8

Full Chart Symbology:
4265 basic blue thin solid line
1608 basic blue stipple dot patt fill

Line

canal - not perennial hyc<>8

Full Chart Symbology:
3167 depth pale blue thin short dash line

canal - perennial hyc=8

Full Chart Symbology:
3108 depth pale blue thin solid line

BH030 BH030

Area

ditch

Full Chart Symbology:
0821 depth lt blue solid fill

Line

ditch - intermittent hyc=6

Full Chart Symbology:
0669 depth med blue very thin dash line

ditch - perennial, unknown hyc=0or8

Full Chart Symbology:
0621 depth med blue very thin solid line

UVMap

Point Symbology	Line Symbology	Area Symbology

BH040 BH040

Area

filtration beds/aeration beds

Full Chart Symbology:

0600 black very thin solid line

4154 dk blue solid fill

BH050 BH050

Area

fish hatchery/fish farm/marine farm

Full Chart Symbology:

3112 black thin solid line

4138 med blue solid fill

BH060 BH060

Line

flume - elevated **loc=25**

Full Chart Symbology:

3106 depth pale blue very thin solid line w/ ticks

flume - not elevated **loc<>25**

Full Chart Symbology:

3107 depth pale blue very thin solid line

BH070 BH070

Line

ford

Full Chart Symbology:

3114 black very thin short dash line

Point

ford

Full Chart Symbology:

2087 black opposing solid triangles pnting in

UVMap

Point Symbology	Line Symbology	Area Symbology

BH075 BH075

Area

fountain

Full Chart Symbology:

4266 basic blue very thin solid line
1609 basic blue diag grid patt fill

Point

fountain

Full Chart Symbology:

2320 basic blue sm cir in cir w/4 squares outside

BH077 BH077

Area

hummock

Full Chart Symbology:

1511 brown thin line outward ticks

BH080 BH080

Area

lake/pond - dry, intermittent **hyc=3or6**

Full Chart Symbology:

1655 basic blue thin dash line
1611 basic blue dot patt fill

lake/pond - perennial, unknown **hyc=0or8**

Full Chart Symbology:

4071 basic blue solid fill

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:

4078 basic blue inundation area patt fill

BH095 BH095

Area

marsh/swamp

Full Chart Symbology:

4080 basic blue marsh/swamp patt fill

UVMap

Point Symbology	Line Symbology	Area Symbology

BH100 BH100

Area

moat

Full Chart Symbology:

4152 lt blue solid fill

BH110 BH110

Line

penstock - elevated **loc=25**

Full Chart Symbology:

3106 depth pale blue very thin solid line w/ ticks

penstock - not elevated **loc<>25**

Full Chart Symbology:

3107 depth pale blue very thin solid line

BH130 BH130

Area

reservoir

Full Chart Symbology:

0600 black very thin solid line

4138 med blue solid fill

BH140 BH140

Area

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:

4265 basic blue thin solid line

1608 basic blue stipple dot patt fill

river/stream - perennial, unknown **hyc=0or8**

Full Chart Symbology:

4138 med blue solid fill

Line

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:

3047 basic blue thin long dash line

river/stream - perennial, unknown **hyc=0or8**

Full Chart Symbology:

0622 depth med blue thin solid line

UVMap

Point Symbology	Line Symbology	Area Symbology

BH150 BH150

Area

salt pan

Full Chart Symbology:
0911 depth med blue grid patt fill

BH155 BH155

Area

salt evaporator

Full Chart Symbology:
0911 depth med blue grid patt fill

BH160 BH160

Area

sebkha

Full Chart Symbology:
4289 basic blue stipple dot patt fill

BH165 BH165

Area

spillway

Full Chart Symbology:
4145 depth pale blue lft diag dash line patt fill

Line

spillway

Full Chart Symbology:
3082 gray very thin solid line

Point

spillway

Full Chart Symbology:
2234 basic blue cir diagly half filled

BH170 BH170

Point

spring/water-hole

Full Chart Symbology:
1008 basic blue filled cir w/ tail below

UVMap

Point Symbology	Line Symbology	Area Symbology

BH210 BH210

Line

inland shoreline - mangrove, marsh **slt=6or8**

Full Chart Symbology:
3042 basic blue very thin short dash line

inland shoreline - unknown, rocky, rubble, sandy, stony, other **slt=0or10or11or13or14or15**

Full Chart Symbology:
0621 depth med blue very thin solid line

BI010 BI010

Point

cistern

Full Chart Symbology:
1010 basic blue solid square

BI020 BI020

Area

dam/weir

Full Chart Symbology:
4156 black solid fill

Line

dam/weir

Full Chart Symbology:
3113 black solid line

BI030 BI030

Area

lock

Full Chart Symbology:
0600 black very thin solid line
0810 depth med blue solid fill

UVMap

Point Symbology	Line Symbology	Area Symbology

BI040 BI040

Line

sluice gate

Full Chart Symbology:
0623 dk gray thin solid line

Point

sluice gate

Full Chart Symbology:
0025 traffic magenta lg cir, 2 horiz & 1 vert line

BI050 BI050

Area

water intake tower

Full Chart Symbology:
0600 black very thin solid line

Point

water intake tower

Full Chart Symbology:
0024 black dot inside cir

CA010 CA010

Line

contour line (land) - depression **hqc=5or6**

Full Chart Symbology:
1307 red brown vy thin line w/ ticks on inside

contour line (land) - index **hqc=1or7**

Full Chart Symbology:
3026 red brown solid line

contour line (land) - intermediate **hqc=0or2or12**

Full Chart Symbology:
1855 red brown thin solid line

contour line (land) - supplementaL **hqc=3or14**

Full Chart Symbology:
1306 red brown very thin long dash line

UVMap

Point Symbology	Line Symbology	Area Symbology

CA030 CA030

Point

spot elevation - accurate **ela=1**

Full Chart Symbology:
2243 black sm filled cir

spot elevation - not accurate **ela<>1**

Full Chart Symbology:
1011 black sm filled cir beside +-

DA005 DA005

Area

asphalt lake

Full Chart Symbology:
4124 depth gray land cover/ripple patt fill

DA010 DA010

Area

ground surface element - boulders, gravel, rock **mcc=46or84or8**

Full Chart Symbology:
4034 brown heavy mixed stipple dot patt fill

ground surface element - lava **mcc=52**

Full Chart Symbology:
4108 lt gray land cover/ripple patt fill

ground surface element - not rock, not lava, not sand **mcc<>8and<>52and<>46and<>84and<>88**

Full Chart Symbology:
4003 beige solid fill

ground surface element - sand **mcc=88**

Full Chart Symbology:
4220 med-beige thin solid line
4005 beige stiple dot patt fill

DB010 DB010

Line

bluff/cliff/escarpment

Full Chart Symbology:
3146 black solid triangle line patt

UVMap

Point Symbology	Line Symbology	Area Symbology

DB030 DB030

Area

cave

Full Chart Symbology:

3117 black thin dash line

4249 black x patt fill

Point

cave

Full Chart Symbology:

2247 black diag line w/ "L" on top

DB070 DB070

Line

cut

Full Chart Symbology:

1308 black very thin line w/ ticks

DB090 DB090

Area

embankment/fill

Full Chart Symbology:

1516 black thin line outward ticks

Line

embankment/fill

Full Chart Symbology:

1309 black double lines w/ ticks pointing out

DB110 DB110

Line

fault

Full Chart Symbology:

3014 brown solid line

UVMap

Point Symbology	Line Symbology	Area Symbology

DB170 DB170

Area

sand dune/sand hills - crescent ssc=22

Full Chart Symbology:
4009 beige sand dune crescent

sand dune/sand hills - lateral ssc=26

Full Chart Symbology:
4010 beige sand dune lateral

sand dune/sand hills - mounds ssc=27

Full Chart Symbology:
4011 beige sand dune mound

sand dune/sand hills - ripple ssc=28

Full Chart Symbology:
4012 beige sand dune ripple

sand dune/sand hills - star ssc=29

Full Chart Symbology:
4013 beige sand dune star

sand dune/sand hills - transverse ssc=30

Full Chart Symbology:
4014 beige sand dune transverse

sand dune/sand hills - unknown ssc=0

Full Chart Symbology:
4008 beige sand dune default

DB200 DB200

Area

gully/gorge

Full Chart Symbology:
4027 brown wide left diag patt fill

EA010 EA010

Area

cropland

Full Chart Symbology:
4067 yellow-green dot patt fill

UVMap

Point Symbology	Line Symbology	Area Symbology

EA020 EA020

Line

hedgerow

Full Chart Symbology:

3036 very dk green thin line w/rectangles one side

EA030 EA030

Area

nursery

Full Chart Symbology:

4230 yellow-green squares in grid patt fill

EA040 EA040

Area

orchard/plantation

Full Chart Symbology:

4051 very dk green squares in grid patt fill

EA050 EA050

Area

vineyards

Full Chart Symbology:

4054 very dk green offset grid/dot patt fill

EA055 EA055

Area

hops

Full Chart Symbology:

4054 very dk green offset grid/dot patt fill

EB010 EB010

Area

grassland

Full Chart Symbology:

4068 yellow-green grass patt fill

UVMap

Point Symbology	Line Symbology	Area Symbology

EB020 EB020

Area

scrub/brush

Full Chart Symbology:

4063 yellow-green stipple dot patt fill

EC010 EC010

Area

bamboo/cane

Full Chart Symbology:

4052 green bamboo patt fill

EC030 EC030

Area

trees - deciduous, mixed, unknown **tre=0or1or3**

Full Chart Symbology:

1605 yellow-green tree-top patt fill

trees - evergreen **tre=2**

Full Chart Symbology:

1606 yellow-green triangle tree patt fill

EC040 EC040

Line

cleared way/cut line/firebreak

Full Chart Symbology:

3076 lt gray thin solid line

EE000 EE000

Area

miscellaneous vegetation

Full Chart Symbology:

4063 yellow-green stipple dot patt fill

UVMap

Point Symbology	Line Symbology	Area Symbology

FA000 FA000

Line

administrative boundary - city **use=16**

Full Chart Symbology:
1312 black very thin sht dash very sht dash line

administrative boundary - international **use=23**

Full Chart Symbology:
1310 black one long dash two short dash line

administrative boundary - primary, unknown, other **use=0or26or999**

Full Chart Symbology:
1311 black long dash short dash line

FA001 FA001

Area

administrative area

Full Chart Symbology:
0633 lt gray thin dash line

FA015 FA015

Area

firing range/gunnery range

Full Chart Symbology:
4185 magenta thin short dash line

Line

firing range/gunnery range

Full Chart Symbology:
3054 lt magenta very thin short dash line

Point

firing range/gunnery range

Full Chart Symbology:
2257 magenta square w/ F

UVMap

Point Symbology	Line Symbology	Area Symbology

FA020 FA020

Line

armistice line

Full Chart Symbology:
3119 black very thin long dash line

FA070 FA070

Area

demilitarized zone

Full Chart Symbology:
3143 black double dash very thin lines

GB005 GB005

Area

airport/airfield

Full Chart Symbology:
4183 magenta solid line

Point

airport/airfield - military;operational **use=8or22 AND exs=28**

Full Chart Symbology:
2269 magenta airplane

airport/airfield - non military;operational **use<>8and<>22 AND exs=28**

Full Chart Symbology:
2267 aero-blue airplane

airport/airfield - not operational **exs<>28**

Full Chart Symbology:
2268 lt gray airplane

GB010 GB010

Point

airport lighting

Full Chart Symbology:
1012 aero blue solid filled star

UVMap

Point Symbology	Line Symbology	Area Symbology

GB015 GB015

Area

apron/hardstand

Full Chart Symbology:

4194 aero-blue very thin short dash line

GB030 GB030

Area

helicopter landing pad

Full Chart Symbology:

3052 magenta thin solid line

1612 magenta cross hatch patt fill

Point

helicopter landing pad

Full Chart Symbology:

1013 black "H" inside black square

GB035 GB035

Area

heliport

Full Chart Symbology:

4184 magenta very thin short dash line

GB045 GB045

Area

overrun/stopway

Full Chart Symbology:

4098 purple wide rt diag line patt fill

Line

overrun/stopway

Full Chart Symbology:

3073 aero-blue thin short dash line

UVMap

Point Symbology	Line Symbology	Area Symbology

GB050 GB050

Area

revetment (airfield)

Full Chart Symbology:
1512 magenta vy thin line double ticks

Line

revetment (airfield)

Full Chart Symbology:
1313 purple line w/ squares

GB055 GB055

Area

runway

Full Chart Symbology:
4089 magenta solid fill

Line

runway

Full Chart Symbology:
3069 aero-blue very thin solid line

GB075 GB075

Area

taxiway

Full Chart Symbology:
3070 aero-blue thin solid line

Line

taxiway

Full Chart Symbology:
3070 aero-blue thin solid line

ZB020 ZB020

Point

benchmark

Full Chart Symbology:
2279 black triangle w/ dot inside

UVMap

Point Symbology	Line Symbology	Area Symbology

ZB035 ZB035

Point

control point/control station

Full Chart Symbology:
2279 black triangle w/ dot inside

VITD

Point Symbology	Line Symbology	Area Symbology

AL020 AL020

Area

built-up area

Full Chart Symbology:
3112 black thin solid line

AL060 AL060

Area

dragon teeth

Full Chart Symbology:
1301 black line w/ squares

Line

dragon teeth

Full Chart Symbology:
1301 black line w/ squares

AL195 AL195

Point

ramp

Full Chart Symbology:
2051 black ramp symbol

AL260 AL260

Line

wall

Full Chart Symbology:
3113 black solid line

VITD

Point Symbology | Line Symbology | Area Symbology

AN010 AN010

Line

RR - definite, multi exs=0or1 AND fco<>0and<>3

Full Chart Symbology:
3127 black solid line w/ double tics both sides

RR - definite, unkn/single exs=0or1 AND fco=0or3

Full Chart Symbology:
3123 black solid line w/ single tics both sides

RR - dismantled, under construction exs<>0and<>1

Full Chart Symbology:
3131 black dash line w/ single tics both sides

AN050 AN050

Line

RR sidiing - narrow, definite exs=0or1 AND rrc=4

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR siding - dismantled, under construction exs<>0and<>1

Full Chart Symbology:
3135 black dash line w/ single tics alt sides

RR siding - normal/broad, definite exs=0or1 AND rrc=0or1or5

Full Chart Symbology:
3123 black solid line w/ single tics both sides

AN060 AN060

Area

railroad yard/marshalling yard

Full Chart Symbology:
0802 gray solid fill

Line

railroad yard/marshalling yard

Full Chart Symbology:
3123 black solid line w/ single tics both sides

VITD

Point Symbology | Line Symbology | Area Symbology

AP010 AP010

Line

cart track

Full Chart Symbology:
3116 black very thin dash line

AP030 AP030

Line

road - w/ median, hard, all weather **fco=5or6 AND rst=0or1 AND wtc=0or1**

Full Chart Symbology:
1315 red brown double solid thin lines

road - w/out median, hard, all weather **fco=0or7 AND rst=0or1 AND wtc=0or1**

Full Chart Symbology:
1855 red brown thin solid line

road - w/out median, loose, all weather **fco=0or7 AND rst=2 AND wtc=0or1**

Full Chart Symbology:
3024 red brown very thin solid line

road - w/out median, loose, fair weather **fco=0or7 AND rst=2 AND wtc=2**

Full Chart Symbology:
3028 red brown thin dash line

AQ040 AQ040

Line

bridge/overpass/viaduct

Full Chart Symbology:
0751 black solid line w/ tick terminators

Point

bridge/overpass/viaduct

Full Chart Symbology:
2083 black double line with flares on ends

AQ045 AQ045

Point

bridge span

Full Chart Symbology:
2083 black double line with flares on ends

VITD

Point Symbology | Line Symbology | Area Symbology

AQ058 AQ058

Point

constriction/expansion **wd1<40**

Full Chart Symbology:
2087 black opposing solid triangles pnting in

constriction/expansion **wd1=40**

Full Chart Symbology:
1171 black opposing open equi triangles

AQ070 AQ070

Line

ferry crossing

Full Chart Symbology:
3115 black thin short dash line

Point

ferry crossing

Full Chart Symbology:
1005 black F inside boat

AQ111 AQ111

Line

prepared raft or float bridge site

Full Chart Symbology:
3115 black thin short dash line

Point

prepared raft or float bridge site

Full Chart Symbology:
1171 black opposing open equi triangles

AQ113 AQ113

Line

pipeline/pipe

Full Chart Symbology:
1305 brown dash thin line w/ dot

VITD

Point Symbology	Line Symbology	Area Symbology

AQ118 AQ118

Point

sharp curve(s)

Full Chart Symbology:
1172 black diamond w/ curve staffed arrow

AQ130 AQ130

Line

tunnel

Full Chart Symbology:
3141 black three dash one dot very thin line

Point

tunnel

Full Chart Symbology:
2100 black cir w/ T inside

BA030 BA030

Area

island

Full Chart Symbology:
4236 beige solid line

BH020 BH020

Area

canal - not perennial **hyc<>8**

Full Chart Symbology:
4265 basic blue thin solid line
1608 basic blue stipple dot patt fill

canal - perennial **hyc=8**

Full Chart Symbology:
4265 basic blue thin solid line

Line

canal

Full Chart Symbology:
3108 depth pale blue thin solid line

VITD

Point Symbology | Line Symbology | Area Symbology

BH070 BH070

Line

ford

Full Chart Symbology:
3114 black very thin short dash line

Point

ford

Full Chart Symbology:
2087 black opposing solid triangles pnting in

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:
3118 black dash line

BH095 BH095

Area

marsh/swamp

Full Chart Symbology:
3118 black dash line

BH100 BH100

Line

moat

Full Chart Symbology:
3142 black parallel vy thin lines w/ tics (ladder patt)

BH135 BH135

Area

rice field

Full Chart Symbology:
4085 basic blue rice patt fill

VITD

Point Symbology | Line Symbology | Area Symbology

BH140 BH140

Area

river/stream - intermittent **hyc=6**

Full Chart Symbology:
1655 basic blue thin dash line

river/stream - perennial, braided **hyc=0or8or14**

Full Chart Symbology:
4265 basic blue thin solid line

Line

river/stream - intermittent **hyc=0or6**

Full Chart Symbology:
3120 black thin long dash line

river/stream - perennial, braided **hyc=8or14**

Full Chart Symbology:
3112 black thin solid line

BI020 BI020

Line

dam/weir

Full Chart Symbology:
3113 black solid line

Point

dam/weir

Full Chart Symbology:
2238 black vertical heavy weight line

BI030 BI030

Line

lock

Full Chart Symbology:
3194 nav orange very thin solid line

Point

lock

Full Chart Symbology:
2239 black open arrowhead

VITD

Point Symbology	Line Symbology	Area Symbology

DA010 DA010

Area

ground surface element - gravels **stp=1or2or3or4**

Full Chart Symbology:
4259 beige thin dash line

ground surface element - sands **stp=5or6or7or8or9**

Full Chart Symbology:
1851 beige thin short dash line

ground surface element - silts, clays, evaporites, other **stp<>1and<>2and<>3and<>4and<>5and<>6and<>7and<>8and<>9**

Full Chart Symbology:
4236 beige solid line

DA020 DA020

Area

barren ground

Full Chart Symbology:
4201 depth gray thin dash line

DB010 DB010

Line

bluff/cliff/escarpment

Full Chart Symbology:
3146 black solid triangle line patt

DB070 DB070

Line

cut

Full Chart Symbology:
1308 black very thin line w/ ticks

DB080 DB080

Area

depression

Full Chart Symbology:
1509 black thin solid line ticks on inside

VITD

Point Symbology	Line Symbology	Area Symbology

DB090 DB090

Line

embankment/fill

Full Chart Symbology:
1309 black double lines w/ ticks pointing out

DB190 DB190

Line

volcanic dike

Full Chart Symbology:
3112 black thin solid line

DB200 DB200

Area

gully/gorge

Full Chart Symbology:
1406 brown thin solid line

Line

gully/gorge

Full Chart Symbology:
1406 brown thin solid line

EA010 EA010

Area

cropland

Full Chart Symbology:
1412 yellow green thin solid line

EA020 EA020

Line

hedgerow

Full Chart Symbology:
3036 very dk green thin line w/rectangles one side

VITD

Point Symbology	Line Symbology	Area Symbology

EA040 EA040

Area

orchard/plantation

Full Chart Symbology:

4178 very dk green very thin solid line

EA050 EA050

Area

vineyards

Full Chart Symbology:

4178 very dk green very thin solid line

EB010 EB010

Area

grassland

Full Chart Symbology:

4178 very dk green very thin solid line

EB020 EB020

Area

scrub/brush

Full Chart Symbology:

1412 yellow green thin solid line

EC010 EC010

Area

bamboo/cane

Full Chart Symbology:

4178 very dk green very thin solid line

EC030 EC030

Area

trees

Full Chart Symbology:

1412 yellow green thin solid line

VITD

Point Symbology	Line Symbology	Area Symbology

GB055 GB055

Area

runway

Full Chart Symbology:
3070 aero-blue thin solid line

Line

runway

Full Chart Symbology:
3069 aero-blue very thin solid line

SA010 SA010

Area

common open water

Full Chart Symbology:
4265 basic blue thin solid line

SA020 SA020

Area

disturbed soil

Full Chart Symbology:
4203 depth gray line w/ two dashes

SA030 SA030

Area

exposed bedrock

Full Chart Symbology:
4202 depth gray thin dotted line

SA040 SA040

Area

permanent snowfield

Full Chart Symbology:
1655 basic blue thin dash line

VITD

Point Symbology	Line Symbology	Area Symbology

SA050 SA050

Area

slope polygon - % unknown **gsc=0**

Full Chart Symbology:
1905 basic white solid fill

slope polygon - <= 3% **gsc=2**

Full Chart Symbology:
4002 lt beige solid fill

slope polygon - > 10% and <= 20% **gsc=4**

Full Chart Symbology:
1901 ui lt brown solid fill

slope polygon - > 20% and <= 30% **gsc=5**

Full Chart Symbology:
1903 rose solid fill

slope polygon - > 3% and <= 10% **gsc=3**

Full Chart Symbology:
4003 beige solid fill

slope polygon - > 30% and <= 45% **gsc=6**

Full Chart Symbology:
1904 golden yellow solid fill

slope polygon - > 45% **gsc=7**

Full Chart Symbology:
4175 lt orange solid fill

slope polygon - 0 to >45%, dissected **gsc=1**

Full Chart Symbology:
0803 yellow green solid fill

SA060 SA060

Line

covered drainage

Full Chart Symbology:
3117 black thin dash line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AA010 AA010

Area

mine/quarry

Full Chart Symbology:
2001 black pick & hammer 3116 black very thin dash line

Point

mine/quarry

Full Chart Symbology:
2001 black pick & hammer

AA050 AA050

Point

well

Full Chart Symbology:
0078 black sm cir

AA052 AA052

Area

oil/gas field

Full Chart Symbology:
0604 feature brown very thin solid line 0804 brown solid fill

Point

oil/gas field

Full Chart Symbology:
2002 black tower

AC000 AC000

Point

processing plant/treatment plant

Full Chart Symbology:
2005 black building w/ 2 smokestacks above

AC040 AC040

Point

oil/gas facilities

Full Chart Symbology:
2002 black tower

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AD010 AD010

Point

power plant

Full Chart Symbology:
2009 black square w/ zap inside

AD030 AD030

Point

substation/tran.yard

Full Chart Symbology:
2011 black filled square w/ zap on top

AI030 AI030

Point

camp

Full Chart Symbology:
2026 black tent

AK040 AK040

Area

athletic field

Full Chart Symbology:
4279 nav orange thin short dash line

AK130 AK130

Area

race track

Full Chart Symbology:
3113 black solid line

AK160 AK160

Point

stadium/amphitheater

Full Chart Symbology:
2035 black dot inside cir

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

Point

building

Full Chart Symbology:
2036 black sm filled square

AL020 AL020

Area

built-up area

Full Chart Symbology:
4128 yellow solid fill

Point

built-up area

Full Chart Symbology:
2053 black sm open square w/ dot in center

AL025 AL025

Point

cairn

Full Chart Symbology:
0017 black three stacked sm cirs

AL105 AL105

Point

settlement

Full Chart Symbology:
2060 black square w/ S inside

AL130 AL130

Point

monument

Full Chart Symbology:
2063 black monument symbol

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AL135 AL135

Area

native settlement

Full Chart Symbology:

0802 gray solid fill

Point

native settlement

Full Chart Symbology:

2060 black square w/ S inside

AL200 AL200

Point

ruins

Full Chart Symbology:

0002 feature brown filled square w/ black outline

AL210 AL210

Line

snow shed/rock shed

Full Chart Symbology:

3146 black solid triangle line patt

Point

snow shed/rock shed

Full Chart Symbology:

2070 black diag bands in rectangle

AL240 AL240

Point

tower (non-communication)

Full Chart Symbology:

2071 black dot inside cir

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AL260 AL260

Line

wall

Full Chart Symbology:
3113 black solid line

Point

wall

Full Chart Symbology:
2323 black dot

AM010 AM010

Point

depot (storage)

Full Chart Symbology:
2073 black square w/ diag line inside

AM070 AM070

Point

tank

Full Chart Symbology:
2019 black sm filled cir

AM080 AM080

Point

water tower

Full Chart Symbology:
2078 basic blue dot inside cir

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AN010 AN010

Line

RR -non-op, multi exs<>28 AND fco<>0and<>3

Full Chart Symbology:
3133 black dash line w/ double tics both sides

RR -non-op, unkn/single exs<>28 AND fco=0or3

Full Chart Symbology:
3131 black dash line w/ single tics both sides

RR -op, unkn/single exs=28 AND fco=0or3

Full Chart Symbology:
3123 black solid line w/ single tics both sides

RR -op,multi exs=28 AND fco<>0and<>3

Full Chart Symbology:
3127 black solid line w/ double tics both sides

AN060 AN060

Point

railroad yard/marshalling yard

Full Chart Symbology:
2036 black sm filled square

AP030 AP030

Line

road - non-op, w/ median exs<>28 AND med=1

Full Chart Symbology:
1317 red brown double dash thin lines

road - non-op, w/o median exs<>28 AND med<>1

Full Chart Symbology:
3028 red brown thin dash line

road - operational, w/median exs=28 AND med=1

Full Chart Symbology:
1315 red brown double solid thin lines

road - operational, w/o median exs=28 AND med<>1

Full Chart Symbology:
1855 red brown thin solid line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AP050 AP050

Line

trail

Full Chart Symbology:
0656 gray very thin dash line

AQ010 AQ010

Line

aerial cableway lines/ski lift lines

Full Chart Symbology:
0657 gray thick dash line

AQ040 AQ040

Line

bridge/overpass/viaduct

Full Chart Symbology:
0751 black solid line w/ tick terminators

Point

bridge/overpass/viaduct

Full Chart Symbology:
2083 black double line with flares on ends

AQ064 AQ064

Line

causeway

Full Chart Symbology:
3142 black parallel vy thin lines w/ tics (ladder patt)

Point

causeway

Full Chart Symbology:
2089 black cir w/ four outer tics and dot inside

VMap Level 0

Point Symbology | Line Symbology | Area Symbology

AQ070 AQ070

Line

ferry crossing

Full Chart Symbology:
3115 black thin short dash line

Point

ferry crossing

Full Chart Symbology:
1005 black F inside boat

AQ113 AQ113

Line

pipeline/pipe - on ground **loc=8**

Full Chart Symbology:
1305 brown dash thin line w/ dot

pipeline/pipe - underground **loc=4**

Full Chart Symbology:
3022 brown thin dash line w/ open cir

AQ116 AQ116

Point

pumping station

Full Chart Symbology:
2097 black sm square w/ P inside

AQ130 AQ130

Line

tunnel

Full Chart Symbology:
3141 black three dash one dot very thin line

Point

tunnel

Full Chart Symbology:
2100 black cir w/ T inside

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

AT030 AT030

Line

power transmission line

Full Chart Symbology:
3074 purple thin solid line w/ dots on each side

AT050 AT050

Point

communication building

Full Chart Symbology:
2106 black filled square w/ outward ticks

AT060 AT060

Line

telephone line/telegraph line

Full Chart Symbology:
3096 gray very rhin dash line w/ dot

AT080 AT080

Point

communication tower

Full Chart Symbology:
2108 black tower w/ sound waves at top

BA010 BA010

Line

coastline/shoreline

Full Chart Symbology:
0621 depth med blue very thin solid line

BA030 BA030

Point

island

Full Chart Symbology:
2111 brown filled cir

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

BA040 BA040

Area

water (except inland)

Full Chart Symbology:
0821 depth lt blue solid fill

BB040 BB040

Line

breakwater/groyne

Full Chart Symbology:
0623 dk gray thin solid line

BB190 BB190

Line

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

BB230 BB230

Line

seawall

Full Chart Symbology:
0623 dk gray thin solid line

BC050 BC050

Point

lighthouse

Full Chart Symbology:
2044 black lighthouse symbol

BD000 BD000

Line

underwater danger/hazard

Full Chart Symbology:
3139 black very thin dotted line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

BD120 BD120

Line

reef

Full Chart Symbology:
3186 black jagged line

BD130 BD130

Point

rock

Full Chart Symbology:
0063 black 6 point asterisk

BD180 BD180

Point

wreck

Full Chart Symbology:
2212 black solid filled shipwreck symbol

BE015 BE015

Line

depth contour

Full Chart Symbology:
3082 gray very thin solid line

BH000 BH000

Area

inland water

Full Chart Symbology:
4152 lt blue solid fill

Line

inland water

Full Chart Symbology:
0621 depth med blue very thin solid line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

BH015 BH015

Area

bog

Full Chart Symbology:
4080 basic blue marsh/swamp patt fill

BH050 BH050

Area

fish hatchery/fish farm/marine farm

Full Chart Symbology:
3112 black thin solid line
4138 med blue solid fill

BH070 BH070

Line

ford

Full Chart Symbology:
3114 black very thin short dash line

Point

ford

Full Chart Symbology:
2087 black opposing solid triangles pnting in

BH077 BH077

Area

hummock

Full Chart Symbology:
1511 brown thin line outward ticks

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:
4078 basic blue inundation area patt fill

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

BH095 BH095

Area

marsh/swamp

Full Chart Symbology:
4080 basic blue marsh/swamp patt fill

BH120 BH120

Point

rapids

Full Chart Symbology:
2231 basic blue open diamond

BH135 BH135

Area

rice field

Full Chart Symbology:
4085 basic blue rice patt fill

BH140 BH140

Line

river/stream - intermittent **hyc=6**

Full Chart Symbology:
3047 basic blue thin long dash line

river/stream - perennial **hyc=8**

Full Chart Symbology:
0622 depth med blue thin solid line

BH155 BH155

Area

salt evaporator

Full Chart Symbology:
0911 depth med blue grid patt fill

Point

salt evaporator

Full Chart Symbology:
2233 basic blue square w/ grid inside

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

BH170 BH170

Point

spring/water-hole

Full Chart Symbology:
1008 basic blue filled cir w/ tail below

BH180 BH180

Point

waterfall

Full Chart Symbology:
1009 basic blue filled diamond

BI020 BI020

Line

dam/weir

Full Chart Symbology:
3113 black solid line

Point

dam/weir

Full Chart Symbology:
2238 black vertical heavy weight line

BI030 BI030

Point

lock

Full Chart Symbology:
2239 black open arrowhead

BI040 BI040

Point

sluice gate

Full Chart Symbology:
0025 traffic magenta lg cir, 2 horiz & 1 vert line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

BJ040 BJ040

Line

ice cliff

Full Chart Symbology:

3047 basic blue thin long dash line

BJ065 BJ065

Area

ice shelf

Full Chart Symbology:

4151 basic blue ripple jagged patt fill

BJ070 BJ070

Area

pack ice

Full Chart Symbology:

4151 basic blue ripple jagged patt fill

BJ080 BJ080

Area

polar ice

Full Chart Symbology:

4289 basic blue stipple dot patt fill

BJ100 BJ100

Area

snow field/ice field

Full Chart Symbology:

4180 depth pale blue very thin short dash line

BJ110 BJ110

Area

tundra

Full Chart Symbology:

4066 yellow-green variated stipple dot patt fill

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

CA010 CA010

Line

contour line (land) - depression **hqc=6or18**

Full Chart Symbology:
1307 red brown vy thin line w/ ticks on inside

contour line (land) - intermediate, unknown **hqc=0or2or12**

Full Chart Symbology:
1855 red brown thin solid line

contour line (land) - supplementary approx., carrying, supplemental dep., form lines **hqc=4or13or19or20or21or22or23**

Full Chart Symbology:
1306 red brown very thin long dash line

CA030 CA030

Point

spot elevation - accurate **ela=1**

Full Chart Symbology:
2243 black sm filled cir

spot elevation - not accurate **ela<>1**

Full Chart Symbology:
1011 black sm filled cir beside +-

CA035 CA035

Point

inland water elevation

Full Chart Symbology:
2245 basic blue sm filled cir

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

DA010 DA010

Area

ground surface element - lava **mcc=52**

Full Chart Symbology:

4108 lt gray land cover/ripple patt fill

ground surface element - not lava, not sand **mcc<>52and<>88**

Full Chart Symbology:

4003 beige solid fill

ground surface element - sand **mcc=88**

Full Chart Symbology:

4220 med-beige thin solid line

4005 beige stiple dot patt fill

DB010 DB010

Line

bluff/cliff/escarpment

Full Chart Symbology:

3146 black solid triangle line patt

DB080 DB080

Line

depression

Full Chart Symbology:

1308 black very thin line w/ ticks

DB090 DB090

Line

embankment/fill

Full Chart Symbology:

1309 black double lines w/ ticks pointing out

DB110 DB110

Line

fault

Full Chart Symbology:

3014 brown solid line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

DB160 DB160

Line

rock strata/rock formation

Full Chart Symbology:

3017 brown thin dash line

EA010 EA010

Area

cropland

Full Chart Symbology:

4067 yellow-green dot patt fill

EA020 EA020

Line

hedgerow

Full Chart Symbology:

3036 very dk green thin line w/rectangles one side

EA030 EA030

Area

nursery

Full Chart Symbology:

4230 yellow-green squares in grid patt fill

EA040 EA040

Area

orchard/plantation

Full Chart Symbology:

4051 very dk green squares in grid patt fill

EA050 EA050

Area

vineyards

Full Chart Symbology:

4054 very dk green offset grid/dot patt fill

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

EB010 — EB010

Area

grassland

Full Chart Symbology:

4068 yellow-green grass patt fill

EB020 — EB020

Area

scrub/brush

Full Chart Symbology:

4063 yellow-green stipple dot patt fill

EC010 — EC010

Area

bamboo/cane

Full Chart Symbology:

4052 green bamboo patt fill

EC020 — EC020

Area

oasis

Full Chart Symbology:

4170 lt blue mixed stipple dot patt fill

EC030 — EC030

Area

trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress — **veg=11or12or17or18or25or29or38**

Full Chart Symbology:

1606 yellow-green triangle tree patt fill

trees - nipa palm, mangrove — **veg=16or19**

Full Chart Symbology:

1655 basic blue thin dash line

1613 yellow-green nipa patt fill

trees - unknown, deciduous, mixed, other — **veg=0or24or50or999**

Full Chart Symbology:

1605 yellow-green tree-top patt fill

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

EC040 EC040

Line

cleared way/cut line/firebreak

Full Chart Symbology:
3076 lt gray thin solid line

FA000 FA000

Line

administrative boundary - international **use=23**

Full Chart Symbology:
1310 black one long dash two short dash line

administrative boundary - primary **use=26**

Full Chart Symbology:
1311 black long dash short dash line

FA001 FA001

Area

administrative area

Full Chart Symbology:
0633 lt gray thin dash line

Point

administrative area

Full Chart Symbology:
2256 black/white divided square

FA020 FA020

Line

armistice line

Full Chart Symbology:
3119 black very thin long dash line

FA030 FA030

Line

cease-fire line

Full Chart Symbology:
3119 black very thin long dash line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

FA040 FA040

Line

claim line

Full Chart Symbology:

3120 black thin long dash line

FA050 FA050

Line

mandate line/convention line

Full Chart Symbology:

3118 black dash line

FA060 FA060

Line

defacto boundary

Full Chart Symbology:

1310 black one long dash two short dash line

FA070 FA070

Area

demilitarized zone

Full Chart Symbology:

3143 black double dash very thin lines

FA110 FA110

Line

international date line

Full Chart Symbology:

3119 black very thin long dash line

FA170 FA170

Area

zone of occupation

Full Chart Symbology:

3118 black dash line

VMap Level 0

Point Symbology	Line Symbology	Area Symbology

GB005 GB005

Point

airport/airfield - military **use=8or22**

Full Chart Symbology:
2269 magenta airplane

airport/airfield - non military **use<>8and<>22**

Full Chart Symbology:
2267 aero-blue airplane

SU001 SU001

Area

military base

Full Chart Symbology:
3104 red solid line

Point

military base

Full Chart Symbology:
2274 magenta M inside cir

ZD020 ZD020

Area

void collection area

Full Chart Symbology:
3082 gray very thin solid line
4105 lt gray rt diag thin line patt fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AA010 AA010

Area

mine/quarry

Full Chart Symbology:
2001 black pick & hammer
3116 black very thin dash line

Point

mine/quarry

Full Chart Symbology:
2001 black pick & hammer

AA040 AA040

Point

rig/superstructure

Full Chart Symbology:
2002 black tower

AA050 AA050

Point

well - not water **pro<>116**

Full Chart Symbology:
0078 black sm cir

well - water **pro=116**

Full Chart Symbology:
2003 basic blue solid filled cir

AB000 AB000

Area

disposal site/waste pile

Full Chart Symbology:
0822 lt brown solid fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AC000 AC000

Area

processing plant/treatment plant

Full Chart Symbology:
0624 feature brown very thin dash line

Point

processing plant/treatment plant

Full Chart Symbology:
2005 black building w/ 2 smokestacks above

AC030 AC030

Area

settling basin/sludge pond

Full Chart Symbology:
0600 black very thin solid line
4077 depth med blue narrow rt diag line patt fill

AD010 AD010

Area

power plant

Full Chart Symbology:
4077 depth med blue narrow rt diag line patt fill

Point

power plant

Full Chart Symbology:
2009 black square w/ zap inside

AF010 AF010

Point

chimney/smokestack

Full Chart Symbology:
0003 black chimney symbol

AF020 AF020

Line

conveyor

Full Chart Symbology:
3086 gray very thin short dash line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AF030 AF030

Point

cooling tower

Full Chart Symbology:
2016 black dot inside double cir

AF040 AF040

Point

crane

Full Chart Symbology:
0005 feature brown crane symbol

AF070 AF070

Point

flare pipe

Full Chart Symbology:
0006 black flare stack symbol

AH050 AH050

Area

fortification

Full Chart Symbology:
4186 magenta thin dash line

Point

fortification

Full Chart Symbology:
2043 black four black squares w/ connection

AJ050 AJ050

Point

windmill

Full Chart Symbology:
0008 black sm cir w/ X on top

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AK020 AK020

Point

amusement park attraction

Full Chart Symbology:
2029 black ferris wheel

AK120 AK120

Area

park

Full Chart Symbology:

Line Symbology	Area Symbology
3117 black thin dash line	4045 green solid fill

AK130 AK130

Line

race track

Full Chart Symbology:
3113 black solid line

AK150 AK150

Point

ski jump

Full Chart Symbology:
2034 black skier

AK160 AK160

Point

stadium/amphitheater

Full Chart Symbology:
2035 black dot inside cir

VMap Level 1

Point Symbology	Line Symbology	Area Symbology
AL015		**AL015**

Area

building - generic — **bfc<>7and<>15**

Full Chart Symbology:
4156 black solid fill

building - house of worship — **bfc=7**

Full Chart Symbology:
4002 lt beige solid fill

building - school — **bfc=15**

Full Chart Symbology:
4025 feature brown solid fill

Point

building - generic — **bfc=0or1or4or9or10or11or16or17or18or19or20or22or23or24or27or83or999**

Full Chart Symbology:
2036 black sm filled square

building - gov't — **bfc=2or3or5or12or13or14**

Full Chart Symbology:
1001 red filled square black outline

building - house of worship — **bfc=7 AND hwt=0or2or3or4or7**

Full Chart Symbology:
2045 black filled square w/ cross on top

building - house of worship — **bfc=7 AND hwt=11or14or15or16**

Full Chart Symbology:
0011 black X inscribed in rectangle

building - house of worship — **bfc=7 AND hwt=20**

Full Chart Symbology:
2047 black filled square w/ T on top

building - house of worship — **bfc=7 AND hwt=21**

Full Chart Symbology:
2048 black pinwheel

building - house of worship — **bfc=7 AND hwt=5or6or9**

Full Chart Symbology:
0012 black mosque/minaret w/ dot in circle

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AL015 AL015

building - school **bfc=15**

Full Chart Symbology:
2042 black filled square w/ flag on top

AL020 AL020

Area

built-up area

Full Chart Symbology:
4128 yellow solid fill

Point

built-up area

Full Chart Symbology:
2053 black sm open square w/ dot in center

AL025 AL025

Point

cairn

Full Chart Symbology:
0017 black three stacked sm cirs

AL070 AL070

Line

fence

Full Chart Symbology:
3148 black patt line -x -x -x

AL100 AL100

Point

hut

Full Chart Symbology:
2058 gray filled square

AL105 AL105

Area

settlement

Full Chart Symbology:
0802 gray solid fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AL130 AL130

Point

monument

Full Chart Symbology:
2063 black monument symbol

AL135 AL135

Area

native settlement

Full Chart Symbology:
0802 gray solid fill

AL140 AL140

Point

particle accelerator

Full Chart Symbology:
0014 black filled diamond cntred on horizontal line

AL200 AL200

Area

ruins

Full Chart Symbology:
3114 black very thin short dash line

Point

ruins

Full Chart Symbology:
0002 feature brown filled square w/ black outline

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AL210 AL210

Line

snow shed/rock shed

Full Chart Symbology:
3146 black solid triangle line patt

Point

snow shed/rock shed

Full Chart Symbology:
2070 black diag bands in rectangle

AL240 AL240

Point

tower (non-communication)

Full Chart Symbology:
2071 black dot inside cir

AL260 AL260

Line

wall

Full Chart Symbology:
3113 black solid line

AM020 AM020

Point

grain bin/silo

Full Chart Symbology:
2074 brown cir

AM030 AM030

Point

grain elevator

Full Chart Symbology:
0004 black tower symbol

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AM070 AM070

Point

tank

Full Chart Symbology:
2019 black sm filled cir

AM080 AM080

Point

water tower

Full Chart Symbology:
2078 basic blue dot inside cir

VMap Level 1

Point Symbology | Line Symbology | Area Symbology

AN010 AN010

Line

RR -non-op, multi, narrow — **exs<>0and<>28 AND fco<>0and<>3 AND rgc=2**

Full Chart Symbology:
3137 black dash line w/ double tics alt sides

RR -non-op, multi, norml/brd/unkn — **exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2**

Full Chart Symbology:
3133 black dash line w/ double tics both sides

RR -non-op, single/unkn, narrow — **exs<>0and<>28 AND fco=0or3 AND rgc=2**

Full Chart Symbology:
3135 black dash line w/ single tics alt sides

RR -non-op, unkn/single, unkn/norml/brd — **exs<>0and<>28 AND fco=0or3 AND rgc<>2**

Full Chart Symbology:
3131 black dash line w/ single tics both sides

RR -op, mult, narrow — **exs=0or28 AND fco<>0and<>3 AND rgc=2**

Full Chart Symbology:
3129 black solid line w/ double tics alt sides

RR -op, unkn/single, narrow — **exs=0or28 AND fco=0or3 AND rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR -op, unkn/single, unkn/norml/brd — **exs=0or28 AND fco=0or3 AND rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

RR -op,multi, unkn/norml/brd — **exs=0or28 AND fco<>0and<>3 AND rgc<>2**

Full Chart Symbology:
3127 black solid line w/ double tics both sides

AN050 AN050

Line

RR siding - narrow — **rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR siding - normal,broad,unknown — **rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AN060 AN060

Area

railroad yard/marshalling yard

Full Chart Symbology:
0802 gray solid fill

AP010 AP010

Line

cart track

Full Chart Symbology:
3116 black very thin dash line

AP020 AP020

Point

interchange

Full Chart Symbology:
2081 black open square

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AP030 AP030

Line

road - non-op, hard, interstate/international exs<>0and<>28 AND rst=1 AND use=23or37

Full Chart Symbology:
1316 red brown triple dash thin lines

road - non-op, hard, national/state exs<>0and<>28 AND rst=1 AND use=4or5

Full Chart Symbology:
1317 red brown double dash thin lines

road - non-op, hard, other exs<>0and<>28 AND rst=1 AND use=0or6or999

Full Chart Symbology:
3028 red brown thin dash line

road - op, hard, interstate/international exs=0or28 AND rst=1 AND use=23or37

Full Chart Symbology:
1314 red brown triple solid thin lines

road - op, hard, national/state exs=0or28 AND rst=1 AND use=4or5

Full Chart Symbology:
1315 red brown double solid thin lines

road - op, hard, private/other exs=0or28 AND rst=1 AND use=0or6or999

Full Chart Symbology:
1855 red brown thin solid line

road - op/loose exs=0or28 AND rst<>1

Full Chart Symbology:
3024 red brown very thin solid line

AP050 AP050

Line

trail

Full Chart Symbology:
0656 gray very thin dash line

AQ010 AQ010

Line

aerial cableway lines/ski lift lines

Full Chart Symbology:
0657 gray thick dash line

VMap Level 1

Point Symbology | Line Symbology | Area Symbology

AQ040 AQ040

Line

bridge/overpass/viaduct

Full Chart Symbology:
0751 black solid line w/ tick terminators

Point

bridge/overpass/viaduct

Full Chart Symbology:
2083 black double line with flares on ends

AQ060 AQ060

Point

control tower

Full Chart Symbology:
2088 purple dot inside cir

AQ070 AQ070

Line

ferry crossing

Full Chart Symbology:
3115 black thin short dash line

Point

ferry crossing

Full Chart Symbology:
1005 black F inside boat

AQ110 AQ110

Point

mooring mast

Full Chart Symbology:
2094 purple solid ellipse extending from pole

VMap Level 1

Point Symbology | Line Symbology | Area Symbology

AQ113 AQ113

Line

pipeline/pipe - not underground;not water **loc<>4 AND pro<>116**

Full Chart Symbology:
1305 brown dash thin line w/ dot

pipeline/pipe - not underground;water **loc<>4 AND pro=116**

Full Chart Symbology:
1304 basic blue thin dash line w/ dot

pipeline/pipe - undergound;water **loc=4 AND pro=116**

Full Chart Symbology:
1303 basic blue thin dash line w/ circle

pipeline/pipe - underground;not water **loc=4 AND pro<>116**

Full Chart Symbology:
3022 brown thin dash line w/ open cir

AQ116 AQ116

Point

pumping station

Full Chart Symbology:
2097 black sm square w/ P inside

AQ130 AQ130

Line

tunnel

Full Chart Symbology:
3141 black three dash one dot very thin line

Point

tunnel

Full Chart Symbology:
2100 black cir w/ T inside

AQ135 AQ135

Point

vehicle stopping area/rest area

Full Chart Symbology:
2101 red brown octagon shape w/ "R" inside

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

AT010 AT010

Point

disk/dish

Full Chart Symbology:
2102 black satellite dish symbol

AT030 AT030

Line

power transmission line

Full Chart Symbology:
3074 purple thin solid line w/ dots on each side

AT060 AT060

Line

telephone line/telegraph line

Full Chart Symbology:
3096 gray very rhin dash line w/ dot

AT080 AT080

Point

communication tower

Full Chart Symbology:
2108 black tower w/ sound waves at top

BA010 BA010

Line

coastline/shoreline - mangrove, marsh slt=6or8

Full Chart Symbology:
3042 basic blue very thin short dash line

coastline/shoreline -not mangrove or marsh slt<>6and<>8

Full Chart Symbology:
0621 depth med blue very thin solid line

BA020 BA020

Area

foreshore

Full Chart Symbology:
0803 yellow green solid fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BA030 BA030

Area

island

Full Chart Symbology:
0822 lt brown solid fill

BA040 BA040

Area

water (except inland)

Full Chart Symbology:
0821 depth lt blue solid fill

BB040 BB040

Line

breakwater/groyne

Full Chart Symbology:
0623 dk gray thin solid line

BB140 BB140

Line

jetty - covers and uncovers **vrr=8**

Full Chart Symbology:
0626 dk gray thin dash line

jetty - unknown, partly submerged at high water **vrr=0or1**

Full Chart Symbology:
0623 dk gray thin solid line

BB190 BB190

Area

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

Line

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BB230 BB230

Line

seawall

Full Chart Symbology:
0623 dk gray thin solid line

BD120 BD120

Area

reef

Full Chart Symbology:
3186 black jagged line

Line

reef

Full Chart Symbology:
3186 black jagged line

BD130 BD130

Point

rock

Full Chart Symbology:
0063 black 6 point asterisk

BD180 BD180

Point

wreck

Full Chart Symbology:
2212 black solid filled shipwreck symbol

BE015 BE015

Line

depth contour

Full Chart Symbology:
3082 gray very thin solid line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BH010 BH010

Line

aqueduct - elevated loc=25

Full Chart Symbology:
4266 basic blue very thin solid line

aqueduct - not elevated loc<>25

Full Chart Symbology:
3050 basic blue dashed line w/ open cirs

Point

aqueduct

Full Chart Symbology:
1007 basic blue cir

BH015 BH015

Area

bog

Full Chart Symbology:
4080 basic blue marsh/swamp patt fill

BH020 BH020

Line

canal - not perennial hyc<>8

Full Chart Symbology:
3167 depth pale blue thin short dash line

canal - perennial hyc=8

Full Chart Symbology:
3108 depth pale blue thin solid line

BH030 BH030

Line

ditch - not perennial hyc<>0and<>8

Full Chart Symbology:
0669 depth med blue very thin dash line

ditch - perennial, unknown hyc=0or8

Full Chart Symbology:
0621 depth med blue very thin solid line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BH040 BH040

Area

filtration beds/aeration beds

Full Chart Symbology:

0600 black very thin solid line

4154 dk blue solid fill

BH050 BH050

Area

fish hatchery/fish farm/marine farm

Full Chart Symbology:

3112 black thin solid line

4138 med blue solid fill

BH060 BH060

Line

flume - elevated **loc=25**

Full Chart Symbology:

3106 depth pale blue very thin solid line w/ ticks

flume - not elevated **loc<>25**

Full Chart Symbology:

3107 depth pale blue very thin solid line

BH070 BH070

Line

ford

Full Chart Symbology:

3114 black very thin short dash line

Point

ford

Full Chart Symbology:

2087 black opposing solid triangles pnting in

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BH080 BH080

Area

lake/pond - dry, intermittent **hyc=3or6**

Full Chart Symbology:

1655 basic blue thin dash line

1611 basic blue dot patt fill

lake/pond - perennial, unknown **hyc=0or8**

Full Chart Symbology:

4071 basic blue solid fill

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:

4078 basic blue inundation area patt fill

BH095 BH095

Area

marsh/swamp

Full Chart Symbology:

4080 basic blue marsh/swamp patt fill

BH110 BH110

Line

penstock - elevated **loc=25**

Full Chart Symbology:

3106 depth pale blue very thin solid line w/ ticks

penstock - not elevated **loc<>25**

Full Chart Symbology:

3107 depth pale blue very thin solid line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BH120 BH120

Line

rapids

Full Chart Symbology:

3117 black thin dash line

Point

rapids

Full Chart Symbology:

2231 basic blue open diamond

BH130 BH130

Area

reservoir

Full Chart Symbology:

0600 black very thin solid line

4138 med blue solid fill

BH135 BH135

Area

rice field

Full Chart Symbology:

4085 basic blue rice patt fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BH140 BH140

Area

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:
4265 basic blue thin solid line
1608 basic blue stipple dot patt fill

river/stream - perennial, unknown; non-tidal **hyc=0or8 AND tid=1**

Full Chart Symbology:
4138 med blue solid fill

river/stream - perennial, unknown; tidal, unknown **hyc=0or8 AND tid=0or2**

Full Chart Symbology:
3117 black thin dash line
4071 basic blue solid fill

Line

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:
3047 basic blue thin long dash line

river/stream - perennial, unknown **hyc=0or8**

Full Chart Symbology:
0622 depth med blue thin solid line

BH145 BH145

Point

river stream vanishing point

Full Chart Symbology:
2232 basic blue solid arrowhead

BH150 BH150

Area

salt pan

Full Chart Symbology:
0911 depth med blue grid patt fill

BH155 BH155

Area

salt evaporator

Full Chart Symbology:
0911 depth med blue grid patt fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BH160 BH160

Area

sebkha

Full Chart Symbology:
4289 basic blue stipple dot patt fill

BH170 BH170

Point

spring/water-hole

Full Chart Symbology:
1008 basic blue filled cir w/ tail below

BH180 BH180

Line

waterfall

Full Chart Symbology:
0621 depth med blue very thin solid line

Point

waterfall

Full Chart Symbology:
1009 basic blue filled diamond

BH190 BH190

Area

lagoon/reef pool

Full Chart Symbology:
1506 basic blue jagged vy thin line

BI010 BI010

Point

cistern

Full Chart Symbology:
1010 basic blue solid square

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BI020 BI020

Line

dam/weir

Full Chart Symbology:
3113 black solid line

Point

dam/weir

Full Chart Symbology:
2238 black vertical heavy weight line

BI030 BI030

Line

lock

Full Chart Symbology:
3194 nav orange very thin solid line

BI050 BI050

Point

water intake tower

Full Chart Symbology:
0024 black dot inside cir

BJ020 BJ020

Area

moraine

Full Chart Symbology:
1406 brown thin solid line
4032 brown stipple dot patt fill

BJ030 BJ030

Area

glacier

Full Chart Symbology:
4150 depth pale blue stiple dot patt fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BJ040 BJ040

Line

ice cliff

Full Chart Symbology:
3047 basic blue thin long dash line

BJ060 BJ060

Point

ice peak/nunatak

Full Chart Symbology:
2242 black 8 pt asterisk w/ open center

BJ065 BJ065

Area

ice shelf

Full Chart Symbology:
4151 basic blue ripple jagged patt fill

BJ070 BJ070

Area

pack ice

Full Chart Symbology:
4151 basic blue ripple jagged patt fill

BJ080 BJ080

Area

polar ice

Full Chart Symbology:
4289 basic blue stipple dot patt fill

BJ100 BJ100

Area

snow field/ice field

Full Chart Symbology:
4180 depth pale blue very thin short dash line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

BJ110 BJ110

Area

tundra

Full Chart Symbology:
4066 yellow-green variated stipple dot patt fill

CA010 CA010

Line

contour line (land)

Full Chart Symbology:
3026 red brown solid line

CA030 CA030

Point

spot elevation - accurate **ela=1**

Full Chart Symbology:
2243 black sm filled cir

spot elevation - not accurate **ela<>1**

Full Chart Symbology:
1011 black sm filled cir beside +-

DA005 DA005

Area

asphalt lake

Full Chart Symbology:
4124 depth gray land cover/ripple patt fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

DA010 DA010

Area

ground surface element - boulders, gravel **mcc=46or8**

Full Chart Symbology:
4034 brown heavy mixed stipple dot patt fill

ground surface element - lava **mcc=52**

Full Chart Symbology:
4108 lt gray land cover/ripple patt fill

ground surface element - not rock, not lava, not sand **mcc<>8and<>52and<>88and<>46**

Full Chart Symbology:
4003 beige solid fill

ground surface element - sand **mcc=88**

Full Chart Symbology:
4220 med-beige thin solid line
4005 beige stiple dot patt fill

DB010 DB010

Line

bluff/cliff/escarpment

Full Chart Symbology:
3146 black solid triangle line patt

DB030 DB030

Point

cave

Full Chart Symbology:
2247 black diag line w/ "L" on top

DB060 DB060

Line

crevice/crevasse

Full Chart Symbology:
3024 red brown very thin solid line

DB070 DB070

Line

cut

Full Chart Symbology:
1308 black very thin line w/ ticks

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

DB090 DB090

Line

embankment/fill

Full Chart Symbology:
1309 black double lines w/ ticks pointing out

DB100 DB100

Line

esker

Full Chart Symbology:
3003 tan very thin solid line

DB110 DB110

Line

fault

Full Chart Symbology:
3014 brown solid line

DB115 DB115

Point

geothermal feature

Full Chart Symbology:
2248 sm brown filled cir w/ tail below

DB150 DB150

Point

mountain pass

Full Chart Symbology:
2249 black)(symbol

DB160 DB160

Point

rock strata/rock formation

Full Chart Symbology:
2250 brown 6 pt asterisk w/ open center

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

DB170 — DB170

Area

sand dune/sand hills - crescent — ssc=22

Full Chart Symbology:
4009 beige sand dune crescent

sand dune/sand hills - lateral — ssc=26

Full Chart Symbology:
4010 beige sand dune lateral

sand dune/sand hills - mounds — ssc=27

Full Chart Symbology:
4011 beige sand dune mound

sand dune/sand hills - ripple — ssc=28

Full Chart Symbology:
4012 beige sand dune ripple

sand dune/sand hills - star — ssc=29

Full Chart Symbology:
4013 beige sand dune star

sand dune/sand hills - transverse — ssc=30

Full Chart Symbology:
4014 beige sand dune transverse

sand dune/sand hills - unknown — ssc=0

Full Chart Symbology:
4008 beige sand dune default

EA010 — EA010

Area

cropland

Full Chart Symbology:
4067 yellow-green dot patt fill

EA040 — EA040

Area

orchard/plantation

Full Chart Symbology:
4051 very dk green squares in grid patt fill

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

EA050 — EA050

Area

vineyards

Full Chart Symbology:
4054 very dk green offset grid/dot patt fill

EB010 — EB010

Area

grassland

Full Chart Symbology:
4068 yellow-green grass patt fill

EC020 — EC020

Point

oasis

Full Chart Symbology:
2252 green palm tree symbol

EC030 — EC030

Area

trees - casuarina, coniferous, palm, filao, eucalyptus, cypress — **veg=11or12or17or18or29or38**

Full Chart Symbology:
1606 yellow-green triangle tree patt fill

trees - nipa palm, mangrove — **veg=16or19**

Full Chart Symbology:
1655 basic blue thin dash line
1613 yellow-green nipa patt fill

trees - unknown, deciduous, mixed, other — **veg=0or24or50or999**

Full Chart Symbology:
1605 yellow-green tree-top patt fill

Line

trees

Full Chart Symbology:
3031 very dk green thin solid line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

EC040 EC040

Line

cleared way/cut line/firebreak

Full Chart Symbology:
3076 lt gray thin solid line

FA000 FA000

Line

administrative boundary - international **use=4or23**

Full Chart Symbology:
1310 black one long dash two short dash line

administrative boundary - primary, unknown **use=0or26**

Full Chart Symbology:
1311 black long dash short dash line

administrative boundary - secondary **use=30**

Full Chart Symbology:
1318 black thin long dsh 2 shrt dsh line

administrative boundary - tertiary **use=31**

Full Chart Symbology:
1319 black thin long dash 3 dot line

FA001 FA001

Area

administrative area

Full Chart Symbology:
0633 lt gray thin dash line

FA020 FA020

Line

armistice line

Full Chart Symbology:
3119 black very thin long dash line

FA030 FA030

Line

cease-fire line

Full Chart Symbology:
3119 black very thin long dash line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

FA050 FA050

Line

mandate line/convention line

Full Chart Symbology:

3118 black dash line

FA060 FA060

Line

defacto boundary

Full Chart Symbology:

1310 black one long dash two short dash line

FA070 FA070

Area

demilitarized zone

Full Chart Symbology:

3143 black double dash very thin lines

FA090 FA090

Line

geophysical prospecting grid

Full Chart Symbology:

0612 lt gray very thin solid line

FA110 FA110

Line

international date line

Full Chart Symbology:

3119 black very thin long dash line

FA170 FA170

Area

zone of occupation

Full Chart Symbology:

3118 black dash line

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

GB005 GB005

Point

airport/airfield - not operational **exs<>28**

Full Chart Symbology:
2268 lt gray airplane

airport/airfield - operational; military **use=8or22 AND exs=28**

Full Chart Symbology:
2269 magenta airplane

airport/airfield - operational; non military **use<>8and<>22 AND exs=28**

Full Chart Symbology:
2267 aero-blue airplane

GB010 GB010

Point

airport lighting

Full Chart Symbology:
1012 aero blue solid filled star

GB055 GB055

Line

runway

Full Chart Symbology:
3069 aero-blue very thin solid line

Point

runway - not operational **exs<>28**

Full Chart Symbology:
2281 gray cir w/ open diag band

runway - operational **exs=28**

Full Chart Symbology:
2273 aero-blue solid cir w/ open diag band

ZB035 ZB035

Point

control point/control station

Full Chart Symbology:
2279 black triangle w/ dot inside

VMap Level 1

Point Symbology	Line Symbology	Area Symbology

ZC040 ZC040

Area

magnetic disturbance area

Full Chart Symbology:

0733 lt magenta open flag 0716 gray dash/chevron line

ZD020 ZD020

Area

void collection area

Full Chart Symbology:

3082 gray very thin solid line 4105 lt gray rt diag thin line patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AA010 AA010

Area

mine/quarry

Full Chart Symbology:
2001 black pick & hammer
3116 black very thin dash line

Point

mine/quarry

Full Chart Symbology:
2001 black pick & hammer

AA040 AA040

Point

rig/superstructure

Full Chart Symbology:
2002 black tower

AA050 AA050

Point

well - not water **pro<>116**

Full Chart Symbology:
0078 black sm cir

well - water **pro=116**

Full Chart Symbology:
2003 basic blue solid filled cir

AB000 AB000

Area

disposal site/waste pile

Full Chart Symbology:
0822 lt brown solid fill

AB010 AB010

Area

wrecking yard/scrap yard

Full Chart Symbology:
4107 lt gray dot patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AC000 AC000

Area

processing plant/treatment plant

Full Chart Symbology:
0624 feature brown very thin dash line

Point

processing plant/treatment plant

Full Chart Symbology:
2005 black building w/ 2 smokestacks above

AC020 AC020

Point

catalytic cracker

Full Chart Symbology:
2005 black building w/ 2 smokestacks above

AC030 AC030

Area

settling basin/sludge pond

Full Chart Symbology:
0600 black very thin solid line
4077 depth med blue narrow rt diag line patt fill

AD010 AD010

Area

power plant

Full Chart Symbology:
0600 black very thin solid line
0804 brown solid fill

AD020 AD020

Point

solar panels

Full Chart Symbology:
2010 black sun burst w/ dot inside

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AD030 AD030

Area

substation/tran.yard

Full Chart Symbology:

0600 black very thin solid line 0804 brown solid fill

Point

substation/tran.yard

Full Chart Symbology:

2011 black filled square w/ zap on top

AF010 AF010

Point

chimney/smokestack

Full Chart Symbology:

0003 black chimney symbol

AF020 AF020

Line

conveyor

Full Chart Symbology:

3086 gray very thin short dash line

AF030 AF030

Point

cooling tower

Full Chart Symbology:

2016 black dot inside double cir

AF040 AF040

Point

crane

Full Chart Symbology:

0005 feature brown crane symbol

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AF070 AF070

Point

flare pipe

Full Chart Symbology:
0006 black flare stack symbol

AH050 AH050

Area

fortification

Full Chart Symbology:
4186 magenta thin dash line

Point

fortification

Full Chart Symbology:
2043 black four black squares w/ connection

AI020 AI020

Area

mobile home/mobile home park

Full Chart Symbology:
3114 black very thin short dash line

AJ030 AJ030

Area

feedlot/stockyard/holding pen

Full Chart Symbology:
4217 beige very thin solid line

AJ050 AJ050

Point

windmill

Full Chart Symbology:
0008 black sm cir w/ X on top

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AK020 AK020

Point

amusement park attraction

Full Chart Symbology:
2029 black ferris wheel

AK030 AK030

Area

amusement park

Full Chart Symbology:
3117 black thin dash line
4045 green solid fill

AK040 AK040

Area

athletic field

Full Chart Symbology:
4279 nav orange thin short dash line

AK060 AK060

Area

campground/campsite

Full Chart Symbology:
3117 black thin dash line
4045 green solid fill

AK070 AK070

Area

drive in theater

Full Chart Symbology:
4279 nav orange thin short dash line

AK090 AK090

Area

fairgrounds

Full Chart Symbology:
4279 nav orange thin short dash line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AK100 AK100

Area

golf course

Full Chart Symbology:

4279 nav orange thin short dash line

AK120 AK120

Area

park

Full Chart Symbology:

3117 black thin dash line

4045 green solid fill

AK130 AK130

Line

race track

Full Chart Symbology:

3113 black solid line

AK150 AK150

Line

ski jump

Full Chart Symbology:

0656 gray very thin dash line

Point

ski jump

Full Chart Symbology:

2034 black skier

AK160 AK160

Area

stadium/amphitheater

Full Chart Symbology:

3113 black solid line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AK170 AK170

Area

swimming pool

Full Chart Symbology:		
	0600 black very thin solid line	4138 med blue solid fill

AK180 AK180

Area

zoo/safari park

Full Chart Symbology:		
	3117 black thin dash line	4045 green solid fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology
AL015		**AL015**

Area

building - generic — **bfc<>6and<>7and<>15**

Full Chart Symbology:
4156 black solid fill

building - hospital — **bfc=6**

Full Chart Symbology:
4015 beige-rose solid fill

building - house of worship — **bfc=7**

Full Chart Symbology:
4002 lt beige solid fill

building - school — **bfc=15**

Full Chart Symbology:
4025 feature brown solid fill

Line

building - generic — **bfc<>6and<>7and<>15**

Full Chart Symbology:
3112 black thin solid line

building - hospital — **bfc=6**

Full Chart Symbology:
3153 beige-rose thin solid line

building - house of worship — **bfc=7**

Full Chart Symbology:
3001 lt beige thin solid line

building - school — **bfc=15**

Full Chart Symbology:
1406 brown thin solid line

Point

building - generic — **bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36**

Full Chart Symbology:
2036 black sm filled square

building - generic — **bfc=53or59or69or70or83or85or86or87or88or89or90or91or92or93or95or98or999**

Full Chart Symbology:
2036 black sm filled square

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AL015 — AL015

building - gov't — **bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96**

Full Chart Symbology:
1001 red filled square black outline

building - hospital — **bfc=6**

Full Chart Symbology:
1002 black filled cir w/ white cross inside

building - house of worship — **bfc=7 AND hwt=0or2or3or4or7**

Full Chart Symbology:
2045 black filled square w/ cross on top

building - house of worship — **bfc=7 AND hwt=11or14or15or16**

Full Chart Symbology:
0011 black X inscribed in rectangle

building - house of worship — **bfc=7 AND hwt=20**

Full Chart Symbology:
2047 black filled square w/ T on top

building - house of worship — **bfc=7 AND hwt=21**

Full Chart Symbology:
2048 black pinwheel

building - house of worship — **bfc=7 AND hwt=5or6or9**

Full Chart Symbology:
0012 black mosque/minaret w/ dot in circle

building - lighthouse — **bfc=82**

Full Chart Symbology:
2044 black lighthouse symbol

building - school — **bfc=15**

Full Chart Symbology:
2042 black filled square w/ flag on top

AL020 — AL020

Area

built-up area

Full Chart Symbology:
4128 yellow solid fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AL025 AL025

Point

cairn

Full Chart Symbology:
0017 black three stacked sm cirs

AL030 AL030

Area

cemetery

Full Chart Symbology:
0600 black very thin solid line
0804 brown solid fill

Point

cemetery

Full Chart Symbology:
1003 black cross

AL060 AL060

Area

dragon teeth

Full Chart Symbology:
1301 black line w/ squares

Line

dragon teeth

Full Chart Symbology:
1301 black line w/ squares

AL070 AL070

Line

fence

Full Chart Symbology:
3148 black patt line -x -x -x

AL100 AL100

Point

hut

Full Chart Symbology:
2058 gray filled square

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AL105 AL105

Area

settlement

Full Chart Symbology:
0802 gray solid fill

Point

settlement

Full Chart Symbology:
2060 black square w/ S inside

AL130 AL130

Point

monument

Full Chart Symbology:
2063 black monument symbol

AL135 AL135

Area

native settlement

Full Chart Symbology:
0802 gray solid fill

AL140 AL140

Area

particle accelerator

Full Chart Symbology:
4089 magenta solid fill

AL170 AL170

Area

plaza/city square

Full Chart Symbology:
4018 lt tan solid fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AL200 AL200

Area

ruins

Full Chart Symbology:
3114 black very thin short dash line

Point

ruins

Full Chart Symbology:
0002 feature brown filled square w/ black outline

AL210 AL210

Line

snow shed/rock shed

Full Chart Symbology:
3146 black solid triangle line patt

Point

snow shed/rock shed

Full Chart Symbology:
2070 black diag bands in rectangle

AL240 AL240

Point

tower (non-communication)

Full Chart Symbology:
2071 black dot inside cir

AL250 AL250

Point

underground dwelling

Full Chart Symbology:
2072 gray shadowed square

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AL260 AL260

Line

wall

Full Chart Symbology:
3113 black solid line

AM010 AM010

Area

depot (storage)

Full Chart Symbology:
4028 brown horizontal lines patt fill

AM020 AM020

Area

grain bin/silo

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

grain bin/silo

Full Chart Symbology:
2074 brown cir

AM030 AM030

Area

grain elevator

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

grain elevator

Full Chart Symbology:
0004 black tower symbol

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AM060 AM060

Area

storage bunker/storage mound

Full Chart Symbology:
4114 depth gray horizontal lines patt fill

Point

storage bunker/storage mound

Full Chart Symbology:
2076 red brown filled semicircle

AM070 AM070

Area

tank

Full Chart Symbology:
4156 black solid fill

Point

tank

Full Chart Symbology:
2019 black sm filled cir

AM080 AM080

Point

water tower

Full Chart Symbology:
2078 basic blue dot inside cir

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AN010 AN010

Line

RR -non-op, multi, narrow — **exs<>0and<>28 AND fco<>0and<>3 AND rgc=2**

Full Chart Symbology:
3137 black dash line w/ double tics alt sides

RR -non-op, multi, norml/brd/unkn — **exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2**

Full Chart Symbology:
3133 black dash line w/ double tics both sides

RR -non-op, single/unkn, narrow — **exs<>0and<>28 AND fco=0or3 AND rgc=2**

Full Chart Symbology:
3135 black dash line w/ single tics alt sides

RR -non-op, unkn/single, unkn/norml/brd — **exs<>0and<>28 AND fco=0or3 AND rgc<>2**

Full Chart Symbology:
3131 black dash line w/ single tics both sides

RR -op, mult, narrow — **exs=0or28 AND fco<>0and<>3 AND rgc=2**

Full Chart Symbology:
3129 black solid line w/ double tics alt sides

RR -op, unkn/single, narrow — **exs=0or28 AND fco=0or3 AND rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR -op, unkn/single, unkn/norml/brd — **exs=0or28 AND fco=0or3 AND rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

RR -op,multi, unkn/norml/brd — **exs=0or28 AND fco<>0and<>3 AND rgc<>2**

Full Chart Symbology:
3127 black solid line w/ double tics both sides

AN050 AN050

Line

RR siding - narrow — **rgc=2**

Full Chart Symbology:
3125 black solid line w/ single tics alt sides

RR siding - normal,broad,unknown — **rgc<>2**

Full Chart Symbology:
3123 black solid line w/ single tics both sides

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AN060 AN060

Area

railroad yard/marshalling yard

Full Chart Symbology:

0802 gray solid fill

AN075 AN075

Point

railroad turntable

Full Chart Symbology:

2080 black rt diag line inside cir

AP010 AP010

Line

cart track

Full Chart Symbology:

3117 black thin dash line

AP020 AP020

Line

interchange

Full Chart Symbology:

3121 black long dash line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AP030 AP030

Line

road - non-op, hard, interstate/international exs<>0and<>28 AND rst=1 AND use=23or37

Full Chart Symbology:
1316 red brown triple dash thin lines

road - non-op, hard, national/state exs<>0and<>28 AND rst=1 AND use=4or5

Full Chart Symbology:
1317 red brown double dash thin lines

road - non-op, hard, other exs<>0and<>28 AND rst=1 AND use=0or6or999

Full Chart Symbology:
3028 red brown thin dash line

road - op, hard, interstate/international exs=0or28 AND rst=1 AND use=23or37

Full Chart Symbology:
1314 red brown triple solid thin lines

road - op, hard, national/state exs=0or28 AND rst=1 AND use=4or5

Full Chart Symbology:
1315 red brown double solid thin lines

road - op, hard, private/other exs=0or28 AND rst=1 AND use=0or6or999

Full Chart Symbology:
1855 red brown thin solid line

road - op/loose exs=0or28 AND rst<>1

Full Chart Symbology:
3024 red brown very thin solid line

AP050 AP050

Line

trail

Full Chart Symbology:
0656 gray very thin dash line

AQ010 AQ010

Line

aerial cableway lines/ski lift lines

Full Chart Symbology:
0657 gray thick dash line

VMap Level 2

Point Symbology | Line Symbology | Area Symbology

AQ040 AQ040

Line

bridge/overpass/viaduct

Full Chart Symbology:
0751 black solid line w/ tick terminators

Point

bridge/overpass/viaduct

Full Chart Symbology:
2083 black double line with flares on ends

AQ060 AQ060

Point

control tower

Full Chart Symbology:
2088 purple dot inside cir

AQ065 AQ065

Point

culvert

Full Chart Symbology:
2090 black cir w/ C inside

AQ070 AQ070

Line

ferry crossing

Full Chart Symbology:
3115 black thin short dash line

Point

ferry crossing

Full Chart Symbology:
1005 black F inside boat

AQ110 AQ110

Point

mooring mast

Full Chart Symbology:
2094 purple solid ellipse extending from pole

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AQ113 AQ113

Line

pipeline/pipe - on or above ground;not water **loc<>4 AND pro<>116**

Full Chart Symbology:
1305 brown dash thin line w/ dot

pipeline/pipe - on or above ground;water **loc<>4 AND pro=116**

Full Chart Symbology:
1304 basic blue thin dash line w/ dot

pipeline/pipe - undergound;water **loc=4 AND pro=116**

Full Chart Symbology:
1303 basic blue thin dash line w/ circle

pipeline/pipe - underground;not water **loc=4 AND pro<>116**

Full Chart Symbology:
3022 brown thin dash line w/ open cir

AQ116 AQ116

Area

pumping station

Full Chart Symbology:
4262 purple thin dash line

Point

pumping station

Full Chart Symbology:
2097 black sm square w/ P inside

AQ130 AQ130

Line

tunnel

Full Chart Symbology:
3141 black three dash one dot very thin line

Point

tunnel

Full Chart Symbology:
2100 black cir w/ T inside

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AQ135 AQ135

Area

vehicle stopping area/rest area

Full Chart Symbology:

Line Symbology	Area Symbology
4240 red solid thin line	1610 red left diag line patt fill

AQ140 AQ140

Area

vehicle storage/parking area

Full Chart Symbology:

Line Symbology	Area Symbology
4240 red solid thin line	1610 red left diag line patt fill

AT010 AT010

Point

disk/dish

Full Chart Symbology:
2102 black satellite dish symbol

AT030 AT030

Line

power transmission line

Full Chart Symbology:

Line Symbology
3074 purple thin solid line w/ dots on each side

AT050 AT050

Area

communication building

Full Chart Symbology:

Line Symbology	Area Symbology
3117 black thin dash line	4109 depth gray solid fill

Point

communication building

Full Chart Symbology:
2106 black filled square w/ outward ticks

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

AT060 AT060

Line

telephone line/telegraph line

Full Chart Symbology:
3096 gray very rhin dash line w/ dot

AT080 AT080

Point

communication tower

Full Chart Symbology:
2108 black tower w/ sound waves at top

BA010 BA010

Line

coastline.shoreline - not mangrove or marsh **slt<>6and<>8**

Full Chart Symbology:
0621 depth med blue very thin solid line

coastline/shoreline - mangrove, marsh **slt=6or8**

Full Chart Symbology:
3042 basic blue very thin short dash line

BA020 BA020

Area

foreshore

Full Chart Symbology:
0803 yellow green solid fill

BA030 BA030

Area

island

Full Chart Symbology:
0822 lt brown solid fill

BA040 BA040

Area

water (except inland)

Full Chart Symbology:
0821 depth lt blue solid fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BB010 BB010

Area

anchorage

Full Chart Symbology:

0902 lt magenta anchor	0711 magenta dash/chevron line w/anchor symbol

Point

anchorage

Full Chart Symbology:

0036 magenta anchor

BB040 BB040

Area

breakwater/groyne

Full Chart Symbology:

0623 dk gray thin solid line

Line

breakwater/groyne

Full Chart Symbology:

0623 dk gray thin solid line

BB090 BB090

Area

drydock

Full Chart Symbology:

3112 black thin solid line

BB140 BB140

Area

jetty

Full Chart Symbology:

0623 dk gray thin solid line

Line

jetty

Full Chart Symbology:

0623 dk gray thin solid line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BB190 BB190

Area

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

Line

pier/wharf/quay

Full Chart Symbology:
0625 dk gray thick solid line

BB230 BB230

Line

seawall

Full Chart Symbology:
0623 dk gray thin solid line

BB240 BB240

Area

slipway/patent slip

Full Chart Symbology:
0623 dk gray thin solid line

Line

slipway/patent slip

Full Chart Symbology:
0623 dk gray thin solid line

BD100 BD100

Area

pile/piling/post

Full Chart Symbology:
0680 black thin dotted line
0810 depth med blue solid fill

Point

pile/piling/post

Full Chart Symbology:
2264 black cir

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BD120 BD120

Area

reef

Full Chart Symbology:
3186 black jagged line

Line

reef

Full Chart Symbology:
3186 black jagged line

BD130 BD130

Point

rock

Full Chart Symbology:
0063 black 6 point asterisk

BD180 BD180

Point

wreck

Full Chart Symbology:
2212 black solid filled shipwreck symbol

BE015 BE015

Line

depth contour

Full Chart Symbology:
3082 gray very thin solid line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BH010 — BH010

Line

aqueduct - elevated — **loc=25**

Full Chart Symbology:
4266 basic blue very thin solid line

aqueduct - not elevated — **loc<>25**

Full Chart Symbology:
3050 basic blue dashed line w/ open cirs

Point

aqueduct

Full Chart Symbology:
1007 basic blue cir

BH015 — BH015

Area

bog

Full Chart Symbology:
4080 basic blue marsh/swamp patt fill

BH020 — BH020

Area

canal - navigable;perennial — **exs=32 AND hyc=8**

Full Chart Symbology:
4138 med blue solid fill

canal - not navigable or not perennial — **exs<>32 OR hyc<>8**

Full Chart Symbology:
4265 basic blue thin solid line
1608 basic blue stipple dot patt fill

Line

canal - not perennial — **hyc<>8**

Full Chart Symbology:
3167 depth pale blue thin short dash line

canal - perennial — **hyc=8**

Full Chart Symbology:
3108 depth pale blue thin solid line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BH030 BH030

Area

ditch

Full Chart Symbology:		
		0821 depth lt blue solid fill

Line

ditch - intermittent **hyc=6**

Full Chart Symbology:		
	0669 depth med blue very thin dash line	

ditch - perennial, unknown **hyc=0or8**

Full Chart Symbology:		
	0621 depth med blue very thin solid line	

BH040 BH040

Area

filtration beds/aeration beds

Full Chart Symbology:		
	0600 black very thin solid line	4154 dk blue solid fill

BH050 BH050

Area

fish hatchery/fish farm/marine farm

Full Chart Symbology:		
	3112 black thin solid line	4138 med blue solid fill

BH060 BH060

Line

flume - elevated **loc=25**

Full Chart Symbology:		
	3106 depth pale blue very thin solid line w/ ticks	

flume - not elevated **loc<>25**

Full Chart Symbology:		
	3107 depth pale blue very thin solid line	

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BH070 BH070

Line

ford

Full Chart Symbology:
3114 black very thin short dash line

Point

ford

Full Chart Symbology:
2087 black opposing solid triangles pnting in

BH077 BH077

Area

hummock

Full Chart Symbology:
1511 brown thin line outward ticks

BH080 BH080

Area

lake/pond - dry, intermittent **hyc=3or6**

Full Chart Symbology:
1655 basic blue thin dash line
1611 basic blue dot patt fill

lake/pond - perennial, unknown **hyc=0or8**

Full Chart Symbology:
4071 basic blue solid fill

BH090 BH090

Area

land subject to inundation

Full Chart Symbology:
4078 basic blue inundation area patt fill

BH095 BH095

Area

marsh/swamp

Full Chart Symbology:
4080 basic blue marsh/swamp patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BH110 BH110

Line

penstock - elevated **loc=25**

Full Chart Symbology:
3106 depth pale blue very thin solid line w/ ticks

penstock - not elevated **loc<>25**

Full Chart Symbology:
3107 depth pale blue very thin solid line

BH120 BH120

Line

rapids

Full Chart Symbology:
3117 black thin dash line

Point

rapids

Full Chart Symbology:
2231 basic blue open diamond

BH130 BH130

Area

reservoir

Full Chart Symbology:
0600 black very thin solid line
4138 med blue solid fill

BH135 BH135

Area

rice field

Full Chart Symbology:
4085 basic blue rice patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BH140 BH140

Area

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:
4265 basic blue thin solid line
1608 basic blue stipple dot patt fill

river/stream - perennial, unknown; non-tidal **hyc=0or8 AND tid=1**

Full Chart Symbology:
4138 med blue solid fill

river/stream - perennial, unknown; tidal **hyc=0or8 AND tid<>1**

Full Chart Symbology:
3117 black thin dash line
4071 basic blue solid fill

Line

river/stream - dry, intermittent **hyc=3or6**

Full Chart Symbology:
3047 basic blue thin long dash line

river/stream - perennial, unknown **hyc=0or8**

Full Chart Symbology:
0622 depth med blue thin solid line

BH145 BH145

Point

river stream vanishing point

Full Chart Symbology:
2232 basic blue solid arrowhead

BH150 BH150

Area

salt pan

Full Chart Symbology:
0911 depth med blue grid patt fill

BH155 BH155

Area

salt evaporator

Full Chart Symbology:
0911 depth med blue grid patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BH160 BH160

Area

sebkha

Full Chart Symbology:
4289 basic blue stipple dot patt fill

BH170 BH170

Point

spring/water-hole

Full Chart Symbology:
1008 basic blue filled cir w/ tail below

BH180 BH180

Line

waterfall

Full Chart Symbology:
0621 depth med blue very thin solid line

Point

waterfall

Full Chart Symbology:
1009 basic blue filled diamond

BI010 BI010

Point

cistern

Full Chart Symbology:
1010 basic blue solid square

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BI020 BI020

Area

dam/weir

Full Chart Symbology:
4156 black solid fill

Line

dam/weir

Full Chart Symbology:
3113 black solid line

Point

dam/weir

Full Chart Symbology:
2238 black vertical heavy weight line

BI030 BI030

Area

lock

Full Chart Symbology:
0600 black very thin solid line
0810 depth med blue solid fill

Point

lock

Full Chart Symbology:
2239 black open arrowhead

BI040 BI040

Line

sluice gate

Full Chart Symbology:
0623 dk gray thin solid line

Point

sluice gate

Full Chart Symbology:
0025 traffic magenta lg cir, 2 horiz & 1 vert line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BI050 BI050

Area

water intake tower

Full Chart Symbology:

0600 black very thin solid line

Point

water intake tower

Full Chart Symbology:

0024 black dot inside cir

BJ020 BJ020

Area

moraine

Full Chart Symbology:

1406 brown thin solid line

4032 brown stipple dot patt fill

BJ030 BJ030

Area

glacier

Full Chart Symbology:

4150 depth pale blue stiple dot patt fill

BJ040 BJ040

Line

ice cliff

Full Chart Symbology:

3047 basic blue thin long dash line

BJ060 BJ060

Point

ice peak/nunatak

Full Chart Symbology:

2242 black 8 pt asterisk w/ open center

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

BJ065 BJ065

Area

ice shelf

Full Chart Symbology:

4151 basic blue ripple jagged patt fill

BJ070 BJ070

Area

pack ice

Full Chart Symbology:

4151 basic blue ripple jagged patt fill

BJ080 BJ080

Area

polar ice

Full Chart Symbology:

4289 basic blue stipple dot patt fill

BJ100 BJ100

Area

snow field/ice field

Full Chart Symbology:

4180 depth pale blue very thin short dash line

BJ110 BJ110

Area

tundra

Full Chart Symbology:

4066 yellow-green variated stipple dot patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

CA010 CA010

Line

contour line (land) - depression **hqc=5or6**

Full Chart Symbology:
1307 red brown vy thin line w/ ticks on inside

contour line (land) - index **hqc=1or7or8**

Full Chart Symbology:
3026 red brown solid line

contour line (land) - intermediate, unknown **hqc=0or2or9or12**

Full Chart Symbology:
1855 red brown thin solid line

contour line (land) - supplementary (1/4, 1/2, approx), form lines **hqc=3or4or13or14**

Full Chart Symbology:
1306 red brown very thin long dash line

CA030 CA030

Point

spot elevation - accurate **ela=1**

Full Chart Symbology:
2243 black sm filled cir

spot elevation - not accurate **ela<>1**

Full Chart Symbology:
1011 black sm filled cir beside +-

DA005 DA005

Area

asphalt lake

Full Chart Symbology:
4124 depth gray land cover/ripple patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

DA010 DA010

Area

ground surface element - boulders, gravel **mcc=46or8**

Full Chart Symbology:
4034 brown heavy mixed stipple dot patt fill

ground surface element - lava **mcc=52**

Full Chart Symbology:
4108 lt gray land cover/ripple patt fill

ground surface element - not rock, not lava, not sand **mcc<>8and<>52and<>46and<>88**

Full Chart Symbology:
4003 beige solid fill

ground surface element - sand **mcc=88**

Full Chart Symbology:
4220 med-beige thin solid line
4005 beige stiple dot patt fill

DB010 DB010

Line

bluff/cliff/escarpment

Full Chart Symbology:
3146 black solid triangle line patt

DB030 DB030

Point

cave

Full Chart Symbology:
2247 black diag line w/ "L" on top

DB060 DB060

Area

crevice/crevasse

Full Chart Symbology:
4030 brown left diag thin line patt fill

Line

crevice/crevasse

Full Chart Symbology:
3024 red brown very thin solid line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

DB070 DB070

Line

cut

Full Chart Symbology:
1308 black very thin line w/ ticks

DB090 DB090

Area

embankment/fill

Full Chart Symbology:
1516 black thin line outward ticks

Line

embankment/fill

Full Chart Symbology:
1309 black double lines w/ ticks pointing out

DB100 DB100

Line

esker

Full Chart Symbology:
3003 tan very thin solid line

DB110 DB110

Line

fault

Full Chart Symbology:
3014 brown solid line

DB115 DB115

Point

geothermal feature

Full Chart Symbology:
2248 sm brown filled cir w/ tail below

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

DB150 DB150

Point

mountain pass

Full Chart Symbology:
2249 black)(symbol

DB160 DB160

Area

rock strata/rock formation

Full Chart Symbology:
4028 brown horizontal lines patt fill

Point

rock strata/rock formation

Full Chart Symbology:
2250 brown 6 pt asterisk w/ open center

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

DB170 DB170

Area

sand dune/sand hills - crescent ssc=22

Full Chart Symbology:
4009 beige sand dune crescent

sand dune/sand hills - lateral ssc=26

Full Chart Symbology:
4010 beige sand dune lateral

sand dune/sand hills - mounds ssc=27

Full Chart Symbology:
4011 beige sand dune mound

sand dune/sand hills - ripple ssc=28

Full Chart Symbology:
4012 beige sand dune ripple

sand dune/sand hills - star ssc=29

Full Chart Symbology:
4013 beige sand dune star

sand dune/sand hills - transverse ssc=30

Full Chart Symbology:
4014 beige sand dune transverse

sand dune/sand hills - unknown ssc=0

Full Chart Symbology:
4008 beige sand dune default

DB180 DB180

Point

volcano

Full Chart Symbology:
2251 sm brown open cir w/ eight tics outside

EA010 EA010

Area

cropland

Full Chart Symbology:
4067 yellow-green dot patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

EA020 EA020

Line

hedgerow

Full Chart Symbology:

3036 very dk green thin line w/rectangles one side

EA030 EA030

Area

nursery

Full Chart Symbology:

4230 yellow-green squares in grid patt fill

EA040 EA040

Area

orchard/plantation

Full Chart Symbology:

4051 very dk green squares in grid patt fill

EA050 EA050

Area

vineyards

Full Chart Symbology:

4054 very dk green offset grid/dot patt fill

EB010 EB010

Area

grassland

Full Chart Symbology:

4068 yellow-green grass patt fill

EB020 EB020

Area

scrub/brush

Full Chart Symbology:

4063 yellow-green stipple dot patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

EC010 EC010

Area

bamboo/cane

Full Chart Symbology:
4052 green bamboo patt fill

EC020 EC020

Area

oasis

Full Chart Symbology:
4170 lt blue mixed stipple dot patt fill

Point

oasis

Full Chart Symbology:
2252 green palm tree symbol

EC030 EC030

Area

trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress **veg=11or12or17or18or25or29or38**

Full Chart Symbology:
1606 yellow-green triangle tree patt fill

trees - nipa palm, mangrove **veg=16or19**

Full Chart Symbology:
1655 basic blue thin dash line
1613 yellow-green nipa patt fill

trees - unknown, deciduous, mixed, other **veg=0or24or50or999**

Full Chart Symbology:
1605 yellow-green tree-top patt fill

Point

trees

Full Chart Symbology:
2253 green triangle tree symbol

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

EC040 EC040

Line

cleared way/cut line/firebreak

Full Chart Symbology:
3076 lt gray thin solid line

FA000 FA000

Line

administrative boundary - international **use=23**

Full Chart Symbology:
1310 black one long dash two short dash line

administrative boundary - primary, unknown **use=0or26**

Full Chart Symbology:
1311 black long dash short dash line

FA001 FA001

Area

administrative area

Full Chart Symbology:
0633 lt gray thin dash line

FA020 FA020

Line

armistice line

Full Chart Symbology:
3119 black very thin long dash line

FA030 FA030

Line

cease-fire line

Full Chart Symbology:
3119 black very thin long dash line

FA060 FA060

Line

defacto boundary

Full Chart Symbology:
1310 black one long dash two short dash line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

FA070 FA070

Area

demilitarized zone

Full Chart Symbology:

3143 black double dash very thin lines

FA090 FA090

Line

geophysical prospecting grid

Full Chart Symbology:

0612 lt gray very thin solid line

FA110 FA110

Line

international date line

Full Chart Symbology:

3119 black very thin long dash line

FA170 FA170

Area

zone of occupation

Full Chart Symbology:

3118 black dash line

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

GB005 GB005

Area

airport/airfield

Full Chart Symbology:
4183 magenta solid line

Point

airport/airfield - not operational **exs<>28**

Full Chart Symbology:
2268 lt gray airplane

airport/airfield - operational; military **use=8or22 AND exs=28**

Full Chart Symbology:
2269 magenta airplane

airport/airfield - operational; non military **use<>8and<>22 AND exs=28**

Full Chart Symbology:
2267 aero-blue airplane

GB010 GB010

Point

airport lighting

Full Chart Symbology:
1012 aero blue solid filled star

GB015 GB015

Area

apron/hardstand

Full Chart Symbology:
4194 aero-blue very thin short dash line

GB045 GB045

Area

overrun/stopway

Full Chart Symbology:
4098 purple wide rt diag line patt fill

VMap Level 2

Point Symbology	Line Symbology	Area Symbology

GB055 GB055

Area

runway

Full Chart Symbology:

4089 magenta solid fill

GB075 GB075

Area

taxiway

Full Chart Symbology:

3070 aero-blue thin solid line

ZB030 ZB030

Point

boundary monument

Full Chart Symbology:

2278 black dot in square

ZB035 ZB035

Point

control point/control station

Full Chart Symbology:

2279 black triangle w/ dot inside

ZD020 ZD020

Area

void collection area

Full Chart Symbology:

3082 gray very thin solid line

4105 lt gray rt diag thin line patt fill

WVSPLUS

Point Symbology	Line Symbology	Area Symbology

BA010 BA010

Line

coastline/shoreline

Full Chart Symbology:

1573 dk gray very thin solid line

BA040 BA040

Area

water (except inland)

Full Chart Symbology:

0805 depth white fill

BE015 BE015

Line

depth contour

Full Chart Symbology:

3082 gray very thin solid line

BE019 BE019

Area

depth area

Full Chart Symbology:

0820 depth pale blue solid fill

WVSPLUS

Point Symbology | Line Symbology | Area Symbology

FA000 FA000

Line

administrative boundary

Full Chart Symbology:
1408 basic green vy thin long dash short dash line

administrative boundary - national, international use=4or23

Full Chart Symbology:
1310 black one long dash two short dash line

administrative boundary - primary, unknown use=0or26

Full Chart Symbology:
1311 black long dash short dash line

administrative boundary - secondary use=30

Full Chart Symbology:
1318 black thin long dsh 2 shrt dsh line

administrative boundary - tertiary use=31

Full Chart Symbology:
1319 black thin long dash 3 dot line

FA001 FA001

Area

administrative area

Full Chart Symbology:
0633 lt gray thin dash line

FA020 FA020

Line

armistice line

Full Chart Symbology:
3119 black very thin long dash line

FA030 FA030

Line

cease-fire line

Full Chart Symbology:
3119 black very thin long dash line

WVSPLUS

Point Symbology | Line Symbology | Area Symbology

FA040 FA040

Line

claim line

Full Chart Symbology:
3120 black thin long dash line

FA050 FA050

Line

mandate line/convention line

Full Chart Symbology:
3118 black dash line

FA060 FA060

Line

defacto boundary

Full Chart Symbology:
1310 black one long dash two short dash line

FA070 FA070

Line

demilitarized zone **mbl=6**

Full Chart Symbology:
3143 black double dash very thin lines

FC021 FC021

Line

maritime limit boundary - international (at sea) **mbl=9**

Full Chart Symbology:
1451 purple dash line w/ tics both sides (- + -)

maritime limit boundary - other territorial baseline **mbl=999**

Full Chart Symbology:
3054 lt magenta very thin short dash line

maritime limit boundary - territorial waters baseline **mbl=7**

Full Chart Symbology:
3077 lt gray very thin dash line

maritime limit boundary - territorial waters limits **mbl=6**

Full Chart Symbology:
0633 lt gray thin dash line

WVSPLUS

Point Symbology	Line Symbology	Area Symbology
ZD003		**ZD003**

Line

artifact location

Full Chart Symbology:

0600 black very thin solid line

PRODUCT DISPLAY PRIORITY

F.1 SCOPE

F.1.1 Scope. This appendix provides a product-based report of the display priorities assigned to each feature/attribute combination It is a mandatory part of the specification. The information contained herein is intended for compliance.

F.2 APPLICABLE DOCUMENTS

This section is not applicable to this appendix.

F.3 PRODUCT DISPLAY PROIORITY

This appendix is sorted by product and then by display priority. It lists the delineation-specific feature/attribute combinations that are assigned each of the display priority values (0 to 9). This appendix represents the default display priority values contained in the *sym.txt files contained in the SYMASN\ASCII directory.

Product Display Priority Reference

DNC **DNC**

Display Priority	0		
Area	FC021	mac=26	maritime limit boundary - unsurveyed
Area	FC021	mac=26	maritime limit boundary - unsurveyed
Area	FC021	mac=26	maritime limit boundary - unsurveyed

Display Priority	1		
Line	FC021	mac=26 AND mbl=NULL	maritime limit boundary - unsurveyed
Area	AB000		disposal site/waste pile
Area	AB010		wrecking yard/scrap yard
Area	AK040		athletic field
Area	AK090		fairgrounds
Area	AK100		golf course
Area	AK120		park
Area	AK180		zoo/safari park
Area	AL200		ruins
Area	BA020		foreshore
Area	BA020	isdm=1	foreshore - shallow mode display on
Area	BA030		island
Area	BA040		water (except inland)
Area	BD120	vrr=8	reef - covers and uncovers
Area	BD120	vrr=8 AND isdm=1	reef - covers and uncovers, shallow display mode on
Area	BE010	cvl=99999	depth area; depth unknown
Area	BE010	cvl=99999	depth area; depth unknown
Area	BE010	cvl=99999	depth area; depth unknown
Area	BE010	idsm=0 AND cvl>=msdcand<>99999	depth area (very deep); 4 shades
Area	BE010	idsm=0 AND cvl>=ssdcand<msdc	depth area (medium deep); 4 shades
Area	BE010	idsm=0 AND isdm=0 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode off
Area	BE010	idsm=0 AND isdm=0 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode off
Area	BE010	idsm=0 AND isdm=1 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode on
Area	BE010	idsm=0 AND isdm=1 AND cvl<mssc	depth area (very shallow); 4 shades; shallow mode on
Area	BE010	idsm=0 AND isdm=1 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode on
Area	BE010	idsm=0 AND isdm=1 AND cvl>=msscand<ssdc	depth area (medium shallow); 4 shades; shallow mode on

DNC DNC

Display Priority	1		
Area	BE010	idsm=1 AND cvl>=ssdcand<>99999	depth area (deep water); 2 shades
Area	BE010	idsm=1 AND isdm=0 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode off
Area	BE010	idsm=1 AND isdm=1 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode on
Area	BE010	idsm=1 AND isdm=1 AND cvl<ssdc	depth area (very shallow); 2 shades; shallow mode on
Area	BH090		land subject to inundation
Area	BJ110		tundra
Area	DA010		ground surface element
Area	DB180		volcano
Area	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
Area	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
Area	FC031	mac=2 AND hdp=0 AND isdm=0	maritime area - dredged channel, depth unknown, shallow mode off
Area	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
Area	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
Area	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
Area	FC031	mac=2 AND hdp=0 AND isdm=1	maritime area - dredged channel, depth unknown, shallow mode on
Area	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
Area	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
Area	FC031	mac=2 AND idsm=0 AND hdp>=msdc	maritime area - dredged channel, 4 shades, deep water
Area	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
Area	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
Area	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=0	maritime area - dredged channel, 4 shades, medium shallow, shallow mode off
Area	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
Area	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
Area	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on
Area	FC031	mac=2 AND idsm=0 AND hdp>=msscand<ssdc AND isdm=1	maritime area - dredged channel, 4 shades, medium shallow, shallow mode on

DNC DNC

Display Priority	1		
Area	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
Area	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
Area	FC031	mac=2 AND idsm=0 AND hdp>=ssdcand<msdc	maritime area - dredged channel, 4 shades, medium deep
Area	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
Area	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
Area	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=0	maritime area - dredged channel, 4 shades, very shallow, shallow mode off
Area	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
Area	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
Area	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
Area	FC031	mac=2 AND idsm=0 AND hdp>0and<mssc AND isdm=1	maritime area - dredged channel, 4 shades, very shallow, shallow mode on
Area	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
Area	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
Area	FC031	mac=2 AND idsm=1 AND hdp>=ssdc	maritime area - dredged channel, 2 shades, deep water
Area	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
Area	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
Area	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=0	maritime area - dredged channel, 2 shades, very shallow, shallow mode off
Area	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
Area	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
Area	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on
Area	FC031	mac=2 AND idsm=1 AND hdp>0and<ssdc AND isdm=1	maritime area - dredged channel, 2 shades, very shallow, shallow mode on

Display Priority	2		
Line	BH020		canal
Line	BH140		river/stream
Line	FC031	mac=2	maritime area - dredged channel
Area	BH020		canal

DNC DNC

Display Priority	2		
Area	BH080		lake/pond
Area	BH130		reservoir
Area	BH140		river/stream
Area	GB005		airport/airfield
Area	GB005		airport/airfield

Display Priority	3		
Point	AA010		mine/quarry
Point	AL020		built-up area
Point	BB020		berth
Point	BD010		breakers
Point	BD040		eddies
Point	BD060		kelp/seaweed
Point	BD080		overfalls/tide rips
Point	BJ060		ice peak/nunatak
Line	AK020		amusement park attraction
Line	AL070		fence
Line	AL260		wall
Line	AT005		cable
Line	BA020		foreshore
Line	BH120		rapids
Line	BH180		waterfall
Line	BH210		inland shoreline
Line	FC021	mbl<>7and<>13 AND mac=NULL	maritime limit boundary - not clearing line
Line	FC021	mbl=7 AND mac=NULL	maritime limit boundary - territorial waters baseline
Area	AC030		settling basin/sludge pond
Area	AL020		built-up area
Area	AN060		railroad yard/marshalling yard
Area	BB010	mac<>12	anchorage - not anchoring berth
Area	BB180		oyster bed/mussel bed
Area	BD060		kelp/seaweed
Area	BH050		fish hatchery/fish farm/marine farm
Area	BH095		marsh/swamp
Area	BH155		salt evaporator
Area	BJ030		glacier

DNC DNC

Display Priority	3		
Area	BJ030		glacier
Area	BJ065		ice shelf
Area	BJ065		ice shelf
Area	BJ100		snow field/ice field
Area	BJ100		snow field/ice field
Area	DB090		embankment/fill
Area	DB170		sand dune/sand hills
Area	EA030		nursery
Area	EA040		orchard/plantation
Area	EA050		vineyards
Area	EC030	veg<>19	trees - not mangrove
Area	EC030	veg=19	trees - mangrove
Area	FC021	mac=0or999	maritime limit boundary - unknown, other
Area	FC021	mac=25	maritime limit boundary - spoil
Area	FC021	mac=30or35	maritime limit boundary - dumping, explosive dumping
Area	FC021	mac=31	maritime limit boundary - incineration
Area	FC021	mac=49	maritime limit boundary - cargo Xshipment
Area	FC021	mac=57	maritime limit boundary - marine farm
Area	FC031	mac=0or9	maritime area - unknown, work in progress
Area	FC036	mac=20	restricted area - cables
Area	FC036	mac=21or23or61	restricted area - pipelines, sewer
Area	FC036	mac=45or46	restricted area - outfall, intake
Area	FC165	rtt=0	route (maritime) - use unknown

Display Priority	4		
Point	AF040		crane
Point	AH010		bastion/rampart/fortification
Point	AH050		fortification
Point	AL015	bfc<>7and<>81	building - not house of worship,not maritime station
Point	AM020		grain bin/silo
Point	AM030		grain elevator
Point	AM070		tank
Point	AM080		water tower
Point	AQ080		ferry site

DNC DNC

Display Priority	4		
Point	BA030		island
Point	BB105		fishing harbor
Point	BB180		oyster bed/mussel bed
Point	BC010	nst=1or4or5or17or41or51or53	beacon - radio navigation system
Point	BC020	nst=1or4or5or17or41or51or53	buoy - radio navigation system
Point	BC040	nst=1or4or5or17or41or51or53	light - radio navigation system
Point	BC070	nst=1or4or5or17or41or51or53	light vessel/lightship - radio navigation system
Point	BD000	acc<>1	underwater danger/hazard - not accurate
Point	BD000	hdp=0	underwater danger/hazard - depth unknown
Point	BD000	hdp>0and<=20	underwater danger/hazard - depth 20m or less
Point	BD000	hdp>20	underwater danger/hazard - depth greater than 20m
Point	BD020	acc<>1	crib - not accurate
Point	BD020	vrr=1 AND hdp=NULL	crib - partly submerged/dry; depth null
Point	BD020	vrr=4 AND hdp=0	crib - submerged; depth unknown
Point	BD020	vrr=4 AND hdp>0and<=20	crib - submerged;depth 20m or less
Point	BD020	vrr=4 AND hdp>20	crib - submerged;depth greater than 20m
Point	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers; depth null
Point	BD030		discolored water
Point	BD030	acc<>1	discolored water - not accurate
Point	BD050		foul ground
Point	BD130	acc<>1	rock - not accurate
Point	BD130	hdp=NULL	rock - depth null
Point	BD130	vrr=4 AND hdp=0	rock - submerged; depth unknown
Point	BD130	vrr=4 AND hdp>0and<=20	rock - submerged; depth 20m or less
Point	BD130	vrr=4 AND hdp>20	rock - submerged;depth greater than 20m
Point	BD140	acc<>1	snags/stumps - not accurate
Point	BD140	vrr=1 AND hdp=NULL	snags/stumps - partly submergerd/dry; depth null
Point	BD140	vrr=4 AND hdp=0	snags/stumps - submergerd; depth unknown
Point	BD140	vrr=4 AND hdp>0and<=20	snags/stumps - submerged; depth 20m or less
Point	BD140	vrr=4 AND hdp>20	snags/stumps - submerged; depth greater than 20m
Point	BD140	vrr=8 AND hdp=NULL	snags/stumps - covers and uncovers; depth null
Point	BD180	acc<>1	wreck - not accurate
Point	BD180	hdp=NULL AND vrr=0	wreck - unknown; depth null
Point	BD180	hdp=NULL AND vrr=1or2or8	wreck - not submerged; depth null

DNC DNC

Display Priority	4		
Point	BD180	loc<>4 AND hdp=NULL	wreck - showing mast/ hull/ superstructure; depth null
Point	BD180	vrr=4 AND hdp>0and<=20	wreck - submerged; depth 20m or less
Point	BD180	vrr=4 AND hdp>20	wreck - submerged; depth greater than 20m
Point	BD180	vrr=4 AND soh=1 AND hdp=0	wreck - submerged; dangerous; depth unknown
Point	BD180	vrr=4 AND soh=2 AND hdp=0	wreck - submerged; not dangerous; depth unknown
Point	BF010	mcc=0 AND psc=0	bottom characteristics - surface unknown
Point	BG010	cur=1 AND dof<>0	current flow - ebb; direction known
Point	BG010	cur=2 AND dof<>0	current flow - flood; direction known
Point	BG030		tide data point
Point	BG040		current diagram
Point	CA030		spot elevation
Point	EC030		trees
Point	FC021	mac<>48	maritime limit boundary - not pilot boarding
Point	FC031	mac=0	maritime area - unknown
Point	FC031	mac=2	maritime area - dredged area
Point	FC165	dof<>0	route (maritime) - direction known
Point	FC165	dof=0	route (maritime) - direction unknown
Point	GA035		navaids (aeronautical)
Point	GB005		airport/airfield
Line	AK130		race track
Line	AN010		railroad
Line	AP020		interchange
Line	AP030		road
Line	AQ070	fer=1	ferry crossing - with cables
Line	AQ070	fer=2	ferry crossing - without cables
Line	AQ130		tunnel
Line	BB010	mac<>12	anchorage - not anchoring berth
Line	BB100		fish stakes
Line	BC100		leading line
Line	BD010		breakers
Line	CA010		contour line (land)
Line	DB090		embankment/fill
Line	FA000	use=23	administrative boundary - international

DNC DNC

Display Priority	4		
Line	FA000	use=32	administrative boundary - insular
Line	FA020		armistice line
Line	FA040		claim line
Line	FA060		defacto boundary
Line	FA110		international date line
Line	FC021	mac=0or999 AND mbl=NULL	maritime limit boundary - unknown, other
Line	FC021	mac=25 AND mbl=NULL	maritime limit boundary - spoil
Line	FC021	mac=30or35 AND mbl=NULL	maritime limit boundary - dumping, explosive dumping
Line	FC021	mac=31 AND mbl=NULL	maritime limit boundary - incineration
Line	FC021	mac=49 AND mbl=NULL	maritime limit boundary - cargo Xshipment
Line	FC021	mac=56 AND mbl=NULL	maritime limit boundary - fish traps
Line	FC021	mac=57 AND mbl=NULL	maritime limit boundary - marine farm
Line	FC021	mbl=13 AND mac=NULL	maritime limit boundary - clearing line
Line	FC031	mac=0or9	maritime area - unknown, work in progress
Line	FC100		measured distance line
Area	AA010		mine/quarry
Area	AC000		processing plant/treatment plant
Area	AD010		power plant
Area	AD030		substation/tran.yard
Area	AH010		bastion/rampart/fortification
Area	AH050		fortification
Area	AK160		stadium/amphitheater
Area	AL015		building
Area	AL030		cemetery
Area	AM010		depot (storage)
Area	AM030		grain elevator
Area	AM040		mineral pile
Area	AM070		tank
Area	AQ116		pumping station
Area	AT020		early warning radar site
Area	BB090		drydock
Area	BB110		fish traps/fish weirs
Area	BB150		landing place

DNC DNC

Display Priority	4		
Area	BC080		perches/stakes
Area	BD000	acc<>1	underwater danger/hazard - not accurate
Area	BD000	hdp=0	underwater danger/hazard - depth unknown
Area	BD000	hdp>0and<=20	underwater danger/hazard - depth 20m or less
Area	BD000	hdp>20	underwater danger/hazard - depth greater than 20m
Area	BD010		breakers
Area	BD020	acc<>1	crib - not accurate
Area	BD020	vrr=1 AND hdp=NULL	crib - above surface
Area	BD020	vrr=4 AND hdp=0	crib - submerged;depth unknown
Area	BD020	vrr=4 AND hdp>0and<=20	crib - submerged;depth 20m or less
Area	BD020	vrr=4 AND hdp>20	crib - submerged;depth greater than 20m
Area	BD020	vrr=8 AND hdp=NULL	crib - covers and uncovers
Area	BD030		discolored water
Area	BD030	acc<>1	discolored water - not accurate
Area	BD040		eddies
Area	BD050		foul ground
Area	BD080		overfalls/tide rips
Area	BD100	acc<>1	pile/piling/post - not accurate
Area	BD100	vrr=1	pile/piling/post - does not cover
Area	BD100	vrr=4	pile/piling/post - submerged
Area	BD100	vrr=8	pile/piling/post - covers and uncovers
Area	BD120	vrr<>8 AND acc<>1	reef - not covers and uncovers, not accurate
Area	BD120	vrr<>8 AND hdp=0orNULL	reef - not covers and uncovers, depth unknown or null
Area	BD120	vrr=4 AND hdp>0and<=20	reef - submerged, depth 20m or less
Area	BD120	vrr=4 AND hdp>20	reef - submerged, depth greater than 20m
Area	BD140	acc<>1	snags/stumps - not accurate
Area	BD140	vrr=1	snags/stumps - does not cover
Area	BD140	vrr=4	snags/stumps - submerged
Area	BD140	vrr=8	snags/stumps - covers and uncovers
Area	BD180	vrr=0or2 AND hdp=NULL	wreck - unknown; awash; depth null
Area	BD180	vrr=1 AND hdp=NULL	wreck - does not cover; depth null
Area	BD180	vrr=4 AND hdp=0	wreck - submerged; depth unknown
Area	BD180	vrr=4 AND hdp>0and<=20	wreck - submerged; depth 20m or less

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Display Priority	4		
Area	BD180	vrr=4 AND hdp>20	wreck - submerged; depth greater than 20m
Area	BD180	vrr=8 AND hdp=NULL	wreck - covers and uncovers; depth null
Area	FC021	mac=27or28or29	maritime limit boundary - submarine exercise, mine laying, firing range
Area	FC021	mac=32or33	maritime limit boundary - oil field, gas field
Area	FC021	mac=42	maritime limit boundary - precautionary
Area	FC021	mac=48	maritime limit boundary - pilot boarding
Area	FC021	mac=55	maritime limit boundary - fairway
Area	FC021	mac=56	maritime limit boundary - fish traps
Area	FC041	tsp=3	traffic separation scheme (TSS) - separation zone area
Area	FC165	rtt=11	route (maritime) - 2-way
Area	FC165	rtt=4	route (maritime) - deep water
Area	FC177		swept area
Area	GB070		seaplane landing/seaplane take-off area
Area	ZC040		magnetic disturbance area

Display Priority	5		
Point	AT045	ssc=0or999	radar transmitter - other, unknown
Point	AT045	ssc=107	radar transmitter - tower
Point	AT045	ssc=108	radar transmitter - scanner
Point	AT045	ssc=60	radar transmitter - mast
Point	AT045	ssc=87	radar transmitter - dome
Point	BB010	mac=12	anchorage - anchoring berth
Point	BB150		landing place
Point	BC010	nst=45	beacon - radar station
Point	BC020	btc=35	buoy - articulated light (base)
Point	BC020	nst=45	buoy - radar station
Point	BC040		light - base symbol
Point	BC040	nst=45	light - radar station
Point	BC070	nst=45	light vessel/lightship - radar station
Point	BC080		perches/stakes
Point	BD100		pile/piling/post
Point	BD110		platform
Point	BG010	cur=0 OR dof=0	current flow - general; direction unknown
Point	BG010	cur=3or5 AND dof<>0	current flow - general,ocean; direction known

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Display Priority	5		
Line	BE010	acc=1 AND crv<>ssdc	depth curve - accurate; not equal ssdc
Line	BE010	acc=2 AND crv<>ssdc	depth curve - not accurate; not equal ssdc
Line	FC021	mac=27or28or29 AND mbl=NULL	maritime limit boundary - submarine exercise, mine laying, firing range
Line	FC021	mac=32or33 AND mbl=NULL	maritime limit boundary - oil field, gas field
Line	FC021	mac=42 AND mbl=NULL	maritime limit boundary - precautionary
Line	FC021	mac=48 AND mbl=NULL	maritime limit boundary - pilot boarding
Line	FC021	mac=55 AND mbl=NULL	maritime limit boundary - fairway
Line	FC177		swept area
Line	GB070		seaplane landing/seaplane take-off area
Area	AL005		animal sanctuary
Area	BB010	mac=12	anchorage - anchoring berth
Area	BB115		gridiron
Area	BB170		offshore loading facility
Area	FC021	mac=24	maritime limit boundary - turning area
Area	FC021	mac=44	maritime limit boundary - deguassing
Area	FC021	mac=58	maritime limit boundary - dredging area
Area	FC031	mac=4	maritime area - mine danger
Area	FC031	mac=41	maritime area - inshore traffic zone (TSS)
Area	FC036	mac=0or999	restricted area - to be avoided, other
Area	FC036	mac=37	restricted area - safety zone
Area	GB055		runway

Display Priority	6		
Point	AD030		substation/tran.yard
Point	AF010		chimney/smokestack
Point	AF030		cooling tower
Point	AF070		flare pipe
Point	AJ050		windmill
Point	AK020		amusement park attraction
Point	AK080		drive in theater screen
Point	AK160		stadium/amphitheater
Point	AL015	bfc=7 AND hwt=0or2or3or4or7or22	building - house of worship
Point	AL015	bfc=7 AND hwt=11or14or15or16or20or21	building - house of worship
Point	AL015	bfc=7 AND hwt=5or6or9	building - house of worship

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Display Priority	6		
Point	AL015	bfc=81 AND sta<>5 AND sst<>16	building - maritime station (not rescue), sound signal
Point	AL015	bfc=81 AND sta=0or2or3or6or11	building - maritime station
Point	AL015	bfc=81 AND sta=5 AND sst<>16	building - maritime station (rescue), sound signal
Point	AL018		building superstructure addition
Point	AL025		cairn
Point	AL073		flagstaff/flagpole
Point	AL130		monument
Point	AL200		ruins
Point	AL240		tower (non-communication)
Point	AQ060		control tower
Point	AQ110		mooring mast
Point	AQ116		pumping station
Point	AT010		disk/dish
Point	AT050		communication building
Point	AT080		communication tower
Point	BB010	mac<>12	anchorage - not anchoring berth
Point	BB030		bollard
Point	BB050	df1<>0 AND df2=0	calling-in point - one way traffic
Point	BB050	df1=0	calling-in point - direction of traffic unknown
Point	BB050	df2<>0 AND df3=0	calling-in point - two way traffic
Point	BB050	df3<>0	calling-in point - more than two-way traffic, 3rd direction
Point	BB050	df3<>0	calling-in point - more than two-way traffic, 2nd direction
Point	BB050	df3<>0	calling-in point - more than two-way traffic, 1st direction
Point	BB050	df4<>0	calling-in point - more than two-way traffic, 4th direction
Point	BB080		dolphin
Point	BB160		mooring ring
Point	BC010	nst=10or54	beacon - radar navigation system
Point	BC010	ref=1	beacon - radar reflector present
Point	BC010	sst=1or2or3or4or6or9or14or15	beacon - sound signal
Point	BC010	tmc=0or32or33	beacon - default topmark
Point	BC010	tmc=1	beacon - 2 cones out
Point	BC010	tmc=15or27or28	beacon - one ball

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Display Priority	6		
Point	BC010	tmc=16or21	beacon - 1 cone up
Point	BC010	tmc=17	beacon - broom point up
Point	BC010	tmc=18	beacon - perch
Point	BC010	tmc=19or31	beacon - rhombus/diamond
Point	BC010	tmc=2	beacon - 2 balls
Point	BC010	tmc=22	beacon - 1 cone down
Point	BC010	tmc=23or30	beacon - upright cross
Point	BC010	tmc=25or26or29	beacon - can
Point	BC010	tmc=3	beacon - 2 cones up
Point	BC010	tmc=6	beacon - special (x)
Point	BC010	tmc=8	beacon - 2 cones down
Point	BC010	tmc=9	beacon - 2 cones in
Point	BC020	nst=10or54	buoy - radar navigation system
Point	BC020	ref=1	buoy - radar reflector present
Point	BC020	sst=1or2or3or4or6or9or14or15	buoy - sound signal
Point	BC020	tmc=0or17or18or32or33	buoy - default topmark
Point	BC020	tmc=1	buoy - 2 cones out
Point	BC020	tmc=15or27or28	buoy - one ball
Point	BC020	tmc=16or21	buoy - 1 cone up
Point	BC020	tmc=19or31	buoy - rhombus/diamond
Point	BC020	tmc=2	buoy - 2 balls
Point	BC020	tmc=22	buoy - 1 cone down
Point	BC020	tmc=23or30	buoy - upright cross
Point	BC020	tmc=25or26or29	buoy - can
Point	BC020	tmc=3	buoy - 2 cones up
Point	BC020	tmc=6	buoy - special (x)
Point	BC020	tmc=8	buoy - 2 cones down
Point	BC020	tmc=9	buoy - 2 cones in
Point	BC040	nst=10or54	light - radar navigation system
Point	BC040	ref=1	light - radar reflector present
Point	BC040	sst=1or2or3or4or6or9or14or15	light - sound signal
Point	BC040	tmc=0or32or33	light - default topmark
Point	BC040	tmc=1	light - 2 cones out
Point	BC040	tmc=15or27or28	light - one ball

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Display Priority	6		
Point	BC040	tmc=16or21	light - 1 cone up
Point	BC040	tmc=17	light - broom point up
Point	BC040	tmc=18	light - perch
Point	BC040	tmc=19or31	light - rhombus/diamond
Point	BC040	tmc=2	light - 2 balls
Point	BC040	tmc=22	light - 1 cone down
Point	BC040	tmc=23or30	light - upright cross
Point	BC040	tmc=25or26or29	light - can
Point	BC040	tmc=3	light - 2 cones up
Point	BC040	tmc=6	light - special (x)
Point	BC040	tmc=8	light - 2 cones down
Point	BC040	tmc=9	light - 2 cones in
Point	BC070	nst=10or54	light vessel/lightship - radar navigation system
Point	BC070	ref=1	light vessel/lightship - radar reflector present
Point	BC070	sst=1or2or3or4or6or9or14or15	light vessel/lightship - sound signal
Point	BD110	sst<>16	platform - sound signal
Point	BE020	acc<>1	sounding or drying height - circle (light) indicating low accuracy
Point	BE020	hdh>=0 AND hdp=NULL	drying height overbar (dark)
Point	FC021	mac=48	maritime limit boundary - pilot boarding
Point	FC031	mac=4	maritime area - mine danger area
Point	FC036	mac=0or999	restricted area - unknown or other
Point	FC036	mac=37	restricted area - safety zone
Line	AQ113	loc<>25 AND pro<>95and<>116 AND plt<>2and<>3	pipeline/pipe - not above ground or water;not sewage or water
Line	AQ113	loc<>25 AND pro=116	pipeline/pipe - not above ground or water; water
Line	AQ113	loc<>25 AND pro=95 OR plt=2or3	pipeline/pipe - not above ground or water; sewage, outfall, intake
Line	BB010	mac=12	anchorage - anchoring berth
Line	BB170		offshore loading facility
Line	BC040		light
Line	BH010	loc<>25	aqueduct - not elevated
Line	BI020		dam/weir
Line	FC021	mac=24 AND mbl=NULL	maritime limit boundary - turning area
Line	FC021	mac=44 AND mbl=NULL	maritime limit boundary - deguassing
Line	FC021	mac=58 AND mbl=NULL	maritime limit boundary - dredging

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Display Priority 6

Line	FC031	mac=4	maritime area - mine danger
Line	FC036		restricted area
Line	FC130		radar reference line
Line	FC165	atn=1 AND exs=22 AND rtt<>3	route (maritime) - marked;1-way;not recomm for deep draft vessels
Line	FC165	atn=1 AND exs=22 AND rtt=3	route (maritime) - marked;1-way;recomm for deep draft vessels
Line	FC165	atn=1 AND exs=23 AND rtt<>3	route (maritime) - marked;2-way;not recomm for deep draft vessels
Line	FC165	atn=1 AND exs=23 AND rtt=3	route (maritime) - marked;2-way;recomm for deep draft vessels
Line	FC165	atn=2 AND exs=22 AND rtt<>3	route (maritime) - unmarked;1-way;not recomm for deep draft vessels
Line	FC165	atn=2 AND exs=22 AND rtt=3	route (maritime) - unmarked;1-way;recomm for deep draft vessels
Line	FC165	atn=2 AND exs=23 AND rtt<>3	route (maritime) - unmarked;2-way;not recomm for deep draft vessels
Line	FC165	atn=2 AND exs=23 AND rtt=3	route (maritime) - unmarked;2-way;recomm for deep draft vessels
Line	FC165	exs=0 AND rtt<>3	route (maritime) - unknown;not recomm for deep draft vessels
Line	FC165	exs=0 AND rtt=3	route (maritime) - unknown;recomm for deep draft vessels
Line	FC170		safety fairway
Line	GB055		runway
Area	FC031	mac=40	maritime area - roundabout zone (TSS)
Area	FC031	mac=5	maritime area - entry prohibited
Area	FC036	mac=15	restricted area - anchoring prohibited
Area	FC036	mac=22	restricted area - fishing prohibited
Area	FC036	mac=43	restricted area - area to be avoided
Area	FC041	tsp=6or7	traffic separation scheme (TSS) - inbound or outbound area
Area	FC170		safety fairway

Display Priority 7

Point	AL015	bfc=81 AND sta<>0and<>1and<>2and<>3and<>5and<>6and<>11	building - maritime station
Point	AL015	bfc=81 AND sta=1	building - maritime station
Point	AL015	bfc=81 AND sta=5	building - maritime station
Point	BA020		foreshore
Point	BC055		marker

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Display Priority	7		
Point	BG020		tide gauge
Point	FC031	mac=40	maritime area - roundabout zone (TSS)
Point	FC031	mac=5	maritime area - entry prohibited
Point	FC036	mac=15	restricted area - anchoring prohibited
Point	FC036	mac=22	restricted area - fishing prohibited
Point	FC036	mac=43	restricted area - area to be avoided
Point	FC041		traffic separation scheme (TSS)
Line	BA010	acc=1 AND slt<>6and<>8	coastline/shoreline - accurate; not mangrove or marsh
Line	BA010	acc=2 AND slt<>6and<>8	coastline/shoreline - approximate; not mangrove or marsh
Line	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
Line	BB040	vrr=1	breakwater/groyne - partly submerged at high water
Line	BB040	vrr=4or8	breakwater/groyne - submerged, covers and uncovers
Line	BB140	vrr=1	jetty - partly submerged at high water
Line	BB140	vrr=4or8	jetty - submerged, covers and uncovers
Line	BB190		pier/wharf/quay
Line	BB220	vrr=1	ramp (maritime) - partly submerged at high water
Line	BB220	vrr=4or8	ramp (maritime) - submerged, covers and uncovers
Line	BB230		seawall
Line	BB240	vrr=1	slipway/patent slip - partly submerged at high water
Line	BB240	vrr=4or8	slipway/patent slip - submerged, covers and uncovers
Line	FC031	mac=40or41	maritime area - TSS
Line	FC031	mac=5	maritime area - entry prohibited
Line	FC041	tsp=2	traffic separation scheme (TSS) - outer boundary
Area	BB040	vrr=1	breakwater/groyne - partly submerged at high water
Area	BB040	vrr=4or8	breakwater/groyne - submerged, covers and uncovers
Area	BB140	vrr=1	jetty - partly submerged at high water
Area	BB140	vrr=4or8	jetty - submerged, covers and uncovers
Area	BB190		pier/wharf/quay
Area	BB220	vrr=1	ramp (maritime) - partly submerged at high water
Area	BB220	vrr=4or8	ramp (maritime) - submerged, covers and uncovers

Display Priority	8		
Point	AL015	bfc<>81 AND col<>"UNK"	building - not maritime station, light flare
Point	AL050		display sign

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Display Priority	8		
Point	AL240	col<>"UNK"	tower - light flare
Point	AM070	col<>"UNK"	tank - light flare
Point	AQ020		aerial cableway pylon/ski pylon
Point	AT040		power transmission pylon
Point	AT080	col<>"UNK"	communication tower - light flare
Point	BB170		offshore loading facility
Point	BB170	cha=21	offshore loading facility - light
Point	BC010		beacon-base
Point	BC020	btc=0 AND ssc=0or85or999	default buoy; type unknown
Point	BC020	btc=0 AND ssc=1	buoy - barrel; type unknown
Point	BC020	btc=0 AND ssc=10	buoy - pillar; type unknown
Point	BC020	btc=0 AND ssc=16	buoy - spar; type unknown
Point	BC020	btc=0 AND ssc=17	buoy - sphere; type unknown
Point	BC020	btc=0 AND ssc=6	buoy - conical; type unknown
Point	BC020	btc=0 AND ssc=7	buoy - can; type unknown
Point	BC020	btc=0 AND ssc=73	buoy - superbuoy; type unknown
Point	BC020	btc=10	buoy - ODAS
Point	BC020	btc=4	buoy - LANBY
Point	BC020	btc=6	buoy - light float
Point	BC020	btc=7 AND ssc<>1and<>7	buoy - mooring;not barrel, not can
Point	BC020	btc=7 AND ssc=1	buoy - mooring;barrel
Point	BC020	btc=7 AND ssc=7	buoy - mooring;can
Point	BC040		light - flare
Point	BC070		light vessel/lightship
Point	BC070		light vessel/lightship - default flare
Point	BD110	cha=21	platform - lighted
Point	GA020		air obstruction light [DNC-specific]
Point	GB010		airport lighting
Line	AQ010		aerial cableway lines/ski lift lines
Line	AQ040	bsc<>12 AND bot<>4and<>10and<>11	bridge/overpass/viaduct
Line	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
Line	AQ045		bridge span
Line	AQ113	loc=25	pipeline/pipe - above ground or water
Line	AT030		power transmission line

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Display Priority	8		
Line	AT060		telephone line/telegraph line
Line	BE010	acc=1 AND crv=ssdc	depth curve - accurate; equals ssdc
Line	BE010	acc=2 AND crv=ssdc	depth curve - not accurate; equals ssdc
Line	BH010	loc=25	aqueduct - elevated
Line	BI040		sluice gate
Line	FC041	tsp=4	traffic separation scheme (TSS) - separation zone line
Area	AQ040	bsc<>12 AND bot<>4and<>10and<>11	bridge/overpass/viaduct
Area	AQ040	bsc=12 OR bot=4or10or11	bridge/overpass/viaduct
Area	AQ045		bridge span
Area	BC060		light sector
Area	BI030		lock

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Display Priority	0		
Area	BA030		island
Area	BA060		beach zone
Area	DA010	smc<>84	ground surface element - not rocky
Area	DA010	smc=84	ground surface element - rocky
Area	DA020		barren ground
Area	SA050	spr=0	slope polygon - <= 3%
Area	SA050	spr=1	slope polygon - > 3% and <= 10%
Area	SA050	spr=2	slope polygon - > 10% and <= 15%
Area	SA050	spr=3	slope polygon - > 15% and <= 20%
Area	SA050	spr=4	slope polygon - > 20% and <= 30%
Area	SA050	spr=5	slope polygon - > 30% and <= 45%
Area	SA050	spr=6	slope polygon - > 45% and <= 60%
Area	SA050	spr=7	slope polygon - > 60% and <= 85%
Area	SA050	spr=8	slope polygon - > 85%
Area	SA050	spr=999	slope polygon - % unknown

Display Priority	1		
Area	BH020		canal
Area	BH020	cda=2	canal - covered
Area	BH080	hyc<>8	lake/pond - not perennial
Area	BH140		river/stream
Area	BH140	hyc=3or6	river/stream - dry, intermittent
Area	BH160		sebkha
Area	BH200		miscellaneous surface drainage feature
Area	BJ020		moraine
Area	DA005		asphalt lake
Area	DB170	ssc=0	sand dune/sand hills - unknown
Area	DB170	ssc=22	sand dune/sand hills - crescent
Area	DB170	ssc=26	sand dune/sand hills - lateral
Area	DB170	ssc=27	sand dune/sand hills - mounds
Area	DB170	ssc=28	sand dune/sand hills - ripple
Area	DB170	ssc=29	sand dune/sand hills - star
Area	DB170	ssc=30	sand dune/sand hills - transverse

Display Priority	2		
Line	BH200		miscellaneous surface drainage feature

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Display Priority	2		
Area	AL020		built-up area
Area	AL020		built-up area
Area	AL105		settlement
Area	AL105		settlement
Area	AL135		native settlement
Area	AL135		native settlement
Area	BH090		land subject to inundation
Area	BH095	veg=0or56	marsh/swamp - no trees
Area	BH095	veg=16or19	marsh/swamp - palm, mangrove
Area	BH095	veg=24	marsh/swamp - deciduous
Area	BH095	veg=25or50	marsh/swamp - evergreen,mixed
Area	BJ030		glacier
Area	BJ065		ice shelf
Area	BJ100		snow field/ice field
Area	BJ110		tundra
Area	EA010		cropland
Area	EA030		nursery
Area	EA040		orchard/plantation
Area	EA050		vineyards
Area	EB010		grassland
Area	EB020		scrub/brush
Area	EC010		bamboo/cane
Area	EC020		oasis
Area	EC030	veg=0or24	trees - deciduous, unknown
Area	EC030	veg=25or50	trees - evergreen, mixed
Area	EC030	veg=52	trees - clearing

Display Priority	3		
Point	AQ111		prepared raft or float bridge site
Point	AQ118		sharp curve(s)
Point	AQ120		steep grade
Point	BD100		pile/piling/post
Point	BH120		rapids
Point	BH180		waterfall
Point	EC020		oasis

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Display Priority	3		
Line	AL075		gallery
Line	AL155		overhead obstruction location
Line	AN010	exs<>0and<>28	RR - other
Line	AN010	exs=0or28 AND ltn<2	RR - operational, unknown/1 lane
Line	AN010	exs=0or28 AND ltn>1	RR - operational, multiple lanes
Line	AP030	exs<>0and<>28	road - under constr.
Line	AP030	exs=0or28 AND med=0or2 AND rst=1 AND wtc=0or1	road - op, no median, hard, all weather
Line	AP030	exs=0or28 AND med=1 AND rst=1 AND wtc=0or1	road - op, w/median, hard, all weather
Line	AP030	exs=0or28 AND rst=0or2 AND wtc=0or1	road - op, loose, all weather
Line	AP030	exs=0or28 AND wtc=2	road - op,fair weather
Line	BH030		ditch
Line	BH100		moat
Line	BH120		rapids
Line	BH180		waterfall
Line	DB190		volcanic dike
Line	EA020		hedgerow
Area	AC030		settling basin/sludge pond
Area	AK170		swimming pool
Area	BA020		foreshore
Area	BA040		water (except inland)
Area	BB090		drydock
Area	BD100		pile/piling/post
Area	BH030		ditch
Area	BH030	cda<>2	ditch - not covered
Area	BH030	cda=2	ditch - covered
Area	BH040		filtration beds/aeration beds
Area	BH050		fish hatchery/fish farm/marine farm
Area	BH080		lake/pond
Area	BH080	hyc=8	lake/pond - perennial
Area	BH130		reservoir
Area	BH140	hyc=0or8 AND tid<>1	river/stream - perennial;tidal
Area	BH140	hyc=0or8 AND tid=1	river/stream - perennial;non-tidal
Area	BH150		salt pan

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Display Priority	3		
Area	BH155		salt evaporator
Area	BJ070		pack ice
Area	BJ080		polar ice

Display Priority	5		
Point	AM060		storage bunker/storage mound
Line	AK130		race track
Area	AA010		mine
Area	AA012		quarry
Area	AB000		disposal site/waste pile
Area	AB010		wrecking yard/scrap yard
Area	AD030		substation/tran.yard
Area	AI020		mobile home/mobile home park
Area	AJ030		feedlot/stockyard/holding pen
Area	AK030		amusement park
Area	AK040		athletic field
Area	AK060		campground/campsite
Area	AK090		fairgrounds
Area	AK100		golf course
Area	AK120		park
Area	AK160		stadium/amphitheater
Area	AK180		zoo/safari park
Area	AL030		cemetery
Area	AL170		plaza/city square
Area	AL200		ruins
Area	AM010		depot (storage)
Area	AM060		storage bunker/storage mound
Area	AQ135		vehicle stopping area/rest area
Area	AQ140		vehicle storage/parking area

Display Priority	6		
Point	AA050	pro=116	well - water
Point	BH145		river stream vanishing point
Point	BH170		spring/water-hole
Point	BI010		cistern
Line	BA010	slt=6or8	coastline - mangrove, marsh

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Display Priority	6		
Line	BB220		ramp (maritime)
Line	BH010	loc<>25	aqueduct - not elevated
Line	BH020	hyc=0or8	canal - perennial
Line	BH020	hyc=3	canal - dry
Line	BH060	loc<>25	flume - not elevated
Line	BH110	loc<>25	penstock - not elevated
Line	BH140	hyc=0or8	river/stream - perennial, unknown
Line	BH140	hyc=3or6	river/stream - dry, intermittent
Area	BB220		ramp (maritime)
Area	BH020	cda<>2	canal - not covered
Area	BI020		dam/weir
Area	BI030		lock
Area	BI050		water intake tower
Area	FA070		demilitarized zone
Area	FA170		zone of occupation

Display Priority	7		
Point	AD020		solar panels
Point	AL195		ramp
Point	AQ045		bridge span
Point	AQ070		ferry crossing
Point	BB010		anchorage
Point	BH070		ford
Point	BJ060		ice peak/nunatak
Point	DB030		cave
Point	DB115		geothermal feature
Point	DB150		mountain pass
Point	DB160		rock strata/rock formation
Point	DB180		volcano
Line	AL060		dragon teeth
Line	AL070		fence
Line	AL260		wall
Line	AP010		cart track
Line	AP050		trail
Line	AQ070		ferry crossing

DTOP DTOP

Display Priority	7		
Line	AQ113	pro<>116	pipeline/pipe - not water
Line	AQ113	pro=116	pipeline/pipe - water
Line	BA010	slt<>6and<>8	coastline/shoreline - not mangrove or marsh
Line	BB040		breakwater/groyne
Line	BB140		jetty
Line	BB190		pier/wharf/quay
Line	BB230		seawall
Line	BH070		ford
Line	BJ040		ice cliff
Line	DB010		bluff/cliff/escarpment
Line	DB060		crevice/crevasse
Line	DB070		cut
Line	DB080		depression
Line	DB090		embankment/fill
Line	DB100		esker
Line	DB110		fault
Line	DB145		miscellaneous obstacle
Line	FA090		geophysical prospecting grid
Area	AC000		processing plant/treatment plant
Area	AD010		power plant
Area	AH050		fortification
Area	AL060		dragon teeth
Area	AL140		particle accelerator
Area	AQ116		pumping station
Area	AT050		communication building
Area	BB010		anchorage
Area	BB040		breakwater/groyne
Area	BB140		jetty
Area	BB190		pier/wharf/quay
Area	BD120		reef
Area	DB060		crevice/crevasse
Area	DB145		miscellaneous obstacle
Area	DB160		rock strata/rock formation

Display Priority	8

DTOP DTOP

Display Priority	8		
Point	AA010		mine
Point	AA012		quarry
Point	AA040		rig/superstructure
Point	AA050	pro<>116	well - not water
Point	AC000		processing plant/treatment plant
Point	AC020		catalytic cracker
Point	AD030		substation/tran.yard
Point	AF010		chimney/smokestack
Point	AF030		cooling tower
Point	AF040		crane
Point	AF070		flare pipe
Point	AH050		fortification
Point	AJ050		windmill
Point	AK020		amusement park attraction
Point	AL015	bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36or53or59or69or70or83or85or86or87or88or89	building - generic
Point	AL015	bfc=15	building - school
Point	AL015	bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96	building - generic
Point	AL015	bfc=6	building - hospital
Point	AL015	bfc=7	building - house of worship
Point	AL015	bfc=82	building - lighthouse
Point	AL015	bfc=90or91or92or93or95or98or999	building - generic
Point	AL025		cairn
Point	AL030		cemetery
Point	AL075		gallery
Point	AL100		hut
Point	AL130		monument
Point	AL155		overhead obstruction location
Point	AL200		ruins
Point	AL210		snow shed/rock shed
Point	AL240		tower (non-communication)
Point	AL250		underground dwelling
Point	AM020		grain bin/silo

DTOP DTOP

Display Priority	8		
Point	AM030		grain elevator
Point	AM070		tank
Point	AM080		water tower
Point	AN075		railroad turntable
Point	AQ040		bridge/overpass/viaduct
Point	AQ058		constriction/expansion
Point	AQ060		control tower
Point	AQ065		culvert
Point	AQ110		mooring mast
Point	AQ116		pumping station
Point	AQ130		tunnel
Point	AT010		disk/dish
Point	AT050		communication building
Point	AT080		communication tower
Point	BD130		rock
Point	BD180		wreck
Point	BI020		dam/weir
Point	BI030		lock
Point	BI040		sluice gate
Point	BI050		water intake tower
Point	CA030	ela<>1	spot elevation - not accurate
Point	CA030	ela=1	spot elevation - accurate
Point	GB005	exs<>28	airport/airfield - not operational
Point	GB005	use<>8and<>22 AND exs=28	airport/airfield - non military;operational
Point	GB005	use=8or22 AND exs=28	airport/airfield - military;operational
Point	GB010		airport lighting
Point	GB030		helicopter landing pad
Point	ZB030		boundary monument
Point	ZB035		control point/control station
Line	AF020		conveyor
Line	AL015	bfc<>6and<>7and<>15	building - generic
Line	AL015	bfc=15	building - school
Line	AL015	bfc=6	building - hospital
Line	AL015	bfc=7	building - house of worship

DTOP DTOP

Display Priority	8		
Line	AL210		snow shed/rock shed
Line	AN050	rgc<>2	RR siding - normal,broad,unknown
Line	AN050	rgc=2	RR siding - narrow
Line	AP020		interchange
Line	AQ010		aerial cableway lines/ski lift lines
Line	AQ040		bridge/overpass/viaduct
Line	AQ130		tunnel
Line	AT030		power transmission line
Line	AT060		telephone line/telegraph line
Line	BD120		reef
Line	BH010	loc=25	aqueduct - elevated
Line	BH060	loc=25	flume - elevated
Line	BH110	loc=25	penstock - elevated
Line	BI020		dam/weir
Line	BI040		sluice gate
Line	FA000	use=0or26	administrative boundary - primary, unknown
Line	FA000	use=23	administrative boundary - international
Line	FA020		armistice line
Line	FA030		cease-fire line
Line	FA060		defacto boundary
Line	FA110		international date line
Area	AL015	bfc<>6and<>7and<>15	building - generic
Area	AL015	bfc=15	building - school
Area	AL015	bfc=6	building - hospital
Area	AL015	bfc=7	building - house of worship
Area	AM020		grain bin/silo
Area	AM030		grain elevator
Area	AM070		tank
Area	AN060		railroad yard/marshaling yard
Area	GB005		airport/airfield
Area	GB015		apron/hardstand
Area	GB045		overrun/stopway
Area	GB055		runway
Area	GB075		taxiway

DTOP DTOP

Display Priority	8

Area	ZD020	void collection area

FFD FFD

Display Priority	0		
Area	BA030		island

Display Priority	1		
Area	BH080	hyc=3	lake/pond - dry
Area	BH140	hyc=3or6	river/stream - dry, non-perennial

Display Priority	2		
Area	AL020		built-up area
Area	AL105		settlement
Area	AL135		native settlement
Area	BH090		land subject to inundation
Area	BH095		marsh/swamp
Area	BH135		rice field
Area	EA040		orchard/plantation
Area	EC030	tre=0or1	trees - deciduous, unknown
Area	EC030	tre=2or3	trees - evergreen, mixed

Display Priority	3		
Area	AC030		settling basin/sludge pond
Area	BA040		water (except inland)
Area	BH020	hyc<>8	canal - non-perennial, dry, unknown
Area	BH020	hyc=8	canal - perennial
Area	BH030		ditch
Area	BH040		filtration beds/aeration beds
Area	BH050		fish hatchery/fish farm/marine farm
Area	BH080	hyc=0or8	lake/pond - perennial, unknown
Area	BH130		reservoir
Area	BH140	hyc=0or8	river/stream - perennial, unknown
Area	BH155		salt evaporator

Display Priority	6		
Line	BH010	loc<>25	aqueduct - not elevated
Line	BH020	hyc<>8	canal - not perennial
Line	BH020	hyc=8	canal - perennial
Line	BH030		ditch
Line	BH140	hyc=0or8	river/stream - perennial, unknown
Line	BH140	hyc=3or6	river/stream - dry, non-perennial

FFD FFD

Display Priority	6		
Area	BI020		dam/weir
Area	BI030		lock
Area	FA001		administrative area

Display Priority	7		
Point	AQ070		ferry crossing
Point	BH070		ford
Line	AP010		cart track
Line	AP050		trail
Line	AQ070		ferry crossing
Line	BA010	acc<>1	coastline/shoreline - not accurate
Line	BA010	acc=1	coastline/shoreline - accurate
Line	BB190		pier/wharf/quay
Line	BH070		ford
Area	BB190		pier/wharf/quay

Display Priority	8		
Point	AQ040		bridge/overpass/viaduct
Point	AQ130		tunnel
Point	BI020		dam/weir
Point	BI030		lock
Point	CA030	ela<>1	spot elevation - not accurate
Point	CA030	ela=1	spot elevation - accurate
Point	GB005	exs<>28	airport/airfield - non-operational
Point	GB005	use<>8and<>22 AND exs=28	airport/airfield - civilian, operational
Point	GB005	use=8or22 AND exs=28	airport/airfield - military, operational
Point	GB035		heliport
Point	GB065		seaplane base
Line	AN010	exs<>0and<>28 AND rgc<>2	RR - non-operational, normal/broad/unknown
Line	AN010	exs<>0and<>28 AND rgc=2	RR - non-operational, narrow
Line	AN010	exs=0or28 AND rgc<>2	RR - operational, normal/broad/unknown
Line	AN010	exs=0or28 AND rgc=2	RR - operational, narrow
Line	AN050	rgc<>2	railroad siding/railroad spur - normal/broad/unknown
Line	AN050	rgc=2	railroad siding/railroad spur - narrow
Line	AP030	exs<>0and<>28 AND rst=1	road - non-operational, hard
Line	AP030	exs=0or28 AND rst=1	road - operational, hard

FFD FFD

Display Priority	8		
Line	AP030	rst<>1	road - loose
Line	AQ040		bridge/overpass/viaduct
Line	AQ130		tunnel
Line	BE015		depth contour
Line	BH010	loc=25	aqueduct - elevated
Line	BI020		dam/weir
Line	CA010	hqc=0or1	contour line (land) - index, unknown
Line	CA010	hqc=2	contour line (land) - intermediate
Line	CA010	hqc=5or6	contour line (land) - depression
Line	FA000	use=0or26	administrative boundary - primary, unknown
Line	FA000	use=23	administrative boundary - international
Line	FA020		armistice line
Line	FA030		cease-fire line
Line	FC021	mbl=0	maritime limit boundary - unknown
Line	FC021	mbl=9	maritime limit boundary - international (at sea)
Area	AL045		complex outline
Area	AN060		railroad yard/marshalling yard
Area	GB005		airport/airfield
Area	GB035		heliport
Area	GB055		runway
Area	GB065		seaplane base
Area	ZD020		void collection area

TOD0 TOD0

Display Priority	0		
Area	GA005	aua=0or20or36	air lanes/corridors
Area	GA005	aua=13	airspace - flight information region
Area	GA005	aua=39	airspace - upper control area
Area	GA005	aua=40	airspace - upper flight information region
Area	GA005	aua=9or21or22or23or43or46or70	airspace - controlled
Display Priority	**1**		
Area	GA005	aua=2	airspace - air defense zone
Area	GA015	aul=0or5or6	special use airspace - warning area
Area	GA015	aul=2or3	special use airspace - prohibited,restricted
Display Priority	**2**		
Area	FC031	mac=0or144or145or154or999	maritime area - restricted areas
Area	FC031	mac=101	maritime area - marine sanctuary
Area	FC031	mac=108	maritime area - submarine traffic lane submerged
Area	FC031	mac=109	maritime area - submarine traffic lane surface
Area	FC031	mac=110	maritime area - surface traffic lane
Area	FC031	mac=141or142or155	maritime area - caution areas
Area	FC031	mac=143or148or149or158	maritime area - military area, minefield
Area	FC031	mac=156	maritime area - safety lane
Area	FC031	mac=27or28or115or116or140or146or147or150or151or152or153or157or159	maritime area - military practice areas
Area	FC036		restricted area
Area	FC170		safety fairway
Display Priority	**3**		
Point	GA035	nst=0	navaids (aeronautical) - unknown
Point	GA035	nst=17	navaids (aeronautical) - NDB
Point	GA035	nst=20	navaids (aeronautical) - VOR
Point	GA035	nst=21	navaids (aeronautical) - VOR/DME
Point	GA035	nst=22	navaids (aeronautical) - VORTAC
Point	GA035	nst=23	navaids (aeronautical) - TACAN
Point	GA055	wpt<>10	waypoint/reporting-calling in point - non compulsory
Point	GA055	wpt=10	waypoint/reporting-calling in point - compulsory
Line	FC021	mbl<>6	maritime limit boundary - other
Line	FC021	mbl=6	maritime limit boundary - limit of territorial waters
Line	FC101		theodolite line

TOD0 TOD0

Display Priority	3		
Line	FC102		range center line
Area	FC031	mac=104	maritime area - major op area
Area	FC031	mac=105	maritime area - minor op area
Area	FC031	mac=106	maritime area - ASW area
Area	FC031	mac=107	maritime area - submarine op area
Area	FC031	mac=111	maritime area - pacific missile range
Display Priority	**4**		
Point	BG010	cur=0 OR dof=0	current flow - general; direction unknown
Point	BG010	cur=5 AND dof<>0	current flow - ocean; direction known
Display Priority	**5**		
Point	ZB035		control point/control station
Display Priority	**8**		
Area	ZD020		void collection area

TOD1 TOD1

Display Priority	0		
Area	BE019	cvl=-32767	depth area - depth unknown
Area	BE019	cvl>=200	depth area - depth greater than 200m
Area	BE019	cvl>0and<200	depth area - depth less than 200m
Display Priority	**1**		
Line	BE015	hqc<>1	depth contour - not index
Line	BE015	hqc=1	depth contour - index
Area	BE030		track swath
Display Priority	**2**		
Line	BE040		track line
Display Priority	**3**		
Point	BD005	exs=57	miscellaneous underwater feature - sonar confirmed
Point	BD005	exs=58	miscellaneous underwater feature - reported
Point	BD180	exs=57	wreck - sonar confirmed
Point	BD180	exs=58	wreck - reported
Display Priority	**5**		
Point	BE020	acc<>1	sounding - circle (light) indicating low accuracy
Display Priority	**8**		
Area	ZD020		void collection area

TOD2 TOD2

Display Priority	0		
Area	BE019	cvl=-32767	depth area - depth unknown
Area	BE019	cvl>=200	depth area - depth greater than 200m
Area	BE019	cvl>0and<200	depth area - depth less than 200m

Display Priority	1		
Line	BE015	hqc<>1	depth contour - not index
Line	BE015	hqc=1	depth contour - index
Area	BE030		track swath

Display Priority	2		
Line	BE040		track line

Display Priority	3		
Point	BD005	exs=57	miscellaneous underwater feature - sonar confirmed
Point	BD005	exs=58	miscellaneous underwater feature - reported
Point	BD180	exs=57	wreck - sonar confirmed
Point	BD180	exs=58	wreck - reported

Display Priority	5		
Point	BE020	acc<>1	sounding - circle (light) indicating low accuracy

Display Priority	8		
Area	ZD020		void collection area

TOD4 TOD4

Display Priority	0		
Area	BE019	cvl=-32767	depth area - depth unknown
Area	BE019	cvl>=123	depth area - depth greater than 123m
Area	BE019	cvl>0and<123	depth area - depth less than 123m
Display Priority	**1**		
Area	FC179		side scan sonar coverage
Display Priority	**2**		
Line	BE015	acc<>1 AND hqc<>1	depth contour - not accurate, not index
Line	BE015	acc<>1 AND hqc=1	depth contour - not accurate, index
Line	BE015	acc=1 AND hqc<>1	depth contour - accurate,not index
Line	BE015	acc=1 AND hqc=1	depth contour - accurate, index
Area	FC180	htc<>503and<>507and<>509	hull integrity test site bottom feature - height not > 2m, not slope > 10 degrees, not cable
Area	FC180	htc=503	hull integrity test site bottom feature - height > 2m
Display Priority	**3**		
Line	FC180	htc<>507and<>509	hull integrity test site bottom feature - not cable, not slope > 10 degrees
Line	FC180	htc=507	hull integrity test site bottom feature - slope > 10 degrees
Line	FC180	htc=509	hull integrity test site bottom feature - cable
Area	FC178		hull integrity test area
Area	FC180	htc=507	hull integrity test site bottom feature - slope > 10 degrees
Area	FC180	htc=509	hull integrity test site bottom feature - cable
Display Priority	**4**		
Point	BD005	wkt<>35	miscellaneous underwater feature - not obstruction
Point	BD005	wkt=35	miscellaneous underwater feature - obstruction
Point	BD180		wreck
Point	BF012		hull integrity test site core site
Point	FC180		hull integrity test site bottom feature
Display Priority	**5**		
Point	BE020	acc<>1	sounding - circle (light) indicating low accuracy
Display Priority	**8**		
Area	ZD020		void collection area

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Display Priority	0		
Area	BA030		island
Area	BA050		beach

Display Priority	1		
Area	BH080	hyc=3or6	lake/pond - dry, intermittent
Area	BH140	hyc=3or6	river/stream - dry, intermittent
Area	BH160		sebkha
Area	DA005		asphalt lake
Area	DA010	mcc<>8and<>52and<>46and<>84and<>88	ground surface element - not rock, not lava, not sand
Area	DA010	mcc=46or84or8	ground surface element - boulders, gravel, rock
Area	DA010	mcc=52	ground surface element - lava
Area	DA010	mcc=88	ground surface element - sand
Area	DB170	ssc=0	sand dune/sand hills - unknown
Area	DB170	ssc=22	sand dune/sand hills - crescent
Area	DB170	ssc=26	sand dune/sand hills - lateral
Area	DB170	ssc=27	sand dune/sand hills - mounds
Area	DB170	ssc=28	sand dune/sand hills - ripple
Area	DB170	ssc=29	sand dune/sand hills - star
Area	DB170	ssc=30	sand dune/sand hills - transverse

Display Priority	2		
Area	AL020		built-up area
Area	AL135		native settlement
Area	BH015		bog
Area	BH077		hummock
Area	BH090		land subject to inundation
Area	BH095		marsh/swamp
Area	EA010		cropland
Area	EA030		nursery
Area	EA040		orchard/plantation
Area	EA050		vineyards
Area	EA055		hops
Area	EB010		grassland
Area	EB020		scrub/brush
Area	EC010		bamboo/cane
Area	EC030	tre=0or1or3	trees - deciduous, mixed, unknown

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Display Priority	2		
Area	EC030	tre=2	trees - evergreen
Area	EE000		miscellaneous vegetation

Display Priority	3		
Line	EA020		hedgerow
Area	AC030		settling basin/sludge pond
Area	AK170		swimming pool
Area	AQ130		tunnel
Area	BA020		foreshore
Area	BA040		water (except inland)
Area	BB090		drydock
Area	BH020	exs<>32 OR hyc<>8	canal - not navigable or not perennial
Area	BH020	exs=32 AND hyc=8	canal - navigable;perennial
Area	BH030		ditch
Area	BH040		filtration beds/aeration beds
Area	BH050		fish hatchery/fish farm/marine farm
Area	BH080	hyc=0or8	lake/pond - perennial, unknown
Area	BH100		moat
Area	BH130		reservoir
Area	BH140	hyc=0or8	river/stream - perennial, unknown
Area	BH150		salt pan
Area	BH155		salt evaporator
Area	DB200		gully/gorge

Display Priority	5		
Point	AM010		depot (storage)
Point	AM060		storage bunker/storage mound
Line	AK130		race track
Area	AA010		mine
Area	AA012		quarry
Area	AB000		disposal site/waste pile
Area	AB010		wrecking yard/scrap yard
Area	AD030		substation/tran.yard
Area	AI020		mobile home/mobile home park
Area	AJ030		feedlot/stockyard/holding pen
Area	AK030		amusement park

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Display Priority	5		
Area	AK040		athletic field
Area	AK060		campground/campsite
Area	AK070		drive in theater
Area	AK090		fairgrounds
Area	AK100		golf course
Area	AK110		grandstand
Area	AK120		park
Area	AK160		stadium/amphitheater
Area	AK180		zoo/safari park
Area	AL030		cemetery
Area	AL170		plaza/city square
Area	AL200		ruins
Area	AM010		depot (storage)
Area	AM040		mineral pile
Area	AM060		storage bunker/storage mound
Area	AQ140		vehicle storage/parking area

Display Priority	6		
Point	AA050	pro=116	well - water
Point	AL135		native settlement
Point	BG010		current flow
Point	BH010		aqueduct
Point	BH075		fountain
Point	BH170		spring/water-hole
Point	BI010		cistern
Line	AQ113	loc=4 AND pro<>116	pipeline/pipe - underground;not water
Line	AQ113	loc=4 AND pro=116	pipeline/pipe - undergound;water
Line	BH010	loc<>25	aqueduct - not elevated
Line	BH020	hyc<>8	canal - not perennial
Line	BH020	hyc=8	canal - perennial
Line	BH030	hyc=0or8	ditch - perennial, unknown
Line	BH030	hyc=6	ditch - intermittent
Line	BH060	loc<>25	flume - not elevated
Line	BH110	loc<>25	penstock - not elevated
Line	BH140	hyc=0or8	river/stream - perennial, unknown

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Display Priority	6		
Line	BH140	hyc=3or6	river/stream - dry, intermittent
Area	BH075		fountain
Area	BH165		spillway
Area	BI020		dam/weir
Area	BI030		lock
Area	BI050		water intake tower
Area	FA001		administrative area
Area	FA070		demilitarized zone

Display Priority	7		
Point	AL120		missile site
Point	AQ070		ferry crossing
Point	AQ125		station (miscellaneous)
Point	AT020		early warning radar site
Point	BH070		ford
Point	DB030		cave
Line	AL070		fence
Line	AL120		missile site
Line	AL260		wall
Line	AP010		cart track
Line	AP050		trail
Line	AQ070		ferry crossing
Line	AQ113	loc<>4 AND pro<>116	pipeline/pipe - on or above ground;not water
Line	AQ113	loc<>4 AND pro=116	pipeline/pipe - on or above ground;water
Line	AT020		early warning radar site
Line	BA010	slt<>6and<>8	coastline/shoreline - not mangrove or marsh
Line	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
Line	BB040		breakwater/groyne
Line	BB140		jetty
Line	BB190		pier/wharf/quay
Line	BB230		seawall
Line	BB240		slipway/patent slip
Line	BH070		ford
Line	BH210	slt=0or10or11or13or14or15	inland shoreline - unknown, rocky, rubble, sandy, stony, other

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Display Priority	7		
Line	BH210	slt=6or8	inland shoreline - mangrove, marsh
Line	DB010		bluff/cliff/escarpment
Line	DB070		cut
Line	DB090		embankment/fill
Line	DB110		fault
Line	EC040		cleared way/cut line/firebreak
Area	AC000		processing plant/treatment plant
Area	AD010		power plant
Area	AF030		cooling tower
Area	AH010		bastion/rampart/fortification
Area	AH050		fortification
Area	AH060		underground bunker
Area	AL120		missile site
Area	AL140		particle accelerator
Area	AL250		underground dwelling
Area	AM080		water tower
Area	AQ116		pumping station
Area	AQ125		station (miscellaneous)
Area	AT010		disk/dish
Area	AT020		early warning radar site
Area	AT045		radar transmitter
Area	AT050		communication building
Area	BB040		breakwater/groyne
Area	BB140		jetty
Area	BB190		pier/wharf/quay
Area	DB030		cave
Area	DB090		embankment/fill
Area	FA015		firing range/gunnery range

Display Priority	8		
Point	AA010		mine
Point	AA012		quarry
Point	AA040		rig/superstructure
Point	AA050	pro<>116	well - not water
Point	AC020		catalytic cracker

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Display Priority	8		
Point	AD030		substation/tran.yard
Point	AF010		chimney/smokestack
Point	AF030		cooling tower
Point	AF040		crane
Point	AF070		flare pipe
Point	AH010		bastion/rampart/fortification
Point	AH050		fortification
Point	AH060		underground bunker
Point	AJ050		windmill
Point	AK020		amusement park attraction
Point	AK150		ski jump
Point	AL015	bfc=0or4or9or10or11or16or17or18or19or20or33or34or36or39or51or53or55or56or57or58	building - generic (population)
Point	AL015	bfc=15or60or108	building - school,college,seminary
Point	AL015	bfc=1or21or22or23or24or25or26or27or29or30or40or54or59or71or72or73or74or75or76	building - generic (industry)
Point	AL015	bfc=2or3or5or8or12or13or14or28or31or35or37or38or52or61or62or64or65or66or67or77or78or79or80or96or101or119or121or123or723	building - gov't
Point	AL015	bfc=63or69or70or87or88or91or92or93or95or97or98or99or103or105or106or107or109or111or115or117or118or122or126or127or128or999	building - generic (population)
Point	AL015	bfc=6or100	building - hospital
Point	AL015	bfc=7or114 AND hwt=0or2or3or4or7 OR bfc=50	building - house of worship
Point	AL015	bfc=7or114 AND hwt=11or14or15or16	building - house of worship
Point	AL015	bfc=7or114 AND hwt=20	building - house of worship
Point	AL015	bfc=7or114 AND hwt=21	building - house of worship
Point	AL015	bfc=7or114 AND hwt=5or6or9	building - house of worship
Point	AL015	bfc=81or83or84or85or86or89or90or94or102or104or110or112or113or116or120or124or125	building - generic (industry)
Point	AL015	bfc=82	building - lighthouse
Point	AL030		cemetery
Point	AL100		hut
Point	AL130		monument
Point	AL200		ruins
Point	AL240		tower (non-communication)
Point	AL250		underground dwelling

UVM UVM

Display Priority	8		
Point	AM020		grain bin/silo
Point	AM030		grain elevator
Point	AM070		tank
Point	AM080		water tower
Point	AP040		gate
Point	AQ040		bridge/overpass/viaduct
Point	AQ060		control tower
Point	AQ090		entrance/exit
Point	AQ110		mooring mast
Point	AQ116		pumping station
Point	AT010		disk/dish
Point	AT040		power transmission pylon
Point	AT045		radar transmitter
Point	AT050		communication building
Point	AT070		telephone-telegraph pylon/pole
Point	AT080		communication tower
Point	BC050		lighthouse
Point	BH165		spillway
Point	BI040		sluice gate
Point	BI050		water intake tower
Point	CA030	ela<>1	spot elevation - not accurate
Point	CA030	ela=1	spot elevation - accurate
Point	FA015		firing range/gunnery range
Point	GB005	exs<>28	airport/airfield - not operational
Point	GB005	use<>8and<>22 AND exs=28	airport/airfield - non military;operational
Point	GB005	use=8or22 AND exs=28	airport/airfield - military;operational
Point	GB010		airport lighting
Point	GB030		helicopter landing pad
Point	ZB020		benchmark
Point	ZB035		control point/control station
Line	AA010		mine
Line	AA012		quarry
Line	AF020		conveyor
Line	AH010		bastion/rampart/fortification

UVM UVM

Display Priority	8		
Line	AH050		fortification
Line	AH060		underground bunker
Line	AK150		ski jump
Line	AL015	bfc<>2and<>3and<>5and<>8and<>15and<>28and<>52and<>121and<>6and<>7and<>114and<>100and<>60and<>108	building - generic
Line	AL015	bfc=15or60or108	building - school
Line	AL015	bfc=2or3or5or8or28or52or121	building - gov't
Line	AL015	bfc=6or100	building - hospital
Line	AL015	bfc=7or114	building - house of worship
Line	AN010	exs<>0and<>28 AND rgc<>2	RR -non-op, unkn/norml/brd
Line	AN010	exs<>0and<>28 AND rgc=2	RR -non-op, narrow
Line	AN010	exs=0or28 AND rgc<>2	RR -op, unkn/norml/brd
Line	AN010	exs=0or28 AND rgc=2	RR -op, narrow
Line	AN050	rgc<>2	RR siding - normal,broad,unknown
Line	AN050	rgc=2	RR siding - narrow
Line	AP020		interchange
Line	AP030	exs<>0and<>28 AND rst=1 AND use=0	road - non-op, hard, unk
Line	AP030	exs<>0and<>28 AND rst=1 AND use=26	road - non-op, hard, primary
Line	AP030	exs<>0and<>28 AND rst=1 AND use=30	road - non-op, hard, secondary
Line	AP030	exs=0or28 AND rst<>1	road - op, loose
Line	AP030	exs=0or28 AND rst=1 AND use=0	road - op, hard, unk
Line	AP030	exs=0or28 AND rst=1 AND use=26	road - op, hard, primary
Line	AP030	exs=0or28 AND rst=1 AND use=30	road - op, hard, secondary
Line	AQ010		aerial cableway lines/ski lift lines
Line	AQ040		bridge/overpass/viaduct
Line	AQ065		culvert
Line	AQ130		tunnel
Line	AT030		power transmission line
Line	AT045		radar transmitter
Line	AT060		telephone line/telegraph line
Line	BH010	loc=25	aqueduct - elevated
Line	BH060	loc=25	flume - elevated
Line	BH110	loc=25	penstock - elevated
Line	BH165		spillway

UVM UVM

Display Priority	8		
Line	BI020		dam/weir
Line	BI040		sluice gate
Line	CA010	hqc=0or2or12	contour line (land) - intermediate
Line	CA010	hqc=1or7	contour line (land) - index
Line	CA010	hqc=3or14	contour line (land) - supplementaL
Line	CA010	hqc=5or6	contour line (land) - depression
Line	FA000	use=0or26or999	administrative boundary - primary, unknown, other
Line	FA000	use=16	administrative boundary - city
Line	FA000	use=23	administrative boundary - international
Line	FA015		firing range/gunnery range
Line	FA020		armistice line
Line	GB045		overrun/stopway
Line	GB050		revetment (airfield)
Line	GB055		runway
Line	GB075		taxiway
Area	AK130		race track
Area	AL015	bfc<>2and<>3and<>5and<>8and<>28and<>52and<>121and<>15and<>6and<>7and<>114and<>100and<>60and<>108	building - generic
Area	AL015	bfc=15or60or108	building - school
Area	AL015	bfc=2or3or5or8or28or52or121	building - gov't
Area	AL015	bfc=6or100	building - hospital
Area	AL015	bfc=7or114	building - house of worship
Area	AL045		complex outline
Area	AL130		monument
Area	AM020		grain bin/silo
Area	AM030		grain elevator
Area	AM070		tank
Area	AN060		railroad yard/marshaling yard
Area	AN075		railroad turntable
Area	AP020		interchange
Area	AP030	exs=0or28or999	road - operational
Area	AP030	exs=5or6or7	road - non-operational
Area	AQ040		bridge/overpass/viaduct
Area	AQ065		culvert

UVM UVM

Display Priority	8	
Area	AQ150	flight of steps
Area	GB005	airport/airfield
Area	GB015	apron/hardstand
Area	GB030	helicopter landing pad
Area	GB035	heliport
Area	GB045	overrun/stopway
Area	GB050	revetment (airfield)
Area	GB055	runway
Area	GB075	taxiway

VITD VITD

Display Priority	0		
Area	AN060		railroad yard/marshalling yard
Area	BA030		island
Area	DA010	stp<>1and<>2and<>3and<>4and<>5and<>6and<>7and<>8and<>9	ground surface element - silts, clays, evaporites, other
Area	DA010	stp=1or2or3or4	ground surface element - gravels
Area	DA010	stp=5or6or7or8or9	ground surface element - sands
Area	DA020		barren ground
Area	SA010		common open water
Area	SA020		disturbed soil
Area	SA030		exposed bedrock
Area	SA050	gsc=0	slope polygon - % unknown
Area	SA050	gsc=1	slope polygon - 0 to >45%, dissected
Area	SA050	gsc=2	slope polygon - <= 3%
Area	SA050	gsc=3	slope polygon - > 3% and <= 10%
Area	SA050	gsc=4	slope polygon - > 10% and <= 20%
Area	SA050	gsc=5	slope polygon - > 20% and <= 30%
Area	SA050	gsc=6	slope polygon - > 30% and <= 45%
Area	SA050	gsc=7	slope polygon - > 45%

Display Priority	1		
Area	BH020	hyc<>8	canal - not perennial
Area	BH020	hyc=8	canal - perennial
Area	BH140	hyc=0or8or14	river/stream - perennial, braided
Area	BH140	hyc=6	river/stream - intermittent

Display Priority	2		
Line	AL260		wall
Line	BI030		lock
Line	EA020		hedgerow
Area	AL020		built-up area
Area	BH090		land subject to inundation
Area	BH095		marsh/swamp
Area	BH135		rice field
Area	EA010		cropland
Area	EA040		orchard/plantation
Area	EA050		vineyards

VITD VITD

Display Priority	2		
Area	EB010		grassland
Area	EB020		scrub/brush
Area	EC010		bamboo/cane
Area	EC030		trees
Area	SA040		permanent snowfield

Display Priority	3		
Point	AQ070		ferry crossing
Point	AQ111		prepared raft or float bridge site
Point	AQ118		sharp curve(s)
Point	AQ130		tunnel
Line	AN010	exs<>0and<>1	RR - dismantled, under construction
Line	AN010	exs=0or1 AND fco<>0and<>3	RR - definite, multi
Line	AN010	exs=0or1 AND fco=0or3	RR - definite, unkn/single
Line	AN050	exs<>0and<>1	RR siding - dismantled, under construction
Line	AN050	exs=0or1 AND rrc=0or1or5	RR siding - normal/broad, definite
Line	AN050	exs=0or1 AND rrc=4	RR sidiing - narrow, definite
Line	AN060		railroad yard/marshalling yard
Line	AP010		cart track
Line	AP030	fco=0or7 AND rst=0or1 AND wtc=0or1	road - w/out median, hard, all weather
Line	AP030	fco=0or7 AND rst=2 AND wtc=0or1	road - w/out median, loose, all weather
Line	AP030	fco=0or7 AND rst=2 AND wtc=2	road - w/out median, loose, fair weather
Line	AP030	fco=5or6 AND rst=0or1 AND wtc=0or1	road - w/ median, hard, all weather
Line	AQ070		ferry crossing
Line	AQ111		prepared raft or float bridge site
Line	AQ130		tunnel
Line	BH100		moat
Line	DB010		bluff/cliff/escarpment
Line	DB070		cut
Line	DB090		embankment/fill
Line	DB190		volcanic dike
Line	DB200		gully/gorge
Line	SA060		covered drainage
Area	DB080		depression
Area	DB200		gully/gorge

VITD VITD

Display Priority	4		
Area	GB055		runway

Display Priority	5		
Point	BI020		dam/weir
Line	BI020		dam/weir
Line	GB055		runway

Display Priority	6		
Line	BH020		canal
Line	BH140	hyc=0or6	river/stream - intermittent
Line	BH140	hyc=8or14	river/stream - perennial, braided

Display Priority	7		
Point	AL195		ramp
Point	AQ040		bridge/overpass/viaduct
Point	AQ045		bridge span
Point	BH070		ford
Point	BI030		lock
Line	AL060		dragon teeth
Line	AQ040		bridge/overpass/viaduct
Line	AQ113		pipeline/pipe
Line	BH070		ford
Area	AL060		dragon teeth

Display Priority	8		
Point	AQ058	wd1<40	constriction/expansion
Point	AQ058	wd1=40	constriction/expansion

VML0 VML0

Display Priority 1

Area	DA010	mcc<>52and<>88	ground surface element - not lava, not sand
Area	DA010	mcc=52	ground surface element - lava
Area	DA010	mcc=88	ground surface element - sand

Display Priority 2

Line	EA020		hedgerow
Area	AL020		built-up area
Area	AL135		native settlement
Area	BH015		bog
Area	BH077		hummock
Area	BH090		land subject to inundation
Area	BH095		marsh/swamp
Area	BH135		rice field
Area	BJ065		ice shelf
Area	BJ100		snow field/ice field
Area	BJ110		tundra
Area	EA010		cropland
Area	EA030		nursery
Area	EA040		orchard/plantation
Area	EA050		vineyards
Area	EB010		grassland
Area	EB020		scrub/brush
Area	EC010		bamboo/cane
Area	EC020		oasis
Area	EC030	veg=0or24or50or999	trees - unknown, deciduous, mixed, other
Area	EC030	veg=11or12or17or18or25or29or38	trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress

Display Priority 3

Point	BH120		rapids
Point	BH155		salt evaporator
Point	BH180		waterfall
Area	BA040		water (except inland)
Area	BH000		inland water
Area	BH050		fish hatchery/fish farm/marine farm
Area	BH155		salt evaporator

VML0 VML0

Display Priority	3		
Area	BJ070		pack ice
Area	BJ080		polar ice
Area	EC030	veg=16or19	trees - nipa palm, mangrove

Display Priority	5		
Point	AI030		camp
Point	AM010		depot (storage)
Area	AA010		mine/quarry
Area	AA052		oil/gas field
Area	AK040		athletic field
Area	AK130		race track

Display Priority	6		
Point	AA050		well
Point	AL020		built-up area
Point	AL105		settlement
Point	AL135		native settlement
Point	BH170		spring/water-hole
Line	AQ113	loc=4	pipeline/pipe - underground
Line	BH000		inland water
Line	BH140	hyc=6	river/stream - intermittent
Line	BH140	hyc=8	river/stream - perennial
Area	FA001		administrative area
Area	FA070		demilitarized zone
Area	FA170		zone of occupation

Display Priority	7		
Point	AD010		power plant
Point	AL260		wall
Point	AQ064		causeway
Point	AQ070		ferry crossing
Point	BA030		island
Point	BH070		ford
Point	SU001		military base
Line	AL260		wall
Line	AP050		trail

VML0 VML0

Display Priority	7		
Line	AQ064		causeway
Line	AQ070		ferry crossing
Line	AQ113	loc=8	pipeline/pipe - on ground
Line	BA010		coastline/shoreline
Line	BB040		breakwater/groyne
Line	BB190		pier/wharf/quay
Line	BB230		seawall
Line	BH070		ford
Line	BJ040		ice cliff
Line	DB010		bluff/cliff/escarpment
Line	DB080		depression
Line	DB090		embankment/fill
Line	DB110		fault
Line	DB160		rock strata/rock formation
Line	EC040		cleared way/cut line/firebreak
Area	SU001		military base

Display Priority	8		
Point	AA010		mine/quarry
Point	AA052		oil/gas field
Point	AC000		processing plant/treatment plant
Point	AC040		oil/gas facilities
Point	AD030		substation/tran.yard
Point	AK160		stadium/amphitheater
Point	AL015		building
Point	AL025		cairn
Point	AL130		monument
Point	AL200		ruins
Point	AL210		snow shed/rock shed
Point	AL240		tower (non-communication)
Point	AM070		tank
Point	AM080		water tower
Point	AN060		railroad yard/marshalling yard
Point	AQ040		bridge/overpass/viaduct
Point	AQ116		pumping station

VML0 **VML0**

Display Priority	8		
Point	AQ130		tunnel
Point	AT050		communication building
Point	AT080		communication tower
Point	BC050		lighthouse
Point	BD130		rock
Point	BD180		wreck
Point	BI020		dam/weir
Point	BI030		lock
Point	BI040		sluice gate
Point	CA030	ela<>1	spot elevation - not accurate
Point	CA030	ela=1	spot elevation - accurate
Point	CA035		inland water elevation
Point	FA001		administrative area
Point	GB005	use<>8and<>22	airport/airfield - non military
Point	GB005	use=8or22	airport/airfield - military
Line	AL210		snow shed/rock shed
Line	AN010	exs<>28 AND fco<>0and<>3	RR -non-op, multi
Line	AN010	exs<>28 AND fco=0or3	RR -non-op, unkn/single
Line	AN010	exs=28 AND fco<>0and<>3	RR -op,multi
Line	AN010	exs=28 AND fco=0or3	RR -op, unkn/single
Line	AP030	exs<>28 AND med<>1	road - non-op, w/o median
Line	AP030	exs<>28 AND med=1	road - non-op, w/ median
Line	AP030	exs=28 AND med<>1	road - operational, w/o median
Line	AP030	exs=28 AND med=1	road - operational, w/median
Line	AQ010		aerial cableway lines/ski lift lines
Line	AQ040		bridge/overpass/viaduct
Line	AQ130		tunnel
Line	AT030		power transmission line
Line	AT060		telephone line/telegraph line
Line	BD000		underwater danger/hazard
Line	BD120		reef
Line	BE015		depth contour
Line	BI020		dam/weir
Line	CA010	hqc=0or2or12	contour line (land) - intermediate, unknown

VML0 VML0

Display Priority	8		
Line	CA010	hqc=4or13or19or20or21or22or23	contour line (land) - supplementary approx., carrying, supplemental dep., form lines
Line	CA010	hqc=6or18	contour line (land) - depression
Line	FA000	use=23	administrative boundary - international
Line	FA000	use=26	administrative boundary - primary
Line	FA020		armistice line
Line	FA030		cease-fire line
Line	FA040		claim line
Line	FA050		mandate line/convention line
Line	FA060		defacto boundary
Line	FA110		international date line
Area	ZD020		void collection area

VML1 VML1

Display Priority	0		
Area	BA030		island

Display Priority	1		
Area	BH080	hyc=3or6	lake/pond - dry, intermittent
Area	BH140	hyc=3or6	river/stream - dry, intermittent
Area	BH160		sebkha
Area	BJ020		moraine
Area	DA005		asphalt lake
Area	DA010	mcc<>8and<>52and<>88and<>46	ground surface element - not rock, not lava, not sand
Area	DA010	mcc=46or8	ground surface element - boulders, gravel
Area	DA010	mcc=52	ground surface element - lava
Area	DA010	mcc=88	ground surface element - sand
Area	DB170	ssc=0	sand dune/sand hills - unknown
Area	DB170	ssc=22	sand dune/sand hills - crescent
Area	DB170	ssc=26	sand dune/sand hills - lateral
Area	DB170	ssc=27	sand dune/sand hills - mounds
Area	DB170	ssc=28	sand dune/sand hills - ripple
Area	DB170	ssc=29	sand dune/sand hills - star
Area	DB170	ssc=30	sand dune/sand hills - transverse

Display Priority	2		
Area	AL020		built-up area
Area	AL105		settlement
Area	AL135		native settlement
Area	BH015		bog
Area	BH090		land subject to inundation
Area	BH095		marsh/swamp
Area	BH135		rice field
Area	BJ030		glacier
Area	BJ065		ice shelf
Area	BJ100		snow field/ice field
Area	BJ110		tundra
Area	EA010		cropland
Area	EA040		orchard/plantation
Area	EA050		vineyards
Area	EB010		grassland

VML1 VML1

Display Priority 2

Area	EC030	veg=0or24or50or999	trees - unknown, deciduous, mixed, other
Area	EC030	veg=11or12or17or18or29or38	trees - casuarina, coniferous, palm, filao, eucalyptus, cypress

Display Priority 3

Point	BH120		rapids
Point	BH180		waterfall
Point	EC020		oasis
Line	BH120		rapids
Line	BH180		waterfall
Line	EC030		trees
Area	AC030		settling basin/sludge pond
Area	BA020		foreshore
Area	BA040		water (except inland)
Area	BH040		filtration beds/aeration beds
Area	BH050		fish hatchery/fish farm/marine farm
Area	BH080	hyc=0or8	lake/pond - perennial, unknown
Area	BH130		reservoir
Area	BH140	hyc=0or8 AND tid=0or2	river/stream - perennial, unknown; tidal, unknown
Area	BH140	hyc=0or8 AND tid=1	river/stream - perennial, unknown; non-tidal
Area	BH150		salt pan
Area	BH155		salt evaporator
Area	BH190		lagoon/reef pool
Area	BJ070		pack ice
Area	BJ080		polar ice
Area	EC030	veg=16or19	trees - nipa palm, mangrove

Display Priority 5

Point	AQ135		vehicle stopping area/rest area
Area	AA010		mine/quarry
Area	AB000		disposal site/waste pile
Area	AK120		park
Area	AL200		ruins

Display Priority 6

Point	AA050	pro=116	well - water
Point	AL020		built-up area

VML1 VML1

Display Priority 6

Point	BH010		aqueduct
Point	BH145		river stream vanishing point
Point	BH170		spring/water-hole
Point	BI010		cistern
Line	AQ113	loc=4 AND pro<>116	pipeline/pipe - underground;not water
Line	AQ113	loc=4 AND pro=116	pipeline/pipe - undergound;water
Line	BH010	loc<>25	aqueduct - not elevated
Line	BH020	hyc<>8	canal - not perennial
Line	BH020	hyc=8	canal - perennial
Line	BH030	hyc<>0and<>8	ditch - not perennial
Line	BH030	hyc=0or8	ditch - perennial, unknown
Line	BH060	loc<>25	flume - not elevated
Line	BH110	loc<>25	penstock - not elevated
Line	BH140	hyc=0or8	river/stream - perennial, unknown
Line	BH140	hyc=3or6	river/stream - dry, intermittent
Area	FA001		administrative area
Area	FA070		demilitarized zone
Area	FA170		zone of occupation

Display Priority 7

Point	AD010		power plant
Point	AL140		particle accelerator
Point	AQ070		ferry crossing
Point	BH070		ford
Point	BJ060		ice peak/nunatak
Point	DB030		cave
Point	DB115		geothermal feature
Point	DB150		mountain pass
Point	DB160		rock strata/rock formation
Line	AL070		fence
Line	AL260		wall
Line	AP010		cart track
Line	AP050		trail
Line	AQ070		ferry crossing
Line	AQ113	loc<>4 AND pro<>116	pipeline/pipe - not underground;not water

VML1 VML1

Display Priority	7		
Line	AQ113	loc<>4 AND pro=116	pipeline/pipe - not underground;water
Line	BA010	slt<>6and<>8	coastline/shoreline -not mangrove or marsh
Line	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
Line	BB040		breakwater/groyne
Line	BB140	vrr=0or1	jetty - unknown, partly submerged at high water
Line	BB140	vrr=8	jetty - covers and uncovers
Line	BB190		pier/wharf/quay
Line	BB230		seawall
Line	BH070		ford
Line	BJ040		ice cliff
Line	DB010		bluff/cliff/escarpment
Line	DB060		crevice/crevasse
Line	DB070		cut
Line	DB090		embankment/fill
Line	DB100		esker
Line	DB110		fault
Line	EC040		cleared way/cut line/firebreak
Line	FA090		geophysical prospecting grid
Area	AC000		processing plant/treatment plant
Area	AD010		power plant
Area	AH050		fortification
Area	BB190		pier/wharf/quay
Area	BD120		reef

Display Priority	8		
Point	AA010		mine/quarry
Point	AA040		rig/superstructure
Point	AA050	pro<>116	well - not water
Point	AC000		processing plant/treatment plant
Point	AF010		chimney/smokestack
Point	AF030		cooling tower
Point	AF040		crane
Point	AF070		flare pipe
Point	AH050		fortification
Point	AJ050		windmill

VML1 VML1

Display Priority	8		
Point	AK020		amusement park attraction
Point	AK150		ski jump
Point	AK160		stadium/amphitheater
Point	AL015	bfc=0or1or4or9or10or11or16or17or18or19or20or22 or23or24or27or83or999	building - generic
Point	AL015	bfc=15	building - school
Point	AL015	bfc=2or3or5or12or13or14	building - gov't
Point	AL015	bfc=7 AND hwt=0or2or3or4or7	building - house of worship
Point	AL015	bfc=7 AND hwt=11or14or15or16	building - house of worship
Point	AL015	bfc=7 AND hwt=20	building - house of worship
Point	AL015	bfc=7 AND hwt=21	building - house of worship
Point	AL015	bfc=7 AND hwt=5or6or9	building - house of worship
Point	AL025		cairn
Point	AL100		hut
Point	AL130		monument
Point	AL200		ruins
Point	AL210		snow shed/rock shed
Point	AL240		tower (non-communication)
Point	AM020		grain bin/silo
Point	AM030		grain elevator
Point	AM070		tank
Point	AM080		water tower
Point	AP020		interchange
Point	AQ040		bridge/overpass/viaduct
Point	AQ060		control tower
Point	AQ110		mooring mast
Point	AQ116		pumping station
Point	AQ130		tunnel
Point	AT010		disk/dish
Point	AT080		communication tower
Point	BD130		rock
Point	BD180		wreck
Point	BI020		dam/weir
Point	BI050		water intake tower

VML1 VML1

Display Priority	8		
Point	CA030	ela<>1	spot elevation - not accurate
Point	CA030	ela=1	spot elevation - accurate
Point	GB005	exs<>28	airport/airfield - not operational
Point	GB005	use<>8and<>22 AND exs=28	airport/airfield - operational; non military
Point	GB005	use=8or22 AND exs=28	airport/airfield - operational; military
Point	GB010		airport lighting
Point	GB055	exs<>28	runway - not operational
Point	GB055	exs=28	runway - operational
Point	ZB035		control point/control station
Line	AF020		conveyor
Line	AK130		race track
Line	AL210		snow shed/rock shed
Line	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2	RR -non-op, multi, norml/brd/unkn
Line	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc=2	RR -non-op, multi, narrow
Line	AN010	exs<>0and<>28 AND fco=0or3 AND rgc<>2	RR -non-op, unkn/single, unkn/norml/brd
Line	AN010	exs<>0and<>28 AND fco=0or3 AND rgc=2	RR -non-op, single/unkn, narrow
Line	AN010	exs=0or28 AND fco<>0and<>3 AND rgc<>2	RR -op,multi, unkn/norml/brd
Line	AN010	exs=0or28 AND fco<>0and<>3 AND rgc=2	RR -op, mult, narrow
Line	AN010	exs=0or28 AND fco=0or3 AND rgc<>2	RR -op, unkn/single, unkn/norml/brd
Line	AN010	exs=0or28 AND fco=0or3 AND rgc=2	RR -op, unkn/single, narrow
Line	AN050	rgc<>2	RR siding - normal,broad,unknown
Line	AN050	rgc=2	RR siding - narrow
Line	AP030	exs<>0and<>28 AND rst=1 AND use=0or6or999	road - non-op, hard, other
Line	AP030	exs<>0and<>28 AND rst=1 AND use=23or37	road - non-op, hard, interstate/international
Line	AP030	exs<>0and<>28 AND rst=1 AND use=4or5	road - non-op, hard, national/state
Line	AP030	exs=0or28 AND rst<>1	road - op/loose
Line	AP030	exs=0or28 AND rst=1 AND use=0or6or999	road - op, hard, private/other
Line	AP030	exs=0or28 AND rst=1 AND use=23or37	road - op, hard, interstate/international
Line	AP030	exs=0or28 AND rst=1 AND use=4or5	road - op, hard, national/state
Line	AQ010		aerial cableway lines/ski lift lines
Line	AQ040		bridge/overpass/viaduct
Line	AQ130		tunnel
Line	AT030		power transmission line
Line	AT060		telephone line/telegraph line

VML1 VML1

Display Priority	8		
Line	BD120		reef
Line	BE015		depth contour
Line	BH010	loc=25	aqueduct - elevated
Line	BH060	loc=25	flume - elevated
Line	BH110	loc=25	penstock - elevated
Line	BI020		dam/weir
Line	BI030		lock
Line	CA010		contour line (land)
Line	FA000	use=0or26	administrative boundary - primary, unknown
Line	FA000	use=30	administrative boundary - secondary
Line	FA000	use=31	administrative boundary - tertiary
Line	FA000	use=4or23	administrative boundary - international
Line	FA020		armistice line
Line	FA030		cease-fire line
Line	FA050		mandate line/convention line
Line	FA060		defacto boundary
Line	FA110		international date line
Line	GB055		runway
Area	AL015	bfc<>7and<>15	building - generic
Area	AL015	bfc=15	building - school
Area	AL015	bfc=7	building - house of worship
Area	AN060		railroad yard/marshalling yard
Area	ZC040		magnetic disturbance area
Area	ZD020		void collection area

VML2 VML2

Display Priority	0		
Area	BA030		island

Display Priority	1		
Area	BH080	hyc=3or6	lake/pond - dry, intermittent
Area	BH140	hyc=3or6	river/stream - dry, intermittent
Area	BH160		sebkha
Area	BJ020		moraine
Area	DA005		asphalt lake
Area	DA010	mcc<>8and<>52and<>46and<>88	ground surface element - not rock, not lava, not sand
Area	DA010	mcc=46or8	ground surface element - boulders, gravel
Area	DA010	mcc=52	ground surface element - lava
Area	DA010	mcc=88	ground surface element - sand
Area	DB170	ssc=0	sand dune/sand hills - unknown
Area	DB170	ssc=22	sand dune/sand hills - crescent
Area	DB170	ssc=26	sand dune/sand hills - lateral
Area	DB170	ssc=27	sand dune/sand hills - mounds
Area	DB170	ssc=28	sand dune/sand hills - ripple
Area	DB170	ssc=29	sand dune/sand hills - star
Area	DB170	ssc=30	sand dune/sand hills - transverse

Display Priority	2		
Line	EA020		hedgerow
Area	AL020		built-up area
Area	AL105		settlement
Area	AL135		native settlement
Area	BH015		bog
Area	BH077		hummock
Area	BH090		land subject to inundation
Area	BH095		marsh/swamp
Area	BH135		rice field
Area	BJ030		glacier
Area	BJ065		ice shelf
Area	BJ100		snow field/ice field
Area	BJ110		tundra
Area	EA010		cropland
Area	EA030		nursery

VML2 VML2

Display Priority	2		
Area	EA040		orchard/plantation
Area	EA050		vineyards
Area	EB010		grassland
Area	EB020		scrub/brush
Area	EC010		bamboo/cane
Area	EC020		oasis
Area	EC030	veg=0or24or50or999	trees - unknown, deciduous, mixed, other
Area	EC030	veg=11or12or17or18or25or29or38	trees - casuarina, coniferous, palm, filao, evergreen, eucalyptus, cypress

Display Priority	3		
Point	BD100		pile/piling/post
Point	BH120		rapids
Point	BH180		waterfall
Point	EC020		oasis
Line	BH120		rapids
Line	BH180		waterfall
Area	AC030		settling basin/sludge pond
Area	AK170		swimming pool
Area	BA020		foreshore
Area	BA040		water (except inland)
Area	BB090		drydock
Area	BD100		pile/piling/post
Area	BH020	exs<>32 OR hyc<>8	canal - not navigable or not perennial
Area	BH020	exs=32 AND hyc=8	canal - navigable;perennial
Area	BH030		ditch
Area	BH040		filtration beds/aeration beds
Area	BH050		fish hatchery/fish farm/marine farm
Area	BH080	hyc=0or8	lake/pond - perennial, unknown
Area	BH130		reservoir
Area	BH140	hyc=0or8 AND tid<>1	river/stream - perennial, unknown; tidal
Area	BH140	hyc=0or8 AND tid=1	river/stream - perennial, unknown; non-tidal
Area	BH150		salt pan
Area	BH155		salt evaporator
Area	BJ070		pack ice

VML2 VML2

Display Priority	3		
Area	BJ080		polar ice
Area	EC030	veg=16or19	trees - nipa palm, mangrove

Display Priority	4		
Point	EC030		trees

Display Priority	5		
Point	AM060		storage bunker/storage mound
Area	AA010		mine/quarry
Area	AB000		disposal site/waste pile
Area	AB010		wrecking yard/scrap yard
Area	AD030		substation/tran.yard
Area	AI020		mobile home/mobile home park
Area	AJ030		feedlot/stockyard/holding pen
Area	AK030		amusement park
Area	AK040		athletic field
Area	AK060		campground/campsite
Area	AK070		drive in theater
Area	AK090		fairgrounds
Area	AK100		golf course
Area	AK120		park
Area	AK160		stadium/amphitheater
Area	AK180		zoo/safari park
Area	AL030		cemetery
Area	AL170		plaza/city square
Area	AL200		ruins
Area	AM010		depot (storage)
Area	AM060		storage bunker/storage mound
Area	AQ135		vehicle stopping area/rest area
Area	AQ140		vehicle storage/parking area

Display Priority	6		
Point	AA050	pro=116	well - water
Point	AL105		settlement
Point	BH010		aqueduct
Point	BH145		river stream vanishing point

VML2 VML2

Display Priority 6

Point	BH170		spring/water-hole
Point	BI010		cistern
Line	AQ113	loc=4 AND pro<>116	pipeline/pipe - underground;not water
Line	AQ113	loc=4 AND pro=116	pipeline/pipe - undergound;water
Line	BH010	loc<>25	aqueduct - not elevated
Line	BH010	loc=25	aqueduct - elevated
Line	BH020	hyc<>8	canal - not perennial
Line	BH020	hyc=8	canal - perennial
Line	BH030	hyc=0or8	ditch - perennial, unknown
Line	BH030	hyc=6	ditch - intermittent
Line	BH060	loc<>25	flume - not elevated
Line	BH110	loc<>25	penstock - not elevated
Line	BH140	hyc=0or8	river/stream - perennial, unknown
Line	BH140	hyc=3or6	river/stream - dry, intermittent
Area	BI020		dam/weir
Area	BI030		lock
Area	BI050		water intake tower
Area	FA001		administrative area
Area	FA070		demilitarized zone
Area	FA170		zone of occupation

Display Priority 7

Point	AD020		solar panels
Point	AQ070		ferry crossing
Point	BB010		anchorage
Point	BH070		ford
Point	BJ060		ice peak/nunatak
Point	DB030		cave
Point	DB115		geothermal feature
Point	DB150		mountain pass
Point	DB160		rock strata/rock formation
Point	DB180		volcano
Line	AL060		dragon teeth
Line	AL070		fence
Line	AL260		wall

VML2 VML2

Display Priority	7		
Line	AP010		cart track
Line	AP050		trail
Line	AQ070		ferry crossing
Line	AQ113	loc<>4 AND pro<>116	pipeline/pipe - on or above ground;not water
Line	AQ113	loc<>4 AND pro=116	pipeline/pipe - on or above ground;water
Line	BA010	slt<>6and<>8	coastline.shoreline - not mangrove or marsh
Line	BA010	slt=6or8	coastline/shoreline - mangrove, marsh
Line	BB040		breakwater/groyne
Line	BB140		jetty
Line	BB190		pier/wharf/quay
Line	BB230		seawall
Line	BB240		slipway/patent slip
Line	BH070		ford
Line	BJ040		ice cliff
Line	DB010		bluff/cliff/escarpment
Line	DB060		crevice/crevasse
Line	DB070		cut
Line	DB090		embankment/fill
Line	DB100		esker
Line	DB110		fault
Line	EC040		cleared way/cut line/firebreak
Line	FA090		geophysical prospecting grid
Area	AC000		processing plant/treatment plant
Area	AD010		power plant
Area	AH050		fortification
Area	AL060		dragon teeth
Area	AL140		particle accelerator
Area	AQ116		pumping station
Area	AT050		communication building
Area	BB010		anchorage
Area	BB040		breakwater/groyne
Area	BB140		jetty
Area	BB190		pier/wharf/quay
Area	BB240		slipway/patent slip

VML2 VML2

Display Priority	7		
Area	BD120		reef
Area	DB060		crevice/crevasse
Area	DB090		embankment/fill
Area	DB160		rock strata/rock formation

Display Priority	8		
Point	AA010		mine/quarry
Point	AA040		rig/superstructure
Point	AA050	pro<>116	well - not water
Point	AC000		processing plant/treatment plant
Point	AC020		catalytic cracker
Point	AD030		substation/tran.yard
Point	AF010		chimney/smokestack
Point	AF030		cooling tower
Point	AF040		crane
Point	AF070		flare pipe
Point	AH050		fortification
Point	AJ050		windmill
Point	AK020		amusement park attraction
Point	AK150		ski jump
Point	AL015	bfc=0or1or4or9or10or11or16or17or18or19or20or21or22or23or24or25or26or27or29or30or33or36	building - generic
Point	AL015	bfc=15	building - school
Point	AL015	bfc=2or3or5or8or12or13or14or28or31or35or37or61or66or77or96	building - gov't
Point	AL015	bfc=53or59or69or70or83or85or86or87or88or89or90or91or92or93or95or98or999	building - generic
Point	AL015	bfc=6	building - hospital
Point	AL015	bfc=7 AND hwt=0or2or3or4or7	building - house of worship
Point	AL015	bfc=7 AND hwt=11or14or15or16	building - house of worship
Point	AL015	bfc=7 AND hwt=20	building - house of worship
Point	AL015	bfc=7 AND hwt=21	building - house of worship
Point	AL015	bfc=7 AND hwt=5or6or9	building - house of worship
Point	AL015	bfc=82	building - lighthouse
Point	AL025		cairn
Point	AL030		cemetery

VML2 VML2

Display Priority	8		
Point	AL100		hut
Point	AL130		monument
Point	AL200		ruins
Point	AL210		snow shed/rock shed
Point	AL240		tower (non-communication)
Point	AL250		underground dwelling
Point	AM020		grain bin/silo
Point	AM030		grain elevator
Point	AM070		tank
Point	AM080		water tower
Point	AN075		railroad turntable
Point	AQ040		bridge/overpass/viaduct
Point	AQ060		control tower
Point	AQ065		culvert
Point	AQ110		mooring mast
Point	AQ116		pumping station
Point	AQ130		tunnel
Point	AT010		disk/dish
Point	AT050		communication building
Point	AT080		communication tower
Point	BD130		rock
Point	BD180		wreck
Point	BI020		dam/weir
Point	BI030		lock
Point	BI040		sluice gate
Point	BI050		water intake tower
Point	CA030	ela<>1	spot elevation - not accurate
Point	CA030	ela=1	spot elevation - accurate
Point	GB005	exs<>28	airport/airfield - not operational
Point	GB005	use<>8and<>22 AND exs=28	airport/airfield - operational; non military
Point	GB005	use=8or22 AND exs=28	airport/airfield - operational; military
Point	GB010		airport lighting
Point	ZB030		boundary monument
Point	ZB035		control point/control station

VML2 VML2

Display Priority	8		
Line	AF020		conveyor
Line	AK130		race track
Line	AK150		ski jump
Line	AL015	bfc<>6and<>7and<>15	building - generic
Line	AL015	bfc=15	building - school
Line	AL015	bfc=6	building - hospital
Line	AL015	bfc=7	building - house of worship
Line	AL210		snow shed/rock shed
Line	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc<>2	RR -non-op, multi, norml/brd/unkn
Line	AN010	exs<>0and<>28 AND fco<>0and<>3 AND rgc=2	RR -non-op, multi, narrow
Line	AN010	exs<>0and<>28 AND fco=0or3 AND rgc<>2	RR -non-op, unkn/single, unkn/norml/brd
Line	AN010	exs<>0and<>28 AND fco=0or3 AND rgc=2	RR -non-op, single/unkn, narrow
Line	AN010	exs=0or28 AND fco<>0and<>3 AND rgc<>2	RR -op,multi, unkn/norml/brd
Line	AN010	exs=0or28 AND fco<>0and<>3 AND rgc=2	RR -op, mult, narrow
Line	AN010	exs=0or28 AND fco=0or3 AND rgc<>2	RR -op, unkn/single, unkn/norml/brd
Line	AN010	exs=0or28 AND fco=0or3 AND rgc=2	RR -op, unkn/single, narrow
Line	AN050	rgc<>2	RR siding - normal,broad,unknown
Line	AN050	rgc=2	RR siding - narrow
Line	AP020		interchange
Line	AP030	exs<>0and<>28 AND rst=1 AND use=0or6or999	road - non-op, hard, other
Line	AP030	exs<>0and<>28 AND rst=1 AND use=23or37	road - non-op, hard, interstate/international
Line	AP030	exs<>0and<>28 AND rst=1 AND use=4or5	road - non-op, hard, national/state
Line	AP030	exs=0or28 AND rst<>1	road - op/loose
Line	AP030	exs=0or28 AND rst=1 AND use=0or6or999	road - op, hard, private/other
Line	AP030	exs=0or28 AND rst=1 AND use=23or37	road - op, hard, interstate/international
Line	AP030	exs=0or28 AND rst=1 AND use=4or5	road - op, hard, national/state
Line	AQ010		aerial cableway lines/ski lift lines
Line	AQ040		bridge/overpass/viaduct
Line	AQ130		tunnel
Line	AT030		power transmission line
Line	AT060		telephone line/telegraph line
Line	BD120		reef
Line	BE015		depth contour
Line	BH060	loc=25	flume - elevated

VML2 VML2

Display Priority	8		
Line	BH110	loc=25	penstock - elevated
Line	BI020		dam/weir
Line	BI040		sluice gate
Line	CA010	hqc=0or2or9or12	contour line (land) - intermediate, unknown
Line	CA010	hqc=1or7or8	contour line (land) - index
Line	CA010	hqc=3or4or13or14	contour line (land) - supplementary (1/4, 1/2, approx), form lines
Line	CA010	hqc=5or6	contour line (land) - depression
Line	FA000	use=0or26	administrative boundary - primary, unknown
Line	FA000	use=23	administrative boundary - international
Line	FA020		armistice line
Line	FA030		cease-fire line
Line	FA060		defacto boundary
Line	FA110		international date line
Area	AL015	bfc<>6and<>7and<>15	building - generic
Area	AL015	bfc=15	building - school
Area	AL015	bfc=6	building - hospital
Area	AL015	bfc=7	building - house of worship
Area	AM020		grain bin/silo
Area	AM030		grain elevator
Area	AM070		tank
Area	AN060		railroad yard/marshalling yard
Area	GB005		airport/airfield
Area	GB015		apron/hardstand
Area	GB045		overrun/stopway
Area	GB055		runway
Area	GB075		taxiway
Area	ZD020		void collection area

WVS WVS

Display Priority	0		
Area	BA040		water (except inland)
Area	BE019		depth area

Display Priority	4		
Line	BE015		depth contour

Display Priority	6		
Line	BA010		coastline/shoreline
Area	FA001		administrative area

Display Priority	7		
Line	FA020		armistice line
Line	FA030		cease-fire line
Line	FA040		claim line
Line	FA050		mandate line/convention line
Line	FA070	mbl=6	demilitarized zone
Line	ZD003		artifact location

Display Priority	8		
Line	FA000		administrative boundary
Line	FA000	use=0or26	administrative boundary - primary, unknown
Line	FA000	use=30	administrative boundary - secondary
Line	FA000	use=31	administrative boundary - tertiary
Line	FA000	use=4or23	administrative boundary - national, international
Line	FA060		defacto boundary
Line	FC021	mbl=6	maritime limit boundary - territorial waters limits
Line	FC021	mbl=7	maritime limit boundary - territorial waters baseline
Line	FC021	mbl=9	maritime limit boundary - international (at sea)
Line	FC021	mbl=999	maritime limit boundary - other territorial baseline

SYMBOL GRAPHICS

G.1 SCOPE

G.1.1 Scope. This appendix provides a graphic depiction of each symbol. It is a mandatory part of the specification. The information contained herein is intended for compliance.

G.2 APPLICABLE DOCUMENTS

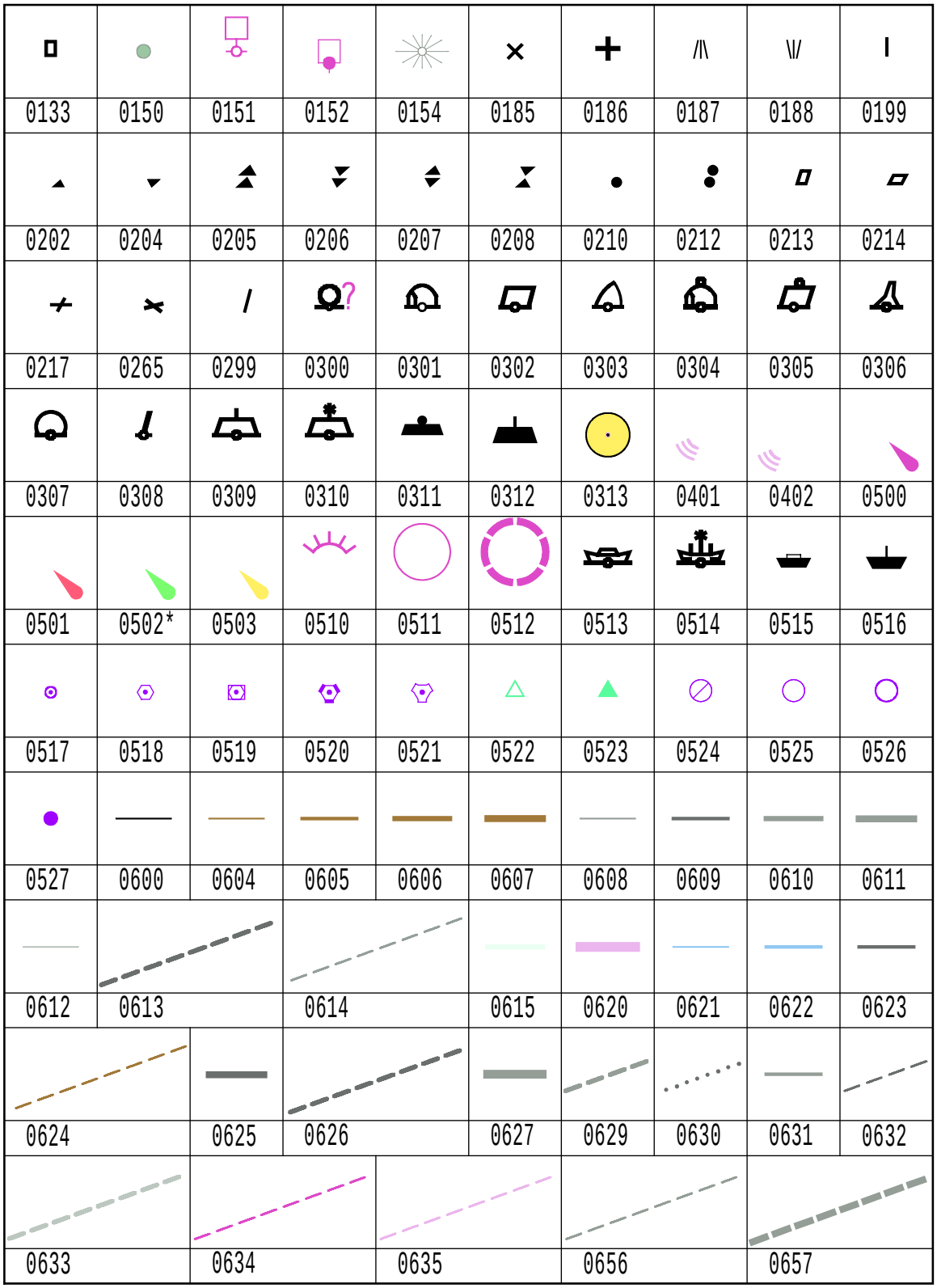
This section is not applicable to this appendix.

G.3 SYMBOL GRAPHICS

This appendix is sorted by symbol number and presents a graphic depiction of each symbol. The symbol depictions shown in this appendix are size-relative and based on the actual CGM representation of each symbol. It is important to note that the symbols are drawn to appear correctly in the context of digital map display containing many other symbols. Therefore, some symbols may appear to be distorted or have exaggerated elements in their representation in this appendix. For example, the dots in symbol 0052 in this appendix appear to be too large. However, when one views symbol 0052 in the GeoSym viewer (GEOSYMVW.EXE), the symbol displays correctly.

An asterisk beside a symbol number indicates that the symbol is used by GeoSym but is not accessed through an attribute expression. Therefore, they will not be represented in Appendix A. Currently, these symbols are limited to 0502, 5000, and 5001. Their use in GeoSym is explained in MIL-HDBK-857.

0001	0002	0003	0004	0005	0006	0007	0008	0009	0010
0011	0012	0013	0014	0015	0016	0017	0018	0019	0020
0021	0022	0023	0024	0025	0026	0027	0028	0029	0030
0031	0032	0033	0035	0036	0037	0038	0039	0040	0041
0042	0043	0044	0045	0046	0047	0051	0052	0053	0054
0055	0056	0057	0058	0059	0060	0061	0062	0063	0064
0065	0066	0071	0072	0073	0074	0076	0077	0078	0079
0080	0081	0082	0083	0084	0085	0086	0087	0088	0089
0090	0091	0092	0093	0094	0095	0096	0097	0098	0100
0101	0114	0122	0124	0125	0126	0127	0128	0130	0132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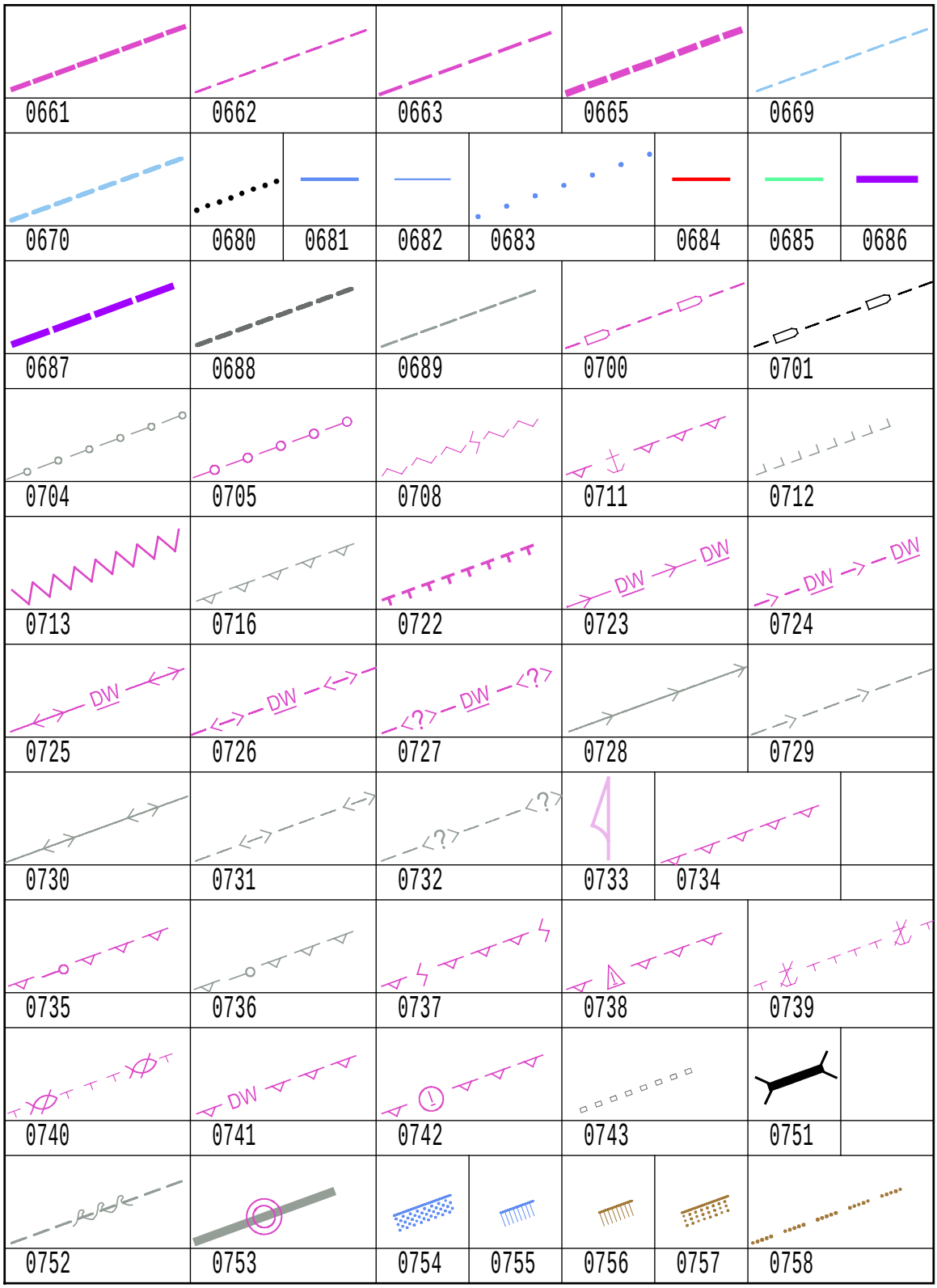
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0767		0802	0803	0804	0805	0810	0820	0821	0822
0823	0824	0825	0826	0902	0903	0904	0910	0911	0912
0913	0914	0915	0916	0917	0919	0932	0933	0934	0949
1001	1002	1003	1004	1005	1006	1007	1008	1009	1010
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1605	1606	1608			
1609	1610	1611	1612	1613	1651
1655					
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1905 (white)	1906	2001			
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2016	2019	2026	2029		
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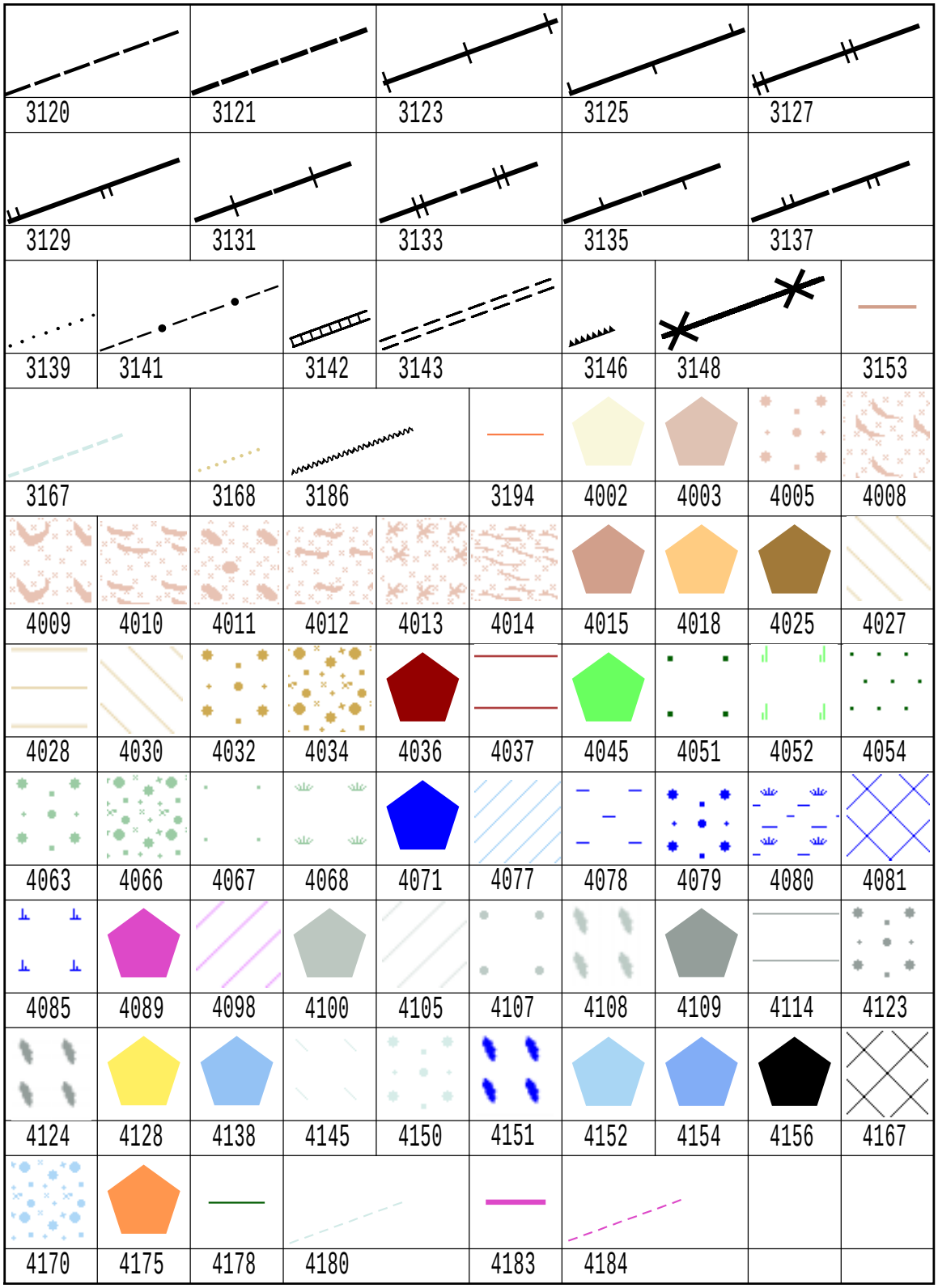
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5001*								

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Navy – NO
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Review activities:
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Preparing Activity
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3. **DOCUMENT TITLE**
GeoSpatial Symbols for Digital Displays (GeoSym)

4. **NATURE OF CHANGE** (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

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