

National Spatial Data Infrastructure

# **National Hydrography Data Content Standard for Coastal and Inland Waterways – Public Review Draft**

Bathymetric Subcommittee  
Federal Geographic Data Committee

January 2000

Federal Geographic Data Committee

Established by Office of Management and Budget Circular A-16, the Federal Geographic Data Committee (FGDC) promotes the coordinated development, use, sharing, and dissemination of geographic data.

The FGDC is composed of representatives from the Departments of Agriculture, Commerce, Defense, Energy, Housing and Urban Development, the Interior, State, and Transportation; the Environmental Protection Agency; the Federal Emergency Management Agency; the Library of Congress; the National Aeronautics and Space Administration; the National Archives and Records Administration; and the Tennessee Valley Authority. Additional Federal agencies participate on FGDC subcommittees and working groups. The Department of the Interior chairs the committee.

FGDC subcommittees work on issues related to data categories coordinated under the circular. Subcommittees establish and implement standards for data content, quality, and transfer; encourage the exchange of information and the transfer of data; and organize the collection of geographic data to reduce duplication of effort. Working groups are established for issues that transcend data categories.

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1 1. INTRODUCTION

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4 1.1 OBJECTIVE

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6 Geospatial hydrography data for waterways, shorelines, coastlines, etc. that supports transportation  
7 applications has been specified as one of the key framework information layers for the National Spatial  
8 Data Infrastructure (NSDI). The objective of this NSDI Hydrography Data Content Standard for Coastal  
9 and Inland Waterways (hereafter called the Hydrography Standard) project is to develop a nationally  
10 focused hydrographic data content standard for spatial data that supports safety of navigation. When  
11 complete, this standard will provide a consistent catalog of terms and definitions (semantics) to ensure  
12 uniform interpretation of information across a variety of organizations that develop and use hydrographic  
13 feature data and applications. This standard is based upon a well known logical data model for geospatial  
14 data of features, attributes, and domain values that is consistent with the Spatial Data Transfer  
15 Standard/Federal Information Processing Standard (SDTS/FIPS 173 part 2).

16  
17 1.2 SCOPE

18  
19 The scope of this Hydrography Standard project first focused on developing a catalog of hydrographic  
20 feature terms and definitions pertaining to navigation of coastal and inland waterways. In that the guidance  
21 from the NSDI concentrated on transportation/navigation, the team limited the scope to information relating  
22 to charting and electronic chart display applications. This standard will not address data distribution  
23 formats, extraction criteria, or accuracy reporting methods beyond inland and coastal waterways. This  
24 standard does not currently address hydrographic symbology. However, in future versions/releases of this  
25 standard it is planned to add this standard symbology information.

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29 1.3 APPLICABILITY

30 This Hydrography Standard is applicable to any U.S. organization that generates hydrographic feature  
31 information that supports coastal and inland waterways navigation. This standard is also applicable to any  
32 U.S. organization that uses hydrographic feature information generated by another organization and must  
33 translate its feature schema to a common feature schema based upon a standard hydrographic dictionary.

34

35 1.4 JUSTIFICATION/BENEFITS

36

37 There has never been a national data content standard for hydrographic data that support navigation  
38 applications; yet there has been interest from federal agencies, private industry, and the public for a  
39 uniform presentation of this type information for some time. A data content standard that supports  
40 navigation applications will ensure effective use and exchange of geospatial data across multiple agencies,  
41 organizations, and other users.

42 Specifically, this Hydrography Standard will facilitate semantic consistency when capturing geospatial  
43 hydrographic information for military and commercial navigation and electronic charting databases (in a  
44 GIS or CADD) and provide consistent data for applications that query, analyze this information, and  
45 interpreted this information for display of electronic charts. This standard will support cost savings  
46 associated with reducing the translating geospatial hydrographic information. This standard should also  
47 reduce the costs of building navigation applications by eliminating the “multi-fuel” requirement of handling  
48 many different type of hydrographic feature information.

49

50 1.5 RELATED STANDARDS

51

52 This Hydrography Standard closely parallels the hydrographic information contained within the  
53 following standards:

54 International Hydrographic Organization's S57 (IHO S-57) Appendix A, Object Catalog for Digital  
55 Hydrographic Data. IHO is an intergovernmental consultative and technical organization working to  
56 support the safety of navigation and the protection of the marine environment.  
57

58 North Atlantic Treaty Organization's (NATO) Digital Geographic Information Exchange Standard  
59 (DIGEST) Part 4, Feature Attribute Coding Catalog (FACC), a comprehensive coding scheme for  
60 features, their attributes and attribute. This allows for joint naval operations between sovereign  
61 countries and requires naval personnel to have familiarity amongst traditional S-57 and FACC.  
62

63 Tri-Service Spatial Data Standard (TSSDS Release 1.8), which is primarily used for civil and military  
64 installation mapping and facility management.  
65

66 U.S. Army Corps of Engineers (USACE) Regional Engineering and Environmental Geographic  
67 Information System (REEGIS) project's data dictionary for inland waterways and primarily used by the  
68 USACE for engineering, navigation and flood control structures along the Mississippi River.  
69

70 Also, this Hydrography Standard contains cross-references to the IHO- S57, NATA FACC, and TSSDS  
71 standards.  
72

## 73 1.6 STANDARDS DEVELOPMENT PROCESS

74

75 This standard was developed under the guidance and procedures specified by the Federal Geographic  
76 Data Committee (FGDC) under the authority of the Bathymetric Subcommittee. The FGDC announced the  
77 initiation of this Hydrography Standard project in the Federal Register in 1998 and issued a call for any  
78 interested party to participate on the project development team. The project team that developed this  
79 standard was composed of experts from the National Oceanographic and Atmospheric Administration  
80 (NOAA) and National Imagery and Mapping Agency (NIMA), the U.S. Army Corps of Engineers and the  
81 U.S. Coast Guard, several pilot associations, and private industry representatives. (These agencies and  
82 organizations represented users of various existing Hydrography standards.) In addition to the expertise  
83 brought to this project team from the various organizations represented, key documents were used in the  
84 development of this standard. These standards are cited as references in the Related Standards section of  
85 this document.

86 The first step after the formation of a Hydrography Standard project team was to agree upon the scope  
87 of this Hydrography Standard. The project team then reviewed key documents that consisted of adopted

88 standards and systems that had developed and used hydrographic feature data. The next step for the  
89 project team was to develop a master list of candidate features extracted from the related standards  
90 documents.

91 Next, the project team reviewed the master feature list and eliminated those clearly outside of the  
92 agreed to scope. A detailed comparison of feature terms and definitions extracted from the aforementioned  
93 standards was conducted. From this effort, the team was able to derive a standard feature term and  
94 definition for each feature. As a byproduct of this activity, a matrix was developed, which provides a  
95 mapping to related terms, or features, contained in each or the source standards. These matrices are  
96 included as appendices.

97 The project team has extracted all the attributes derived from the aforementioned standards and culled  
98 this list of attributes down to a subset of core attributes to include in the Hydrography standard. The  
99 project team created a domain list for each “category” of feature to facilitate the cross reference. Other  
100 attributes have been grouped into logical collections applicable to individual features to ease  
101 implementation. Finally, a draft Hydrography Standard document was generated to include the features,  
102 attributes, and domain terms and definitions lists, and additional descriptive documentation as specified by  
103 the FGDC directives on creating an NSDI standard.

#### 104 105 1.7 TARGET AUTHORIZATION BODY

106  
107 The Bathymetric Subcommittee originally proposed the development of this Hydrography Standard as  
108 an FGDC standard. The Bathymetric Subcommittee and the Standards Working Group of the FGDC may  
109 pursue a joint FGDC and American National Standards Institute (ANSI) adoption of this standard. To  
110 develop this Hydrography Standard through as an ANSI standard will require the development of an ANSI  
111 standard proposal and potentially an ANSI public review. The Bathymetric Subcommittee may consider  
112 (at a later date) promoting parts of this standard (e.g., inland waterways information) that are not currently  
113 part of the S-57 standard to International Hydrographic Organization for inclusion in their standard.

114

115 1.8 MAINTENANCE AUTHORITY

116

117 The National Oceanographic and Atmospheric Administration (NOAA) is the maintenance

118 organization for the Hydrography Standard for the Federal Geographic Data Committee. All general

119 questions and comments concerning this standard should be addressed to:

120

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128 1.9 PARTS OF THE STANDARD

129

130 This Hydrography Standard consists of a detailed main body and four appendices. The main body of

131 the Hydrography Standard defines the purpose of this standard, the process followed during its

132 development, the organization(s) involved in its development and maintenance, the actual Hydrography

133 Standard Data Dictionary (sometimes called the Object Catalog), and its relationship to other standards.

134 Appendices A through D contain matrix cross-references between the respective source data standards and

135 the Hydrography Data Content Standard. Appendices A through D are informative and therefore not

136 mandatory.



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2.0 DEFINITIONS

For the purpose of this Hydrography Data Content Standard, the following definitions apply.

- 2.1 **attribute** – a characteristic of an object (e.g., an attribute of hydrography surface course = degree of permanence of the surface course)
- 2.2 **attribute value** - a specific quality or quantity assigned to an attribute for a specific feature instance (e.g., electrical cable material = dry).
- 2.3 **data content standard** - provides the semantic definitions for a set of real world spatial phenomena of significance to a community. Data Content Standards may be organized and presented in a specified logical data model.
- 2.4 **domain** - a finite list (or range) of permissible values for a specified attribute. Included are tables of: units of measure, types, styles, status, names, methods, materials, dispositions, sources, dimensions, data, classes, etc. (e.g., degree of permanence = dry, intermittent, permanent, etc . . . )
- 2.5 **feature** – definition and description of a set (class of real world phenomena) into which similar feature instances are classified (e.g., shoreline and isohaline\_zone\_area).
- 2.6 **feature instance** - real-world spatial phenomenon about which data is collected, maintained, and disseminated. (e.g., the McMillan Water Reservoir). Feature instances are the geospatial objects that are graphically delineated in a spatial database.
- 2.7 **geospatial data** - data with implicit or explicit reference to a location relative to the surface of the earth.
- 2.8 **hydrography** - the science of the physical conditions, boundaries, flow, and related characteristics of earth's waters
- 2.9 **navigation** – to safely move on or through the water in a vessel.
- 2.10 **semantic content** – natural language information (e.g. names of features, attributes, and their phenomena on the earth’s surface)..

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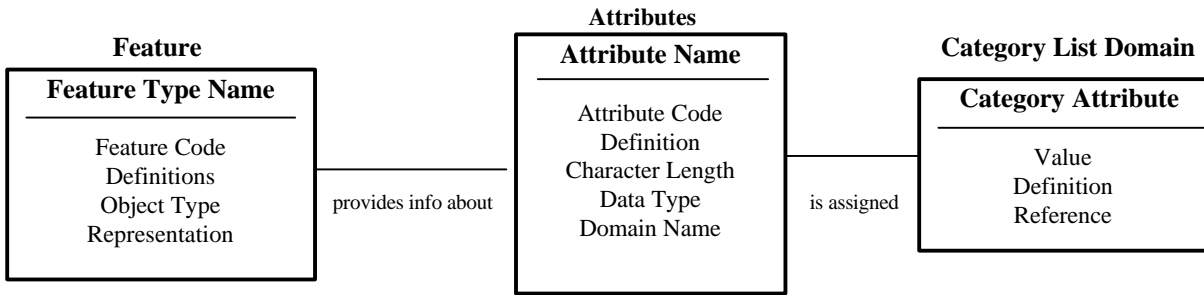
### 3.0 LOGICAL DATA MODEL

Agreement on a common format is not sufficient to ensure that the geospatial information transferred is meaningful to both the sender and the receiver. In order to share spatial data (and as part of a SDTS data transfer process) a common data model must be defined and used. In addition, semantic content of a spatial database (i.e., the entities and associated attribute and attribute value information) must be well defined and agreed upon by an application community and specified in either an off-line document (i.e. data content standard) and/or in the metadata for a given database. Part 2 of the SDTS is a formal attempt to develop a standardized list of entities. Additionally application communities that want to share geospatial information are developing data content standards modeled after the SDTS data model.

This Hydrography Standard data model (figure 1.) is based upon the SDTS geospatial data model as presented in Parts 1 and 2 of that standard as well as the specifications in ISO/IEC 8613-10:1995. The logical data model depicts the real world phenomena represented by features that are characterized by attributes that are assigned attribute values. This Hydrography Standard defines each of the features and their attributes and specifies a domain list for category attributes; e.g. those which further differentiate the individual features. In addition, this standard incorporates the use of a Feature Code, which identifies the feature in cryptic form for implementation of the standard. It also incorporates feature representation information that specifies the allowable graphic representations for each of the features.

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## Hydrography Data Model



**Figure 1**

214 4.0 HYDROGRAPHY STANDARD DATA DICTIONARY/OBJECT CATALOG  
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216 **CODE** **FEATURE NAME**

217 **HS001 ADMINISTRATION\_AREA** Land and water under the rights, powers, or authority of various local, state,  
218 and national governments.

219 CATEGORY COMMON\_NAME COUNTRY  
220 DESCRIPTION FORMAL\_NAME HORIZ\_ACC  
221 RECORD\_DATE SOURCE\_DATE

222 **HS002 AIRPORT/AIRFIELD** An area used for landing, take-off, and movement of aircraft, not including  
223 associated buildings, runways, and other facilities, either military or civilian.

224 COMMON\_NAME CONDITION DESCRIPTION  
225 FORMAL\_NAME RECORD\_DATE SOURCE\_DATE  
226 STATUS

227 **HS003 ANCHOR\_BERTH** A designated area of water where a single vessel, seaplane, etc. may  
228 anchor.

229 COMMON\_NAME DATE\_END DATE\_START  
230 DESCRIPTION FORMAL\_NAME RADIUS  
231 RECORD\_DATE SOURCE\_DATE  
232 STATUS

233 **HS004 ANCHORAGE\_AREA** A designated area in which vessels anchor or may anchor.

234 COMMON\_NAME DATE\_END DATE\_START  
235 DESCRIPTION FORMAL\_NAME PERMIT  
236 RECORD\_DATE RESTRICTION SOURCE\_DATE  
237 STATUS

238 **HS005 AQUATIC\_VEGETATION\_AREA** A discrete area where submerged or partially submerged aquatic flora has  
239 been identified.

240 COMMON\_NAME DESCRIPTION FORMAL\_NAME  
241 RECORD\_DATE SOURCE\_DATE

242 **HS006 BEACON** A fixed object used for navigation, usually consisting of a single pile or  
243 lattice structure, which may or may not actually be in the water.

244 CARDINAL COLOR\_PATTERN COMMON\_NAME  
245 CONDITION CONSTRUCTION DATE\_END  
246 DATE\_START DESCRIPTION ELEVATION  
247 FORMAL\_NAME HEIGHT LATERAL  
248 PRIMARY\_COLOR RECORD\_DATE SHAPE  
249 SOURCE\_DATE SPECIAL\_PURPOSE STATUS  
250 VERT\_ACC VERT\_DATUM

251 **HS007 BERTH** A named or numbered mooring location, normally alongside a pier or wharf.

252 COMMON\_NAME DATE\_END DATE\_START  
253 DEPTH\_ACC DEPTH\_DATUM DESCRIPTION  
254 DESIGNATOR FORMAL\_NAME QUALITY  
255 RECORD\_DATE SOURCE\_DATE STATUS

256 **HS008 BOAT\_LIFT** A mechanical device for lifting vessels between two levels other than a lock.

257 COMMON\_NAME DESCRIPTION FORMAL\_NAME  
258 RECORD\_DATE SOURCE\_DATE

259 **HS009 BOAT\_RAMP** A partially submerged hard surfaced area or fixed (not afloat) structure on a  
260 shoreline for launching and retrieving vessels or vehicles.

261 COLOR\_PATTERN COMMON\_NAME CONDITION  
262 CONSTRUCTION DATE\_END DATE\_START  
263 DESCRIPTION FORMAL\_NAME HEIGHT

264		HORIZ_ACC	HORIZ_CLEARANCE	LENGTH
265		PRIMARY_COLOR	RECORD_DATE	SOURCE_DATE
266		STATUS	VERT_ACC	VERT_DATUM
267		VERT_LENGTH	WIDTH	
268	<b>HS010</b>	<b>BOTTOM_CHARACTERISTICS</b>	Designations used on surveys and charts to indicate the consistency, color and classification of the sea floor, as determined by sampling methods.	
269				
270		COMMON_NAME	DESCRIPTION	FORMAL_NAME
271		MATERIAL	NATURE_BOTTOM	PRIMARY_COLOR
272		RECORD_DATE	SOURCE_DATE	
273	<b>HS011</b>	<b>BREAKWATER</b>	A stone structure which is designed to reduce the action of waves and currents near the entrance to river and ports. Sometimes called a breakwater.	
274				
275				
276		COLOR_PATTERN	COMMON_NAME	CONDITION
277		CONSTRUCTION	DATE_END	DATE_START
278		DESCRIPTION	FORMAL_NAME	HEIGHT
279		HORIZ_ACC	HORIZ_CLEARANCE	LENGTH
280		PRIMARY_COLOR	RECORD_DATE	SOURCE_DATE
281		STATUS	VERT_ACC	VERT_DATUM
282		VERT_LENGTH	WIDTH	
283	<b>HS012</b>	<b>BRIDGE</b>	A supporting structure used by pedestrians, vehicles, rail traffic, and utility services erected over obstacles such as a river, chasm, mountain, road or railroad. BRIDGE PIERS may support the structure at various locations along its length, or it may completely span the obstacle.	
284				
285				
286				
287		BRIDGE_TYPE	CLEARANCE	COLOR_PATTERN
288		COMMON_NAME	CONDITION	CONSTRUCTION
289		DATE_END	DATE_START	DESCRIPTION
290		DESIGNATOR	ELEVATION	FORMAL_NAME
291		HEIGHT	HORIZ_ACC	HORIZ_CLEARANCE
292		LENGTH	MATERIAL	NUM_SPANS
293		PRIMARY_COLOR	RECORD_DATE	SOURCE_DATE
294		STATUS	VERT_ACC	VERT_CLEARANCE
295		VERT_DATUM	WIDTH	
296	<b>HS013</b>	<b>BRIDGE_PIER</b>	The support(s) below the span of a bridge in the form of pillar(s) or abutment(s) for the spans of a bridge. In general, BRIDGE PIERS are only separately coded if they emerge from the surface of the water such that they may be a hazard to navigation.	
297				
298				
299				
300		COLOR_PATTERN	COMMON_NAME	CONDITION
301		CONSTRUCTION	DATE_END	DATE_START
302		DESCRIPTION	FORMAL_NAME	HEIGHT
303		PRIMARY_COLOR	RECORD_DATE	SOURCE_DATE
304		VERT_ACC	VERT_DATUM	VERT_LENGTH
305		WIDTH		
306	<b>HS014</b>	<b>BRIDGE_TOWER</b>	A tower or pylon extending above the surface of the bridge. In general, BRIDGE TOWERS are only separately coded if they may be conveniently used as an aide to navigation.	
307				
308				
309		COLOR_PATTERN	COMMON_NAME	CONDITION
310		CONSTRUCTION	DATE_END	DATE_START
311		DESCRIPTION	DESIGNATOR	FORMAL_NAME
312		HEIGHT	HORIZ_ACC	PRIMARY_COLOR
313		RECORD_DATE	SOURCE_DATE	VERT_ACC
314		VERT_DATUM	VERT_LENGTH	WIDTH
315	<b>HS015</b>	<b>BUILDING</b>	A relatively permanent structure, roofed and usually walled and designed for some particular use.	
316				
317		COLOR_PATTERN	COMMON_NAME	CONDITION
318		CONSTRUCTION	DESCRIPTION	DESIGNATOR

319		ELEVATION	FORMAL_NAME	FUNCTION
320		HEIGHT	HORIZ_ACC	LENGTH
321		NO_FLOORS	PRIMARY_COLOR	RECORD_DATE
322		SHAPE	SOURCE_DATE	STATUS
323		VERT_ACC	VERT_DATUM	WIDTH
324	<b>HS016</b>	<b>BUILT-UP_AREA</b>	An area containing a concentration of buildings and the supporting road or rail network.	
325				
326		COMMON_NAME	CONDITION	DESCRIPTION
327		FACC_CAT	FORMAL_NAME	HEIGHT
328		MATERIAL	RECORD_DATE	S_57_CAT
329		SOURCE_DATE	VERT_ACC	VERT_DATUM
330		WIDTH		
331	<b>HS017</b>	<b>BUOY</b>	A floating object moored to the bottom in a particular place, as an aid to navigation or for other specific purposes.	
332				
333		CHARACTER	COLOR_PATTERN	COMMON_NAME
334		CONSTRUCTION	DATE_END	DATE_START
335		DESCRIPTION	FACC_CAT	FORMAL_NAME
336		HEIGHT	LATERAL	PERIOD
337		PRIMARY_COLOR	RADAR_REFLECTOR	RECORD_DATE
338		S_57_CAT	SHAPE	SOURCE_DATE
339		SPECIAL_PURPOSE	STATUS	
340		TOP_MARK	VERT_ACC	
341	<b>HS018</b>	<b>CANAL</b>	An excavated shallow- or deep draft watercourse designed for navigation, usually artificially cut through land area to bypass rock outcrops and rapids, or through shallow intracoastal areas where an adequate depth cannot be maintained at low water periods. Canal edges or borders usually extend above the water surface with visible banks and important ship and bank interaction effects.	
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347		COMMON_NAME	CONDITION	DATE_END
348		DATE_START	DEPTH	DESCRIPTION
349		FORMAL_NAME	HORIZ_ACC	HORIZ_CLEARANCE
350		LENGTH	RECORD_DATE	RESTRICTION
351		S_57_CAT	SOURCE_DATE	STATUS
352		WATER_VELOCITY	WIDTH	
353	<b>HS019</b>	<b>CARGO_TRANSHIPMENT_AREA</b>	An area designated for the transfer of cargo from one vessel to another.	
354		COMMON_NAME	DATE_END	DATE_START
355		DESCRIPTION	FORMAL_NAME	RECORD_DATE
356		SOURCE_DATE	STATUS	WIDTH
357	<b>HS020</b>	<b>CAUSEWAY</b>	A raised roadway of solid structure built primarily to provide a route across wet ground or intertidal area.(Alt)A raised area across low or wet ground used for transportation of pedestrians or vehicles.	
358				
359				
360		CLEARANCE	COMMON_NAME	CONDITION
361		CONSTRUCTION	DESCRIPTION	FORMAL_NAME
362		HEIGHT	LENGTH	RECORD_DATE
363		SOURCE_DATE	STATUS	WIDTH
364	<b>HS021</b>	<b>CAUTION_AREA</b>	Generally, an area where the mariner has to be made aware of circumstances influencing the safety of navigation.	
365				
366		COMMON_NAME	DATE_END	DATE_START
367		DESCRIPTION	RECORD_DATE	SOURCE_DATE
368		STATUS	WIDTH	
369	<b>HS022</b>	<b>CHANNEL_RIVER_SYSTEM(SHALLOW)</b>	An inland waterway system used by shallow-draft (15 feet or less) commercial towing and recreational vessels. Includes open river navigation systems (Mississippi River below St. Louis, Missouri River, Columbia River below Bonneville Dam) and canalized streams with locks and dams (e.g. Ohio River, Mississippi River above St. Louis, MO	
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374		COMMON_NAME	DATE_END	DATE_START
375		DEPTH_ACC	DESCRIPTION	FORMAL_NAME
376		RECORD_DATE	SOURCE_DATE	STATUS
377		VERT_DATUM		
378	<b>HS023</b>	<b>CHANNEL_MAINTAINED(DEEP_DRAFT)</b>	Type of navigation channel provided for the movement of vessels with drafts of 15 feet or more designed for open-water navigation including seagoing and intracoastal vessels operating in the Great Lakes. Deep-draft channels are usually marked and designated on the appropriate navigation charts with known/fixed depth and width parameters. May be formed and maintained totally, or in part, through excavation,	
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384		COMMON_NAME	DATE_END	DATE_START
385		DEPTH_ACC	DESCRIPTION	FORMAL_NAME
386		RECORD_DATE	SOURCE_DATE	STATUS
387		VERT_DATUM		
388	<b>HS024</b>	<b>CHECKPOINT</b>	An official place to register, declare or check goods and people.	
389		COMMON_NAME	DEPTH	
390	<b>HS025</b>	<b>COAST_GUARD_STATION</b>	Watch keeping station at which a watch is kept either continuously, or at certain times.	
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392		COMMON_NAME	DATE_END	DATE_START
393		DESCRIPTION	FORMAL_NAME	RECORD_DATE
394		S_57_CAT	SOURCE_DATE	STATUS
395	<b>HS026</b>	<b>CONTIGUOUS_ZONE</b>	A zone contiguous to a coastal State's territorial sea, which may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured. The coastal state may exercise certain control in this zone subject to the provisions of International Law. (IHO Dictionary, S-32, 5th Edition, 993)	
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400		COMMON_NAME	COUNTRY	DATE_END
401		DATE_START	DESCRIPTION	RECORD_DATE
402		SOURCE_DATE	STATUS	
403	<b>HS027</b>	<b>CONTINENTAL_SHELF_AREA</b>	The seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin.	
404				
405				
406		COMMON_NAME	COUNTRY	DESCRIPTION
407		FORMAL_NAME	RECORD_DATE	SOURCE_DATE
408	<b>HS028</b>	<b>CONTROL_POINT</b>	A permanently monumented survey control point constructed with an original purpose of establishing spatial location in one or more dimensions from a known reference or datum.	
409				
410				
411		COMMON_NAME	DATE_END	DATE_START
412		DESCRIPTION	ELEVATION	FORMAL_NAME
413		RECORD_DATE	SOURCE_DATE	VERT_ACC
414		VERT_DATUM		
415	<b>HS029</b>	<b>CONVEYOR</b>	A mechanical apparatus for moving bulk material or people from place to place (as by a moving belt or chain of receptacles).	
416				
417		COLOR_PATTERN	COMMON_NAME	CONDITION
418		DATE_END	DATE_START	DESCRIPTION
419		DESIGNATOR	FORMAL_NAME	HEIGHT
420		HORIZ_ACC	LENGTH	PRIMARY_COLOR
421		RECORD_DATE	SOURCE_DATE	STATUS
422		VERT_ACC	VERT_CLEARANCE	VERT_DATUM
423		WIDTH		
424	<b>HS030</b>	<b>CRANE</b>	A machine for lifting, shifting and lowering objects or materials by means of a swinging boom or with a lifting apparatus supported on an overhead track.	
425				
426				

427		COLOR_PATTERN	COMMON_NAME	CONDITION
428		DESCRIPTION	FORMAL_NAME	HEIGHT
429		HORIZ_ACC	LENGTH	MATERIAL
430		PRIMARY_COLOR	RECORD_DATE	SHAPE
431		SOURCE_DATE	STATUS	VERT_ACC
432		VERT_CLEARANCE	VERT_DATUM	WIDTH
433	<b>HS031</b>	<b>CURRENT</b>	Currents (non-gravitational) include either singly or in combination: ocean currents, inter-oceanic equalizing currents, currents of navigable rivers, river outflow effects offshore and other non-tidal flows.	
434				
435				
436		COMMON_NAME	DATE_END	DATE_START
437		FORMAL_NAME	ORIENTATION	RECORD_DATE
438		SOURCE_DATE	VELOCITY	
439	<b>HS032</b>	<b>CUSTOM_ZONE</b>	The area within which national customs regulations are in force.	
440		COUNTRY	DESCRIPTION	RECORD_DATE
441		SOURCE_DATE	STATUS	WIDTH
442	<b>HS033</b>	<b>DAM</b>	A barrier constructed to hold back water and raise its level to form a reservoir or to prevent flooding.	
443				
444		COLOR_PATTERN	COMMON_NAME	CONDITION
445		CONSTRUCTION	DATE_END	DATE_START
446		DESCRIPTION	FORMAL_NAME	HEIGHT
447		LENGTH	PRIMARY_COLOR	RECORD_DATE
448		SOURCE_DATE	VERT_ACC	VERT_DATUM
449		WIDTH		
450	<b>HS034</b>	<b>DAY_MARK</b>	The daytime identifier of an aid to navigation. The daymark conveys to the mariner, during daylight hours, the same significance as does the aid to navigation's light at night.	
451				
452				
453		COLOR_PATTERN	COMMON_NAME	CONSTRUCTION
454		DATE_END	DATE_START	DESCRIPTION
455		ELEVATION	FORMAL_NAME	HEIGHT
456		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
457		SHAPE	SOURCE_DATE	STATUS
458		VERT_ACC	VERT_DATUM	
459	<b>HS035</b>	<b>DEEP_WATER_ROUTE</b>	A deep water route in a designated area, within defined limits, which has been accurately surveyed for clearance of sea bottom and submerged obstacles to a minimum indicated depth of water.	
460				
461				
462		COMMON_NAME	DATE_END	DATE_START
463		DEPTH_ACC	DESCRIPTION	FORMAL_NAME
464		RECORD_DATE	SOURCE_DATE	STATUS
465		VERT_DATUM		
466	<b>HS036</b>	<b>DEPTH_AREA</b>	A depth area is a water area whose depth is within a defined range of values.	
467				
468		DESCRIPTION	RECORD_DATE	SOURCE_DATE
469		VERT_DATUM		
470	<b>HS037</b>	<b>DEPTH_CONTOUR</b>	A line connecting points of equal water depth which is sometimes significantly displaced outside of soundings, symbols and other chart detail for clarity as well as generalization.	
471				
472				
473		DEPTH	DESCRIPTION	RECORD_DATE
474		SOURCE_DATE	VERT_DATUM	
475	<b>HS038</b>	<b>DISTANCE_MARK</b>	A distance mark indicates the distance measured from an origin and consists of either a solid visible structure or a distinct location without special installation.	
476				
477				
478		COMMON_NAME	DATE_END	DATE_START
479		DESCRIPTION	FORMAL_NAME	RECORD_DATE



480		RIVER_MILE	SOURCE_DATE	
481	<b>HS039</b>	<b>DOLPHIN</b>	A post or group of posts, which may support a deck, used for mooring or warping a vessel.	
482				
483		COLOR_PATTERN	COMMON_NAME	CONDITION
484		CONSTRUCTION	DATE_END	DATE_START
485		DESCRIPTION	FORMAL_NAME	HEIGHT
486		PRIMARY_COLOR	RECORD_DATE	SHAPE
487		SOURCE_DATE	STATUS	VERT_ACC
488		VERT_DATUM		
489	<b>HS040</b>	<b>DREDGED_AREA</b>	An area of the bottom of a body of water which has been deepened by dredging.	
490				
491		COMMON_NAME	DESCRIPTION	FORMAL_NAME
492		LENGTH	PERMIT	RECORD_DATE
493		RESTRICTION	SOURCE_DATE	VERT_DATUM
494	<b>HS041</b>	<b>DRYDOCK</b>	A structure, providing support for a vessel, which has a means of removing water so that the bottom of the vessel can be exposed.	
495				
496		COMMON_NAME	CONDITION	DESCRIPTION
497		FORMAL_NAME	HORIZ_ACC	HORIZ_CLEARANCE
498		LENGTH	RECORD_DATE	SOURCE_DATE
499		STATUS	VERT_DATUM	WIDTH
500	<b>HS042</b>	<b>DUMPING_GROUND</b>	An area where dredged material or potentially harmful material e.g. explosives chemical waste is deliberately deposited.	
501				
502		COMMON_NAME	DESCRIPTION	FORMAL_NAME
503		RECORD_DATE	S_57_CAT	SOURCE_DATE
504		STATUS	WIDTH	
505	<b>HS043</b>	<b>DYKE</b>	A linear stone structure with a peaked or trapezoidal section located in pointway, secondary and main channel area and typically extending channelward from the convex bank to improve channel for navigational and flood control purposes.	
506				
507				
508				
509		COMMON_NAME	DESCRIPTION	ELEVATION
510		LENGTH	RECORD_DATE	SOURCE_DATE
511	<b>HS044</b>	<b>ELEVATION</b>	An elevation is the vertical distance of a point or a level, on, or affixed to, the surface of the earth, measured from a specified Geodetic vertical datum.	
512				
513		COMMON_NAME	DESCRIPTION	DESIGNATOR
514		ELEVATION	FORMAL_NAME	HORIZ_ACC
515		MATERIAL	RECORD_DATE	SOURCE_DATE
516		VERT_ACC	VERT_DATUM	
517	<b>HS045</b>	<b>FAIRWAY</b>	A navigable pathway in an open and unobstructed waterway, such as a bay, lake, sound, or straight, or open coast, usually leading into a harbor from the open sea outside a buoyed channel, ordinarily used by vessel traffic, and so designated by appropriate authority.	
518				
519				
520				
521		COMMON_NAME	CONDITION	CONSTRUCTION
522		DESCRIPTION	ELEVATION	FORMAL_NAME
523		RECORD_DATE	SOURCE_DATE	STATUS
524		VERT_ACC	VERT_DATUM	WIDTH
525	<b>HS046</b>	<b>FENCE/WALL</b>	A natural or man-made barrier used as an enclosure or boundary or for protection.	
526				
527		COLOR_PATTERN	COMMON_NAME	CONDITION
528		CONSTRUCTION	DESCRIPTION	ELEVATION
529		FORMAL_NAME	HEIGHT	PRIMARY_COLOR
530		RECORD_DATE	S_57_CAT	SOURCE_DATE
531		STATUS	VERT_ACC	VERT_DATUM
532		WIDTH		

533	<b>HS047</b>	<b>FENDER</b>	A protective structure designed to cushion the impact of a vessel and prevent	
534				
535		COLOR_PATTERN	COMMON_NAME	CONDITION
536		CONSTRUCTION	DATE_END	DATE_START
537		DESCRIPTION	FORMAL_NAME	HEIGHT
538		HORIZ_ACC	HORIZ_CLEARANCE	LENGTH
539		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
540		SOURCE_DATE	STATUS	VERT_ACC
541		VERT_DATUM	WIDTH	
542	<b>HS048</b>	<b>FERRY_ROUTE</b>	A route in a body of water where a ferry crosses from one shoreline to another.	
543				
544		COMMON_NAME	DATE_END	DATE_START
545		DESCRIPTION	FORMAL_NAME	RECORD_DATE
546		S_57_CAT	SOURCE_DATE	STATUS
547		TRIP_LENGTH		
548	<b>HS049</b>	<b>FISHERY_ZONE</b>	The offshore zone in which exclusive fishing rights and management are held by the coastal nation.	
549				
550		COMMON_NAME	COUNTRY	DESCRIPTION
551		FORMAL_NAME	RECORD_DATE	SOURCE_DATE
552		STATUS		
553	<b>HS050</b>	<b>FISHING_FACILITY</b>	A structure in shallow water for fishing purposes which can be an obstruction to ships in general. The position of these structures may vary frequently over time.	
554				
555				
556		COMMON_NAME	DESCRIPTION	FORMAL_NAME
557		HEIGHT	RECORD_DATE	S_57_CAT
558		SOURCE_DATE	STATUS	VERT_ACC
559	<b>HS051</b>	<b>FISHING_GROUND</b>	A water area in which fishing is frequently carried on.	
560				
561		COMMON_NAME	DESCRIPTION	FORMAL_NAME
561		RECORD_DATE	SOURCE_DATE	STATUS
562	<b>HS052</b>	<b>FISHING_HARBOR</b>	A harbour with facilities for fishing boats.	
563				
564		COMMON_NAME	CONDITION	CONSTRUCTION
565		DATE_END	DATE_START	DESCRIPTION
566		FORMAL_NAME	RECORD_DATE	S_57_CAT
566		SOURCE_DATE	STATUS	
567	<b>HS053</b>	<b>FLEETING_AREA</b>	Area where barges and tows are assembled into a fleet.	
568				
568		COMMON_NAME	DESCRIPTION	PERMIT
569	<b>HS054</b>	<b>FLOATING_DOCK</b>	A facility which can be raised or lowered into the water which can serve as a launching place for vessels or as a floating drydock.	
570				
571		COLOR_PATTERN	COMMON_NAME	CONDITION
572		DATE_END	DATE_START	DESCRIPTION
573		FORMAL_NAME	HEIGHT	HORIZ_ACC
574		HORIZ_CLEARANCE	LENGTH	PRIMARY_COLOR
575		RECORD_DATE	SOURCE_DATE	STATUS
576		VERT_ACC	VERT_DATUM	WIDTH
577	<b>HS055</b>	<b>FLOOD_DIVERSION_AREA</b>	An area specifically intended to be covered with water to permit reduction in river/waterbody water levels protecting more critical areas from inundation.	
578				
579		COMMON_NAME	DESCRIPTION	
580	<b>HS056</b>	<b>FLOODWALL</b>	A structure erected to protect an area from high river stages.	
581				
582		COLOR_PATTERN	COMMON_NAME	CONDITION
582		CONSTRUCTION	DATE_END	DATE_START

583		DESCRIPTION	ELEVATION	FORMAL_NAME
584		HEIGHT	HORIZ_ACC	HORIZ_CLEARANCE
585		LENGTH	PRIMARY_COLOR	RECORD_DATE
586		S_57_CAT	SOURCE_DATE	STATUS
587		VERT_ACC	VERT_DATUM	
588		WIDTH		
589	<b>HS057</b>	<b>FOG_SIGNAL</b>	A warning signal transmitted by a vessel, or aid to navigation, during periods of low visibility. Also, the device producing such a signal.	
590				
591		COMMON_NAME	DATE_END	DATE_START
592		DESCRIPTION	FORMAL_NAME	FREQUENCY
593		PERIOD	RECORD_DATE	S_57_CAT
594		SOURCE_DATE	STATUS	
595	<b>HS058</b>	<b>FORTIFIED_STRUCTURE</b>	A structure for the military defence of a site.	
596		COMMON_NAME	CONDITION	CONSTRUCTION
597		DESCRIPTION	FORMAL_NAME	HEIGHT
598		HORIZ_ACC	RECORD_DATE	S_57_CAT
599		SOURCE_DATE	VERT_ACC	VERT_DATUM
600		WIDTH		
601	<b>HS059</b>	<b>FOUL_GROUND</b>	An area of numerous unidentified dangers to navigation. The area serves as a warning to the mariner that all dangers are not identified individually and that navigation through the area may be hazardous. Commonly used to encode areas behind danger lines on navigation charts. (adapted from IHO Dictionary, S-32, 5th Edition)	
602				
603				
604				
605				
606		COMMON_NAME	CONDITION	CONSTRUCTION
607		DEPTH	DESCRIPTION	FORMAL_NAME
608		HEIGHT	RECORD_DATE	S_57_CAT
609		SOURCE_DATE	STATUS	VERT_ACC
610		VERT_DATUM		
611	<b>HS060</b>	<b>FREEPORT_AREA</b>	A port where certain import and export duties are waived to facilitate reshipment to other countries.	
612				
613		COMMON_NAME	DESCRIPTION	FORMAL_NAME
614		RECORD_DATE	SOURCE_DATE	STATUS
615		WIDTH		
616	<b>HS061</b>	<b>GATE</b>	A structure that may be swung, drawn, or lowered to block an entrance or passageway. (United States Geological Survey, Jan.89)	
617				
618		COMMON_NAME	CONDITION	CONSTRUCTION
619		DESCRIPTION	FORMAL_NAME	HORIZ_ACC
620		HORIZ_CLEARANCE	RECORD_DATE	S_57_CAT
621		SOURCE_DATE	STATUS	VERT_ACC
622		VERT_CLEARANCE	VERT_DATUM	WIDTH
623	<b>HS062</b>	<b>GAUGING_STATION</b>	A device which monitors stream flow and water elevation.	
624		COMM_CHANNEL	COMMON_NAME	DATE_END
625		DATE_START	DESCRIPTION	FORMAL_NAME
626		RECORD_DATE	S_57_CAT	SOURCE_DATE
627		STATUS		
628	<b>HS063</b>	<b>GRAIN_ELEVATOR/ELEVATOR</b>	A tall structure used to store and distribute grain whose location accuracy is not sufficient for navigation purposes.	
629				
630		COLOR_PATTERN	COMMON_NAME	CONDITION
631		CONSTRUCTION	DESCRIPTION	ELEVATION
632		FORMAL_NAME	HEIGHT	HORIZ_ACC
633		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
634		SHAPE	SOURCE_DATE	STATUS
635		VERT_ACC	VERT_DATUM	WIDTH

636	<b>HS064</b>	<b>GRIDIRON</b>	A flat frame, usually of parallel timber baulks, erected on the foreshore so that a vessel may dry out on it for painting or repair at low water.	
637				
638		COMMON_NAME	CONSTRUCTION	DESCRIPTION
639		FORMAL_NAME	HEIGHT	HORIZ_ACC
640		LENGTH	RECORD_DATE	SOURCE_DATE
641		STATUS	VERT_ACC	WIDTH
642	<b>HS065</b>	<b>GUIDE_WALL</b>	The structure used to guide boats or ships into a lock chamber.	
643		COLOR_PATTERN	COMMON_NAME	CONDITION
644		CONSTRUCTION	DATE_END	DATE_START
645		DESCRIPTION	FORMAL_NAME	HEIGHT
646		HORIZ_ACC	HORIZ_CLEARANCE	LENGTH
647		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
648		SOURCE_DATE	STATUS	VERT_ACC
649		VERT_DATUM	WIDTH	
650	<b>HS066</b>	<b>HARBOR</b>	A natural or artificial improved body of water providing protection for vessels and anchorage and docking facilities.	
651				
652		COMMON_NAME	DEPTH	DESCRIPTION
653		FORMAL_NAME	RECORD_DATE	SOURCE_DATE
654		STATUS		
655	<b>HS067</b>	<b>HARBOR_FACILITY</b>	A harbor installation with a service or commercial operation of public interest.	
656				
657		COMMON_NAME	CONDITION	CONSTRUCTION
658		DATE_END	DATE_START	DESCRIPTION
659		FORMAL_NAME	RECORD_DATE	S_57_CAT
660		SOURCE_DATE	STATUS	
661	<b>HS068</b>	<b>ICE_AREA</b>	An area which is covered by ice for the entire year.	
662				
663		COMMON_NAME	DESCRIPTION	ELEVATION
664		FORMAL_NAME	HEIGHT	RECORD_DATE
665		S_57_CAT	SOURCE_DATE	STATUS
666		VERT_ACC	VERT_DATUM	WIDTH
666	<b>HS069</b>	<b>ICE_BOOM</b>	Floating barriers, anchored to the bottom, used to deflect the path of floating ice in order to prevent the obstruction of locks, intakes etc., and to prevent damage to bridge piers and other structures.	
667				
668				
669		COMMON_NAME	CONDITION	CONSTRUCTION
670		DEPTH	DESCRIPTION	FORMAL_NAME
671		HEIGHT	RECORD_DATE	S_57_CAT
672		SOURCE_DATE	STATUS	VERT_ACC
673		VERT_DATUM		
674	<b>HS070</b>	<b>INCINERATION_AREA</b>	An offshore area officially designated as suitable for the burning of chemical waste by specially equipped ships.	
675				
676		COMMON_NAME	DEPTH	DESCRIPTION
677		FORMAL_NAME	RECORD_DATE	RESTRICTION
678		SOURCE_DATE	STATUS	WIDTH
679	<b>HS071</b>	<b>INSHORE_TRAFFIC_ZONE</b>	A routing measure comprising a designated area between the landward boundary of a traffic separation scheme and the adjacent coast, to be used in accordance with the provisions of the International Regulations for Preventing Collisions at Sea.	
680				
681				
682				
683		COMMON_NAME	DATE_END	DATE_START
684		DEPTH	DESCRIPTION	FACC_CAT
685		RECORD_DATE	RESTRICTION	S_57_CAT
686		SOURCE_DATE	STATUS	WIDTH
687	<b>HS072</b>	<b>ISLAND</b>	An area of land completely surrounded by the waters of an ocean, sea, lake, or stream.	
688				

689		COMMON_NAME	CONDITION	DESCRIPTION
690		ELEVATION	FORMAL_NAME	HEIGHT
691		RECORD_DATE	SOURCE_DATE	STATUS
692		WIDTH		
693	<b>HS073</b>	<b>ISOGONIC_LINE</b>	Lines connecting point of equal magnetic variation.	
694		MAG_VARIATION		
695	<b>HS074</b>	<b>LAKE</b>	Any body of water surrounded by land.	
696		COMMON_NAME	DESCRIPTION	ELEVATION
697		FACC_CAT	FORMAL_NAME	RECORD_DATE
698		SOURCE_DATE	VERT_ACC	
699		VERT_DATUM	WIDTH	
700	<b>HS075</b>	<b>LANDING_PLACE</b>	A named place, normally outside a harbor facility, where boats can transfer passengers or cargo. A ferry terminal may be called a landing area.	
701				
702		WIDTH		
703	<b>HS076</b>	<b>LANDMARK</b>	Tall structures or objects which are precisely located to serve as an aid to navigations	
704				
705		COLOR_PATTERN	COMMON_NAME	CONDITION
706		CONSTRUCTION	DESCRIPTION	DESIGNATOR
707		Directivity	ELEVATION	FORMAL_NAME
708		FUNCTION	HEIGHT	HORIZ_ACC
709		HORIZ_DATUM	PRIMARY_COLOR	RECORD_DATE
710		S_57_CAT	SHAPE	SOURCE_DATE
711		STATUS	VERT_ACC	VERT_DATUM
712		WIDTH		
713	<b>HS077</b>	<b>LEADING_LINE</b>	A track line which passes through one or more (usually two) clearly defined objects, along which a vessel can safely travel.	
714				
715		DATE_END	DATE_START	DESCRIPTION
716		ORIENTATION	RECORD_DATE	S_57_CAT
717		SOURCE_DATE	STATUS	
718	<b>HS078</b>	<b>LEVEE</b>	An embankment for controlling the waters of the sea, river or other water bodies.	
719				
720		COMMON_NAME	DESCRIPTION	RECORD_DATE
721		SOURCE_DATE		
722	<b>HS079</b>	<b>LIGHT_VESSEL/LIGHTSHIP</b>	A distinctively marked manned vessel anchored or moored at a defined point to serve as an aid to navigation.	
723				
724		CHARACTER	COLOR_PATTERN	COMMON_NAME
725		CONSTRUCTION	DATE_END	DATE_START
726		DESCRIPTION	FORMAL_NAME	HEIGHT
727		HORIZ_ACC	HORIZ_DATUM	LENGTH
728		PERIOD	PRIMARY_COLOR	RANGE
729		RECORD_DATE	SOURCE_DATE	STATUS
730		VERT_ACC	VERT_DATUM	WIDTH
731	<b>HS080</b>	<b>LOCK</b>	A wet dock in a waterway, permitting a ship to pass from one level to another.	
732				
733		COMMON_NAME	DATE_END	DATE_START
734		DESCRIPTION	DIRECTIVITY	ELEVATION
735		FORMAL_NAME	HEIGHT	HORIZ_ACC
736		HORIZ_CLEARANCE	LENGTH	MATERIAL
737		RECORD_DATE	SOURCE_DATE	STATUS
738		WIDTH		
739	<b>HS081</b>	<b>LOCK_BASIN/LOCK_CHAMBER</b>	A wet dock in a waterway, permitting a ship to pass from one level to	

740			another.	
741		COMMON_NAME	DATE_END	DATE_START
742		DESCRIPTION	FORMAL_NAME	HORIZ_ACC
743		HORIZ_CLEARANCE	LENGTH	RECORD_DATE
744		SOURCE_DATE	STATUS	WIDTH
745	<b>HS082</b>	<b>LOG_POND</b>	A maritime area enclosed with connected floating timbers used as a staging area for sawn logs.	
746				
747		COMMON_NAME	DESCRIPTION	FORMAL_NAME
748		LENGTH	RECORD_DATE	SOURCE_DATE
749		STATUS	WIDTH	
750	<b>HS083</b>	<b>MAGNETIC_DISTURBANCE_AREA</b>	A localized anomaly in the earth's magnetic field.	
751		COMMON_NAME	DESCRIPTION	FORMAL_NAME
752		MAG_ANOMALY	RECORD_DATE	SOURCE_DATE
753	<b>HS084</b>	<b>MAGNETIC_VARIATION</b>	Lines connecting point of equal magnetic variation.	
754		DATE_END	DATE_START	DESCRIPTION
755		RECORD_DATE	SOURCE_DATE	VARIATION
756	<b>HS085</b>	<b>MAJOR_INFLOW/OUTFLOW_STRUCTURE</b>	Major inflow and outflow structures, i.e., the intake structure of an electric generating stations, located in the river that are potential hazards to navigation.	
757				
758				
759		COMMON_NAME	CONDITION	DATE_END
760		DATE_START	DEPTH	DESCRIPTION
761		FORMAL_NAME	HEIGHT	RECORD_DATE
762		RESTRICTION	S_57_CAT	SOURCE_DATE
763		STATUS	VERT_ACC	VERT_DATUM
764	<b>HS086</b>	<b>MARINE_FARM</b>	An assemblage of cages, nets, rafts and floats or posts where fish, including shellfish are artificially cultivated.	
765				
766		COMMON_NAME	DATE_END	DATE_START
767		DEPTH	DESCRIPTION	FORMAL_NAME
768		HEIGHT	RECORD_DATE	RESTRICTION
769		S_57_CAT	SOURCE_DATE	STATUS
770		VERT_ACC	VERT_DATUM	WIDTH
771	<b>HS087</b>	<b>MAT_CASTING_FIELD</b>	A site where concrete blocks are cast for ACM revetment.	
772		COMMON_NAME	DATE_END	DATE_START
773		DESCRIPTION	FORMAL_NAME	RECORD_DATE
774		SOURCE_DATE	STATUS	
775	<b>HS088</b>	<b>MEASURED_DISTANCE_LINE</b>	A course whose length has been accurately measured and is used in conjunction with ranges ashore. It is used by vessels to calibrate logs, engine revolution counters, etc., and determine speed.	
776				
777				
778		COMMON_NAME	DATE_END	DATE_START
779		DESCRIPTION	FORMAL_NAME	LENGTH
780		ORIENTATION	RECORD_DATE	S_57_CAT
781		SOURCE_DATE	STATUS	VERT_DATUM
782	<b>HS089</b>	<b>MILITARY_PRACTICE_AREA</b>	An area within which naval, military or aerial exercises are carried out. Also called an exercise area.	
783				
784		COMMON_NAME	DATE_END	DATE_START
785		DESCRIPTION	FORMAL_NAME	RECORD_DATE
786		RESTRICTION	S_57_CAT	SOURCE_DATE
787		STATUS	WIDTH	
788	<b>HS090</b>	<b>MINE-NAVAL</b>	An explosive device used in naval warfare located on or below the sea.	
789		DEPTH	DESIGNATOR	HORIZ_ACC

790	IDENTIFIER	STATUS		
791	<b>HS091 MOORED_VESSEL</b>	A semi-permanently moored ship.		
792	COLOR_PATTERN	COMMON_NAME	CONDITION	
793	DESCRIPTION	FORMAL_NAME	HEIGHT	
794	HORIZ_ACC	LENGTH	PERMIT	
795	PRIMARY_COLOR	RECORD_DATE	S_57_CAT	
796	SOURCE_DATE	VERT_ACC	WIDTH	
797	<b>HS092 MOORING_FACILITY</b>	A structure used for mooring/warping a ship or as a protection for harbor		
798	COLOR_PATTERN	COMMON_NAME	CONDITION	
799	CONSTRUCTION	DATE_END	DATE_START	
800	DESCRIPTION	FORMAL_NAME	HEIGHT	
801	PRIMARY_COLOR	RECORD_DATE	S_57_CAT	
802	SHAPE	SOURCE_DATE	STATUS	
803	VERT_ACC	VERT_DATUM		
804	<b>HS093 NAMED_WATER_AREA</b>	An area within a water body which is commonly referenced by a name.		
805	COMMON_NAME	DESCRIPTION	FORMAL_NAME	
806	RECORD_DATE	SEA_TYPE	SOURCE_DATE	
807	<b>HS094 NAVIGATION_LIGHT</b>	A luminous or lighted aid to navigation.		
808	CATEGORY	COLOR_PATTERN	COMMON_NAME	
809	DATE_END	DATE_START	DESCRIPTION	
810	ELEVATION	FORMAL_NAME	HEIGHT	
811	HORIZ_ACC	HORIZ_DATUM	MATERIAL	
812	ORIENTATION	PRIMARY_COLOR	RANGE	
813	RECORD_DATE	SIG_GROUP	SIG_PERIOD	
814	SIQ_SEQUENCE	SOURCE_DATE	STATUS	
815	VERT_ACC	VERT_DATUM		
816	<b>HS095 NAVIGATION_LINE</b>	A navigation line is a straight line extending towards and area of navigational interest and generally generated by two navigational aids or one navigational aid and a bearing.		
817				
818				
819	DATE_END	DATE_START	DESCRIPTION	
820	ORIENTATION	RECORD_DATE	S_57_CAT	
821	SOURCE_DATE	STATUS		
822	<b>HS096 OBSTRUCTION</b>	In marine navigation, anything that hinders or prevents movement, particularly anything that endangers or prevents passage of a vessel. The term is usually used to refer to an isolated danger to navigation...(IHO Dictionary, S-32, 5th Edition, 3503)		
823				
824				
825				
826	COMMON_NAME	CONDITION	CONSTRUCTION	
827	DEPTH	DESCRIPTION	FORMAL_NAME	
828	HEIGHT	RECORD_DATE	S_57_CAT	
829	SOURCE_DATE	STATUS	VERT_ACC	
830	VERT_DATUM			
831	<b>HS097 OFFSHORE_LOADING_FACILITY</b>	A facility located offshore for loading and unloading cargo.		
832	COLOR_PATTERN	COMMON_NAME	CONSTRUCTION	
833	DATE_END	DATE_START	DESCRIPTION	
834	ELEVATION	FORMAL_NAME	HEIGHT	
835	PRIMARY_COLOR	RECORD_DATE	S_57_CAT	
836	SHAPE	SOURCE_DATE	STATUS	
837	VERT_ACC	VERT_LENGTH	WIDTH	
838	<b>HS098 OFFSHORE_PLATFORM</b>	A permanent offshore structure, either fixed or floating, used in the production of oil or natural gas.		
839				
840	COLOR_PATTERN	COMMON_NAME	CONDITION	
841	CONSTRUCTION	DATE_END	DATE_START	

842		DESCRIPTION	ELEVATION	
843		FORMAL_NAME	HEIGHT	HORIZ_ACC
844		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
845		SOURCE_DATE	STATUS	VERT_ACC
846		VERT_DATUM	WIDTH	
847	<b>HS099</b>	<b>OFFSHORE_PRODUCTION_AREA</b>	An area at sea within which there are production facilities.	
848		COMMON_NAME	CONDITION	DATE_END
849		DATE_START	DEPTH	DESCRIPTION
850		FORMAL_NAME	HEIGHT	RECORD_DATE
851		RESTRICTION	S_57_CAT	SOURCE_DATE
852		STATUS	VERT_ACC	VERT_LENGTH
853		WIDTH		
854	<b>HS100</b>	<b>OIL_BARRIER</b>	A construction to dam oil flow on water.	
855		COMMON_NAME	CONDITION	DATE_END
856		DATE_START	DESCRIPTION	FORMAL_NAME
857		RECORD_DATE	S_57_CAT	SOURCE_DATE
858		STATUS		
859	<b>HS101</b>	<b>OVERHEAD_PIPELINE/CABLE</b>	A collection of wires, cables, or pipe either supported or suspended above the waterway.	
860				
861		COMMON_NAME	CONDITION	DATE_END
862		DATE_START	DESCRIPTION	DESIGNATOR
863		ELEVATION	FORMAL_NAME	HEIGHT
864		HORIZ_ACC	LENGTH	MATERIAL
865		RECORD_DATE	S_57_CAT	SOURCE_DATE
866		STATUS	VERT_ACC	VERT_CLEARANCE
867		VERT_DATUM	WIDTH	
868	<b>HS102</b>	<b>PARK</b>	An area set aside and designated for several types of leisure or recreational activities.	
869				
870		COMMON_NAME		
871	<b>HS103</b>	<b>PARKING_AREA</b>	An area used for parking vehicles not including residential streets and driveways.	
872				
873		COMMON_NAME	DESCRIPTION	FORMAL_NAME
874		LENGTH	RECORD_DATE	S_57_CAT
875		SOURCE_DATE	SPACES	STATUS
876		WIDTH		
877	<b>HS104</b>	<b>PIER/WHARF/QUAY</b>	A structure primarily used as berthing places for vessels.	
878		COLOR_PATTERN	COMMON_NAME	CONDITION
879		CONSTRUCTION	DATE_END	DATE_START
880		DESCRIPTION	ELEVATION	FORMAL_NAME
881		HEIGHT	HORIZ_ACC	HORIZ_CLEARANCE
882		LENGTH	PRIMARY_COLOR	RECORD_DATE
883		S_57_CAT	SOURCE_DATE	STATUS
884		VERT_ACC	VERT_DATUM	WIDTH
885	<b>HS105</b>	<b>PILE/POST</b>	A long heavy timber or section of steel, wood, concrete, etc.. forced into the earth which may serve as a support, as for a pier, or a free standing pole within a marine environment.	
886				
887				
888		COLOR_PATTERN	COMMON_NAME	CONDITION
889		DATE_END	DATE_START	DESCRIPTION
890		ELEVATION	FORMAL_NAME	HEIGHT
891		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
892		SOURCE_DATE	VERT_ACC	VERT_DATUM
893		WIDTH		
894	<b>HS106</b>	<b>PILOT_BOARDING_PLACE</b>	The meeting place to which a pilot comes out.	



895		COMM_CHANNEL	COMMON_NAME	DATE_END
896		DATE_START	DEPTH	DESCRIPTION
897		FORMAL_NAME	RECORD_DATE	S_57_CAT
898		SOURCE_DATE	STATUS	WIDTH
899	<b>HS107</b>	<b>PONTOON</b>	A permanently floating structure used as a bridge support or as the head of a pier, dock, or landing.	
900				
901		COMMON_NAME	CONDITION	CONSTRUCTION
902		DATE_END	DATE_START	DESCRIPTION
903		FORMAL_NAME	HEIGHT	RECORD_DATE
904		SOURCE_DATE	STATUS	VERT_ACC
905	<b>HS108</b>	<b>PORT_AUTHORITY</b>	An area over which a harbour authority has jurisdiction.	
906		COMMON_NAME	CONDITION	CONSTRUCTION
907		DATE_END	DATE_START	DESCRIPTION
908		FORMAL_NAME	RECORD_DATE	S_57_CAT
909		SOURCE_DATE	STATUS	
910	<b>HS109</b>	<b>PRECAUTIONARY_AREA</b>	A routing measure comprising an area within defined limits where ships must navigate with particular caution and within which the direction of traffic flow may be recommended.	
911				
912				
913		DATE_END	DATE_START	DEPTH
914		DESCRIPTION	FORMAL_NAME	RECORD_DATE
915		RESTRICTION	SOURCE_DATE	STATUS
916		WIDTH		
917	<b>HS110</b>	<b>PRODUCTION_AREA</b>	An existing structure that was created, by man, for occupation, storage, or to facilitate an activity.	
918				
919		COMMON_NAME	CONDITION	DATE_END
920		DATE_START	DESCRIPTION	DESIGNATOR
921		ELEVATION	FORMAL_NAME	FUNCTION
922		HEIGHT	HORIZ_ACC	HORIZ_DATUM
923		MATERIAL	PRODUCT	RECORD_DATE
924		S_57_CAT	SOURCE_DATE	STATUS
925		VERT_ACC	VERT_DATUM	
926		WIDTH		
927	<b>HS111</b>	<b>PROMENADE_PIER</b>	A pier used only for recreational purposes. These structures are sometimes the remnants of the approaches to bridges.	
928				
929		COLOR_PATTERN	COMMON_NAME	CONDITION
930		CONSTRUCTION	DATE_END	DATE_START
931		DESCRIPTION	ELEVATION	FORMAL_NAME
932		HEIGHT	HORIZ_ACC	HORIZ_CLEARANCE
933		LENGTH	PRIMARY_COLOR	RECORD_DATE
934		S_57_CAT	SOURCE_DATE	STATUS
935		VERT_ACC	VERT_DATUM	WIDTH
936	<b>HS112</b>	<b>PYLON</b>	A pylon or pole used to support a telephone or telegraph line.	
937		COLOR_PATTERN	COMMON_NAME	CONDITION
938		CONSTRUCTION	DATE_END	DATE_START
939		DESCRIPTION	ELEVATION	FORMAL_NAME
940		HEIGHT	HORIZ_ACC	HORIZ_DATUM
941		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
942		SOURCE_DATE	VERT_ACC	VERT_DATUM
943		WIDTH		
944	<b>HS113</b>	<b>RADAR_LINE</b>	A track along which ships may be guided by coastal radar stations in the even of bad visibility.	
945				
946		COMMON_NAME	DESCRIPTION	FORMAL_NAME
947		ORIENTATION	RECORD_DATE	SOURCE_DATE
948		STATUS		

949	<b>HS114 RADAR_RANGE</b>		Indicates the coverage of a sea area by a radar surveillance station. Inside this area a vessel may request shore based radar assistance, particularly in poor visibility.	
950				
951				
952		COMM_CHANNEL	COMMON_NAME	DATE_END
953		DATE_START	DESCRIPTION	FORMAL_NAME
954		RECORD_DATE	SOURCE_DATE	STATUS
955	<b>HS115 RADAR_REFLECTOR</b>		A device capable of, or intended for, reflecting radar signals.	
956		DESCRIPTION	HEIGHT	RECORD_DATE
957		SOURCE_DATE	STATUS	VERT_ACC
958		VERT_DATUM		
959	<b>HS116 RADAR_STATION</b>		A station with a transmitter emitting pulses of ultra-high frequency radio waves which are reflected by solid objects and are detected upon their return to the sending station.	
960				
961				
962		COMM_CHANNEL	COMMON_NAME	DATE_END
963		DATE_START	DESCRIPTION	FORMAL_NAME
964		HEIGHT	LENGTH	MAX_RANGE
965		RECORD_DATE	S_57_CAT	SOURCE_DATE
966		STATUS	VERT_ACC	VERT_DATUM
967		WIDTH		
968	<b>HS117 RADAR_TRANSPONDER_BEACON</b>		A transponder beacon transmitting a coded signal on radar frequency, permitting an interrogating craft to determine the bearing and range of the transponder. Also called recon.	
969				
970				
971		COMMON_NAME	DATE_END	DATE_START
972		DESCRIPTION	ELEVATION	FORMAL_NAME
973		HORIZ_ACC	MAX_RANGE	PRIMARY_COLOR
974		RECORD_DATE	S_57_CAT	SOURCE_DATE
975		STATUS		
976	<b>HS118 RADIO_CALLING_IN_POINT</b>		A specified point some distance from the harbor at which a vessel's navigator notifies the harbor authority of his ship's position to assist traffic control.	
977				
978				
979		COMM_CHANNEL	COMMON_NAME	DATE_END
980		DATE_START	DESCRIPTION	FORMAL_NAME
981		RECORD_DATE	SOURCE_DATE	STATUS
982	<b>HS119 RADIO_STATION</b>		A place equipped to transmit radio waves. Such a station may be either stationary or mobile, and may also be provided with a radio receiver.	
983				
984		CALL_SIGN	COMM_CHANNEL	COMMON_NAME
985	DATE_END	DATE_START	DESCRIPTION	
986	DESIGNATOR	ELEVATION	EST_RANGE	
987	FORMAL_NAME	FREQUENCY	HORIZ_ACC	
988	HORIZ_DATUM	LENGTH	MATERIAL	
989	ORIENTATION	RECORD_DATE	S_57_CAT	
990	SOURCE_DATE	STATUS	VERT_ACC	
991		WIDTH		
992	<b>HS120 RAILROAD</b>		A rail or set of parallel rails on which a train or tram runs.	
993		COMMON_NAME	CONDITION	DESCRIPTION
994		FORMAL_NAME	HEIGHT	RECORD_DATE
995		SOURCE_DATE	STATUS	VERT_ACC
996	<b>HS121 RAILROAD_YARD</b>		A system of tracks within defined limits, and associated features, provided for loading/unloading and assembling trains.	
997				
998		COMMON_NAME	TRACK_LENGTH	WIDTH
999	<b>HS122 RAPIDS</b>		Portions of a stream with accelerated current where it descends rapidly but without a break in the slope of the bed sufficient to form a waterfall. Usually used in the plural.	
1000				
1001				

1002		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1003		HEIGHT	RECORD_DATE	SOURCE_DATE
1004		VERT_ACC	WIDTH	
1005	<b>HS123</b>	<b>RECOMMENDED_TRACK</b>	A track recommended to all or only certain vessels.	
1006		COMMON_NAME	DATE_END	DATE_START
1007		DEPTH	DESCRIPTION	FORMAL_NAME
1008		RECORD_DATE	S_57_CAT	SOURCE_DATE
1009		STATUS	VERT_DATUM	
1010	<b>HS124</b>	<b>REEF</b>	A rocky or coral elevation at or near enough to the surface of the sea to be a danger to surface navigation.	
1011				
1012		COMMON_NAME	DEPTH	DESCRIPTION
1013		FORMAL_NAME	HORIZ_ACC	LENGTH
1014		MATERIAL	RECORD_DATE	S_57_CAT
1015		SOURCE_DATE	WIDTH	
1016	<b>HS125</b>	<b>RESCUE_STATION</b>	A place at which life saving equipment is held.	
1017		COMMON_NAME	DATE_END	DATE_START
1018		DESCRIPTION	DESIGNATOR	ELEVATION
1019		FORMAL_NAME	FUNCTION	HEIGHT
1020		HORIZ_ACC	IDENTIFIER	LENGTH
1021		MATERIAL	RECORD_DATE	S_57_CAT
1022		SOURCE_DATE	STATUS	VERT_ACC
1023		WIDTH		
1024	<b>HS126</b>	<b>RESTRICTED_AREA</b>	A specified area designated by an appropriate authority within which navigation is restricted in accordance with certain specified conditions.	
1025				
1026		COMMON_NAME	DATE_END	DATE_START
1027		DESCRIPTION	FORMAL_NAME	RECORD_DATE
1028		RESTRICTION	S_57_CAT	SOURCE_DATE
1029		STATUS		
1030	<b>HS127</b>	<b>RETRO_REFLECTOR</b>	A means of distinguishing unlighted marks at night. Retro-reflective material is secured to the mark in a particular pattern to reflect back light.	
1031				
1032		COLOR_PATTERN	DESCRIPTION	HEIGHT
1033		PRIMARY_COLOR	RECORD_DATE	SOURCE_DATE
1034		STATUS	VERT_ACC	VERT_DATUM
1035	<b>HS128</b>	<b>RIVER</b>	A natural flowing watercourse.	
1036		COMMON_NAME	DEPTH	DESCRIPTION
1037		FORMAL_NAME	LENGTH	RECORD_DATE
1038		SOURCE_DATE	STATUS	WIDTH
1039	<b>HS129</b>	<b>RIVER_BANK</b>	River edge delineated during general planimetric mapping from aerial photography.	
1040				
1041		COMMON_NAME	CONDITION	DESCRIPTION
1042		FORMAL_NAME	RECORD_DATE	SOURCE_DATE
1043	<b>HS130</b>	<b>RIVER_ENGINEERING_STRUCTURE</b>	Any man-made object designed to check, control, or direct flow placed in the waterway which may pose a hazard to navigation.	
1044				
1045		COLOR_PATTERN	COMMON_NAME	CONDITION
1046		CONSTRUCTION	DATE_END	DATE_START
1047		DESCRIPTION	FORMAL_NAME	HEIGHT
1048		HORIZ_ACC	HORIZ_CLEARANCE	LENGTH
1049		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
1050		SOURCE_DATE	STATUS	VERT_ACC
1051		VERT_DATUM	WIDTH	
1052	<b>HS131</b>	<b>ROAD</b>	A road is an open way for the passage of vehicles.	

1053		COMMON_NAME	CONDITION	CONSTRUCTION
1054		DESCRIPTION	DESIGNATOR	FORMAL_NAME
1055		HORIZ_ACC	MATERIAL	RECORD_DATE
1056		S_57_CAT	SOURCE_DATE	STATUS
1057		SURFACE	WIDTH	
1058	<b>HS132</b>	<b>RUNWAY</b>	A defined area, usually rectangular, used for the conventional landing and take-off of aircraft.	
1059				
1060		COMMON_NAME	CONDITION	CONSTRUCTION
1061		DESCRIPTION	DESIGNATOR	ELEVATION
1062		FORMAL_NAME	HORIZ_ACC	LENGTH
1063		RECORD_DATE	S_57_CAT	SOURCE_DATE
1064		STATUS	SURFACE	WIDTH
1065	<b>HS133</b>	<b>SAFETY_FAIRWAY</b>	An area defined by the code of regulations where construction of temporary or permanent structures is prohibited.	
1066				
1067		COMMON_NAME	DATE_END	DATE_START
1068		DEPTH	DESCRIPTION	FORMAL_NAME
1069		RECORD_DATE	RESTRICTION	SOURCE_DATE
1070		STATUS	VERT_DATUM	
1071	<b>HS134</b>	<b>SAND_WAVES</b>	A large mobile wave-like sediment feature in shallow water and composed of sand. The wavelength may reach 1000 meters, the amplitude may be up to 20 meters.	
1072				
1073				
1074		DESCRIPTION	HEIGHT	RECORD_DATE
1075		SOURCE_DATE	VERT_ACC	
1076	<b>HS135</b>	<b>SANDBAR</b>	The boundary or outline of an area where the bottom protrudes above the surface of the water subject to water levels and currents.	
1077				
1078		DESCRIPTION	FORMAL_NAME	RECORD_DATE
1079		SOURCE_DATE	VERT_DATUM	
1080	<b>HS136</b>	<b>SEA-PLANE_LANDING_AREA</b>	A designated portion of water for the landing and take-off of sea planes.	
1081		COMMON_NAME	DESCRIPTION	ELEVATION
1082		FORMAL_NAME	LENGTH	RECORD_DATE
1083		RESTRICTION	SOURCE_DATE	STATUS
1084		WIDTH		
1085	<b>HS137</b>	<b>SEAWALL</b>	A structure built to protect the shore from erosion.	
1086		COLOR_PATTERN	COMMON_NAME	CONDITION
1087		CONSTRUCTION	DATE_END	DATE_START
1088		DESCRIPTION	FORMAL_NAME	HEIGHT
1089		HORIZ_ACC	HORIZ_CLEARANCE	LENGTH
1090		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
1091		SOURCE_DATE	STATUS	VERT_ACC
1092		VERT_DATUM	WIDTH	
1093	<b>HS138</b>	<b>SHORELINE</b>	The line where a land mass is in contact with a body of water.	
1094		COMMON_NAME	DESCRIPTION	ELEVATION
1095		FACC_CAT	FORMAL_NAME	PRIMARY_COLOR
1096		RECORD_DATE	S_57_CAT	SOURCE_DATE
1097		VERT_ACC	VERT_DATUM	
1098	<b>HS139</b>	<b>SHORELINE_CONSTRUCTION</b>	Any man-made structure immediately adjacent to the water way designed to assist in the management of flow and the deposit of sediment.	
1099				
1100		COLOR_PATTERN	COMMON_NAME	CONDITION
1101		CONSTRUCTION	DATE_END	DATE_START
1102		DESCRIPTION	ELEVATION	FORMAL_NAME
1103		HEIGHT	HORIZ_ACC	HORIZ_CLEARANCE
1104		LENGTH	PRIMARY_COLOR	RECORD_DATE
1105		S_57_CAT	SOURCE_DATE	STATUS

1106		VERT_ACC	VERT_DATUM	
1107		WIDTH		
1108	<b>HS140</b>	<b>SILO/TANK</b>	A container used for the storage of liquids or gases.	
1109		COLOR_PATTERN	COMMON_NAME	CONDITION
1110		CONSTRUCTION	DESCRIPTION	DESIGNATOR
1111		ELEVATION	FORMAL_NAME	HEIGHT
1112		HORIZ_ACC	HORIZ_DATUM	LENGTH
1113		PRIMARY_COLOR	PRODUCT	RECORD_DATE
1114		S_57_CAT	SHAPE	SOURCE_DATE
1115		STATUS	VERT_ACC	VERT_DATUM
1116		WIDTH		
1117	<b>HS141</b>	<b>SLIPWAY</b>	A prepared slope for launching and recovering vessels.	
1118		COLOR_PATTERN	COMMON_NAME	CONDITION
1119		CONSTRUCTION	DATE_END	DATE_START
1120		DESCRIPTION	FORMAL_NAME	HEIGHT
1121		HORIZ_ACC	HORIZ_CLEARANCE	LENGTH
1122		PRIMARY_COLOR	RECORD_DATE	S_57_CAT
1123		SOURCE_DATE	STATUS	VERT_ACC
1124		VERT_DATUM	WIDTH	
1125	<b>HS142</b>	<b>SLOPE_TOPLINE</b>	The upper marking of a slope, e.g. the ridge line or the separation line between two different gradients.	
1126				
1127		COMMON_NAME	CONSTRUCTION	DESCRIPTION
1128		ELEVATION	FORMAL_NAME	PRIMARY_COLOR
1129		RECORD_DATE	S_57_CAT	SOURCE_DATE
1130		VERT_ACC	VERT_DATUM	
1131	<b>HS143</b>	<b>SMALL_CRAFT_FACILITY</b>	A place at which a service generally of interest for small crafts or pleasure boats is available.	
1132				
1133		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1134		RECORD_DATE	S_57_CAT	SOURCE_DATE
1135		STATUS		
1136	<b>HS144</b>	<b>SOUNDING</b>	A measured water depth or spot depth which has been reduced to chart datum and includes drying heights.	
1137				
1138		COMMON_NAME	DEPTH	DESCRIPTION
1139		FORMAL_NAME	HORIZ_ACC	RECORD_DATE
1140		SOURCE_DATE	STATUS	VERT_DATUM
1141	<b>HS145</b>	<b>SPRING</b>	A natural issue of water or other substances from the earth. One on the bottom of the sea is called a submarine spring.	
1142				
1143		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1144		RECORD_DATE	SOURCE_DATE	
1145	<b>HS146</b>	<b>STRAIGHT_TERRITORIAL_BASELINE</b>	A baseline is the line from which the outer limits of the territorial sea and certain other outer limits are measured.	
1146				
1147		COMMON_NAME	COUNTRY	DESCRIPTION
1148		RECORD_DATE	SOURCE_DATE	
1149	<b>HS147</b>	<b>SUBMARINE_TRANSIT_LANE</b>	An area where submarines may navigate under water or at the surface.	
1150		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1151		RECORD_DATE	RESTRICTION	SOURCE_DATE
1152	<b>HS148</b>	<b>SUBMERGED_PIPELINE/CABLE</b>	Any pipeline or cable which lying on or under the bottom.	
1153		COMMON_NAME	CONDITION	DATE_END
1154		DATE_START	DEPTH	DESCRIPTION
1155		DESIGNATOR	DIAMETER	ELEVATION
1156		FORMAL_NAME	HEIGHT	HORIZ_ACC

1157		HORIZ_DATUM	MATERIAL	PRODUCT
1158		RECORD_DATE	RESTRICTION	S_57_CAT
1159		SOURCE_DATE	STATUS	VERT_ACC
1160		VERT_DATUM	WIDTH	
1161	<b>HS149</b>	<b>SWAMP/MARSH</b>	Those areas that are inundated or saturated by surface or ground water.	
1162		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1163		RECORD_DATE	S_57_CAT	SOURCE_DATE
1164	<b>HS150</b>	<b>SWEPT_AREA</b>	An area that has been determined to be clear of navigational dangers to a specified depth.	
1165				
1166		DEPTH	DESCRIPTION	RECORD_DATE
1167		SOURCE_DATE	VERT_DATUM	
1168	<b>HS151</b>	<b>TERRITORIAL_SEA_AREA</b>	The territorial sea is a belt of water of a defined breadth but not exceeding 12 nautical miles measured seaward from the territorial sea baseline.	
1169				
1170		COMMON_NAME	COUNTRY	DESCRIPTION
1171		RECORD_DATE	RESTRICTION	SOURCE_DATE
1172		STATUS	WIDTH	
1173	<b>HS152</b>	<b>TIDAL_STREAM</b>	A tidal stream (or tidal current) is a horizontal movement of water associated with the rise and fall of the tide caused by tide-producing forces.	
1174				
1175		COMMON_NAME	DATE_END	DATE_START
1176		DESCRIPTION	FORMAL_NAME	MAX_RATE
1177		MIN_RATE	RECORD_DATE	S_57_CAT
1178		SOURCE_DATE	STATUS	VELOCITY
1179	<b>HS153</b>	<b>TIDE_DATA_POINT</b>	Tidal heights over time may be approximated by a series of height values given at regular intervals, starting from a specific moment in time.	
1180				
1181		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1182		RECORD_DATE	SOURCE_DATE	STATUS
1183		TIME_START	TIME_END	
1184	<b>HS154</b>	<b>TIDEWAY</b>	A natural watercourse in intertidal areas where water flows during the ebb or flow.	
1185				
1186		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1187		RECORD_DATE	SOURCE_DATE	
1188	<b>HS155</b>	<b>TOP_MARK</b>	One of more relatively small objects of characteristic shape and color placed on an aid to identify it purpose.	
1189				
1190		COLOR_PATTERN	DESCRIPTION	HEIGHT
1191		PRIMARY_COLOR	RECORD_DATE	SHAPE
1192		SOURCE_DATE	STATUS	VERT_ACC
1193		VERT_DATUM		
1194	<b>HS156</b>	<b>TRAFFIC_SEPARATION_SCHEME</b>	A traffic separation scheme is a scheme which aims to reduce the risk of collision in congested and/or converging areas by separating traffic moving in opposite, or nearly opposite, directions.	
1195				
1196				
1197		DATE_END	DATE_START	DESCRIPTION
1198		FORMAL_NAME	RECORD_DATE	RESTRICTION
1199		S_57_CAT	SOURCE_DATE	STATUS
1200	<b>HS157</b>	<b>TUNNEL</b>	A passage that is open at both ends, buried under the sea bed or laid over the sea floor or bored under the ground or through mountains. (based on ISO S-57)	
1201				
1202				
1203		COMMON_NAME	CONDITION	DESCRIPTION
1204		FORMAL_NAME	HORIZ_ACC	HORIZ_CLEARANCE
1205		LENGTH	RECORD_DATE	SOURCE_DATE
1206		STATUS	VERT_ACC	VERT_CLEARANCE
1207		WIDTH		

1208	<b>HS158</b>	<b>TURNING_BASIN</b>	A maintained area for vessels to turn.	
1209		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1210		LENGTH	RECORD_DATE	RESTRICTION
1211		SOURCE_DATE	VERT_DATUM	WIDTH
1212	<b>HS159</b>	<b>TWO_WAY_ROUTE</b>	A two-way route is a route within defined limits inside which two-way traffic is established, aimed at providing safe passage of ships through waters where navigation is difficult or dangerous.(IHO Dictionary, S-32, 5th Edition, 5712)	
1213				
1214				
1215				
1216		COMMON_NAME	DATE_END	DATE_START
1217		DEPTH	DESCRIPTION	RECORD_DATE
1218		S_57_CAT	SOURCE_DATE	STATUS
1219		VERT_DATUM		
1220	<b>HS160</b>	<b>UNDERWATER_ROCK</b>	A concrete mass of stony material or coral which dries, is awash, or is below the water surface.	
1221				
1222		COMMON_NAME	DEPTH	DESCRIPTION
1223		FORMAL_NAME	RECORD_DATE	SOURCE_DATE
1224		STATUS	VERT_DATUM	
1225	<b>HS161</b>	<b>UNSURVEYED_AREA</b>	An area for which no bathymetric survey information is available.	
1226				
1227		COMMON_NAME	DESCRIPTION	RECORD_DATE
		SOURCE_DATE	WIDTH	
1228	<b>HS162</b>	<b>VEGETATION</b>	Collections or individual plants.	
1229				
1230		COMMON_NAME	DESCRIPTION	ELEVATION
1231		FORMAL_NAME	HEIGHT	RECORD_DATE
		S_57_CAT	SOURCE_DATE	VERT_ACC
1232	<b>HS163</b>	<b>VISUAL_SIGNAL_STATION</b>	A place on shore from which signals are made to ships at sea.	
1233				
1234		COMM_CHANNEL	COMMON_NAME	DATE_END
1235		DATE_START	DESCRIPTION	FORMAL_NAME
1236		RECORD_DATE	S_57_CAT	SOURCE_DATE
		STATUS		
1237	<b>HS164</b>	<b>WAITING_AREA/LOCK_ARRIVAL_POINT</b>	A designated location where boats or tows wait to receive clearance to enter a lock chamber or basin.	
1238				
1239	<b>HS165</b>	<b>WATER_TOWER</b>	An elevated container and its supporting structure used to hold water.	
1240				
1241		COLOR_PATTERN	COMMON_NAME	CONDITION
1242		CONSTRUCTION	DESCRIPTION	DESIGNATOR
1243		ELEVATION	FORMAL_NAME	HEIGHT
1244		HORIZ_ACC	HORIZ_DATUM	LENGTH
1245		PRIMARY_COLOR	PRODUCT	RECORD_DATE
1246		S_57_CAT	SHAPE	SOURCE_DATE
1247		STATUS	VERT_ACC	VERT_DATUM
		WIDTH		
1248	<b>HS166</b>	<b>WATER_TURBULENCE</b>	The disturbance of water caused by the interaction of any combination of waves, currents, tidal streams, wind, shoal patches and obstructions.	
1249				
1250		COMMON_NAME	DESCRIPTION	FORMAL_NAME
1251		RECORD_DATE	S_57_CAT	SOURCE_DATE
1252	<b>HS167</b>	<b>WATERFALL</b>	A sudden descent of water over a step in the bed of a river or the sea bottom caused by tidal flows. In place names commonly shortened to fall or falls, e.g. Niagara Falls.	
1253				
1254				
1255		COMMON_NAME	DESCRIPTION	ELEVATION
1256		FORMAL_NAME	HEIGHT	LENGTH

---

1257		RECORD_DATE	SOURCE_DATE	VERT_ACC
1258		WIDTH		
1259	<b>HS168</b>	<b>WILDLIFE_MANAGEMENT_AREA</b>	A area set aside for the investigation, maintenance, or management of plants and/or animals.	
1260				
1261		COMMON_NAME	DATE_END	DATE_START
1262		DEPTH	DESCRIPTION	FORMAL_NAME
1263		RECORD_DATE	RESTRICTION	S_57_CAT
1264		SOURCE_DATE	STATUS	WIDTH
1265	<b>HS169</b>	<b>WRECK</b>	The ruined remains of a stranded or sunken vessel which has been rendered useless.	
1266				
1267		COMMON_NAME	DATE_START	DEPTH
1268		DESCRIPTION	ELEVATION	FORMAL_NAME
1269		HEIGHT	HORIZ_ACC	LENGTH
1270		RECORD_DATE	S_57_CAT	SOURCE_DATE
1271		STATUS	TONNAGE	VERT_ACC
1272		VERT_DATUM	WIDTH	
1273				



1274 HYDROGRAPHY STANDARD ATTRIBUTE DEFINITIONS

1275	<b>Attribute Name</b>	<b>Attribute Definition</b>	<b>Data Type</b>
1276	<b>BRIDGE_TYPE</b>	The various types of bridges.	Text (30)
1277	<b>CALL_SIGN</b>	The designated call-sign of a radio station.	Text (30)
1278	<b>CARDINAL</b>	The four quadrants (north, east, south and west) are bounded by the true bearings NW-NE, NE-SE, SE-SW, and SW-NW taken from the point of interest. A cardinal mark is named after the quadrant in which it is placed.	Text (35)
1279			
1280			
1281			
1282	<b>CATEGORY</b>	The attribute which differentiates the "types" or "kinds" of like features which may be separately identified in the standard. The specific values (or domain) associated with the standard is a function of the individual feature type.	Text (35)
1283			
1284			
1285			
1286	<b>CHARACTER</b>	Any identifier comprised of the class, number and color(s) of flashes or occultations, of a light or lights at one geographic position [i.e. Q(6)+LF1, VQ G, L F1 (3+2)WR].	Text (30)
1287			
1288			
1289	<b>CLEARANCE</b>	The vertical clearance of an object in closed condition (e.g. a closed lifting bridge) measured from the plane towards the object overhead.	Text (30)
1290			
1291			
1292	<b>COLOR_PATTERN</b>	The various colour patterns of a navigational mark.	Text (30)
1293	<b>COMM_CHANNEL</b>	A channel number assigned to a specific radio frequency, frequencies or frequency band.	Text (30)
1294			
1295	<b>COMMON_NAME</b>	A unofficial, slang, or other common or textual designation of the feature.	Text (55)
1296			
1297	<b>CONDITION</b>	A domain value indicating the physical situation or condition of the feature.	Text (35)
1298			
1299	<b>CONSTRUCTION</b>	A domain indicating the technique or primary method used in building or constructing the feature.	Text (35)
1300			
1301	<b>COUNTRY</b>	The attribute indicates the nationality of the specific object or feature.	Text (30)
1302			
1303	<b>DATE_END</b>	The date the feature will, or is expected to, cease to exist, if known. May also indicate the latest date on which the feature may reasonably be expected to be present in this location. This date will almost always be in the future.	Numeric
1304			
1305			
1306			
1307	<b>DATE_START</b>	The date the existence of the feature began, if known. May also indicate the earliest date on which the feature may reasonably be expected to be present in this location.	Numeric
1308			
1309			
1310	<b>DEPTH</b>	The numeric distance from the surface of the earth to the deepest	Numeric

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1311		point of the feature.	
1312	<b>DEPTH_ACC</b>	The best estimate of the accuracy of the sounding data	Text (30)
1313	<b>DEPTH_DATUM</b>	The name of the datum which determines the reference for the	Text (30)
1314		numeric attribute Depth.	
1315	<b>DESCRIPTION</b>	A user defined description of the feature.	Text (255)
1316	<b>DESIGNATOR</b>	Any identifying number which differentiates the feature from any	Numeric
1317		other similar features.	
1318	<b>DIAMETER</b>	Pipe diameter in inches	Numeric
1319	<b>DIRECTIVITY</b>	The side or sides of a feature which produces the greatest	Text (30)
1320		reflectivity potential.	
1321	<b>ELEVATION</b>	The altitude of the ground level of an object, measured from a	Text (30)
1322		specified vertical datum.	
1323	<b>EST_RANGE</b>	The estimated range of a non-optical electromagnetic	Text (30)
1324		transmission.	
1325	<b>FACC_CAT</b>	The differentiation attribute which exists within the Feature and	Text (30)
1326		Attribute Coding Catalog Standard.	
1327	<b>FORMAL_NAME</b>	A official name or textual designation of the feature.	Text (55)
1328	<b>FREQUENCY</b>	The frequency of a signal.	Text (30)
1329	<b>FUNCTION</b>	The function, or purpose of various buildings.	Text (30)
1330	<b>HEIGHT</b>	The numeric height of the feature as measured from the lowest	Numeric
1331		point to the highest point.	
1332	<b>HORIZ_ACC</b>	The best estimate of the horizontal accuracy of horizontal	Numeric
1333		clearance and distances.	
1334	<b>HORIZ_CLEARANCE</b>	The numeric horizontal distance through an opening in the	Numeric
1335		feature.	
1336	<b>HORIZ_DATUM</b>	Horizontal datum. The name of the reference used for	Text (30)
1337		measurements in the horizontal direction.	
1338	<b>IDENTIFIER</b>	A unique number which identifies the feature as opposed to all	Text (30)
1339		other features of the same type.	
1340	<b>LATERAL</b>	There are two international buoyage regions, A and B, between	Text (30)
1341		which lateral marks differ. The buoyage region is encoded using	
1342		the separate attribute MARSYS. When top-marks, retro reflectors	
1343		and/or lights are fitted to these marks, they are encoded as separate	
1344		objects.	
1345	<b>LENGTH</b>	A measurement of the longer of two linear axis.	Numeric
1346	<b>MAG_ANOMALY</b>	The value of the deviation from the normal magnetic variation.	Numeric

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1347	<b>MAG_VARIATION</b>	Horizontal angle between true north and magnetic north	Numeric
1348		measured East (positive value) or West (negative value) according	
1349		to whether magnetic north lies east or west of true north.	
1350	<b>MATERIAL</b>	A domain specifying the primary material used on the	Text (35)
1351		construction of the feature.	
1352	<b>MAX_RANGE</b>	The extreme distance at which an object can be seen or a signal	Numeric
1353		detected in nautical miles	
1354	<b>MAX_RATE</b>	Maximum speed of current.	Numeric
1355	<b>MIN_RATE</b>	Minimum speed of current.	Numeric
1356	<b>NATURE_BOTTOM</b>	The attribute 'nature of surface' encodes the general nature of	Text (30)
1357		the material of which the land surface or the sea bed is composed.	
1358	<b>NO_FLOORS</b>	The number of floors or levels within a structure.	Numeric
1359	<b>NUM_SPANS</b>	Number of spans in a bridge or aqueduct.	Numeric
1360	<b>ORIENTATION</b>	The angular distance measured from true north to the major axis	Numeric
1361		of the object.	
1362	<b>PERIOD</b>	The time occupied by an entire cycle of intervals of light and	Text (30)
1363		eclipse.	
1364	<b>PERMIT</b>	Any permit required for the vessel.	Text (30)
1365	<b>PRIMARY_COLOR</b>	The Primary or most frequently occurring color of the feature.	Text (12)
1366	<b>PRODUCT</b>	The various substances which are transported, stored or	Text (30)
1367		exploited.	
1368	<b>QUALITY</b>	The reliability of the value of sounding.	Text (30)
1369	<b>RADAR_REFLECTOR</b>	Indicates whether or not a radar reflector is attached to, or	Text (30)
1370		connected with, a feature.	
1371	<b>RADIUS</b>	The vector extending from the centre to the periphery of a	Text (30)
1372		circular or spherical object.	
1373	<b>RANGE</b>	The nominal range at which an object can be seen or a signal	Numeric
1374		detected in nautical miles.	
1375	<b>RECORD_DATE</b>	The date when the specific feature was captured, edited, or	Numeric
1376		deleted.	
1377	<b>RESTRICTION</b>	A domain value indicating any limitations or other conditions	Text (35)
1378		imposed on the use or function of the feature.	
1379	<b>RIVER_MILE</b>	The most currently used river mile designation for a given river	Text (30)
1380		system.	
1381	<b>S_57_CAT</b>	The differentiation attribute which exists within the IHO S-57	Text (30)
1382		Standard.	

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1383	<b>SEA_TYPE</b>	The various types of sea areas.	Text (30)
1384	<b>SHAPE</b>	The various types or shapes of the daymarkers used on beacons	Text (30)
1385		or buoys.	
1386	<b>SIG_GROUP</b>	The number of signals, the combination of signals or the morse	Numeric
1387		character(s) within one period of full sequence.	
1388	<b>SIG_PERIOD</b>	The time occupied by an entire cycle of intervals of light and	Text (30)
1389		eclipse.	
1390	<b>SIQ_SEQUENCE</b>	The sequence of times occupied by intervals of light and eclipse	Text (30)
1391		for all 'light characteristics' except for occulting where the	
1392		sequence of times is occupied by intervals of eclipse and light.	
1393	<b>SOURCE_DATE</b>	The production date of the source; e.g. the date of measurement.	Numeric
1394	<b>SPACES</b>	The total parking spaces available in the area including	Numeric
1395		handicapped or reserved spaces.	
1396	<b>SPECIAL_PURPOSE</b>	A mark may be a beacon, a buoy, a signpost or may take another	Text (30)
1397		form.	
1398	<b>STATUS</b>	A domain value indicating the current status of the feature.	Text (35)
1399	<b>SURFACE</b>	The physical surface composition of a road.	Text (30)
1400	<b>TIME_END</b>	The end of a active period.	Numeric
1401	<b>TIME_START</b>	The start of an active period.	Numeric
1402	<b>TONNAGE</b>	Tonnage of a sunken or stranded wreck.	Numeric
1403	<b>TOP_MARK</b>	The characteristic shape secured at the top of a buoy or beacon	Text (30)
1404		to aid identification.	
1405	<b>TRACK_LENGTH</b>	Total cumulative length of track contained within confines of	Numeric
1406		the feature, exclusive of the branch or main trunk lines running	
1407		into and/or out of the feature.	
1408	<b>TRIP_LENGTH</b>	Length of crossing between shore points.	Numeric
1409	<b>VARIATION</b>	A positive value, i.e. unsigned indicates variation in an Easterly	Numeric
1410		direction while a negative value indicates variation in a westerly	
1411		direction.	
1412	<b>VELOCITY</b>	The speed of the current in knots. The rate of travel of a current.	Numeric
1413	<b>VERT_ACC</b>	The best estimate of the vertical accuracy of heights, vertical	Numeric
1414		distances, and vertical clearances, excluding sounding	
1415		measurements.	
1416	<b>VERT_CLEARANCE</b>	The numeric distance from the surface of the earth to the lowest	Numeric
1417		point associated with the feature.	
1418	<b>VERT_DATUM</b>	This attribute is used to specify the datum to which both heights	Text (30)

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1419		and soundings are referred.	
1420	<b>VERT_LENGTH</b>	The total vertical length of an object.	Numeric
1421	<b>WATER_VELOCITY</b>	Range of water velocity, estimated in meters/second within	Numeric
1422		delineation of feature exclusive of high water due to runoff or	
1423		low water due to drought.	
1424	<b>WIDTH</b>	The numeric width of the feature as measured across its widest	Numeric
1425		dimension.	

1426 6.0 IMPLEMENTATION

1427  
1428 This Hydrography Standard has not yet been implemented in any significant way. Its organization,  
1429 however, is designed to permit easy implementation on a number of existing GIS and/or A-E-C/CADD  
1430 platforms. The conversion of the Hydrography Standard Logical Model to a physical implementation is  
1431 accomplished by specifying several naming conventions associated with the standard. These conventions  
1432 and the physical implementation, while compatible with most major database management systems, are  
1433 provided for information only and are not intended to mandate or recommend any vendors software. In  
1434 addition, the implementation strategy provided is only one of several acceptable strategies and is included  
1435 for information only. The revised organization of the Hydrography Standard and its naming conventions  
1436 are represented in Figure 2.

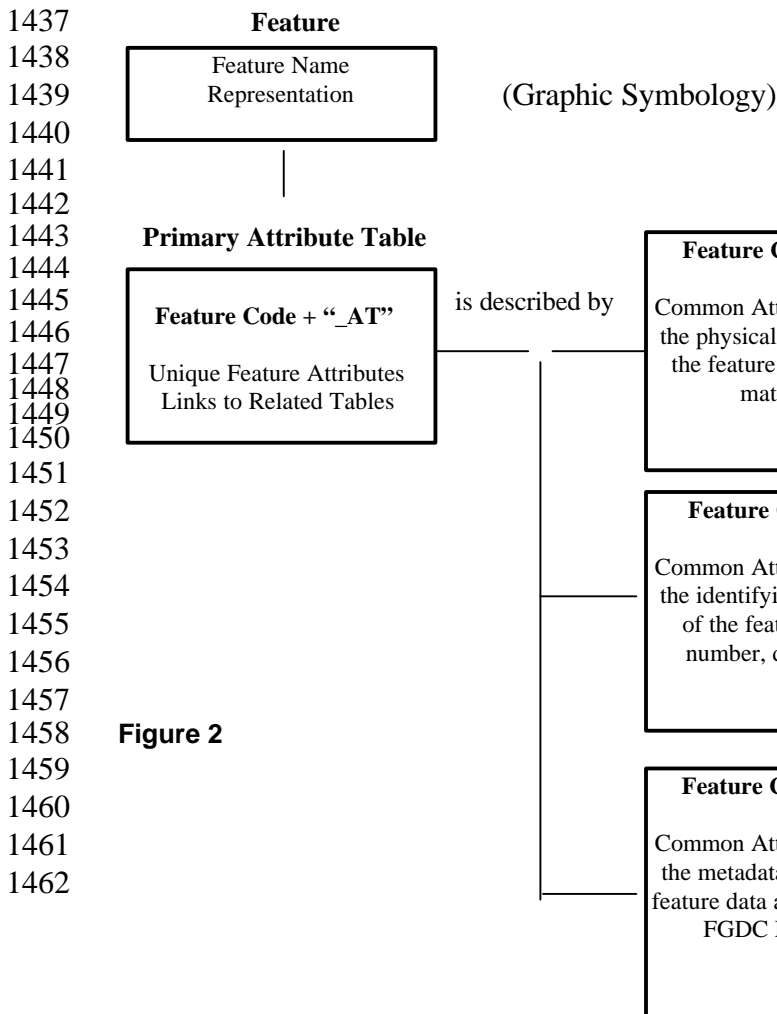


Figure 2

1463  
1464       The codes of the features and the names of the attributes are designed to meet the naming restrictions  
1465 associated with the major Relational Data Base Management Systems in use in the GIS field. And, by  
1466 defining standard “groupings” of attributes which apply to the features, it is possible to identify separate  
1467 “tables” of these attributes associated with each of the features, further simplifying implementation. The  
1468 attribute groupings defined include **IDENTIFICATION** – which specifies numbers, names, and  
1469 descriptions of the feature, **FORM** – which specifies physical characteristics of the features, and  
1470 **METADATA**.

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1471 7.0 REFERENCES

- 1472
- 1473 International Hydrographic Organization, S57 Appendix A, Object Catalog for Digital Hydrographic Data,  
1474 1997.
- 1475
- 1476 National Institute of Standards and Technology, Federal Information Processing Standard Publication 173  
1477 (Spatial Data Transfer Standards), U. S. Department of Commerce, 1992.
- 1478
- 1479 North Atlantic Treaty Organization (NATO), Digital Geographic Information Exchange Standard  
1480 (DIGEST) Part 4, Feature Attribute Coding Catalog (FACC), 1998.
- 1481
- 1482 Tri-Service CADD/GIS Technology Center, Tri-Service Spatial Data Standard (TSSDS), version 1.8,  
1483 1998.
- 1484
- 1485 U.S. Army Corps of Engineers (USACE), Regional Engineering and Environmental Geographic  
1486 Information System (REEGIS), Project's Data Dictionary For Inland Waterways Information, 1997.



**APPENDIX A1 - STANDARD CORRELATION OF S-57 (Feature Cross Reference) (INFORMATIVE)**

ATTRIBUTE/VALUE	HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	S-57	S-57 CODE	S-57
ADMINISTRATION_AREA	State	ADMINISTRATION AREA	ADMARE	JRSDTN - National Sub-Division	
ADMINISTRATION_AREA	County	ADMINISTRATION AREA	ADMARE	JRSDTN - National Sub-Division	
ADMINISTRATION_AREA	Coast Guard District	ADMINISTRATION AREA	ADMARE		
ADMINISTRATION_AREA	COE District	ADMINISTRATION AREA	ADMARE		
ADMINISTRATION_AREA	City	ADMINISTRATION AREA	ADMARE		
AIRPORT/AIRFIELD		AIRPORT/AIRFIELD	AIRARE		
ANCHOR_BERTH		ANCHOR BERTH	ACHBRT		
ANCHORAGE_AREA		ANCHORAGE AREA	ACHARE		
BEACON		BEACON	BCNLAT		
BERTH		BERTH	BERTHS		
BRIDGE		BRIDGE	BRIDGE		
BUILDING		BUILDING, SINGLE	BUISGL		
BUILT-UP_AREA		BUILT-UP AREA	BUAARE		
BUOY		BUOY	BOYLAT		
OFFSHORE_LOADING_FACILITY		BUOY, INSTALLATION	BOYINB	CATSEA - Single Buoy Mooring	
OVERHEAD_PIPELINE/CABLE		CABLE AREA	CBLARE		
OVERHEAD_PIPELINE/CABLE	Telephone Cable	CABLE, OVERHEAD	CBLOHD	CATCBL - Telephone	
OVERHEAD_PIPELINE/CABLE	Electrical Cable	CABLE, OVERHEAD	CBLOHD	CATCBL - Transmission/Power	
SUBMERGED_PIPELINE/CABLE	Electrical Cable	CABLE, SUBMARINE		CATCBL - Transmission/Power	
SUBMERGED_PIPELINE/CABLE	Telephone Cable	CABLE, SUBMARINE		CATCBL - Telephone	
CANAL		CANAL	CANALS		
CARGO_TRANSHPMENT_AREA		CARGO TRANSHIPMENT AREA	CTSARE		
CAUSEWAY		CAUSEWAY	CAUSWY		
CAUTION_AREA		CAUTION AREA	CTNARE		
CHECKPOINT		CHECKPOINT	CHKPNT		
COAST_GUARD_STATION		COAST GUARD STATION	CGUSTA		
SHORELINE		COASTLINE	COALNE		

CONTIGUOUS_ZONE	HYDRO ATTRIBUTE/VALUE	CONTIGUOUS_ZONE	CONZNE	S-57 ATTRIBUTE/VALUE
HYDRO_STANDARD_FEATURE		S-57	S-57_CODE	
CONTINENTAL_SHELF_AREA		CONTINENTAL_SHELF_AREA	COSARE	
CONTROL_POINT		CONTROL_POINT	CTRPNT	
CONVEYOR		CONVEYOR	CONVYR	
CRANE		CRANE	CRANES	
CURRENT		CURRENT	CURENT	
CUSTOM_ZONE		CUSTOM_ZONE	CUSZNE	
RIVER_ENGINEERING_STRUCTURE	Bendway Weir	DAM	SLCONS	CATDAM - Weir
DAM		DAM	DAMCON	
DAY_MARK		DAY_MARK	CAYMAR	
DEEP_WATER_ROUTE		DEEP_WATER_ROUTE	DWRTCL	
DEPTH_AREA		DEPTH_AREA	DEPARE	
DEPTH_CONTOUR		DEPTH_CONTOUR	DEPCNT	
DISTANCE_MARK		DISTANCE_MARK	DISMAR	
TURNING_BASIN		DREDGED_AREA	DRGARE	
DREDGED_AREA		DREDGED_AREA	DRGARE	
DRYDOCK		DRYDOCK	DRYDOC	
DUMPING_GROUND		DUMPING_GROUND	DMPGRD	
LEVEE		DYKE	DYKCON	
SAFETY_FAIRWAY		FAIRWAY	FAIRWY	RESTRN - Construction
CHANNEL_MAINTAINED(DEEP_DRAFT)		FAIRWAY	FAIRWY	
FENCE/WALL		FENCE/WALL	FNCLNE	
FERRY_ROUTE		FERRY_ROUTE	FERYRT	
FISHERY_ZONE		FISHERY_ZONE	FSHZNE	
FISHING_FACILITY		FISHING_FACILITY	FSHFAC	
FISHING_GROUND		FISHING_GROUND	FSHGRD	
FLOATING_DOCK		FLOATING_DOCK	FLODOC	
FOG_SIGNAL		FOG_SIGNAL	FOGSIG	
FORTIFIED_STRUCTURE		FORTIFIED_STRUCTURE	FORSTC	
FREEPорт_AREA		FREEPорт_AREA	FRPARE	

GATE	HYDRO ATTRIBUTE/VALUE	GATE	GATCON	S-57 ATTRIBUTE/VALUE
HYDRO STANDARD FEATURE		S-57	S-57 CODE	
GRIDIRON		GRIDIRON	GRIDRN	
PORT_AUTHORITY		HARBOR AREA	HRBFAC	
HARBOR_FACILITY		HARBOR AREA (ADMINISTRATIVE)	HRBARE	
FISHING_HARBOR		HARBOR FACILITY	HRBFAC	CATHAF - Fishing Harbour
HARBOR_FACILITY		HARBOR FACILITY	HRBFAC	
MOORED_VESSEL		HULK	HULKES	
ICE_AREA		ICE AREA	ICEARE	
INCINERATION_AREA		INCINERATION AREA	ICNARE	
INSHORE_TRAFFIC_ZONE		INSHORE TRAFFIC ZONE	ISTZNE	
LAKE		LAKE	LAKARE	
ISLAND		LAND AREA	LNDARE	
ELEVATION		LAND ELEVATION	LNDELV	
PARK		LAND REGION		CATLND - Parkland
SWAMP/MARSH		LAND REGION	LNDRGN	CATLND - Swamp
LANDMARK	Windmill/Motor	LANDMARK	LNDMRK	CATLMK - Windmill/Windmotor
LANDMARK	Smokestack/Chimney	LANDMARK	LNDMRK	CATLMK - Chimney
LANDMARK	Tower	LANDMARK	LNDMRK	CATLMK - Tower
LIGHT_VESSEL/LIGHTSHIP		LIGHT VESSEL	LITVES	
NAVIGATION_LIGHT		LIGHTS	LIGHTS	
MAGNETIC_DISTURBANCE_AREA		LOCAL MAGNETIC ANOMALY	LOCMAG	
LOCK		LOCK BASIN	LOKBSN	
LOCK_BASIN/LOCK_CHAMBER		LOCK BASIN	LOKBSN	
LOG_POND		LOG POND	LOGPON	
MAGNETIC_VARIATION		MAGNETIC VARIATION.	MAGVAR	
MARINE_FARM		MARINE FARM/ CULTURE	MARCUL	
MILITARY_PRACTICE_AREA		MILITARY PRACTICE AREA	MIPARE	
GUIDE_WALL		MOORING FACILITY	SLCONS	CATMOR - Tie-Up Wall
DOLPHIN		MOORING/WARPING FACILITY	MORFAC	CATMOR - Dolphin
MOORING_FACILITY		MOORING/WARPING FACILITY	MORFAC	

MOORING_FACILITY	Bollard	MOORING/WARPING FACILITY	MORFAC	CATMOR - Bollard
HYDRO_STANDARD_FEATURE	HYDRO_ATTRIBUTE/VALUE	S-57	S-57_CODE	S-57_ATTRIBUTE/VALUE
LEADING_LINE		NAVIGATION LINE	NAVLNE	
NAVIGATION_LINE		NAVIGATION LINE	NAVLNE	
OBSTRUCTION		OBSTRUCTION/FOUL AREA	OBSTRN	
FOUL_GROUND		OBSTRUCTION/FOUL AREA	OBSTRN	CATOBS - Foul Area
ICE_BOOM		OBSTRUCTION/FOUL AREA	OBSTRN	CATOBS - Ice Boom
OFFSHORE_PLATFORM		OFFSHORE PLATFORM	OFSPLF	
OFFSHORE_PLATFORM		OFFSHORE PLATFORM	OFSPLF	
OFFSHORE_PRODUCTION_AREA		OFFSHORE PRODUCTION AREA	OSPARE	
OIL_BARRIER		OIL BARRIER	OILBAR	
PILE/POST		PILE	PILPNT	
PILOT_BOARDING_PLACE		PILOT BOARDING PLACE	PILBOP	
SUBMERGED_PIPELINE/CABLE		PIPELINE SUBMARINE/ON LAND	PIPSOL	
MAJOR_INFLOW/OUTFLOW_STRUCTURE		PIPELINE SUBMARINE/ON LAND	PIPSOL	CATPIP - Intake/Outfall
PONTOON		PONTOON	PONTON	
PRECAUTIONARY_AREA		PRECAUTIONARY AREA	PRCARE	
PRODUCTION_AREA		PRODUCTION/STORAGE AREA	PRDARE	
BRIDGE_TOWER		PYLON/BRIDGE SUPPORT	PYLONS	
BRIDGE_PIER		PYLON/BRIDGE SUPPORT	PYLONS	
PYLON		PYLON/BRIDGE SUPPORT	PYLONS	CATPYL - Telephone/Telegraph
RADAR_LINE		RADAR LINE	RADLNE	
RADAR_RANGE		RADAR RANGE	RADRNG	
RADAR_REFLECTOR		RADAR REFLECTOR	RADRFL	
RADAR_STATION		RADAR STATION	RADSTA	
RADAR_TRANSPONDER_BEACON		RADAR TRANSPONDER BEACON	RTPBCN	
RADIO_CALLING_IN_POINT		RADIO CALLING IN POINT	RDOCAL	
RADIO_STATION		RADIO STATION	RDOSTA	
RAILROAD		RAILWAY	RAILWY	
RAPIDS		RAPIDS	RAPIDS	
MEASURED_DISTANCE_LINE		RECOMMENDED TRACK/ PART	RECTRC	

RECOMMENDED_TRACK	HYDRO ATTRIBUTE/VALUE	RECOMMENDED TRACK/ PART	RECTRC	S-57 ATTRIBUTE/VALUE
HYDRO STANDARD FEATURE		S-57	S-57 CODE	
RESCUE_STATION		RESCUE STATION	RSCSTA	
WILDLIFE_MANAGEMENT_AREA	Marine Sanctuary	RESTRICTED AREA	RESARE	CATREA - Fish Sanctuary
WILDLIFE_MANAGEMENT_AREA	Federal	RESTRICTED AREA		CATRES - Ecological Reserve
WILDLIFE_MANAGEMENT_AREA	State	RESTRICTED AREA		CATRES - Ecological Reserve
RESTRICTED_AREA		RESTRICTED AREA	RESARE	
RETRO_REFLECTOR		RETRO REFLECTOR	RETRFL	
RIVER		RIVER	RIVERS	
RIVER_BANK		RIVER BANK	RIVBNK	
ROAD		ROAD	ROADWY	
RUNWAY		RUNWAY	RUNWAY	
SAND_WAVES		SAND WAVES	SNDWAV	
NAMED_WATER_AREA	Lagoon/Reef Pool	SEA AREA/NAMED WATER AREA	SEAARE	CATSEA - Not specifically
REEF		SEA AREA/NAMED WATER AREA	SEAARE	CATSEA - REEF
NAMED_WATER_AREA	Crossing	SEA AREA/NAMED WATER AREA	SEAARE	CATSEA - Not specifically
NAMED_WATER_AREA	Chute	SEA AREA/NAMED WATER AREA	SEAARE	CATSEA - Not specifically
SEA-PLANE_LANDING_AREA		SEA-PLANE LANDING AREA	SPLARE	
SANDBAR		SEABED AREA	DEPARE	NATSUR - Sand
BOTTOM_CHARACTERISTICS		SEABED AREA.	SBDARE	
SLIPWAY		SHORELINE CONSTRUCTION	SLCONS	CATSLC - Slipway
PROMENADE_PIER		SHORELINE CONSTRUCTION	SLCONS	CATSLC - Promenade Pier
BOAT_RAMP		SHORELINE CONSTRUCTION	SLCONS	CATSLC Ramp
PIER/WHARF/QUAY		SHORELINE CONSTRUCTION	SLCONS	CATSLC Wharf (Quay)
FENDER		SHORELINE CONSTRUCTION	SLCONS	CATSLC - Fender
SEAWALL		SHORELINE CONSTRUCTION	SLCONS	CATSLC - Sea Wall
SHORELINE_CONSTRUCTION	ACM Revetment Composite	SHORELINE CONSTRUCTION	SLCONS	CATSLC - Revetment
SHORELINE_CONSTRUCTION	Stone Bank Paving	SHORELINE CONSTRUCTION	SLCONS	CATSLC - RipRap
SHORELINE_CONSTRUCTION	Groin	SHORELINE CONSTRUCTION	SLCONS	CATSLC - Groyne
DYKE		SHORELINE CONSTRUCTION	DYKCON	CATSLC - Training Wall
SHORELINE_CONSTRUCTION	Mole	SHORELINE CONSTRUCTION	SLCONS	CATSLC - Mole

BREAKWATER	SHORELINE CONSTRUCTION	SLCONS	CATSCL Break Water
HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	S-57 CODE	S-57 ATTRIBUTE/VALUE
GAUGING_STATION	SIGNAL STATION, WARNING	SISTAW	CATSIW - Tide Gauge
VISUAL_SIGNAL_STATION	SIGNAL STATION,TRAFFIC	SISTAT	
SILO/TANK	SILO/TANK	SILTNK	
GRAIN_ELEVATOR/ELEVATOR	SILO/TANK	SILTNK	CATSIL - Grain Elevator
WATER_TOWER	SILO/TANK	SILTNK	CATSIL - Water Tower
SLOPE_TOPLINE	SLOPE TOPLINE	SLOTOP	
LANDING_PLACE	SMALL CRAFT FACILITY		CATSCF - Landing
PARKING_AREA	SMALL CRAFT FACILITY	SMCFAC	CATSCF - CAR PARK
SMALL_CRAFT_FACILITY	SMALL CRAFT FACILITY	SMCFAC	
SOUNDING	SOUNDING	SOUNDG	
SPRING	SPRING	SPRING	
STRAIGHT_TERRITORIAL_BASELINE	STRAIGHT TERRITORIAL BASELINE	STSLNE	
SUBMARINE_TRANSIT_LANE	SUBMARINE TRANSIT LANE	SUBTLN	
SWEPT_AREA	SWEPT AREA	SWPARE	
TERRITORIAL_SEA_AREA	TERRITORIAL SEA AREA	TESARE	
TIDAL_STREAM	TIDAL STREAM - FLOOD/EBB	TS_FEB	
TIDE_DATA_POINT	TIDE -TIME SERIES	T_TIMS	
TIDEWAY	TIDEWAY	TIDEWY	
TOP_MARK	TOP MARK	TOPMAR	
TRAFFIC_SEPARATION_SCHEME	TRAFFIC SEPARATION SCHEME	TSSBND	
TUNNEL	TUNNEL	TUNNEL	
TWO_WAY_ROUTE	TWO-WAY ROUTE PART	TWRTPT	
UNDERWATER_ROCK	UNDERWATER ROCK	UWTROC	
UNSURVEYED_AREA	UNSURVEYED AREA	UNSARE	
VEGETATION	VEGETATION	VEGATN	
WATER_TURBULENCE	WATER TURBULENCE	WATTUR	
WATERFALL	WATERFALL	WATFAL	
AQUATIC_VEGETATION_AREA	WEED/KELP	WEDKLP	
WRECK	WRECK	WRECKS	

**APPENDIX A2 - STANDARD CORRELATION OF S-57 (Attribute Cross Reference) (INFORMATIVE)**

<i>ADMINISTRATION_AREA</i>		HS001	
INFORM	Information		DESCRIPTION
JRSDTN	Jurisdiction		CATEGORY
NATION	Nationality		COUNTRY
OBJNAM	Object name		FORMAL_NAME
OBJNAM	Object name in national language		COMMON_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
<i>AIRPORT/AIRFIELD</i>		HS002	
CONDTN	Condition		CONDITION
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>ANCHOR_BERTH</i>		HS003	
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RADIUS	Radius		RADIUS
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>ANCHORAGE_AREA</i>		HS004	
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
RESTRN	Restriction		RESTRICTION
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>AQUATIC_VEGETATION_AREA</i>		HS005	
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
<i>BEACON</i>		HS006	
BCNSHP	Beacon shape		SHAPE
CATCAM	Category of cardinal mark		CARDINAL
CATLAM	Category of lateral mark		LATERAL
CATSPM	Category of special purpose mark		SPECIAL_PURPO
COLOUR	Colour		PRIMARY_COLOR
COLPAT	Colour pattern		COLOR_PATTERN
CONDTN	Condition		CONDITION

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DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

***BERTH***

HS007

DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
QUASOU	Quality of sounding measurement	QUALITY
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
SOUACC	Sounding accuracy	DEPTH_ACC
STATUS	Status	STATUS
VERDAT	Vertical datum	DEPTH_DATUM

***BOAT\_RAMP***

HS009

COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	VERT_LENGTH

***BOTTOM\_CHARACTERISTICS***

HS010

COLOUR	Colour	PRIMARY_COLOR
INFORM	Information	DESCRIPTION
NATSUR	Nature of surface	NATURE_BOTTOM
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME



RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<b><i>BREAKWATER</i></b>		
	HS011	
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	VERT_LENGTH
<b><i>BRIDGE</i></b>		
	HS012	
CATBRG	Category of bridge	BRIDGE_TYPE
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERCCL	Vertical clearance, closed	CLEARANCE
VERCLR	Vertical clearance	VERT_CLEARANC
VERDAT	Vertical datum	VERT_DATUM
<b><i>BRIDGE_PIER</i></b>		
	HS013	
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME

OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	VERT_LENGTH
<b>BRIDGE_TOWER</b> HS014		
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	VERT_LENGTH
<b>BUILDING</b> HS015		
BUISHP	Building shape	SHAPE
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
ELEVAT	Elevation	ELEVATION
FUNCTN	Function+	FUNCTION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	LENGTH
<b>BUILT-UP_AREA</b> HS016		
CATBUA	Category of built-up area	S_57_CAT
CONDTN	Condition	CONDITION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<b>BUOY</b> HS017		

BOYSHP	Buoy shape	SHAPE
CATCAM	Category of cardinal mark	S_57_CAT
CATLAM	Category of lateral mark	LATERAL
CATSPM	Category of special purpose mark	SPECIAL_PURPO
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	HEIGHT
<i>CANAL</i> HS018		
CATCAN	Category of canal	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>CARGO_TRANSHIPMENT_AREA</i> HS019		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>CAUSEWAY</i> HS020		
CONDTN	Condition	CONDITION
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>CAUTION_AREA</i> HS021		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START

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INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>CHANNEL_MAINTAINED(DEEP_DRAF</i> HS023		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
SOUACC	Sounding accuracy	DEPTH_ACC
STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<i>COAST_GUARD_STATION</i> HS025		
CATCHP	Category of checkpoint	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>CONTIGUOUS_ZONE</i> HS026		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NATION	Nationality	COUNTRY
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>CONTINENTAL_SHELF_AREA</i> HS027		
INFORM	Information	DESCRIPTION
NATION	Nationality	COUNTRY
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>CONTROL_POINT</i> HS028		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
ELEVAT	Elevation	ELEVATION
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>CONVEYOR</i> HS029		

COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERCLR	Vertical clearance	VERT_CLEARANC
VERDAT	Vertical datum	VERT_DATUM
<i>CRANE</i> HS030		
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERCLR	Vertical clearance	VERT_CLEARANC
VERDAT	Vertical datum	VERT_DATUM
<i>CURRENT</i> HS031		
CURVEL	Current velocity	VELOCITY
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
ORIENT	Orientation	ORIENTATION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>CUSTOM_ZONE</i> HS032		
INFORM	Information	DESCRIPTION
NATION	Nationality	COUNTRY
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>DAM</i> HS033		
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION

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NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>DAY_MARK</i> HS034		
CATSPM	Category of special purpose mark	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
TOPSHP	Topmark/daymark shape	SHAPE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>DEEP_WATER_ROUTE</i> HS035		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
SOUACC	Sounding accuracy	DEPTH_ACC
STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<i>DEPTH_AREA</i> HS036		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERDAT	Vertical datum	VERT_DATUM
<i>DEPTH_CONTOUR</i> HS037		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VALDCO	Value of depth contour	DEPTH
VERDAT	Vertical datum	VERT_DATUM
<i>DISTANCE_MARK</i> HS038		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME

RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>DOLPHIN</i> HS039		
BOYSHP	Buoy shape	SHAPE
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>DREDGED_AREA</i> HS040		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
VERDAT	Vertical datum	VERT_DATUM
<i>DRYDOCK</i> HS041		
CONDTN	Condition	CONDITION
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<i>DUMPING_GROUND</i> HS042		
CATDPG	Category of dumping ground	S_57_CAT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>DYKE</i> HS043		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE

*ELEVATION*

HS044

ELEVAT	Elevation	ELEVATION
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

*FENCE/WALL*

HS046

CATFNC	Category of fenceline	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

*FENDER*

HS047

CATSLC	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

*FERRY\_ROUTE*

HS048

CATFRY	Category of ferry	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME



OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>FISHERY_ZONE</i> HS049		
INFORM	Information	DESCRIPTION
NATION	Nationality	COUNTRY
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>FISHING_FACILITY</i> HS050		
CATFIF	Category of fishing facility	S_57_CAT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	HEIGHT
<i>FISHING_GROUND</i> HS051		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>FISHING_HARBOR</i> HS052		
CATHAF	Category of harbour facility	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>FLOATING_DOCK</i> HS054		
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION

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NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	HEIGHT

*FLOODWALL*

HS056

CATSLC	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

*FOG\_SIGNAL*

HS057

CATFOG	Category of fog signal	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SIGFRQ	Signal frequency	FREQUENCY
SIGPER	Signal period	PERIOD
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS

*FORTIFIED\_STRUCTURE*

HS058

CATFOR	Category of fortified structure	S_57_CAT
CONDTN	Condition	CONDITION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC

VERDAT	Vertical datum	VERT_DATUM
<b><i>FOUL_GROUND</i></b>	HS059	
CATOBS	Category of obstruction	S_57_CAT
CONDTN	Condition	CONDITION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VALSOU	Value of sounding	DEPTH
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<b><i>FREEPORT_AREA</i></b>	HS060	
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b><i>GATE</i></b>	HS061	
CATGAT	Category of gate	S_57_CAT
CONDTN	Condition	CONDITION
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERCLR	Vertical clearance	VERT_CLEARANC
VERDAT	Vertical datum	VERT_DATUM
<b><i>GAUGING_STATION</i></b>	HS062	
CATSIW	Category of signal station, warning	S_57_CAT
COMCHA	Communication channel	COMM_CHANNEL
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b><i>GRAIN_ELEVATOR/ELEVATOR</i></b>	HS063	
BUISHP	Building shape	SHAPE
CATSIL	Category of silo/tank	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR

COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

**GRIDIRON**

HS064

HORACC	Horizontal accuracy	HORIZ_ACC
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	HEIGHT

**GUIDE\_WALL**

HS065

CATSLC	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

**HARBOR**

HS066

INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE

STATUS	Status	STATUS
<i>HARBOR_FACILITY</i>	HS067	
CATHAF	Category of harbour facility	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>ICE_AREA</i>	HS068	
CATICE	Category of ice	S_57_CAT
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>ICE_BOOM</i>	HS069	
CATOBS	Category of obstruction	S_57_CAT
CONDTN	Condition	CONDITION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VALSOU	Value of sounding	DEPTH
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>INCINERATION_AREA</i>	HS070	
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>INSHORE_TRAFFIC_ZONE</i>	HS071	
CATTSS	Category of Traffic Separation Scheme	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION

RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>ISLAND</i> HS072		
CONDTN	Condition	CONDITION
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>LAKE</i> HS074		
ELEVAT	Elevation	ELEVATION
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>LANDMARK</i> HS076		
CATLMK	Category of landmark	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
ELEVAT	Elevation	ELEVATION
FUNCTN	Function+	FUNCTION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>LEADING_LINE</i> HS077		
CATNAV	Category of navigation line	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
ORIENT	Orientation	ORIENTATION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>LEVEE</i> HS078		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE

<i>LIGHT_VESSEL/LIGHTSHIP</i>		HS079	
COLOUR	Colour		PRIMARY_COLOR
COLPAT	Colour pattern		COLOR_PATTERN
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
HORACC	Horizontal accuracy		HORIZ_ACC
HORLEN	Horizontal length		LENGTH
HORWID	Horizontal width		WIDTH
INFORM	Information		DESCRIPTION
NATCON	Nature of construction		CONSTRUCTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
VERACC	Vertical accuracy		VERT_ACC
<i>LOCK</i>		HS080	
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
HORACC	Horizontal accuracy		HORIZ_ACC
HORCLR	Horizontal clearance		HORIZ_CLEARAN
HORLEN	Horizontal length		LENGTH
HORWID	Horizontal width		WIDTH
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>LOCK_BASIN/LOCK_CHAMBER</i>		HS081	
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
HORACC	Horizontal accuracy		HORIZ_ACC
HORCLR	Horizontal clearance		HORIZ_CLEARAN
HORLEN	Horizontal length		LENGTH
HORWID	Horizontal width		WIDTH
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>LOG_POND</i>		HS082	
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>MAGNETIC_DISTURBANCE_AREA</i>		HS083	
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME

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OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VALLMA	Value of local magnetic anomaly	MAG_ANOMALY
<i>MAGNETIC_VARIATION</i> HS084		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VALMAG	Value of magnetic variation	VARIATION
<i>MAJOR_INFLOW/OUTFLOW_STRUCT</i> HS085		
BURDEP	Buried depth	DEPTH
CATPIP	Category of pipeline/pipe	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	HEIGHT
<i>MARINE_FARM</i> HS086		
CATMFA	Category of marine farm/culture	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VALSOU	Value of sounding	DEPTH
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	HEIGHT
<i>MEASURED_DISTANCE_LINE</i> HS088		
CATTRK	Category of recommended track	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
ORIENT	Orientation	ORIENTATION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE



STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<b>MILITARY_PRACTICE_AREA</b> HS089		
CATMPA	Category of military practice area	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b>MOORED_VESSEL</b> HS091		
CATHLK	Category of hulk	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
HORACC	Horizontal accuracy	HORIZ_ACC
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	HEIGHT
<b>MOORING_FACILITY</b> HS092		
BOYSHP	Buoy shape	SHAPE
CATMOR	Category of mooring/warping facility	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<b>NAMED_WATER_AREA</b> HS093		
CATSEA	Category of sea area	SEA_TYPE
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE

SORDAT	Source date	SOURCE_DATE
<i>NAVIGATION_LIGHT</i> HS094		
CATLIT	Category of light	CATEGORY
COLOUR	Colour	PRIMARY_COLOR
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
ORIENT	Orientation	ORIENTATION
RECDAT	Recording date	RECORD_DATE
SECTR1	Sector limit one	Sector limit one
SECTR2	Sector limit two	Sector limit two
SIGGRP	Signal group	SIG_GROUP
SIGPER	Signal period	SIG_PERIOD
SIGSEQ	Signal sequence	SIQ_SEQUENCE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VALNMR	Value of nominal range	RANGE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>NAVIGATION_LINE</i> HS095		
CATNAV	Category of navigation line	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
ORIENT	Orientation	ORIENTATION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>OBSTRUCTION</i> HS096		
CATOBS	Category of obstruction	S_57_CAT
CONDTN	Condition	CONDITION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VALSOU	Value of sounding	DEPTH
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>OFFSHORE_LOADING_FACILITY</i> HS097		
BOYSHP	Buoy shape	SHAPE
CATINB	Category of installation buoy	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START

INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	VERT_LENGTH

**OFFSHORE\_PLATFORM**

HS098

CATOFF	Category of offshore platform	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

**OFFSHORE\_PRODUCTION\_AREA**

HS099

CATPRA	Category of production area	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	VERT_LENGTH

**OIL\_BARRIER**

HS100

CATOLB	Category of oil barrier	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS

<i>OVERHEAD_PIPELINE/CABLE</i>		HS101	
CATCBL	Category of cable		S_57_CAT
CONDTN	Condition		CONDITION
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
VERACC	Vertical accuracy		VERT_ACC
VERCLR	Vertical clearance		VERT_CLEARANC
VERDAT	Vertical datum		VERT_DATUM
<i>PARKING_AREA</i>		HS103	
CATSCF	Category of small craft facility		S_57_CAT
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>PIER/WHARF/QUAY</i>		HS104	
CATSLC	Category of shoreline construction		S_57_CAT
COLOUR	Colour		PRIMARY_COLOR
COLPAT	Colour pattern		COLOR_PATTERN
CONDTN	Condition		CONDITION
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
HEIGHT	Height		HEIGHT
HORACC	Horizontal accuracy		HORIZ_ACC
HORCLR	Horizontal clearance		HORIZ_CLEARAN
HORLEN	Horizontal length		LENGTH
HORWID	Horizontal width		WIDTH
INFORM	Information		DESCRIPTION
NATCON	Nature of construction		CONSTRUCTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
VERACC	Vertical accuracy		VERT_ACC
VERDAT	Vertical datum		VERT_DATUM
<i>PILE/POST</i>		HS105	
CATPLE	Category of pile		S_57_CAT
COLOUR	Colour		PRIMARY_COLOR
COLPAT	Colour pattern		COLOR_PATTERN
CONDTN	Condition		CONDITION
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
HEIGHT	Height		HEIGHT
INFORM	Information		DESCRIPTION

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NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>PILOT_BOARDING_PLACE</i> HS106		
CATPIL	Category of pilot boarding place	S_57_CAT
COMCHA	Communication channel	COMM_CHANNEL
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>PONTOON</i> HS107		
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	HEIGHT
<i>PORT_AUTHORITY</i> HS108		
CATHAF	Category of harbour facility	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>PRECAUTIONARY_AREA</i> HS109		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>PRODUCTION_AREA</i> HS110		
CATPRA	Category of production area	S_57_CAT

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CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
PRODCT	Product	PRODUCT
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

*PROMENADE\_PIER*

HS111

CATSLC	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

*PYLON*

HS112

CATPYL	Category of pylon	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

***FEATURE NAME***

<b><i>RADAR_LINE</i></b>		HS113	
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
ORIENT	Orientation		ORIENTATION
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<b><i>RADAR_RANGE</i></b>		HS114	
COMCHA	Communication channel		COMM_CHANNEL
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<b><i>RADAR_REFLECTOR</i></b>		HS115	
HEIGHT	Height		HEIGHT
INFORM	Information		DESCRIPTION
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
VERACC	Vertical accuracy		VERT_ACC
VERDAT	Vertical datum		VERT_DATUM
<b><i>RADAR_STATION</i></b>		HS116	
CATRAS	Category of radar station		S_57_CAT
COMCHA	Communication channel		COMM_CHANNEL
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
HEIGHT	Height		HEIGHT
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
VALMXR	Value of maximum range		MAX_RANGE
VERACC	Vertical accuracy		VERT_ACC
VERDAT	Vertical datum		VERT_DATUM
<b><i>RADAR_TRANSPONDER_BEACON</i></b>		HS117	
CATRTB	Category of radar transponder beacon		S_57_CAT
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE

STATUS	Status	STATUS
VALMXR	Value of maximum range	MAX_RANGE
<b>RADIO_CALLING_IN_POINT</b> HS118		
COMCHA	Communication channel	COMM_CHANNEL
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b>RADIO_STATION</b> HS119		
CALSGN	Call sign	CALL_SIGN
CATROS	Category of radio station	S_57_CAT
COMCHA	Communication channel	COMM_CHANNEL
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
ESTRNG	Estimated range of transmission	EST_RANGE
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
ORIENT	Orientation	ORIENTATION
RECDAT	Recording date	RECORD_DATE
SIGFRQ	Signal frequency	FREQUENCY
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b>RAILROAD</b> HS120		
CONDTN	Condition	CONDITION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
<b>RAPIDS</b> HS122		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	HEIGHT
<b>RECOMMENDED_TRACK</b> HS123		
CATTRK	Category of recommended track	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME



RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<b>REEF</b>	HS124	
CATSEA	Category of sea area	S_57_CAT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<b>RESCUE_STATION</b>	HS125	
CATRSC	Category of rescue station	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b>RESTRICTED_AREA</b>	HS126	
CATREA	Category of restricted area	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b>RETRO_REFLECTOR</b>	HS127	
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<b>RIVER</b>	HS128	
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b>RIVER_BANK</b>	HS129	
INFORM	Information	DESCRIPTION

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NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>RIVER_ENGINEERING_STRUCTURE</i> HS130		
CATSLC	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>ROAD</i> HS131		
CATROD	Category of road	S_57_CAT
CONDTN	Condition	CONDITION
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>RUNWAY</i> HS132		
CATRUN	Category of runway	S_57_CAT
CONDTN	Condition	CONDITION
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>SAFETY_FAIRWAY</i> HS133		
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE

RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<i>SAND_WAVES</i> HS134		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERLEN	Vertical length	HEIGHT
<i>SANDBAR</i> HS135		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERDAT	Vertical datum	VERT_DATUM
<i>SEA-PLANE_LANDING_AREA</i> HS136		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>SEAWALL</i> HS137		
CATSLC	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>SHORELINE</i> HS138		
CATCOA	Category of coastline	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
ELEVAT	Elevation	ELEVATION
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE

SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>SHORELINE_CONSTRUCTION</i> HS139		
CATSCL	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>SILO/TANK</i> HS140		
BUIHP	Building shape	SHAPE
CATSIL	Category of silo/tank	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
PRODC	Product	PRODUCT
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>SLIPWAY</i> HS141		
CATSCL	Category of shoreline construction	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
HEIGHT	Height	HEIGHT
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN

HORLEN	Horizontal length	LENGTH
HORWID	Horizontal width	WIDTH
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>SLOPE_TOPLINE</i> HS142		
CATSLO	Category of slope	S_57_CAT
COLOUR	Colour	PRIMARY_COLOR
ELEVAT	Elevation	ELEVATION
INFORM	Information	DESCRIPTION
NATCON	Nature of construction	CONSTRUCTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<i>SMALL_CRAFT_FACILITY</i> HS143		
CATSCF	Category of small craft facility	S_57_CAT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>SOUNDING</i> HS144		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<i>SPRING</i> HS145		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>STRAIGHT_TERRITORIAL_BASELINE</i> HS146		
INFORM	Information	DESCRIPTION
NATION	Nationality	COUNTRY
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>SUBMARINE_TRANSIT_LANE</i> HS147		

INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
<b><i>SUBMERGED_PIPELINE/CABLE</i></b> HS148		
BURDEP	Buried depth	DEPTH
CATCBL	Category of cable	S_57_CAT
CONDTN	Condition	CONDITION
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
PRODCT	Product	PRODUCT
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
VERLEN	Vertical length	HEIGHT
<b><i>SWAMP/MARSH</i></b> HS149		
CATLND	Category of land region	S_57_CAT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<b><i>SWEPT_AREA</i></b> HS150		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERDAT	Vertical datum	VERT_DATUM
<b><i>TERRITORIAL_SEA_AREA</i></b> HS151		
INFORM	Information	DESCRIPTION
NATION	Nationality	COUNTRY
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
<b><i>TIDAL_STREAM</i></b> HS152		
CAT_TS	Category of Tidal stream	S_57_CAT
CURVEL	Current velocity	VELOCITY
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS

T_ACWL	Tide - accuracy of water level	Tide - accuracy of
T_MTOD	Tide - method of tidal prediction	Tide - method of
T_THDF	Tide - time and height differences	Tide - time and
T_TINT	Tide - time interval of values	Tide - time interval
T_TSVL	Tide - time series values	Tide - time series
T_VAHC	Tide - value of harmonic constituents	Tide - value of
TIMEND	Time end	Time end
TIMSTA	Time start	Time start
TS_TSP	Tidal stream - panel values	Tidal stream - panel
<b><i>TIDE_DATA_POINT</i></b> HS153		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
T_ACWL	Tide - accuracy of water level	Tide - accuracy of
T_HWLW	Tide - high and low water values	Tide - high and low
T_MTOD	Tide - method of tidal prediction	Tide - method of
T_THDF	Tide - time and height differences	Tide - time and
T_TINT	Tide - time interval of values	Tide - time interval
T_VAHC	Tide - value of harmonic constituents	Tide - value of
TIMEND	Time end	Time end
TIMSTA	Time start	Time start
TS_TSV	Tidal stream - time series values	Tidal stream - time
<b><i>TIDEWAY</i></b> HS154		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<b><i>TOP_MARK</i></b> HS155		
COLOUR	Colour	PRIMARY_COLOR
COLPAT	Colour pattern	COLOR_PATTERN
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
TOPSHP	Topmark/daymark shape	SHAPE
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM
<b><i>TRAFFIC_SEPARATION_SCHEME</i></b> HS156		
CATTSS	Category of Traffic Separation Scheme	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<b><i>TUNNEL</i></b> HS157		

CONDTN	Condition	CONDITION
HORACC	Horizontal accuracy	HORIZ_ACC
HORCLR	Horizontal clearance	HORIZ_CLEARAN
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERACC	Vertical accuracy	VERT_ACC
VERCLR	Vertical clearance	VERT_CLEARANC
<i>TURNING_BASIN</i> HS158		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
RESTRN	Restriction	RESTRICTION
SORDAT	Source date	SOURCE_DATE
VERDAT	Vertical datum	VERT_DATUM
<i>TWO_WAY_ROUTE</i> HS159		
CATTRK	Category of recommended track	S_57_CAT
DATEND	Date end	DATE_END
DATSTA	Date start	DATE_START
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VERDAT	Vertical datum	VERT_DATUM
<i>UNDERWATER_ROCK</i> HS160		
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VALSOU	Value of sounding	DEPTH
VERDAT	Vertical datum	VERT_DATUM
<i>UNSURVEYED_AREA</i> HS161		
INFORM	Information	DESCRIPTION
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
<i>VEGETATION</i> HS162		
CATVEG	Category of vegetation	S_57_CAT
ELEVAT	Elevation	ELEVATION
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
VERACC	Vertical accuracy	VERT_ACC



<i>VISUAL_SIGNAL_STATION</i>		HS163	
CATSIT	Category of signal station, traffic		S_57_CAT
COMCHA	Communication channel		COMM_CHANNEL
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
<i>WATER_TOWER</i>		HS165	
BUSHIP	Building shape		SHAPE
CATSIL	Category of silo/tank		S_57_CAT
COLOUR	Colour		PRIMARY_COLOR
COLPAT	Colour pattern		COLOR_PATTERN
CONDTN	Condition		CONDITION
ELEVAT	Elevation		ELEVATION
HEIGHT	Height		HEIGHT
INFORM	Information		DESCRIPTION
NATCON	Nature of construction		CONSTRUCTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
PRODC	Product		PRODUCT
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
STATUS	Status		STATUS
VERACC	Vertical accuracy		VERT_ACC
VERDAT	Vertical datum		VERT_DATUM
<i>WATER_TURBULENCE</i>		HS166	
CATWAT	Category of water turbulence		S_57_CAT
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
<i>WATERFALL</i>		HS167	
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
SORDAT	Source date		SOURCE_DATE
VERACC	Vertical accuracy		VERT_ACC
<i>WILDLIFE_MANAGEMENT_AREA</i>		HS168	
CATREA	Category of restricted area		S_57_CAT
DATEND	Date end		DATE_END
DATSTA	Date start		DATE_START
INFORM	Information		DESCRIPTION
NOBJNM	Object name in national language		COMMON_NAME
OBJNAM	Object name		FORMAL_NAME
RECDAT	Recording date		RECORD_DATE
RESTRN	Restriction		RESTRICTION

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SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
<i>WRECK</i>	HS169	
CATWRK	Category of wreck	S_57_CAT
HEIGHT	Height	HEIGHT
INFORM	Information	DESCRIPTION
NOBJNM	Object name in national language	COMMON_NAME
OBJNAM	Object name	FORMAL_NAME
RECDAT	Recording date	RECORD_DATE
SORDAT	Source date	SOURCE_DATE
STATUS	Status	STATUS
VALSOU	Value of sounding	DEPTH
VERACC	Vertical accuracy	VERT_ACC
VERDAT	Vertical datum	VERT_DATUM

**APPENDIX B1 - STANDARD CORRELATION OF FACC (Feature Cross Reference) (INFORMATIVE)**

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	FACC	FACC CODE	FACC ATTRIBUTE/VALUE
ADMINISTRATION_AREA	State	ADMINISTRATION_AREA_(NAMED)	FA001	USE - 5 State
ADMINISTRATION_AREA	County	ADMINISTRATION_AREA_(NAMED)	FA001	USE -
ADMINISTRATION_AREA	City	ADMINISTRATION_AREA_(NAMED)	FA001	USE 16 -City
AIRPORT/AIRFIELD		AIRPORT_AREA	GB007	APT -14 Airport/Airfield
ANCHOR_BERTH		ANCHOR_BERTH	BB012	MAC -12 Anchoring Berths
ANCHORAGE_AREA		ANCHORAGE	BB101	MAC -11 Anchorage
RADAR_TRANSPONDER_BEACON		BEACON	BC010	NST - 10 Radar Responder
BEACON		BEACON	BC010	
CONTROL_POINT		BENCHMARK	ZB020	
BERTH		BERTH	BB020	
BOAT_LIFT		BOAT_LIFT	BI005	
TURNING_BASIN		BOAT_TURNING_BASIN	BI080	
MOORING_FACILITY	Bollard	BOLLARD	BB030	
BOTTOM_CHARACTERISTICS		BOTTOM_CHARACTERISTICS	BF010	
SLOPE_TOPLINE		BREAKLINE	CA026	
BREAKWATER		BREAKWATER	BB041	
BRIDGE		BRIDGE	AQ040	
BRIDGE_PIER		BRIDGE_PIER	AQ056	
BRIDGE_TOWER		BRIDGE_TOWER	AQ055	
PRODUCTION_AREA		BUILDING	AL015	BFC - Oil/Gas Facilities Building
RESCUE_STATION		BUILDING	AL015	STA - 5 LifeBoat/Rescue
BUILDING		BUILDING	AL015	BFC - 16 House
BUILDING		BUILDING	AL015	BFC - 17 Multi Unit Dwelling
BUILT-UP_AREA		BUILT-UP_AREA	AL020	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	FACC	FACC CODE	FACC ATTRIBUTE/VALUE
BUOY		BUOY	BC020	
RADIO_CALLING_IN_POINT		CALLING-IN_POINT	BB050	
CANAL		CANAL	BH020	
CAUSEWAY		CAUSEWAY	AQ064	
CHECKPOINT		CHECKPOINT	AH070	
LANDMARK	Smokestack/Chimney	CHIMNEY	AF010	
SHORELINE		COASTLINE	BA010	
RADIO_STATION		COMMUNICATION BUILDING	AT080	
CONVEYOR		CONVEYOR	AF020	
CRANE		CRANE	AF040	
SUBMERGED_PIPELINE/CABLE		CULVERT	AQ065	
TIDAL_STREAM		CURRENT_FLOW	BG010	CUR - 3 General Flow
DAM		DAM	BI020	
DEPTH_AREA		DEPTH_AREA	BE019	
DEPTH_CONTOUR		DEPTH_CONTOUR	BE015	
DISTANCE_MARK		DISTANCE_MARK	ZB036	
DRYDOCK		DRYDOCK	BB090	
FENCE/WALL		FENCE	AL070	
FENDER		FENDER	BB198	
FERRY_ROUTE		FERRY_CROSSING	AQ070	
MARINE_FARM		FISH_HATCHERY	BH050	
FISHING_FACILITY		FISHING_FACILITY	BD079	
FISHING_HARBOR		FISHING_HARBOR	BB105	
PROMENADE_PIER		FISHING_PIER	AK190	

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HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	FACC	FACC CODE	FACC ATTRIBUTE/VALUE
FLOATING_DOCK		FLOATING_DOCK	BB199	
FOG_SIGNAL		FOG_SIGNAL	BC101	
FORTIFIED_STRUCTURE		FORTIFICATION	AH050	
FOUL_GROUND		FOUL_GROUND	BD050	
GATE		GATE_(NAUTICAL)	BI041	
GAUGING_STATION		GAUGING_STATION	BI070	
GRAIN_ELEVATOR/ELEVATOR		GRAIN_ELEVATOR	AM030	
GRIDIRON		GRIDIRON	BB115	
SHORELINE_CONSTRUCTION	Groin	GROIN	BB043	
HARBOR		HARBOR	BB005	
MOORED_VESSEL		HULK	BD181	
ICE_BOOM		ICE_BOOM	BB202	
ISLAND		ISLAND	BA030	
ISOGONIC_LINE		ISOGONIC_LINE	ZC050	
MAGNETIC_VARIATION		ISOGONIC_LINE	ZC050	
NAMED_WATER_AREA	Lagoon/Reef Pool	LAGOON	BH190	
LAKE		LAKE	BH080	
VEGETATION		LAND_USE/LAND_COVER	EB030	
LANDING_PLACE		LANDING_PLACE	BB150	
LEADING_LINE		LEADING_LINE	BC100	
LIGHT_VESSEL/LIGHTSHIP		LIGHT	BC040	
NAVIGATION_LIGHT		LIGHT	BC040	
LOCK		LOCK	BI030	
LOG_POND		LOG_BOOM	BD071	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	FACC	FACC CODE	FACC ATTRIBUTE/VALUE
MAGNETIC_DISTURBANCE_AREA		MAGNETIC_DISTURBANCE_AREA	ZC040	
PRECAUTIONARY_AREA		MARITIME_AREA	FC031	MAC - 42 Precautionary Area
OFFSHORE_PRODUCTION_AREA		MARITIME_AREA	FC031	MAC - 98 Offshore Production
FREEPORT_AREA		MARITIME_AREA	FC031	MAC - 79 Free Port Area
CUSTOM_ZONE		MARITIME_AREA	FC031	MAC - 1 Customs Area
UNSURVEYED_AREA		MARITIME_AREA	FC031	MAC - 26 Unsurveyed Area
PILOT_BOARDING_PLACE		MARITIME_AREA	FC031	MAC - 48 Pilot Boarding Area
CAUTION_AREA		MARITIME_AREA	FC031	MAC - 42 Precautionary Area
WILDLIFE_MANAGEMENT_AREA	Marine Sanctuary	MARITIME_AREA	FC031	MAC - 80 Fish Sanctuary
MILITARY_PRACTICE_AREA		MARITIME_AREA	FC031	MAC - 91 Practice Area in
INSHORE_TRAFFIC_ZONE		MARITIME_AREA	FC031	MAC - 41 Inshore Traffic Zone
DUMPING_GROUND		MARITIME_AREA	FC031	MAC - 30 Dumping Ground for
INCINERATION_AREA		MARITIME_AREA	FC031	MAC - 31 Incineration Area
TERRITORIAL_SEA_AREA		MARITIME_AREA	FC031	MBL - Territorial Waters - Limits
CARGO_TRANSHIPMENT_AREA		MARITIME_AREA	FC031	MAC - 49 Cargo Transshipment
TERRITORIAL_SEA_AREA		MARITIME_AREA	FC031	MBL - Limits of Sovereignty
CONTINENTAL_SHELF_AREA		MARITIME_LIMIT_BOUNDARY	FC021	MBL - 10 Continental Shelf
STRAIGHT_TERRITORIAL_BASELINE		MARITIME_LIMIT_BOUNDARY	FC021	MBL - 7 Territorial Waters
FISHERY_ZONE		MARITIME_LIMIT_BOUNDARY	FC021	MBL - 3 Fishing Zone Boundary
CONTIGUOUS_ZONE		MARITIME_LIMIT_BOUNDARY	FC021	MBL - 12 Limit of Contiguous
COAST_GUARD_STATION		MARITIME_STATION/MARITIME_SIGNAL	BB155	STA - 1 Coast Guard
VISUAL_SIGNAL_STATION		MARITIME_STATION/MARITIME_SIGNAL	BB155	STA - 34 Signal Station, Traffic
SWAMP/MARSH		MARSH/SWAMP	BH095	
MEASURED_DISTANCE_LINE		MEASURED_DISTANCE_LINE	FC100	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	FACC	FACC CODE	FACC ATTRIBUTE/VALUE
MINE-NAVAL		MINE-NAVAL	BD001	
SHORELINE_CONSTRUCTION	Mole	MOLE	BB042	
MOORING_FACILITY		MOORING/WARPING_FACILITY	BB079	
DOLPHIN		MOORING/WARPING_FACILITY	BB079	
MOORING_FACILITY	Mooring Ring	MOORING_RING	BB160	
NAVIGATION_LINE		NAVIGATION_LINE	BC031	
OBSTRUCTION		OBSTRUCTION_(NAUTICAL)	BD070	
OFFSHORE_LOADING_FACILITY		OFFSHORE_LOADING_FACILITY	BB170	
OFFSHORE_PLATFORM		OFFSHORE_PLATFORM_SITE_(CLEARED)	BD111	
OIL_BARRIER		OIL_BARRIER	BD073	
PARK		PARK	AK120	
PARKING_AREA		PARKING_AREA	AQ140	
PIER/WHARF/QUAY		PIER	BB190	
PILE/POST		PILING	BD100	
OFFSHORE_PLATFORM		PLATFORM	BD110	
PONTOON		PONTOON	BD072	
HARBOR_FACILITY		PORT_FACILITY	SU003	
PORT_AUTHORITY		PORT_FACILITY	SU003	
HARBOR_FACILITY		PORT_FACILITY	SU003	
OVERHEAD_PIPELINE/CABLE		POWER_TRANSMISSION_LINE	AT030	
LANDMARK	Tower	POWER_TRANSMISSION_PYLON	AT040	
RADAR_RANGE		RADAR RANGE	BC033	
RADAR_LINE		RADAR_LINE	BC032	
RADAR_STATION		RADAR_TRANSMITTER	AT045	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	FACC	FACC CODE	FACC ATTRIBUTE/VALUE
RAILROAD		RAILROAD	AN010	
RAILROAD_YARD		RAILROAD_YARD	AN060	
BOAT_RAMP		RAMP_(MARITIME)	BB220	
RAPIDS		RAPIDS	BH120	
REEF		REEF	BD120	
RESTRICTED_AREA		RESTRICTED_AREA	FC036	MAC - 7 Restricted Area
RIVER_BANK		RIVER_BANK	BH141	
ROAD		ROAD	AP030	
TWO_WAY_ROUTE		ROUTE_(MARITIME)	FC165	RTT - 11Two-way Route
SAFETY_FAIRWAY		ROUTE_(MARITIME)	FC165	RTT - 8 Safety Fairway/Channel
DEEP_WATER_ROUTE		ROUTE_(MARITIME)	FC165	RTT - 98 Deep Water Route
RECOMMENDED_TRACK		ROUTE_(MARITIME)	FC165	
RUNWAY		RUNWAY	GB055	
SANDBAR		SAND_LINE	BE022	
SEA-PLANE_LANDING_AREA		SEA-PLANE_LANDING_AREA	GB070	
SEA-PLANE_LANDING_AREA		SEAPLANE_BASE	GB065	
SEAWALL		SEAWALL	BB230	
SHORELINE_CONSTRUCTION	Stone Bank Paving	SHORELINE_CONSTRUCTION	BB081	
SHORELINE_CONSTRUCTION	ACM Revetment Composite	SHORELINE_CONSTRUCTION	BB081	
SLIPWAY		SLIPWAY/PATENT_SLIP	BB240	
SMALL_CRAFT_FACILITY		SMALL_CRAFT_FACILITY	BB201	
SOUNDING		SOUNDING	BE020	
ELEVATION		SPOT_ELEVATION	CA030	
SPRING		SPRING	BH170	HYC



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HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	FACC	FACC CODE	FACC ATTRIBUTE/VALUE
DREDGED_AREA		SWEPT_AREA	FC177	MAC 2 - Dredged Area
SWEPT_AREA		SWEPT_AREA	FC177	
SILO/TANK		TANK	AM070	PRO
SUBMERGED_PIPELINE/CABLE	Telephone Cable	TELEPHONE_LINE	AT060	
PYLON		TELEPHONE_POLE	AT070	
TIDE_DATA_POINT		TIDE_DATA_POINT	BG030	
TIDEWAY		TIDEWAY	BG011	
TRAFFIC_SEPARATION_SCHEME		TRAFFIC_SEPARATION_SCHEME	FC041	
TUNNEL		TUNNEL	AQ130	
WATER_TOWER		WATER_TOWER	AM080	
WATER_TURBULENCE		WATER_TURBULENCE	BG012	
RIVER		WATERCOURSE	BH140	
WATERFALL		WATERFALL	BH180	
LANDMARK	Windmill/Motor	WINDMILL	AJ050	
WRECK		WRECK	BD180	

**APPENDIX B2 - STANDARD CORRELATION OF FACC (Attribute Cross Reference) (INFORMATIVE)**

<i>ADMINISTRATION_AREA</i>		HS001	
ACC	Accuracy Category		HORIZ_ACC
NA2	Second name		COMMON_NAME
NA4	Country Code		COUNTRY
NAM	Name		FORMAL_NAME
USE	Usage		CATEGORY
<i>BEACON</i>		HS006	
ACC	Accuracy Category		VERT_ACC
CCC	Color Code Category		PRIMARY_COLOR
EXS	Existence Category		CONDITION
HGT	Height Above Surface Level		HEIGHT
NAM	Name		FORMAL_NAME
PAT	Buoy/Beacon Pattern Category		COLOR_PATTERN
SHP	Shape of Beacon		SHAPE
TMC	Top Mark Characteristic		CARDINAL
ZV2	Highest Z-Value		ELEVATION
<i>BERTH</i>		HS007	
BER	Berth Identifier		DESIGNATOR
<i>BOAT_RAMP</i>		HS009	
LEN	Length/Diameter		LENGTH
NAM	Name		FORMAL_NAME
VRR	Vertical Reference Category		VERT_ACC
WID	Width		WIDTH
<i>BOTTOM_CHARACTERISTICS</i>		HS010	
MCS	Material Composition Secondary		MATERIAL
MCU	Material Composition Underlying		NATURE_BOTTOM
NAM	Name		FORMAL_NAME
TXT	Text Attribute		DESCRIPTION
<i>BRIDGE</i>		HS012	
AAH	Absolute Horizontal Accuracy		HORIZ_ACC
AAV	Absolute Vertical Accuracy		VERT_ACC
BSC	Bridge /Bridge Superstructure Category		BRIDGE_TYPE
EXS	Existence Category		CONDITION
IDN	Identification Number		DESIGNATOR
LEN	Length/Diameter		LENGTH
MCC	Material Composition Category		CONSTRUCTION
MVC	Maximum Vertical Clearance		MATERIAL
NAM	Name		FORMAL_NAME
NOS	Number of Spans		NUM_SPANS
OHB	Overall Height of Bridge		HEIGHT
SHC	Safe Horizontal Clearance		HORIZ_CLEARAN
TXT	Text Attribute		DESCRIPTION
VCS	Vertical Clearance, Safe		VERT_CLEARANC
VDC	Vertical Datum Category		VERT_DATUM
WID	Width		WIDTH
ZV2	Highest Z-Value		ELEVATION
<i>BRIDGE_PIER</i>		HS013	
ACC	Accuracy Category		VERT_ACC
EXS	Existence Category		CONDITION
HGT	Height Above Surface Level		HEIGHT

LEN	Length/Diameter	VERT_LENGTH
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
<b>BRIDGE_TOWER</b>		
	HS014	
AAH	Absolute Horizontal Accuracy	HORIZ_ACC
AAV	Absolute Vertical Accuracy	VERT_ACC
EXS	Existence Category	CONDITION
LEN	Length/Diameter	VERT_LENGTH
NAM	Name	FORMAL_NAME
OHB	Overall Height of Bridge	HEIGHT
SMC	Surface Material Category	CONSTRUCTION
UID	Unique Identifier	DESIGNATOR
WID	Width	WIDTH
<b>BUILDING</b>		
	HS015	
AAV	Absolute Vertical Accuracy	VERT_ACC
ACC	Accuracy Category	HORIZ_ACC
BFC	Building Function Category	FUNCTION
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b>BUILT-UP_AREA</b>		
	HS016	
ACC	Accuracy Category	VERT_ACC
BAC	Built-Up Area Classification	FACC_CAT
EXS	Existence Category	CONDITION
MCC	Material Composition Category	MATERIAL
NAM	Name	FORMAL_NAME
PHT	Predominant Height	HEIGHT
WID	Width	WIDTH
<b>BUOY</b>		
	HS017	
BTC	Beacon/Buoy Type Category	FACC_CAT
CCC	Color Code Category	PRIMARY_COLOR
COL	Character of Light	CHARACTER
NAM	Name	FORMAL_NAME
PAT	Buoy/Beacon Pattern Category	COLOR_PATTERN
PER	Period of Light	PERIOD
REF	Radar Reflector Attribute	RADAR_REFLECT
SSC	Structure Shape Category	SHAPE
TMC	Top Mark Characteristic	TOP_MARK
TXT	Text Attribute	DESCRIPTION
<b>CANAL</b>		
	HS018	
ACC	Accuracy Category	HORIZ_ACC
EXS	Existence Category	CONDITION
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
PRC	Periodic Restriction Category	RESTRICTION

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WDA	Water Depth Average	DEPTH
WID	Width	WIDTH
WV1	Water Velocity Average 1	WATER_VELOCIT
<i>CARGO_TRANSHIPMENT_AREA</i> HS019		
NAM	Name	FORMAL_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>CAUSEWAY</i> HS020		
HGT	Height Above Surface Level	CLEARANCE
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
PFH	Predominant Feature Height	HEIGHT
SMC	Surface Material Category	CONSTRUCTION
WID	Width	WIDTH
<i>CAUTION_AREA</i> HS021		
NAM	Name	COMMON_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>COAST_GUARD_STATION</i> HS025		
NAM	Name	FORMAL_NAME
<i>CONTIGUOUS_ZONE</i> HS026		
NA4	Country Code	COUNTRY
NAM	Name	COMMON_NAME
<i>CONTINENTAL_SHELF_AREA</i> HS027		
NA4	Country Code	COUNTRY
NAM	Name	FORMAL_NAME
<i>CONVEYOR</i> HS029		
AAV	Absolute Vertical Accuracy	VERT_ACC
ACC	Accuracy Category	HORIZ_ACC
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
UID	Unique Identifier	DESIGNATOR
WID	Width	WIDTH
<i>CRANE</i> HS030		
AAV	Absolute Vertical Accuracy	VERT_ACC
ACC	Accuracy Category	HORIZ_ACC
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	MATERIAL
SSC	Structure Shape Category	SHAPE
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
<i>CUSTOM_ZONE</i> HS032		
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION

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	WID	Width	WIDTH
<i>DAM</i>		HS033	
	AVA	Absolute Vertical Accuracy in Meters	VERT_ACC
	EXS	Existence Category	CONDITION
	HGT	Height Above Surface Level	HEIGHT
	LEN	Length/Diameter	LENGTH
	MCC	Material Composition Category	CONSTRUCTION
	NAM	Name	FORMAL_NAME
	TXT	Text Attribute	DESCRIPTION
	VDC	Vertical Datum Category	VERT_DATUM
	WID	Width	WIDTH
<i>DEEP_WATER_ROUTE</i>		HS035	
	HDI	Hydrographic Depth /Height Information	DEPTH_ACC
	NAM	Name	FORMAL_NAME
<i>DREDGED_AREA</i>		HS040	
	NAM	Name	FORMAL_NAME
<i>DRYDOCK</i>		HS041	
	LEN	Length/Diameter	LENGTH
	NAM	Name	FORMAL_NAME
	WID	Width	WIDTH
<i>DUMPING_GROUND</i>		HS042	
	NAM	Name	FORMAL_NAME
	OPS	Operational Status	STATUS
	TXT	Text Attribute	DESCRIPTION
	WID	Width	WIDTH
<i>ELEVATION</i>		HS044	
	AAV	Absolute Vertical Accuracy	VERT_ACC
	ACC	Accuracy Category	HORIZ_ACC
	MCC	Material Composition Category	MATERIAL
	UID	Unique Identifier	DESIGNATOR
	ZV2	Highest Z-Value	ELEVATION
<i>FENCE/WALL</i>		HS046	
	FTI	Fence Type Indicator	S_57_CAT
	OHD	Obstacle Height/Depth Category	HEIGHT
	WID	Width	WIDTH
<i>FERRY_ROUTE</i>		HS048	
	FCL	Ferry Crossing Length	TRIP_LENGTH
	FER	Ferry Type	S_57_CAT
<i>FISHERY_ZONE</i>		HS049	
	NA4	Country Code	COUNTRY
	NAM	Name	FORMAL_NAME
<i>FISHING_HARBOR</i>		HS052	
	NAM	Name	FORMAL_NAME
<i>FOG_SIGNAL</i>		HS057	
	SST	Sound Signal Type	S_57_CAT
	TXT	Text Attribute	DESCRIPTION
<i>FORTIFIED_STRUCTURE</i>		HS058	
	ACC	Accuracy Category	VERT_ACC
	AHA	Absolute Horizontal Accuracy in Meters	HORIZ_ACC

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EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
<b><i>FOUL_GROUND</i></b> HS059		
ACC	Accuracy Category	VERT_ACC
HDI	Hydrographic Depth /Height Information	HEIGHT
HDP	Hydrographic Depth	DEPTH
<b><i>FREEPORT_AREA</i></b> HS060		
NAM	Name	FORMAL_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<b><i>GATE</i></b> HS061		
GNC	Gate (Nautical) Classification	S_57_CAT
MCC	Material Composition Category	CONSTRUCTION
WID	Width	WIDTH
<b><i>GAUGING_STATION</i></b> HS062		
NAM	Name	FORMAL_NAME
<b><i>GRAIN_ELEVATOR/ELEVATOR</i></b> HS063		
ACC	Accuracy Category	HORIZ_ACC
AVA	Absolute Vertical Accuracy in Meters	VERT_ACC
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
SSC	Structure Shape Category	SHAPE
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b><i>GRIDIRON</i></b> HS064		
NAM	Name	FORMAL_NAME
<b><i>HARBOR</i></b> HS066		
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
<b><i>ICE_AREA</i></b> HS068		
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b><i>INCINERATION_AREA</i></b> HS070		
HDP	Hydrographic Depth	DEPTH
NAM	Name	FORMAL_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<b><i>INSHORE_TRAFFIC_ZONE</i></b> HS071		

HDP	Hydrographic Depth	DEPTH
MAC	Maritime Area Category	FACC_CAT
NAM	Name	COMMON_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>ISLAND</i> HS072		
HGT	Height Above Surface Level	HEIGHT
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>LAKE</i> HS074		
NAM	Name	FORMAL_NAME
SCC	Spring/Well Characteristic Category	FACC_CAT
WID	Width	WIDTH
<i>LANDING_PLACE</i> HS075		
WID	Width	WIDTH
<i>LANDMARK</i> HS076		
AAV	Absolute Vertical Accuracy	VERT_ACC
ACC	Accuracy Category	HORIZ_ACC
DIR	Directivity	Directivity
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
HOD	Horizontal Datum Classification	HORIZ_DATUM
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
SSC	Structure Shape Category	SHAPE
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>LIGHT_VESSEL/LIGHTSHIP</i> HS079		
AHA	Absolute Horizontal Accuracy in Meters	HORIZ_ACC
AVA	Absolute Vertical Accuracy in Meters	VERT_ACC
CCC	Color Code Category	PRIMARY_COLOR
COL	Character of Light	CHARACTER
HGT	Height Above Surface Level	HEIGHT
HOD	Horizontal Datum Classification	HORIZ_DATUM
LVN	Light Range, Nominal	RANGE
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
PAT	Buoy/Beacon Pattern Category	COLOR_PATTERN
PER	Period of Light	PERIOD
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
<i>LOCK</i> HS080		
ACC	Accuracy Category	HORIZ_ACC
DIR	Directivity	DIRECTIVITY
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH

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MCC	Material Composition Category	MATERIAL
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>LOG_POND</i> HS082		
LEN	Length/Diameter	LENGTH
WID	Width	WIDTH
<i>MAGNETIC_DISTURBANCE_AREA</i> HS083		
TXT	Text Attribute	DESCRIPTION
VAV	Variation Anomaly Value	MAG_ANOMALY
<i>MAGNETIC_VARIATION</i> HS084		
MAG	Magnetic Variation	VARIATION
TXT	Text Attribute	DESCRIPTION
<i>MARINE_FARM</i> HS086		
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
<i>MEASURED_DISTANCE_LINE</i> HS088		
LOR	Length of Range	LENGTH
NAM	Name	FORMAL_NAME
<i>MILITARY_PRACTICE_AREA</i> HS089		
NAM	Name	FORMAL_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>MINE-NAVAL</i> HS090		
ACC	Accuracy Category	HORIZ_ACC
HDP	Hydrographic Depth	DEPTH
MID	Mine Identity Classification	IDENTIFIER
MSC	Mine Status Classification	STATUS
MTN	Mine Track Number	DESIGNATOR
<i>NAMED_WATER_AREA</i> HS093		
NAM	Name	FORMAL_NAME
<i>NAVIGATION_LIGHT</i> HS094		
AHA	Absolute Horizontal Accuracy in Meters	HORIZ_ACC
AOO	Angle of Orientation	ORIENTATION
AVA	Absolute Vertical Accuracy in Meters	VERT_ACC
CCC	Color Code Category	PRIMARY_COLOR
HGT	Height Above Surface Level	HEIGHT
HLT	Hydrographic Light Type	CATEGORY
HOD	Horizontal Datum Classification	HORIZ_DATUM
LVN	Light Range, Nominal	RANGE
MCA	Morse Code Attribute	SIG_GROUP
MCC	Material Composition Category	MATERIAL
NAM	Name	FORMAL_NAME
PAT	Buoy/Beacon Pattern Category	COLOR_PATTERN
PER	Period of Light	SIG_PERIOD
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
ZV2	Highest Z-Value	ELEVATION
<i>OFFSHORE_LOADING_FACILITY</i> HS097		



HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	VERT_LENGTH
NAM	Name	FORMAL_NAME
SMC	Surface Material Category	CONSTRUCTION
SSC	Structure Shape Category	SHAPE
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b><i>OFFSHORE_PLATFORM</i></b> HS098		
AHA	Absolute Horizontal Accuracy in Meters	HORIZ_ACC
AVA	Absolute Vertical Accuracy in Meters	VERT_ACC
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
OPC	Offshore Platform Classification	S_57_CAT
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b><i>OFFSHORE_PRODUCTION_AREA</i></b> HS099		
EXS	Existence Category	CONDITION
HDP	Hydrographic Depth	DEPTH
NAM	Name	FORMAL_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<b><i>OVERHEAD_PIPELINE/CABLE</i></b> HS101		
AAV	Absolute Vertical Accuracy	VERT_ACC
AHA	Absolute Horizontal Accuracy in Meters	HORIZ_ACC
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	MATERIAL
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
VCS	Vertical Clearance, Safe	VERT_CLEARANC
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b><i>PARK</i></b> HS102		
NAM	Name	COMMON_NAME
<b><i>PARKING_AREA</i></b> HS103		
LEN	Length/Diameter	LENGTH
WID	Width	WIDTH
<b><i>PIER/WHARF/QUAY</i></b> HS104		
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
NAM	Name	FORMAL_NAME
SMC	Surface Material Category	CONSTRUCTION
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH

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ZV2	Highest Z-Value	ELEVATION
<i>PILE/POST</i>	HS105	
ACC	Accuracy Category	VERT_ACC
HGT	Height Above Surface Level	HEIGHT
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>PILOT_BOARDING_PLACE</i>	HS106	
HDP	Hydrographic Depth	DEPTH
NAM	Name	FORMAL_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>PRECAUTIONARY_AREA</i>	HS109	
HDP	Hydrographic Depth	DEPTH
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>PRODUCTION_AREA</i>	HS110	
AAV	Absolute Vertical Accuracy	VERT_ACC
ACC	Accuracy Category	HORIZ_ACC
BFC	Building Function Category	FUNCTION
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
HOD	Horizontal Datum Classification	HORIZ_DATUM
MCC	Material Composition Category	MATERIAL
NAM	Name	FORMAL_NAME
PRO	Product Category	PRODUCT
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>PROMENADE_PIER</i>	HS111	
HGT	Height Above Surface Level	HEIGHT
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>PYLON</i>	HS112	
AHA	Absolute Horizontal Accuracy in Meters	HORIZ_ACC
AVA	Absolute Vertical Accuracy in Meters	VERT_ACC
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
HOD	Horizontal Datum Classification	HORIZ_DATUM
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>RADAR_STATION</i>	HS116	
ACC	Accuracy Category	VERT_ACC

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HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
<i>RADAR_TRANSPONDER_BEACON</i> HS117		
ACC	Accuracy Category	HORIZ_ACC
CCC	Color Code Category	PRIMARY_COLOR
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
ZV2	Highest Z-Value	ELEVATION
<i>RADIO_CALLING_IN_POINT</i> HS118		
NAM	Name	FORMAL_NAME
<i>RADIO_STATION</i> HS119		
ACC	Accuracy Category	HORIZ_ACC
AOO	Angle of Orientation	ORIENTATION
AVA	Absolute Vertical Accuracy in Meters	VERT_ACC
BRF	Broadcast Frequency	COMM_CHANNEL
HOD	Horizontal Datum Classification	HORIZ_DATUM
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	MATERIAL

***FEATURE NAME***

NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION

***RAILROAD*** HS120

ACC	Accuracy Category	VERT_ACC
EXS	Existence Category	CONDITION
NAM	Name	FORMAL_NAME

***RAILROAD\_YARD*** HS121

CTL	Cumulative Track Length	TRACK_LENGTH
NAM	Name	COMMON_NAME
WID	Width	WIDTH

***RAPIDS*** HS122

LEN	Length/Diameter	HEIGHT
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH

***RECOMMENDED\_TRACK*** HS123

HDP	Hydrographic Depth	DEPTH
NAM	Name	FORMAL_NAME

***REEF*** HS124

ACC	Accuracy Category	HORIZ_ACC
HDP	Hydrographic Depth	DEPTH
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	MATERIAL
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH

***RESCUE\_STATION*** HS125

AAV	Absolute Vertical Accuracy	VERT_ACC
ACC	Accuracy Category	HORIZ_ACC
BFC	Building Function Category	FUNCTION
HGT	Height Above Surface Level	HEIGHT
IDN	Identification Number	IDENTIFIER
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	MATERIAL
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION

***RESTRICTED\_AREA*** HS126

TXT	Text Attribute	DESCRIPTION
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***RIVER*** HS128

LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
WDA	Water Depth Average	DEPTH
WID	Width	WIDTH

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<b>ROAD</b>	HS131	
ACC	Accuracy Category	HORIZ_ACC
EXS	Existence Category	CONDITION
MED	Median Category	MATERIAL
NAM	Name	FORMAL_NAME
RST	Road/Runway Surface Type	SURFACE
RTN	Route Number	DESIGNATOR
SMC	Surface Material Category	CONSTRUCTION
WID	Width	WIDTH
<b>RUNWAY</b>	HS132	
ACC	Accuracy Category	HORIZ_ACC
EXS	Existence Category	CONDITION
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
RST	Road/Runway Surface Type	SURFACE
SMC	Surface Material Category	CONSTRUCTION
UID	Unique Identifier	DESIGNATOR
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b>SAFETY_FAIRWAY</b>	HS133	
HDI	Hydrographic Depth /Height Information	VERT_DATUM
HDP	Hydrographic Depth	DEPTH
NAM	Name	FORMAL_NAME
<b>SEA-PLANE_LANDING_AREA</b>	HS136	
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
ZV3	Airfield/Aerodrome elevation	ELEVATION
<b>SHORELINE</b>	HS138	
ACC	Accuracy Category	VERT_ACC
SHO	Shoreline Category	FACC_CAT
SLT	Shoreline Type Category	S_57_CAT
TXT	Text Attribute	DESCRIPTION
VDC	Vertical Datum Category	VERT_DATUM
<b>SHORELINE_CONSTRUCTION</b>	HS139	
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
SMC	Surface Material Category	CONSTRUCTION
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b>SILO/TANK</b>	HS140	
AAH	Absolute Horizontal Accuracy	HORIZ_ACC
AAV	Absolute Vertical Accuracy	VERT_ACC
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
HOD	Horizontal Datum Classification	HORIZ_DATUM
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	CONSTRUCTION

NAM	Name	FORMAL_NAME
PRO	Product Category	PRODUCT
SSC	Structure Shape Category	SHAPE
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b><i>SLIPWAY</i></b> HS141		
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
<b><i>SOUNDING</i></b> HS144		
ACC	Accuracy Category	HORIZ_ACC
HDP	Hydrographic Depth	DEPTH
NAM	Name	FORMAL_NAME
<b><i>SPRING</i></b> HS145		
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
<b><i>STRAIGHT_TERRITORIAL_BASELINE</i></b> HS146		
NA4	Country Code	COUNTRY
NAM	Name	COMMON_NAME
<b><i>SUBMERGED_PIPELINE/CABLE</i></b> HS148		
AAV	Absolute Vertical Accuracy	VERT_ACC
AHA	Absolute Horizontal Accuracy in Meters	HORIZ_ACC
EXS	Existence Category	CONDITION
HOD	Horizontal Datum Classification	HORIZ_DATUM
LEN	Length/Diameter	HEIGHT
MCC	Material Composition Category	MATERIAL
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<b><i>SWAMP/MARSH</i></b> HS149		
NAM	Name	FORMAL_NAME
<b><i>SWEPT_AREA</i></b> HS150		
HDP	Hydrographic Depth	DEPTH
<b><i>TERRITORIAL_SEA_AREA</i></b> HS151		
NAM	Name	COMMON_NAME
OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<b><i>TIDAL_STREAM</i></b> HS152		
CRN	Current Rate Minimum	MIN_RATE
CRX	Current Rate Maximum	MAX_RATE
CUR	Current Type Category	S_57_CAT
NAM	Name	FORMAL_NAME
TXT	Text Attribute	DESCRIPTION
<b><i>TIDE_DATA_POINT</i></b> HS153		

NAM	Name	FORMAL_NAME
<i>TRAFFIC_SEPARATION_SCHEME</i> HS156		
IAS	IMO Adoption Status	STATUS
<i>TUNNEL</i> HS157		
EXS	Existence Category	CONDITION
HCA	Horizontal Clearance Attribute	HORIZ_CLEARAN
LEN	Length/Diameter	LENGTH
MVC	Maximum Vertical Clearance	VERT_CLEARANC
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
<i>TWO_WAY_ROUTE</i> HS159		
HDP	Hydrographic Depth	DEPTH
NAM	Name	COMMON_NAME
<i>UNSURVEYED_AREA</i> HS161		
NAM	Name	COMMON_NAME
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>VEGETATION</i> HS162		
NAM	Name	FORMAL_NAME
VEG	Vegetation Characteristics	S_57_CAT
<i>VISUAL_SIGNAL_STATION</i> HS163		
NAM	Name	FORMAL_NAME
STA	Station Type Category (Maritime)	S_57_CAT
<i>WATER_TOWER</i> HS165		
AAH	Absolute Horizontal Accuracy	HORIZ_ACC
AAV	Absolute Vertical Accuracy	VERT_ACC
EXS	Existence Category	CONDITION
HGT	Height Above Surface Level	HEIGHT
HOD	Horizontal Datum Classification	HORIZ_DATUM
LEN	Length/Diameter	LENGTH
MCC	Material Composition Category	CONSTRUCTION
NAM	Name	FORMAL_NAME
SSC	Structure Shape Category	SHAPE
TXT	Text Attribute	DESCRIPTION
UID	Unique Identifier	DESIGNATOR
VDC	Vertical Datum Category	VERT_DATUM
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>WATER_TURBULENCE</i> HS166		
NAM	Name	FORMAL_NAME
<i>WATERFALL</i> HS167		
DIR	Directivity	Directivity
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
WID	Width	WIDTH
ZV2	Highest Z-Value	ELEVATION
<i>WILDLIFE_MANAGEMENT_AREA</i> HS168		
HDP	Hydrographic Depth	DEPTH
NAM	Name	FORMAL_NAME

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OPS	Operational Status	STATUS
TXT	Text Attribute	DESCRIPTION
WID	Width	WIDTH
<i>WRECK</i>	HS169	
ACC	Accuracy Category	HORIZ_ACC
HDP	Hydrographic Depth	DEPTH
HGT	Height Above Surface Level	HEIGHT
LEN	Length/Diameter	LENGTH
NAM	Name	FORMAL_NAME
TNG	Tonnage	TONNAGE
TXT	Text Attribute	DESCRIPTION
WDT	Date of Report	DATE_START
WID	Width	WIDTH
WK1	Wreck Type	S_57_CAT
ZV2	Highest Z-Value	ELEVATION



**APPENDIX C1 - STANDARD CORRELATION OF REEGIS (Feature Cross Reference) (INFORMATIVE)**

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	REEGIS	REEGIS ATTRIBUTE/VALUE
ADMINISTRATION_AREA	City	CITY	
ADMINISTRATION_AREA	County	COUNTY	
ADMINISTRATION_AREA	State	STATE	
ADMINISTRATION_AREA	Coast Guard District	COAST GUARD DISTRICT	
ADMINISTRATION_AREA	COE District	CORPS DISTRICT	
AIRPORT/AIRFIELD		AIRFIELD	
ANCHORAGE_AREA		ANCHORAGE AREA	
BEACON		NAVIGATION MARKER	marker_type
BOAT_RAMP		BOAT RAMP	
BREAKWATER		JETTY	
BRIDGE		BRIDGE	
BRIDGE_PIER		BRIDGE PIER	
BUILDING		STRUCTURE	layer Building
BUILDING		STRUCTURE	layer Warehouse
BUILDING		STRUCTURE	layer Dwelling
BUILDING		STRUCTURE	layer Factory
BUOY		NAVIGATION BUOY	
CANAL		CANAL	
CHANNEL_RIVER_SYSTEM(SHALLOW)	Access	ACCESS CHANNEL	
CHANNEL_RIVER_SYSTEM(SHALLOW)	Alignment	CHANNEL ALIGNMENT	
CONTROL_POINT		HORIZONTAL CONTROL POINT	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	REGIS	REGIS ATTRIBUTE/VALUE
CURRENT		DIRECTION OF FLOW	
DAM		DAM AREA	
DAY_MARK		NAVIGATION MARKER	marker_type Passing
DEPTH_CONTOUR		DEPTH CONTOURS	
DISTANCE_MARK		RIVER MILE	
DOLPHIN		DOLPHIN	
DREDGED_AREA		DREDGED AREA	
DUMPING_GROUND		DISPOSAL AREA	
DYKE		DIKE	
FENDER		FENDER SYSTEM	
FERRY_ROUTE		FERRY CROSSING	
FLEETING_AREA		FLEETING AREA	
FLOOD_DIVERSION_AREA		FLOODWAY	
FLOODWALL		FLOODWALL	
GAUGING_STATION		GAGING STATION	
GRAIN_ELEVATOR/ELEVATOR		ELEVATOR	
GUIDE_WALL		LOCK GUIDE WALL	
HARBOR		HARBOR	
HARBOR_FACILITY		PORT	
ISLAND		ISLAND	
LAKE		LAKE	
LANDMARK	Tower	UTILITY TOWER	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	REGIS	REGIS ATTRIBUTE/VALUE
LEVEE		FRONTLINE LEVEE	
LOCK		LOCK	
LOCK_BASIN/LOCK_CHAMBER		LOCK CHAMBER	
MAJOR_INFLOW/OUTFLOW_STRUCTURE		MAJOR INFLOW/OUTFLOW STRUCTURE	
MAT_CASTING_FIELD		MAT CASTING FIELD	
MOORED_VESSEL		GAMING BOAT	
NAMED_WATER_AREA	Crossing	CROSSING	
NAMED_WATER_AREA	Chute	CHUTE	
NAMED_WATER_AREA	Bend	BEND	
NAVIGATION_LIGHT		NAVIGATION LIGHT	
OBSTRUCTION		NAV HAZARD	
OFFSHORE_PLATFORM		PLATFORM	
OVERHEAD_PIPELINE/CABLE		TRANSMISSION LINE	
PARK		PARK	
PARKING_AREA		PARKING AREA	
PORT_AUTHORITY		PORT AUTHORITY	
PRECAUTIONARY_AREA		SAFETY ZONE	
PRODUCTION_AREA		REFINERY	
RAILROAD		RAILROAD SINGLE	
RAILROAD_YARD		RAILROAD YARD	
RECOMMENDED_TRACK		SAILING LINE	
RIVER		PERENNIAL RIVER/PERENNIAL STREAM	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	REEGIS	REEGIS ATTRIBUTE/VALUE
RIVER_BANK		RIVER EDGE	
RIVER_ENGINEERING_STRUCTURE	Dike System	DIKE SYSTEM	
RIVER_ENGINEERING_STRUCTURE	Bendway Weir	BENDWAY WEIR	
RUNWAY		RUNWAY	
SAFETY_FAIRWAY		FAIRWAY	
SANDBAR		SANDBAR	
SHORELINE		WATER EDGE	
SHORELINE_CONSTRUCTION	Slope Paving	LEVEE SLOPE PAVING	
SHORELINE_CONSTRUCTION	ACM Revetment	ACM REVETMENT COMPOSITE	
SHORELINE_CONSTRUCTION	Stone Bank Paving	STONE BANK PAVING	
SILO/TANK		STRUCTURE	layer Tank
SILO/TANK		TANK	
SMALL_CRAFT_FACILITY		MARINA	
SOUNDING		SOUNDINGS	
SUBMERGED_PIPELINE/CABLE	Pipeline	PIPELINE	
SUBMERGED_PIPELINE/CABLE	TV Cable	CABLE TV LINE	
SUBMERGED_PIPELINE/CABLE	Telephone Cable	PHONE LINE	
SWAMP/MARSH		SWAMP	
TRAFFIC_SEPARATION_SCHEME		SAFETY ZONE	
TUNNEL		TUNNEL	
TURNING_BASIN		TURNING BASIN	
VEGETATION		LAND COVER	

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HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	REGIS	REGIS ATTRIBUTE/VALUE
WILDLIFE_MANAGEMENT_AREA	Federal	FEDERAL WILDLIFE MANAGEMENT AREA.	
WILDLIFE_MANAGEMENT_AREA	State	STATE WILDLIFE MANAGEMENT AREA	
WRECK		WRECK SUNKEN/EXPOSED	

**APPENDIX C2 - STANDARD CORRELATION OF REEGIS (Attribute Cross Reference) (INFORMATIVE)**

<i>ADMINISTRATION_AREA</i>	HS001
Pname	FORMAL_NAME
Ptype	CATEGORY
<i>AIRPORT/AIRFIELD</i>	HS002
Afname	FORMAL_NAME
<i>ANCHORAGE_AREA</i>	HS004
anname	FORMAL_NAME
permit id	PERMIT
<i>BEACON</i>	HS006
marker type	SPECIAL_PURPOSE
<i>BOAT_LIFT</i>	HS008
Wlabel	COMMON_NAME
<i>BOAT_RAMP</i>	HS009
Bdate	DATE_START
Bname	FORMAL_NAME
<i>BRIDGE</i>	HS012
bname	FORMAL_NAME
Bridge Drawing	DESCRIPTION
Bstatus	STATUS
btype	BRIDGE_TYPE
Road Elev	ELEVATION
vertical clearance	VERT_CLEARANCE
<i>BRIDGE_PIER</i>	HS013
Bname	FORMAL_NAME
<i>BUILDING</i>	HS015
Material Type	CONSTRUCTION
No of Floors	NO_FLOORS
Slab Elevation	ELEVATION
Sname	FORMAL_NAME
<i>BUOY</i>	HS017
Bname	FORMAL_NAME
Buoy Type	FACC_CAT
Flash Sequence	CHARACTER
<i>CHECKPOINT</i>	HS024
Project Depth	DEPTH
<i>CONTROL_POINT</i>	HS028
datum	VERT_DATUM
Elevation	ELEVATION
hdate	DATE_START
hdescription	DESCRIPTION
hname	FORMAL_NAME
<i>DAM</i>	HS033
Base Width	WIDTH
Cdate	DATE_START
Dname	FORMAL_NAME
Record Drawing	DESCRIPTION
Spillway Length	LENGTH

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<i>DAY_MARK</i>	HS034
mname	S_57_CAT
	FORMAL_NAME
<i>DEPTH_AREA</i>	HS036
year	RECORD_DATE
<i>DEPTH_CONTOUR</i>	HS037
Vdatum	VERT_DATUM
Water Surface Elevation	DEPTH
<i>DISTANCE_MARK</i>	HS038
River Mile	RIVER_MILE
Year	SOURCE_DATE
<i>DOLPHIN</i>	HS039
Dname	FORMAL_NAME
<i>DREDGED_AREA</i>	HS040
Cut Length	LENGTH
Permit No	PERMIT
Reach Name	FORMAL_NAME
Start Date	SOURCE_DATE
<i>DUMPING_GROUND</i>	HS042
dname	FORMAL_NAME
start date	SOURCE_DATE
<i>DYKE</i>	HS043
Dlength	LENGTH
Dname	COMMON_NAME
Weir Elevation	ELEVATION
<i>FENDER</i>	HS047
Flength	LENGTH
Fname	FORMAL_NAME
Width	WIDTH
<i>FERRY_ROUTE</i>	HS048
Fname	FORMAL_NAME
<i>FLEETING_AREA</i>	HS053
Fname	COMMON_NAME
Permit Number	PERMIT
Remarks	DESCRIPTION
<i>FLOOD_DIVERSION_AREA</i>	HS055
Fname	COMMON_NAME
Remarks	DESCRIPTION
<i>FLOODWALL</i>	HS056
Date Constructed	DATE_START
Elevation	ELEVATION
Fname	FORMAL_NAME
Height	HEIGHT
Record Drawing	DESCRIPTION
<i>FOUL_GROUND</i>	HS059
hname	FORMAL_NAME
htype	S_57_CAT

***FEATURE NAME***

<b><i>GAUGING_STATION</i></b>	HS062
Gage notes	DESCRIPTION
Gname	FORMAL_NAME
<b><i>GRAIN_ELEVATOR/ELEVATOR</i></b>	HS063
Material Type	CONSTRUCTION
Slab Elevation	ELEVATION
Sname	FORMAL_NAME
<b><i>GUIDE_WALL</i></b>	HS065
Lgname	FORMAL_NAME
Wall Length	LENGTH
<b><i>HARBOR</i></b>	HS066
Hname	COMMON_NAME
Project Depth	DEPTH
<b><i>HARBOR_FACILITY</i></b>	HS067
Port Name	FORMAL_NAME
<b><i>ICE_BOOM</i></b>	HS069
hname	FORMAL_NAME
htype	S_57_CAT
remarks	DESCRIPTION
<b><i>ISLAND</i></b>	HS072
Gname	FORMAL_NAME
Year	SOURCE_DATE
<b><i>LAKE</i></b>	HS074
Gname	FORMAL_NAME
Year	SOURCE_DATE
<b><i>LEVEE</i></b>	HS078
Levee Name	COMMON_NAME
<b><i>LOCK_BASIN/LOCK_CHAMBER</i></b>	HS081
Length	LENGTH
Lname	FORMAL_NAME
Width	WIDTH
<b><i>MOORED_VESSEL</i></b>	HS091
Gname	FORMAL_NAME
Permit No	PERMIT
<b><i>NAMED_WATER_AREA</i></b>	HS093
Rlname	FORMAL_NAME
<b><i>NAVIGATION_LIGHT</i></b>	HS094
Nname	COMMON_NAME
<b><i>OBSTRUCTION</i></b>	HS096
Hname	FORMAL_NAME
Htype	S_57_CAT
Remarks	DESCRIPTION
<b><i>OFFSHORE_PLATFORM</i></b>	HS098
Material Type	CONSTRUCTION
Slab elevation	ELEVATION
Sname	FORMAL_NAME



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<i>OVERHEAD_PIPELINE/CABLE</i>	HS101
Uname	COMMON_NAME
Vertical Clearance	VERT_CLEARANCE
<i>PARK</i>	HS102
Pname	COMMON_NAME
<i>PARKING_AREA</i>	HS103
Parking Spaces	SPACES
Pname	FORMAL_NAME
<i>PORT_AUTHORITY</i>	HS108
Pname	FORMAL_NAME
<i>PRECAUTIONARY_AREA</i>	HS109
Remarks	DESCRIPTION
Zname	FORMAL_NAME
<i>PRODUCTION_AREA</i>	HS110
Material Type	MATERIAL
Slab Elevation	ELEVATION
Sname	FORMAL_NAME
<i>RAILROAD</i>	HS120
Rname	FORMAL_NAME
<i>RAILROAD_YARD</i>	HS121
Rname	COMMON_NAME
<i>RIVER</i>	HS128
Sname	FORMAL_NAME
<i>RIVER_BANK</i>	HS129
Condition	CONDITION
<i>RIVER_ENGINEERING_STRUCTURE</i>	HS130
Blength	LENGTH
name	FORMAL_NAME
Original Condition	CONDITION
Remarks	DESCRIPTION
<i>ROAD</i>	HS131
Rname	FORMAL_NAME
<i>RUNWAY</i>	HS132
Afname	FORMAL_NAME
<i>SAFETY_FAIRWAY</i>	HS133
Fname	FORMAL_NAME
Remarks	DESCRIPTION
<i>SANDBAR</i>	HS135
Gname	FORMAL_NAME
Year	RECORD_DATE
<i>SHORELINE_CONSTRUCTION</i>	HS139
Original Condition	CONDITION
Record Drawing	DESCRIPTION
Rname	FORMAL_NAME
Stone Finish Date	DATE_END
Stone Start Date	DATE_START
Stone Type	CONSTRUCTION

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Top Elevation	ELEVATION
<i>SILO/TANK</i>	HS140
Material Type	CONSTRUCTION
Slab Elevation	ELEVATION
Sname	FORMAL_NAME
<i>SMALL_CRAFT_FACILITY</i>	HS143
Cdate	SOURCE_DATE
Mname	FORMAL_NAME
<i>SOUNDING</i>	HS144
Vdatum	VERT_DATUM
<i>SUBMERGED_PIPELINE/CABLE</i>	HS148
Date Constructed	SOURCE_DATE
Diameter	DIAMETER
Pname	COMMON_NAME
Transport Mat	PRODUCT
Uname	FORMAL_NAME
<i>TRAFFIC_SEPARATION_SCHEME</i>	HS156
Remarks	DESCRIPTION
Zname	FORMAL_NAME
<i>TURNING_BASIN</i>	HS158
Cdate	SOURCE_DATE
Record Drawing	DESCRIPTION
Tlength	LENGTH
Tname	FORMAL_NAME
Twidth	WIDTH
<i>WILDLIFE_MANAGEMENT_AREA</i>	HS168
Mname	FORMAL_NAME
<i>WRECK</i>	HS169
Remarks	DESCRIPTION
Wname	FORMAL_NAME
Wtype	S_57_CAT

**APPENDIX D1 - STANDARD CORRELATION OF TSSDS (Feature Cross Reference) (INFORMATIVE)**

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	TSSDS	TSSDS ATTRIBUTE/VALUE
ADMINISTRATION_AREA	COE District	DISTRICT AREA	dis_typ_d COE
ADMINISTRATION_AREA	Coast Guard District	DISTRICT AREA	dis_typ_d COAST_GUARD
ADMINISTRATION_AREA	State	POLITICAL JURISDICTION AREA	govern_d STATE
ADMINISTRATION_AREA	County	POLITICAL JURISDICTION AREA	govern_d COUNTY
ADMINISTRATION_AREA	City	POLITICAL JURISDICTION AREA	govern_d MUNICIPALITY
AIRPORT/AIRFIELD		AIRFIELD	
ANCHOR_BERTH		ANCHOR BERTH	
ANCHORAGE_AREA		RESTRICTED ANCHORAGE AREA	
AQUATIC_VEGETATION_AREA		AQUATIC VEGETATION AREA	
BEACON		MARINE NAVIGATION BEACON	
BERTH		BERTH	
BOAT_RAMP		BOAT RAMP	
BREAKWATER		JETTY	
BRIDGE		ROAD BRIDGE AREA	
BRIDGE_PIER		PYLON/PIER SUPPORT	
BUILDING		PERMANENT STRUCTURE	
BUOY		BUOY	
CANAL		CANAL	
CAUSEWAY		CAUSEWAY	
CAUTION_AREA		CAUTION AREA	
CHECKPOINT		CHECKPOINT	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	TSSDS	TSSDS ATTRIBUTE/VALUE
COAST_GUARD_STATION		COAST GUARD STATION	
CONTROL_POINT		CONTROL POINT	
CONVEYOR		CONVEYOR	
CRANE		CRANE	
CURRENT		FLOW DIRECTION ARROW	
DAM		DAM	
DEEP_WATER_ROUTE		DEEP WATER ROUTE	
DEPTH_CONTOUR		DEPTH CONTOUR	
DISTANCE_MARK		DISTANCE MARKER	
DOLPHIN		DOLPHIN	
DREDGED_AREA		DREDGED AREA	
DRYDOCK		DRYDOCK	
DUMPING_GROUND		DREDGED BANK	
DYKE		DIKE	
ELEVATION		SPOT ELEVATION	spot_typ_d GROUND
FENCE/WALL		FENCE	
FENDER		MARINE FENDER	
FERRY_ROUTE		FERRY CROSSING	
FISHING_GROUND		FISHING SITE	
FLEETING_AREA		FLEETING SITE	
FLOATING_DOCK		FLOATING DRYDOCK	
FLOOD_DIVERSION_AREA		FLOODWAY	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	TSSDS	TSSDS ATTRIBUTE/VALUE
FLOODWALL		FLOODWALL	
GAUGING_STATION		GAUGING STATION	
GRAIN_ELEVATOR/ELEVATOR		GRAIN ELEVATOR	
GUIDE_WALL		LOCK GUIDE WALL	
HARBOR		HARBOR	
ICE_AREA		ICE	
ISLAND		ISLAND	
LAKE		SURFACE WATER BODY	perman_d PERMANENT
LANDING_PLACE		LANDING SITE	
LANDMARK	Smokestack/Chimney	SMOKESTACK/CHIMNEY POINT	
LEADING_LINE		NAVIGATION RANGE LINE	
LEVEE		LEVEE	
LIGHT_VESSEL/LIGHTSHIP		NAVIGATION LIGHT	
LOCK		LOCK	
LOCK_BASIN/LOCK_CHAMBER		LOCK CHAMBER	
LOG_POND		LOG POND	
MAJOR_INFLOW/OUTFLOW_STRUCTURE		STORM SEWER HEADWALL POINT	
MARINE_FARM		WATER FARM	
MAT_CASTING_FIELD		CASTING FIELD	
MOORED_VESSEL		MOORED VESSEL	
NAMED_WATER_AREA		NAMED RIVER FEATURE	
NAVIGATION_LINE		NAVIGATION RANGE LINE	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	TSSDS	TSSDS ATTRIBUTE/VALUE
OBSTRUCTION		NAVIGATION OBSTRUCTION SITE	obstyp_d (All Other)
OVERHEAD_PIPELINE/CABLE	Electrical Cable	ELECTRICAL CABLE	instl_ty_d SERVICE_OH
OVERHEAD_PIPELINE/CABLE	Electrical Cable	ELECTRICAL CABLE	instl_ty_d PRIMARY_OH
OVERHEAD_PIPELINE/CABLE	Electrical Cable	ELECTRICAL CABLE	instl_ty_d SECONDARY_OH
PARK		RECREATION PARK	
PARKING_AREA		PARKING LOT	
PIER/WHARF/QUAY		MOORING FACILITY	
PILOT_BOARDING_PLACE		PILOT BOARDING SITE	
PONTOON		FLOATING PONTOON	
PORT_AUTHORITY		DISTRICT AREA	dis_typ_d PORT AUTHORITY
PYLON		UTILITY POLE TOWER	design_d POLE
RADIO_CALLING_IN_POINT		CALLING IN POINT	
RAILROAD		RAILROAD CENTERLINE	
RAILROAD_YARD		RAILROAD YARD	
RAPIDS		RAPIDS	
RECOMMENDED_TRACK		RECOMMENDED ROUTE LINE	
REEF		NAVIGATION OBSTRUCTION SITE	obstyp_d REEF
RESTRICTED_AREA		MARINE RESTRICTION AREA	
RIVER		SURFACE WATER COURSE	perman_d PERMANENT
RIVER_BANK		RIVER BANK LINE	
RIVER_ENGINEERING_STRUCTURE	Bendway Weir	BENDWAY WEIR SYSTEM	
ROAD		ROAD	

HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	TSSDS	TSSDS ATTRIBUTE/VALUE
RUNWAY		AIRFIELD SURFACE	sur_use_d RUNWAY
SAND_WAVES		SHOAL	
SANDBAR		SANDBAR	
SEA-PLANE_LANDING_AREA		SEA PLANE LANDING AREA	
SHORELINE		SHORELINE	
SHORELINE_CONSTRUCTION	Stone Bank Paving	STONE BANK PAVING AREA	
SMALL_CRAFT_FACILITY		SMALL CRAFT MARINA	
SOUNDING		SOUNDING	
SPRING		SPRING	
STRAIGHT_TERRITORIAL_BASELINE		STRAIGHT TERRITORIAL BASELINE	
SUBMARINE_TRANSIT_LANE		SUBMARINE ROUTE	
SUBMERGED_PIPELINE/CABLE	TV Cable	CABLE TELEVISION LINE	cab_elev_d
SUBMERGED_PIPELINE/CABLE	TV Cable	CABLE TELEVISION LINE	cab_elev_d
SWEPT_AREA		DEPTH MAINTENANCE AREA	clrmth_d SWEPT
TRAFFIC_SEPARATION_SCHEME		TRAFFIC SEPARATION SCHEME	
TUNNEL		TUNNEL	
TURNING_BASIN		TURNING BASIN	
UNDERWATER_ROCK		UNDERWATER ROCK	
UNSURVEYED_AREA		UNSURVEYED AREA	
VEGETATION		LAND VEGETATION AREA	
WAITING_AREA/LOCK_ARRIVAL_POINT		LOCK ARRIVAL POINT	
WATER_TOWER		WATER TANK	

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HYDRO STANDARD FEATURE	HYDRO ATTRIBUTE/VALUE	TSSDS	TSSDS ATTRIBUTE/VALUE
WATER_TURBULENCE		WATER TURBULENCE	
WATERFALL		WATERFALL	
WRECK		WRECK	



**APPENDIX D2 - STANDARD CORRELATION OF TSSDS (Attribute Cross Reference)**

<b>ADMINISTRATION_AREA</b>		HS001	
bdjurpol	dist_desc		DESCRIPTION
bdjurpol	dist_name		FORMAL_NAME
bdjurpol	govern_d		CATEGORY
bdjurpol	polit_name		COMMON_NAME
<b>AIRPORT/AIRFIELD</b>		HS002	
traflafd	active_d		STATUS
traflafd	feat_name		FORMAL_NAME
<b>ANCHOR_BERTH</b>		HS003	
trmaranc	feat_name		FORMAL_NAME
<b>ANCHORAGE_AREA</b>		HS004	
trmaracg	feat_name		FORMAL_NAME
trmaracg	permit_no		PERMIT
trmaracg	restrictn		RESTRICTION
<b>AQUATIC_VEGETATION_AREA</b>		HS005	
flhabaqv	date_surv		SOURCE_DATE
flhabaqv	feat_name		FORMAL_NAME
flhabaqv	veg_desc		DESCRIPTION
<b>BEACON</b>		HS006	
trnavbec	beac_con_d		CONSTRUCTION
trnavbec	color_d		PRIMARY_COLOR
trnavbec	feat_name		FORMAL_NAME
<b>BERTH</b>		HS007	
trhrbber	feat_name		FORMAL_NAME
<b>BOAT_LIFT</b>		HS008	
flhabaqv	date_surv		SOURCE_DATE
flhabaqv	feat_name		FORMAL_NAME
flhabaqv	veg_desc		DESCRIPTION
trnavwrk	wrk_label		COMMON_NAME
<b>BOAT_RAMP</b>		HS009	
imrecbtr	date_end		DATE_END
imrecbtr	feat_desc		DESCRIPTION
imrecbtr	feat_name		FORMAL_NAME
<b>BREAKWATER</b>		HS011	
trhrbjct	feat_name		FORMAL_NAME
<b>BRIDGE</b>		HS012	
trvehbrg	brdg_ht		HEIGHT
trvehbrg	brdg_len		LENGTH
trvehbrg	brdg_stt_d		STATUS
trvehbrg	brdg_typ_d		BRIDGE_TYPE
trvehbrg	brg_draw		DESCRIPTION
trvehbrg	brg_mat_d		CONSTRUCTION
trvehbrg	brg_width		WIDTH
trvehbrg	color_d		PRIMARY_COLOR
trvehbrg	date_dedic		DATE_START
trvehbrg	feat_name		FORMAL_NAME
trvehbrg	road_elev		ELEVATION
trvehbrg	struct_num		DESIGNATOR

trvehbrg	vert_clr		VERT_CLEARANC
<b>BRIDGE_PIER</b>		HS013	
trgenpyl	feat_name		FORMAL_NAME
<b>BUILDING</b>		HS015	
bggenstr	narrative		DESCRIPTION
bggenstr	str_cnd_d		CONDITION
bggenstr	structght		HEIGHT
bggenstr	structname		FORMAL_NAME
<b>BUOY</b>		HS017	
trnavboy	buoy_typ_d		FACC_CAT
trnavboy	color_d		PRIMARY_COLOR
trnavboy	feat_name		FORMAL_NAME
trnavboy	flash_seq		CHARACTER
trnavboy	narrative		DESCRIPTION
trnavboy	shape_d		SHAPE
<b>CANAL</b>		HS018	
hysurcrs	crs_desc		DESCRIPTION
hysurcrs	crs_name		FORMAL_NAME
hysurcrs	length		LENGTH
hysurcrs	perman_d		STATUS
hysurcrs	veloc_mean		WATER_VELOCIT
<b>CAUTION_AREA</b>		HS021	
trmarcau	feat_name		COMMON_NAME
trmarcau	narrative		DESCRIPTION
<b>CHANNEL_MAINTAINED(DEEP_DRAF</b>		HS023	
trmarchn	date_end		DATE_END
trmarchn	date_srv		SOURCE_DATE
trmarchn	dep_dat_d		VERT_DATUM
trmarchn	feat_name		FORMAL_NAME
<b>COAST_GUARD_STATION</b>		HS025	
trgenchk	narrative		DESCRIPTION
trnavcgs	feat_name		FORMAL_NAME
<b>CONTROL_POINT</b>		HS028	
gdsrvmnt	adj_elev		ELEVATION
gdsrvmnt	date_estab		DATE_START
gdsrvmnt	date_recov		SOURCE_DATE
gdsrvmnt	feat_name		FORMAL_NAME
gdsrvmnt	narrative		DESCRIPTION
gdsrvmnt	vert_acc_d		VERT_ACC
gdsrvmnt	vert_dat_d		VERT_DATUM
<b>CONVEYOR</b>		HS029	
immaccon	feat_desc		DESCRIPTION
immaccon	feat_len		LENGTH
immaccon	feat_name		FORMAL_NAME
immaccon	width		WIDTH
<b>CRANE</b>		HS030	
immaccrn	feat_name		FORMAL_NAME

***FEATURE NAME***

	immaccrn	height		HEIGHT
<b><i>DAM</i></b>			HS033	
	imfdcdam	base_width		WIDTH
	imfdcdam	dam_typ_d		CONSTRUCTION
	imfdcdam	date_built		DATE_START
	imfdcdam	end_date		DATE_END
	imfdcdam	feat_name		FORMAL_NAME
	imfdcdam	rec_draw		DESCRIPTION
	imfdcdam	splw_lgth		LENGTH
<b><i>DEEP_WATER_ROUTE</i></b>			HS035	
	trmarrte	dep_dat_d		VERT_DATUM
	trmarrte	narrative		DESCRIPTION
<b><i>DEPTH_CONTOUR</i></b>			HS037	
	lfbthdep	area_desc		DESCRIPTION
	lfbthdep	water_dep		DEPTH
<b><i>DISTANCE_MARK</i></b>			HS038	
	hysurdis	dis_ref		DESCRIPTION
	hysurdis	year		SOURCE_DATE
<b><i>DOLPHIN</i></b>			HS039	
	trhrbdol	feat_name		FORMAL_NAME
<b><i>DREDGED_AREA</i></b>			HS040	
	imfdcspl	date_start		SOURCE_DATE
	imfdcspl	feat_name		FORMAL_NAME
<b><i>DRYDOCK</i></b>			HS041	
	trhrbdry	feat_name		FORMAL_NAME
<b><i>DUMPING_GROUND</i></b>			HS042	
	imfdcspl	feat_name		FORMAL_NAME
<b><i>DYKE</i></b>			HS043	
	imfdcdik	date_start		SOURCE_DATE
	imfdcdik	feat_name		COMMON_NAME
	imfdcdik	length		LENGTH
	imfdcdik	narrative		DESCRIPTION
	imfdcdik	weir_elev		ELEVATION
<b><i>ELEVATION</i></b>			HS044	
	lfhypspt	elevation		ELEVATION
	lfhypspt	feat_desc		DESCRIPTION
<b><i>FENCE/WALL</i></b>			HS046	
	imgenfnc	date_erect		SOURCE_DATE
	imgenfnc	fenc_typ_d		CONSTRUCTION
	imgenfnc	fence_ht		HEIGHT
<b><i>FENDER</i></b>			HS047	
	trhrbfen	date_inst		DATE_START
	trhrbfen	feat_len		LENGTH
	trhrbfen	feat_name		FORMAL_NAME
	trhrbfen	width		WIDTH
<b><i>FERRY_ROUTE</i></b>			HS048	
	trmarrte	ferry_name		FORMAL_NAME

trmarrte	narrative		DESCRIPTION
<b>FISHING_GROUND</b>		HS051	
imrecfsh	feat_desc		DESCRIPTION
imrecfsh	feat_name		FORMAL_NAME
<b>FLEETING_AREA</b>		HS053	
trmarflt	feat_name		COMMON_NAME
trmarflt	narrative		DESCRIPTION
trmarflt	permit_no		PERMIT
<b>FLOATING_DOCK</b>		HS054	
trhrbfld	feat_name		FORMAL_NAME
<b>FLOOD_DIVERSION_AREA</b>		HS055	
imfdcfld	feat_name		COMMON_NAME
imfdcfld	narrative		DESCRIPTION
<b>FLOODWALL</b>		HS056	
imfdcwal	date_built		DATE_END
imfdcwal	elevation		ELEVATION
imfdcwal	feat_name		FORMAL_NAME
imfdcwal	wall_ht		HEIGHT
<b>GAUGING_STATION</b>		HS062	
imfdcgag	date_inst		DATE_START
imfdcgag	feat_name		FORMAL_NAME
imfdcgag	gage_desc		DESCRIPTION
<b>GRAIN_ELEVATOR/ELEVATOR</b>		HS063	
immacgel	date_built		SOURCE_DATE
immacgel	feat_name		FORMAL_NAME
immacgel	max_ht		HEIGHT
immacgel	str_mat_d		CONSTRUCTION
<b>GUIDE_WALL</b>		HS065	
trlocgwl	feat_len		LENGTH
trlocgwl	feat_name		FORMAL_NAME
<b>HARBOR</b>		HS066	
trhrbare	feat_name		FORMAL_NAME
trhrbare	start_date		SOURCE_DATE
trhrbare	wat_depth		DEPTH
<b>HARBOR_FACILITY</b>		HS067	
trhrbter	featname		FORMAL_NAME
trhrbter	narrative		DESCRIPTION
<b>ICE_AREA</b>		HS068	
hyiceare	feat_desc		DESCRIPTION
hyiceare	feat_name		FORMAL_NAME
<b>ISLAND</b>		HS072	
lftopisl	feat_desc		DESCRIPTION
lftopisl	feat_name		FORMAL_NAME
lftopisl	inhab_d		STATUS
<b>LAKE</b>		HS074	
hysurwbd	body_desc		DESCRIPTION
hysurwbd	body_name		FORMAL_NAME

	hysurwbd	body_typ_d	FACC_CAT
	hysurwbd	year	SOURCE_DATE
<b>LANDMARK</b>			HS076
	immacwnd	floor_elev	ELEVATION
	immacwnd	narrative	DESCRIPTION
	immacwnd	str_cnd_d	CONDITION
	immacwnd	str_mat_d	CONSTRUCTION
	immacwnd	str_stat_d	STATUS
	immacwnd	str_use_d	FUNCTION
	immacwnd	structght	HEIGHT
	immacwnd	structname	FORMAL_NAME
<b>LEVEE</b>			HS078
	imeroacm	date_start	SOURCE_DATE
	imeroacm	feat_name	COMMON_NAME
	imeroacm	narrative	DESCRIPTION
<b>LIGHT_VESSEL/LIGHTSHIP</b>			HS079
	trnavlit	flash_seq	PERIOD
	trnavlit	lit_desig	FORMAL_NAME
<b>LOCK</b>			HS080
	trlocsys	elev_delta	ELEVATION
	trlocsys	lock_desig	FORMAL_NAME
<b>LOCK_BASIN/LOCK_CHAMBER</b>			HS081
	trloccha	date_built	DATE_START
	trloccha	feat_len	LENGTH
	trloccha	lock_desig	FORMAL_NAME
	trloccha	width	WIDTH
<b>LOG_POND</b>			HS082
	hysurlog	feat_name	FORMAL_NAME
	hysurlog	narrative	DESCRIPTION
<b>MAJOR_INFLOW/OUTFLOW_STRUCT</b>			HS085
	utstohdw	feat_desc	DESCRIPTION
	utstohdw	feat_name	FORMAL_NAME
<b>MARINE_FARM</b>			HS086
	famgtffa	feat_desc	DESCRIPTION
	famgtffa	feat_name	FORMAL_NAME
<b>MOORED_VESSEL</b>			HS091
	trhrbves	feat_name	FORMAL_NAME
	trhrbves	permit_no	PERMIT
<b>MOORING_FACILITY</b>			HS092
	trhrbmt	feat_name	FORMAL_NAME
<b>NAMED_WATER_AREA</b>			HS093
	hysurriv	feat_name	FORMAL_NAME
<b>OBSTRUCTION</b>			HS096
	trnavobs	feat_name	FORMAL_NAME
	trnavobs	narrative	DESCRIPTION
	trnavobs	obstyp_d	S_57_CAT
<b>OFFSHORE_PLATFORM</b>			HS098

immacplt	date_start		DATE_START
immacplt	feat_name		FORMAL_NAME
immacplt	str_mat_d		CONSTRUCTION
<b>OVERHEAD_PIPELINE/CABLE</b>		HS101	
utelecgp	cbl_length		LENGTH
utelecgp	cbl_mat_d		MATERIAL
utelecgp	cbl_typ_d		S_57_CAT
utelecgp	dispostn_d		STATUS
utelecgp	feat_desc		DESCRIPTION
utelecgp	feat_name		FORMAL_NAME
utelecgp	vert_clr		VERT_CLEARANC
<b>PARK</b>		HS102	
imrecprk	feat_name		COMMON_NAME
<b>PARKING_AREA</b>		HS103	
trvehprk	feat_desc		DESCRIPTION
trvehprk	feat_name		FORMAL_NAME
trvehprk	park_len		LENGTH
trvehprk	tot_spaces		SPACES
trvehprk	width		WIDTH
<b>PIER/WHARF/QUAY</b>		HS104	
trhrbmor	feat_name		FORMAL_NAME
<b>PILOT_BOARDING_PLACE</b>		HS106	
trmarplt	narrative		DESCRIPTION
<b>PONTOON</b>		HS107	
trgenpon	narrative		DESCRIPTION
<b>PORT_AUTHORITY</b>		HS108	
bdjurdst	dist_desc		DESCRIPTION
bdjurdst	dist_name		FORMAL_NAME
<b>PRODUCTION_AREA</b>		HS110	
bggenstr	built_date		DATE_START
bggenstr	demol_date		DATE_END
bggenstr	floor_elev		ELEVATION
bggenstr	narrative		DESCRIPTION
bggenstr	str_cnd_d		CONDITION
bggenstr	str_mat_d		MATERIAL
bggenstr	str_stat_d		STATUS
bggenstr	structght		HEIGHT
bggenstr	structname		FORMAL_NAME
<b>PYLON</b>		HS112	
utgenpol	cond_d		CONDITION
utgenpol	date_acqrd		DATE_START
utgenpol	feat_name		FORMAL_NAME
utgenpol	mat_d		CONSTRUCTION
utgenpol	narrative		DESCRIPTION
utgenpol	poleheight		HEIGHT
utgenpol	type_d		S_57_CAT
<b>RADIO_CALLING_IN_POINT</b>		HS118	
trmarcal	feat_name		FORMAL_NAME

	trmarcal	narrative		DESCRIPTION
<b><i>RAILROAD</i></b>			HS120	
	trrrdrcl	feat_desc		DESCRIPTION
	trrrdrcl	feat_name		FORMAL_NAME
	trrrdrcl	line_stt_d		STATUS
	trrrdrcl	rst_typ_d		CONDITION
<b><i>RAILROAD_YARD</i></b>			HS121	
	trrrdyrd	yard_name		COMMON_NAME
<b><i>RAPIDS</i></b>			HS122	
	hysurrap	feat_desc		DESCRIPTION
	hysurrap	feat_leng		HEIGHT
	hysurrap	feat_name		FORMAL_NAME
	hysurrap	feat_width		WIDTH
<b><i>RECOMMENDED_TRACK</i></b>			HS123	
	trmarnte	dep_dat_d		VERT_DATUM
	trmarnte	mean_depth		DEPTH
	trmarnte	narrative		DESCRIPTION
<b><i>REEF</i></b>			HS124	
	trnavobs	feat_name		FORMAL_NAME
<b><i>RESTRICTED_AREA</i></b>			HS126	
	trmarres	restrction		RESTRICTION
<b><i>RIVER</i></b>			HS128	
	hysurcrs	crs_desc		DESCRIPTION
	hysurcrs	feat_name		FORMAL_NAME
	hysurcrs	length		LENGTH
	hysurcrs	perman_d		STATUS
<b><i>RIVER_BANK</i></b>			HS129	
	gdsrvmnt	recov_cond		CONDITION
<b><i>RIVER_ENGINEERING_STRUCTURE</i></b>			HS130	
	imerobdw	date_built		DATE_START
	imerobdw	feat_name		FORMAL_NAME
	imerobdw	length		LENGTH
	imerobdw	narrative		DESCRIPTION
	imerobdw	ori_cond		CONDITION
<b><i>ROAD</i></b>			HS131	
	trvehrds	divided_d		MATERIAL
	trvehrds	feat_desc		DESCRIPTION
	trvehrds	feat_name		FORMAL_NAME
	trvehrds	isur_seg_d		CONDITION
	trvehrds	op_stat_d		STATUS
	trvehrds	seg_typ_d		S_57_CAT
	trvehrds	seg_width		WIDTH
	trvehrds	srf_typ_d		CONSTRUCTION
<b><i>RUNWAY</i></b>			HS132	
	traisur	air_cls_d		S_57_CAT
	traisur	feat_name		FORMAL_NAME
	traisur	feat_width		WIDTH
	traisur	run_stt_d		STATUS

			DESCRIPTION
	trairsur	scope_code	
<i>SAND_WAVES</i>		HS134	
	lfbthshl	feat_desc	DESCRIPTION
<i>SANDBAR</i>		HS135	
	lfbthbar	area_desc	DESCRIPTION
	lfbthbar	area_name	FORMAL_NAME
	lfbthbar	vsmpl date	SOURCE_DATE
<i>SEA-PLANE_LANDING_AREA</i>		HS136	
	trairseas	feat_name	FORMAL_NAME
	trairseas	restrictn	RESTRICTION
<i>SHORELINE</i>		HS138	
	hycznsr	bank_typ_d	FACC_CAT
	hycznsr	shore_name	FORMAL_NAME
	hycznsr	shr_typ_d	S_57_CAT
<i>SHORELINE_CONSTRUCTION</i>		HS139	
	imerostn	acm_length	LENGTH
	imerostn	date_built	DATE_START
	imerostn	date_end	DATE_END
	imerostn	feat_name	FORMAL_NAME
	imerostn	ori_cond	CONDITION
	imerostn	rec_draw	DESCRIPTION
	imerostn	revt_stt_d	STATUS
	imerostn	stn_typ_d	CONSTRUCTION
	imerostn	top_elev	ELEVATION
	imerostn	vert_dat_d	VERT_DATUM
<i>SILO/TANK</i>		HS140	
	utgastnk	date_built	SOURCE_DATE
	utgastnk	dispostn_d	STATUS
	utgastnk	feat_name	FORMAL_NAME
	utgastnk	max_ht	HEIGHT
	utgastnk	model_no	DESIGNATOR
	utgastnk	narrative	DESCRIPTION
	utgastnk	str_mat_d	CONSTRUCTION
	utgastnk	tank_legth	LENGTH
	utgastnk	tank_st_d	S_57_CAT
	utgastnk	tank_width	WIDTH
	utgastnk	top_elv	ELEVATION
<i>SMALL_CRAFT_FACILITY</i>		HS143	
	imrecmar	date_built	SOURCE_DATE
	imrecmar	feat_name	FORMAL_NAME
<i>SOUNDING</i>		HS144	
	lfbthdep	area_desc	DESCRIPTION
	lfbthdep	water_dep	DEPTH
<i>SPRING</i>		HS145	
	hysurspr	feat_desc	DESCRIPTION
	hysurspr	feat_name	FORMAL_NAME
<i>STRAIGHT_TERRITORIAL_BASELINE</i>		HS146	
	bdjurstb	authority	COUNTRY



bdjurstb	feat_name		COMMON_NAME
<i>SUBMARINE_TRANSIT_LANE</i>		HS147	
trmarrte	narrative		DESCRIPTION
<i>SUBMERGED_PIPELINE/CABLE</i>		HS148	
cotelcab	cbl_length		HEIGHT
cotelcab	cbl_mat_d		MATERIAL
cotelcab	cbl_typ_d		S_57_CAT
cotelcab	feat_desc		DESCRIPTION
cotelcab	feat_name		FORMAL_NAME
<i>SWAMP/MARSH</i>		HS149	
hywetlnd	nwi_cls_d		S_57_CAT
hywetlnd	wetln_desc		DESCRIPTION
hywetlnd	wetln_name		FORMAL_NAME
<i>SWEPT_AREA</i>		HS150	
lfbthsub	feat_desc		DESCRIPTION
lfbthsub	vert_dat_d		VERT_DATUM
<i>TRAFFIC_SEPARATION_SCHEME</i>		HS156	
trmarsep	feat_name		FORMAL_NAME
trmarsep	narrative		DESCRIPTION
<i>TUNNEL</i>		HS157	
trgentun	avg_wd		WIDTH
trgentun	feat_name		FORMAL_NAME
trgentun	length_tun		LENGTH
<i>TURNING_BASIN</i>		HS158	
trhrbtrn	date_start		SOURCE_DATE
trhrbtrn	feat_name		FORMAL_NAME
trhrbtrn	length		LENGTH
trhrbtrn	rec_draw		DESCRIPTION
trhrbtrn	width		WIDTH
<i>UNDERWATER_ROCK</i>		HS160	
lfbthudr	dep_dat_d		VERT_DATUM
<i>UNSURVEYED_AREA</i>		HS161	
lfbthuns	area_desc		DESCRIPTION
lfbthuns	date_desig		SOURCE_DATE
<i>VEGETATION</i>		HS162	
flhabveg	date_sampl		SOURCE_DATE
flhabveg	feat_desc		DESCRIPTION
flhabveg	fgdc_cls_d		S_57_CAT
<i>WATER_TOWER</i>		HS165	
utwattnk	date_aqrd		SOURCE_DATE
utwattnk	dispostn_d		CONDITION
utwattnk	narrative		DESCRIPTION
utwattnk	tank_lgth		LENGTH
utwattnk	tank_width		WIDTH
utwattnk	top_elv		ELEVATION
<i>WATER_TURBULENCE</i>		HS166	
hysurtrb	cause		DESCRIPTION

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hysurtrb	feat_name		FORMAL_NAME
<i>WATERFALL</i>		HS167	
hysurwft	feat_desc		DESCRIPTION
hysurwft	feat_height		HEIGHT
hysurwft	feat_leng		LENGTH
hysurwft	feat_name		FORMAL_NAME
hysurwft	feat_width		WIDTH
<i>WRECK</i>		HS169	
trnavwrk	narrative		DESCRIPTION
trnavwrk	ves_name		FORMAL_NAME
trnavwrk	wrck_typ_d		S_57_CAT