**1. Meta Feature Types**

**1.1. Data Coverage**

**Definition:** A geographical area that describes the coverage and extent of spatial objects.

**CamelCase:** DataCoverage

**Alias:** M\_COVR

**Super type:**

**Feature use type:** meta

**Primitive:** surface

**Remarks:** No remarks.

**2. Geo Feature Types**

**2.1. Feature Type**

**Definition:** Generalized feature type which carries all the common attributes.

**CamelCase:** FeatureType

**Alias:**

**Super type:**

**Feature use type:** geographic

**Primitive:** noGeometry

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Feature Name |  |  | C | 0, \* |
| Display Name |  |  | (S) BO | 0, 1 |
| Language |  |  | (S) TE | 1, 1 |
| Name | (OBJNAM) |  | (S) TE | 1, 1 |
| Fixed Date Range |  |  | C | 0, 1 |
| Date Start | (DATSTA) |  | (S) TD | 0, 1 |
| Date End | (DATEND) |  | (S) TD | 0, 1 |
| Reported Date | (SORDAT) |  | TD | 0, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Associated RxN |  |  |  | **AbstractRxN** | theRxN | 0, \* |
| association | Additional Information |  |  |  | **NauticalInformation** | providesInformation | 0, \* |

**2.2. Restricted Area**

**Definition:** A specified area designated by an appropriate authority within which navigation is restricted in accordance with certain specified conditions.

**CamelCase:** RestrictedArea

**Alias:** RESARE

**Super type:** FeatureType

**Feature use type:** geographic

**Primitive:** surface

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Restricted Area | (CATREA) | 1 : Offshore Safety Zone  4 : Nature Reserve  5 : Bird Sanctuary  6 : Game Reserve  7 : Seal Sanctuary  8 : Degaussing Range  9 : Military Area  10 : Historic Wreck Area  12 : Navigational Aid Safety Zone  14 : Minefield  18 : Swimming Area  19 : Waiting Area  20 : Research Area  21 : Dredging Area  22 : Fish Sanctuary  23 : Ecological Reserve  24 : No Wake Area  25 : Swinging Area  26 : Water Skiing Area  27 : Environmentally Sensitive Sea Area  28 : Particularly Sensitive Sea Area  29 : Disengagement Area  30 : Port Security Area  31 : Coral Sanctuary  32 : Recreation Area  33 : Ship Pollution Emission Control | EN | 0, \* |
| Restriction | (RESTRN) | 1 : Anchoring Prohibited  2 : Anchoring Restricted  3 : Fishing Prohibited  4 : Fishing Restricted  5 : Trawling Prohibited  6 : Trawling Restricted  7 : Entry Prohibited  8 : Entry Restricted  9 : Dredging Prohibited  10 : Dredging Restricted  11 : Diving Prohibited  12 : Diving Restricted  13 : No Wake  14 : Area To Be Avoided  15 : Construction Prohibited  16 : Discharging Prohibited  17 : Discharging Restricted  18 : Industrial or Mineral Exploration/Development Prohibited  19 : Industrial or Mineral Exploration/Development Restricted  20 : Drilling Prohibited  21 : Drilling Restricted  22 : Removal of Historical Artefacts Prohibited  23 : Cargo Transhipment (Lightening) Prohibited  24 : Dragging Prohibited  25 : Stopping Prohibited  26 : Landing Prohibited  27 : Speed Restricted  28 : Overtaking Prohibited  29 : Overtaking of Convoys by Convoys Prohibited  30 : Passing or Overtaking Prohibited  31 : Berthing Prohibited  32 : Berthing Restricted  33 : Making Fast Prohibited  34 : Making Fast Restricted  35 : Turning Prohibited  36 : Restricted Fairway Depth  37 : Restricted Fairway Width  38 : Use of Spuds Prohibited  39 : Swimming Prohibited  40 : SOx Emission Restricted  41 : NOx Emission Restricted | EN | 1, \* |
| Status | (STATUS) | 1 : Permanent  2 : Occasional  3 : Recommended  4 : Not in Use  5 : Periodic/Intermittent  6 : Reserved  7 : Temporary  8 : Private  9 : Mandatory  11 : Extinguished  12 : Illuminated  13 : Historic  14 : Public  15 : Synchronized  16 : Watched  17 : Unwatched  18 : Existence Doubtful  19 : On Request  20 : Drop Away  21 : Rising  22 : Increasing  23 : Decreasing  24 : Strong  25 : Good  26 : Moderately  27 : Poor  28 : Buoyed  29 : Fully Operational  30 : Partially Operational  31 : Drifting  32 : Broken  33 : Offline  34 : Discontinued  35 : Manual Observation  36 : Unknown Status  37 : Confirmed  38 : Candidate  39 : Under Modification  41 : Under Removal / Deletion  42 : Removed / Deleted  43 : Candidate for Modification | EN | 0, \* |

**2.3. Marine Protected Area**

**Definition:** Any area of the intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment.

**CamelCase:** MarineProtectedArea

**Alias:** MPAARE

**Super type:** FeatureType

**Feature use type:** geographic

**Primitive:** curve surface

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Marine Protected Area |  | 1 : IUCN Category Ia  2 : IUCN Category Ib  3 : IUCN Category II  4 : IUCN Category III  5 : IUCN Category IV  6 : IUCN Category V  7 : IUCN Category VI | CL | 1, 1 |
| Category of Restricted Area | (CATREA) | 1 : Offshore Safety Zone  4 : Nature Reserve  5 : Bird Sanctuary  6 : Game Reserve  7 : Seal Sanctuary  8 : Degaussing Range  9 : Military Area  10 : Historic Wreck Area  12 : Navigational Aid Safety Zone  14 : Minefield  18 : Swimming Area  19 : Waiting Area  20 : Research Area  21 : Dredging Area  22 : Fish Sanctuary  23 : Ecological Reserve  24 : No Wake Area  25 : Swinging Area  26 : Water Skiing Area  27 : Environmentally Sensitive Sea Area  28 : Particularly Sensitive Sea Area  29 : Disengagement Area  30 : Port Security Area  31 : Coral Sanctuary  32 : Recreation Area  33 : Ship Pollution Emission Control | EN | 0, \* |
| Jurisdiction | (JRSDTN) | 1 : International  2 : National  3 : National Sub-Division | EN | 1, 1 |
| Restriction | (RESTRN) | 1 : Anchoring Prohibited  2 : Anchoring Restricted  3 : Fishing Prohibited  4 : Fishing Restricted  5 : Trawling Prohibited  6 : Trawling Restricted  7 : Entry Prohibited  8 : Entry Restricted  9 : Dredging Prohibited  10 : Dredging Restricted  11 : Diving Prohibited  12 : Diving Restricted  13 : No Wake  14 : Area To Be Avoided  15 : Construction Prohibited  16 : Discharging Prohibited  17 : Discharging Restricted  18 : Industrial or Mineral Exploration/Development Prohibited  19 : Industrial or Mineral Exploration/Development Restricted  20 : Drilling Prohibited  21 : Drilling Restricted  22 : Removal of Historical Artefacts Prohibited  23 : Cargo Transhipment (Lightening) Prohibited  24 : Dragging Prohibited  25 : Stopping Prohibited  26 : Landing Prohibited  27 : Speed Restricted  28 : Overtaking Prohibited  29 : Overtaking of Convoys by Convoys Prohibited  30 : Passing or Overtaking Prohibited  31 : Berthing Prohibited  32 : Berthing Restricted  33 : Making Fast Prohibited  34 : Making Fast Restricted  35 : Turning Prohibited  36 : Restricted Fairway Depth  37 : Restricted Fairway Width  38 : Use of Spuds Prohibited  39 : Swimming Prohibited  40 : SOx Emission Restricted  41 : NOx Emission Restricted | EN | 0, \* |
| Status | (STATUS) | 1 : Permanent  2 : Occasional  3 : Recommended  4 : Not in Use  5 : Periodic/Intermittent  6 : Reserved  7 : Temporary  8 : Private  9 : Mandatory  11 : Extinguished  12 : Illuminated  13 : Historic  14 : Public  15 : Synchronized  16 : Watched  17 : Unwatched  18 : Existence Doubtful  19 : On Request  20 : Drop Away  21 : Rising  22 : Increasing  23 : Decreasing  24 : Strong  25 : Good  26 : Moderately  27 : Poor  28 : Buoyed  29 : Fully Operational  30 : Partially Operational  31 : Drifting  32 : Broken  33 : Offline  34 : Discontinued  35 : Manual Observation  36 : Unknown Status  37 : Confirmed  38 : Candidate  39 : Under Modification  41 : Under Removal / Deletion  42 : Removed / Deleted  43 : Candidate for Modification | EN | 0, \* |
| Text | (INFORM)  (NINFOM) |  | (S) TE | 0, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Protected area authority |  |  |  | **Authority** | responsibleAuthority | 0, \* |

**2.4. Vessel Traffic Service Area**

**Definition:** The area of any service implemented by a relevant authority primarily designed to improve safety and efficiency of traffic flow and the protection of the environment. It may range from simple information messages, to extensive organisation of the traffic involving national or regional schemes.

**CamelCase:** VesselTrafficServiceArea

**Alias:** ADMARE VTS Area

**Super type:** FeatureType

**Feature use type:** geographic

**Primitive:** surface

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Vessel Traffic Service |  | 1 : Information Service  2 : Traffic Organization Service  3 : Navigational Assistance Service  4 : Ship Reporting Service  5 : Local Port Service | EN | 1, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Service control |  |  |  | **Authority** | controlAuthority | 0, 1 |

**3. Carto Feature Types**

**3.1. Text Placement**

**Definition:** The Text Placement feature is used in association with the Feature Name attribute or a light description to optimize text positioning in ECDIS.

**CamelCase:** TextPlacement

**Alias:**

**Super type:**

**Feature use type:** cartographic

**Primitive:** point

**Remarks:** No remarks.

**4. Information Types**

**4.1. Information Type**

**Definition:** Generalized information type which carries all the common attributes.

**CamelCase:** InformationType

**Alias:**

**Super type:**

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Feature Name |  |  | C | 0, \* |
| Display Name |  |  | (S) BO | 0, 1 |
| Language |  |  | (S) TE | 1, 1 |
| Name | (OBJNAM) |  | (S) TE | 1, 1 |
| Fixed Date Range |  |  | C | 0, 1 |
| Date Start | (DATSTA) |  | (S) TD | 0, 1 |
| Reported Date | (SORDAT) |  | TD | 0, 1 |

**4.2. Nautical Information**

**Definition:** Nautical information about a related area or facility.

**CamelCase:** NauticalInformation

**Alias:**

**Super type:** AbstractRxN

**Remarks:** No remarks.

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Related organisation |  |  |  | **Authority** | theOrganisation | 0, \* |

**4.3. Regulations**

**Definition:** Regulations for a related area or facility.

**CamelCase:** Regulations

**Alias:** REGLTS

**Super type:** AbstractRxN

**Remarks:** No remarks.

**4.4. Restrictions**

**Definition:** Restrictions for a related area or facility.

**CamelCase:** Restrictions

**Alias:** RESDES

**Super type:** AbstractRxN

**Remarks:** No remarks.

**4.5. Recommendations**

**Definition:** Recommendations for a related area or facility.

**CamelCase:** Recommendations

**Alias:** RCMDTS

**Super type:** AbstractRxN

**Remarks:** No remarks.

**4.6. AbstractRxN**

**Definition:** An abstract superclass for information types that encode rules, recommendations, and general information in text or graphic form.

**CamelCase:** AbstractRxN

**Alias:**

**Super type:** InformationType

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Authority | (CATAUT) | 2 : Border Control  3 : Police  4 : Port  5 : Immigration  6 : Health  7 : Coast Guard  8 : Agricultural  9 : Military  10 : Private Company  11 : Maritime Police  12 : Environmental  13 : Fishery  14 : Finance  15 : Maritime  16 : Customs | EN | 0, 1 |
| Text Content | (TXTCON) |  | C | 0, 1 |
| Headline |  |  | (S) TE | 0, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Related organisation | **AbstractRxN** | theInformation | 0, \* | **Authority** | theOrganisation | 0, \* |

**4.7. Authority**

**Definition:** A person or organisation having political or administrative power and control.

**CamelCase:** Authority

**Alias:**

**Super type:** InformationType

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Authority | (CATAUT) | 2 : Border Control  3 : Police  4 : Port  5 : Immigration  6 : Health  7 : Coast Guard  8 : Agricultural  9 : Military  10 : Private Company  11 : Maritime Police  12 : Environmental  13 : Fishery  14 : Finance  15 : Maritime  16 : Customs | EN | 1, 1 |
| Reported Date | (SORDAT) |  | (S) TD | 0, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Related organisation | **Authority** | theOrganisation | 0, \* | **AbstractRxN** | theInformation | 0, \* |
| association | Authority Contact | **Authority** | theAuthority | 0, \* | **ContactDetails** | theContactDetails | 0, \* |
| association | Authority Hours | **Authority** | theAuthority\_srvHrs | 0, \* | **ServiceHours** | theServiceHours | 0, \* |

**4.8. Contact Details**

**Definition:** Information on how to reach a person or organisation by postal, internet, telephone, telex and radio systems.

**CamelCase:** ContactDetails

**Alias:**

**Super type:** AbstractRxN

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Call Name |  |  | TE | 0, 1 |
| Call Sign | (CALSGN) |  | TE | 0, 1 |
| Category of Communication Preference |  | 1 : Preferred Calling  2 : Alternate Calling  3 : Preferred Working  4 : Alternate Working | EN | 0, 1 |
| Communication Channel | (COMCHA) |  | TE | 0, \* |
| Contact Instructions |  |  | TE | 0, 1 |
| MMSI Code |  |  | TE | 0, 1 |
| Signal Frequency | (SIGFRQ) |  | IN | 0, \* |
| Contact Address |  |  | C | 0, \* |
| Delivery Point | (DELPNT) |  | (S) TE | 0, 1 |
| City Name | (CITYNM) |  | (S) TE | 0, 1 |
| Administrative Division |  |  | (S) TE | 0, 1 |
| Text | (INFORM)  (NINFOM) |  | (S) TE | 0, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Authority Contact | **ContactDetails** | theContactDetails | 0, \* | **Authority** | theAuthority | 0, \* |

**4.9. Non-Standard Working Day**

**Definition:** Days when many services are not available. Often days of festivity or recreation or public holidays when normal working hours are limited, especially a national or religious festival, etc.

**CamelCase:** NonStandardWorkingDay

**Alias:**

**Super type:** InformationType

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Date Fixed |  |  | TD | 0, \* |
| Date Variable |  |  | TE | 0, \* |
| Text | (INFORM)  (NINFOM) |  | (S) TE | 0, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Exceptional workday | **NonStandardWorkingDay** | partialWorkingDay | 0, \* | **ServiceHours** | theServiceHours\_nsdy | 0, \* |

**4.10. Service Hours**

**Definition:** The time when a service is available and known exceptions.

**CamelCase:** ServiceHours

**Alias:**

**Super type:** InformationType

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Schedule by Day of Week |  |  | C | 1, \* |
| Text | (INFORM)  (NINFOM) |  | (S) TE | 0, 1 |

**Information Bindings:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Type** | **Association Name** | **Association Ends** | | | | | |
| **Class** | **Role** | **Mult** | **Class** | **Role** | **Mult** |
| association | Authority Hours | **ServiceHours** | theServiceHours | 0, \* | **Authority** | theAuthority\_srvHrs | 0, \* |
| association | Exceptional workday | **ServiceHours** | theServiceHours\_nsdy | 0, \* | **NonStandardWorkingDay** | partialWorkingDay | 0, \* |

**4.11. Applicability**

**Definition:** Describes the relationship between vessel characteristics and: (i) the applicability of an associated information object or feature to the vessel; or, (ii) the use of a facility, place, or service by the vessel; or, (iii) passage of the vessel through an area.

**CamelCase:** Applicability

**Alias:**

**Super type:** InformationType

**Remarks:** No remarks.

**Attribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| In Ballast |  |  | BO | 0, 1 |
| Category of Cargo | (CATCGO) | 1 : Bulk  2 : Container  3 : General  4 : Liquid  5 : Passenger  6 : Livestock  7 : Dangerous or Hazardous  8 : Heavy Lift  9 : Ballast | EN | 0, \* |
| Category Of Dangerous Or Hazardous Cargo | (CATDHC) | 1 : IMDG Code Class 1 Div. 1.1  2 : IMDG Code Class 1 Div. 1.2  3 : IMDG Code Class 1 Div. 1.3  4 : IMDG Code Class 1 Div. 1.4  5 : IMDG Code Class 1 Div. 1.5  6 : IMDG Code Class 1 Div. 1.6  7 : IMDG Code Class 2 Div. 2.1  8 : IMDG Code Class 2 Div. 2.2  9 : IMDG Code Class 2 Div. 2.3  10 : IMDG Code Class 3  11 : IMDG Code Class 4 Div. 4.1  12 : IMDG Code Class 4 Div. 4.2  13 : IMDG Code Class 4 Div. 4.3  14 : IMDG Code Class 5 Div. 5.1  15 : IMDG Code Class 5 Div. 5.2  16 : IMDG Code Class 6 Div. 6.1  17 : IMDG Code Class 6 Div. 6.2  18 : IMDG Code Class 7  19 : IMDG Code Class 8  20 : IMDG Code Class 9  21 : Harmful Substances in Packaged Form | EN | 0, \* |
| Category of Vessel |  | 1 : General Cargo Vessel  2 : Container Carrier  3 : Tanker  4 : Bulk Carrier  5 : Passenger Vessel  6 : Roll-On Roll-Off  7 : Refrigerated Cargo Vessel  8 : Fishing Vessel  9 : Service  10 : Warship  11 : Towed or Pushed Composite Unit  12 : Tug and Tow  13 : Light Recreational  14 : Semi-Submersible Offshore Installation  15 : Jack-Up Exploration or Project Installation  16 : Livestock Carrier  17 : Sport Fishing | CL | 0, 1 |
| Category of Vessel Registry |  | 1 : Domestic  2 : Foreign | EN | 0, 1 |
| Logical Connectives | (LOGCON) | 1 : Logical Conjunction  2 : Logical Disjunction | EN | 0, 1 |
| Thickness of Ice Capability |  |  | IN | 0, 1 |
| Vessel Performance |  |  | TE | 0, 1 |
| Information | (INFORM) |  | C | 0, \* |
| Comparison Operator |  | 1 : Greater than  2 : Greater than or equal to  3 : Less than  4 : Less than or equal to  5 : Equal to  6 : Not equal to | (S) EN | 1, 1 |

**5. Simple Attributes**

**5.1. Time of Day Start**

**Definition:** The time corresponding to the start of an active period.

**CamelCase:** timeOfDayStart

**Alias:**

**Value type:** time

**Remarks:** The time of day start must be encoded using 2 digits for the hour (hh), 2 digits for the minutes(mm) and 2 digits for the seconds (ss). This conforms to ISO 8601:2004.

**5.2. Cardinal Direction**

**Definition:**

**CamelCase:** cardinalDirection

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | N | North |
| 2 | NNE | Northnortheast |
| 3 | NE | Northeast |
| 4 | ENE | Eastnortheast |
| 5 | E | East |
| 6 | ESE | Eastsoutheast |
| 7 | SE | Southeast |
| 8 | SSE | Southsoutheast |
| 9 | S | South |
| 10 | SSW | Southsouthwest |
| 11 | SW | Southwest |
| 12 | WSW | Westsouthwest |
| 13 | W | West |
| 14 | WNW | Westnorthwest |
| 15 | NW | Northwest |
| 16 | NNW | Northnorthwest |

**5.3. Online Resource Linkage URL**

**Definition:** Location (address) for on-line access using a URL/URI address or similar addressing scheme. (Adapted from ISO 19115:2014.)

**CamelCase:** onlineResourceLinkageURL

**Alias:**

**Value type:** URL

**Remarks:** No remarks.

**5.4. Time of Day End**

**Definition:** The time corresponding to the end of an active period.

**CamelCase:** timeOfDayEnd

**Alias:**

**Value type:** time

**Remarks:** The time of day end must be encoded using 2 digits for the hour (hh), 2 digits for the minutes(mm) and 2 digits for the seconds (ss). This conforms to ISO 8601:2004.

**5.5. Protocol**

**Definition:** Connection protocol to be used. Example: ftp, http get KVP, http POST, etc. (ISO 19115)

**CamelCase:** protocol

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.6. Application Profile**

**Definition:** Name of an application profile that can be used with the online resource (ISO 19115)

**CamelCase:** applicationProfile

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.7. Online Resource Description**

**Definition:** Detailed text description of what the online resource is/does (ISO 19115)

**CamelCase:** onlineResourceDescription

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.8. Protocol Request**

**Definition:** Request used to access the resource. Structure and content depend on the protocol and standard used by the online resource, such as Web Feature Service standard. (ISO 19115, adapted)

**CamelCase:** protocolRequest

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.9. Online Function**

**Definition:** Code for function performed by the online resource (ISO 19115)

**CamelCase:** onlineFunction

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Download | Online instructions for transferring data from one storage device or system to another. (ISO 19115:2014) |
| 2 | Information | Online information about the resource (ISO 19115:2014) |
| 3 | Offline Access | Online instructions for requesting the resource from the provider (ISO 19115:2014) |
| 4 | Order | Online order process for obtaining the resource (ISO 19115:2014). |
| 5 | Search | Online search interface for seeking out information about the resource (ISO 19115:2014). |
| 6 | Complete Metadata | Complete metadata provided (ISO 19115:2014). |
| 7 | Browse Graphic | Browse graphic provided (ISO 19115:2014). |
| 8 | Upload | Online resource upload capability provided (ISO 19115:2014). |
| 9 | Email Service | Online email service provided (ISO 19115:2014) |
| 10 | Browsing | Online browsing provided (ISO 19115:2014) |
| 11 | File Access | online file access provided (ISO 19115:2014). |

**5.10. Telecom Carrier**

**Definition:** The name of provider or type of carrier for a telecommunications service.

**CamelCase:** telecomCarrier

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.11. Vessels Characteristics**

**Definition:** Characteristics of vessels.

**CamelCase:** vesselsCharacteristics

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Length Overall | The maximum length of the ship (L.O.A.). (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 2 | Length at waterline | The ship's length measured at the waterline (L.W.L.). (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 3 | Breadth | The width or beam of the vessel. (Adapted from http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 4 | Draught | The depth of water necessary to float a vessel fully loaded. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 5 | Height | The height of the highest point of a vessel's structure (e.g. radar aerial, funnel, cranes, masthead) above her waterline.  (UKHO NP100/2009) |
| 6 | Displacement Tonnage | A measurement of the weight of the vessel, usually used for warships. (Merchant ships are usually measured based on the volume of cargo space; see tonnage). Displacement is expressed either in long tons of 2,240 pounds or metric tonnes of 1,000 kg. Since the two units are very close in size (2,240 pounds = 1,016 kg and 1,000 kg = 2,205 pounds), it is common not to distinguish between them. To preserve secrecy, nations sometimes misstate a warship's displacement. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 7 | Displacement Tonnage, Light | The weight of the ship excluding cargo, fuel, ballast, stores, passengers, and crew, but with water in the boilers to steaming level. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 8 | Displacement Tonnage, Loaded | The weight of the ship including cargo, passengers, fuel, water, stores, dunnage and such other items necessary for use on a voyage, which brings the vessel down to her load draft. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 9 | Deadweight Tonnage | The difference between displacement, light and displacement, loaded. A measure of the ship's total carrying capacity. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 10 | Gross Tonnage | The entire internal cubic capacity of the ship expressed in tons of 100 cubic feet to the ton, except certain spaces with are exempted such as: peak and other tanks for water ballast, open forecastle bridge and poop, access of hatchways, certain light and air spaces, domes of skylights, condenser, anchor gear, steering gear, wheel house, galley and cabin for passengers. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 11 | Panama Canal/Universal Measurement System Net | Obtained from the gross tonnage by deducting crew and navigating spaces and allowances for propulsion machinery.(http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010) |
| 12 | Tonnage | The Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity.  (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010) |
| 13 | Suez Canal Net Tonnage | The Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate.  (Adapted from http://en.wikipedia.org/wiki/Tonnage 4 Oct 2010) |
| 14 | Suez Canal Gross Tonnage | Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. |

**5.12. Vessels Characteristics Value**

**Definition:** -

**CamelCase:** vesselsCharacteristicsValue

**Alias:**

**Value type:** real

**Remarks:** No remarks.

**5.13. Vessels Characteristics Unit**

**Definition:** The unit used for vessel characteristics attribute

**CamelCase:** vesselsCharacteristicsUnit

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Metre | The metre (or meter) is the base unit of length in the International System of Units (SI). It is defined as the distance travelled by light in vacuum in 1/299,792,458 of a second. |
| 2 | Foot | A foot (plural: feet) is a non-SI unit of length in a number of different systems including English units, Imperial units, and United States customary units. The most commonly used foot today is the international foot. There are three feet in a yard and 12 inches in a foot. |
| 3 | Metric Ton | The tonne or metric ton (U.S.), often redundantly referred to as a metric tonne, is a unit of mass equal to 1,000 kg (2,205 lb) or approximately the mass of one cubic metre of water at four degrees Celsius. It is sometimes abbreviated as mt in the United States, but this conflicts with other SI symbols. The tonne is not a unit in the International System of Units (SI), but is accepted for use with the SI. In SI units and prefixes, the tonne is a megagram (Mg). The Imperial and US customary units comparable to the tonne are both spelled ton in English, though they differ in mass. Pronunciation of tonne (the word used in the UK) and ton is usually identical, but is not too confusing unless accuracy is important as the tonne and UK long ton differ by only 1.6%. |
| 4 | Ton | Long ton (weight ton or imperial ton) is the name for the unit called the "ton" in the avoirdupois or Imperial system of measurements, as used in the United Kingdom and several other Commonwealth countries. It has been mostly replaced by the tonne, and in the United States by the short ton. One long ton is equal to 2,240 pounds (1,016 kg) or 35 cubic feet (0.9911 m3) of salt water with a density of 64 lb/ft³ (1.025 g/ml). It has some limited use in the United States, most commonly in measuring the displacement of ships, and was the unit prescribed for warships by the Washington Naval Treaty—for example battleships were limited to a mass of 35,000 long tons (36,000 t; 39,000 ST). |
| 5 | Short Ton | The short ton is a unit of weight equal to 2,000 pounds (907.18474 kg). In the United States it is often called simply ton without distinguishing it from the metric ton (tonne, 1,000 kilograms) or the long ton (2,240 pounds / 1,016.0469088 kilograms); rather, the other two are specifically noted. There are, however, some U.S. applications for which unspecified tons normally means long tons (for example, Navy ships) or metric tons (world grain production figures).  Both the long and short ton are defined as 20 hundredweights, but a hundredweight is 100 pounds (45.359237 kg) in the U.S. system (short or net hundredweight) and 112 pounds (50.80234544 kg) in the Imperial system (long or gross hundredweight). |
| 6 | Gross ton | Gross tonnage (GT) is a function of the volume of all ship's enclosed spaces (from keel to funnel) measured to the outside of the hull framing. There is a sliding scale factor. So GT is a kind of capacity-derived index that is used to rank a ship for purposes of determining manning, safety and other statutory requirements and is expressed simply as GT, which is a unitless entity, even though its derivation is tied to the cubic meter unit of volumetric capacity. Tonnage measurements are now governed by an IMO Convention (International Convention on Tonnage Measurement of Ships, 1969 (London-Rules)), which applies to all ships built after July 1982. In accordance with the Convention, the correct term to use now is GT, which is a function of the moulded volume of all enclosed spaces of the ship. |
| 7 | Net Ton | Net tonnage (NT) is based on a calculation of the volume of all cargo spaces of the ship. It indicates a vessel’s earning space and is a function of the moulded volume of all cargo spaces of the ship. |
| 8 | Panama Canal/Universal Measurement System Net Tonnage | The Panama Canal/Universal Measurement System (PC/UMS) is based on net tonnage, modified for Panama Canal purposes. PC/UMS is based on a mathematical formula to calculate a vessel's total volume; a PC/UMS net ton is equivalent to 100 cubic feet of capacity. |
| 9 | Suez Canal Net Tonnage | The Suez Canal Net Tonnage (SCNT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. |
| 10 | None | Can be used for net and gross tonnages, including Panama Canal/Universal Measurement System net tonnage and The Suez Canal Net Tonnage. |
| 11 | Cubic Metres | Cubic metres |
| 12 | Suez Canal Gross Tonnage | The Suez Canal Gross Tonnage (SCGT) is derived with a number of modifications from the former net register tonnage of the Moorsom System and was established by the International Commission of Constantinople in its Protocol of 18 December 1873. It is still in use, as amended by the Rules of Navigation of the Suez Canal Authority, and is registered in the Suez Canal Tonnage Certificate. |

**5.14. Comparison Operator**

**Definition:** Numerical comparison.

**CamelCase:** comparisonOperator

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Greater than | The value of the left value is greater than that of the right.(http://en.wikipedia.org/wiki/Logical\_connective) |
| 2 | Greater than or equal to | The value of the left expression is greater than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) |
| 3 | Less than | The value of the left expression is less than that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) |
| 4 | Less than or equal to | The value of the left expression is less than or equal to that of the right. (http://en.wikipedia.org/wiki/Logical\_connective) |
| 5 | Equal to | The two values are equivalent. (adapted http://en.wikipedia.org/wiki/Logical\_connective) |
| 6 | Not equal to | The two values are not equivalent. (adapted http://en.wikipedia.org/wiki/Logical\_connective) |

**5.15. Designation Scheme**

**Definition:** An official name, title or description. This can be an identifier itself, or an identifier which is an instance of a named designation scheme.

**CamelCase:** designationScheme

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.16. Designation Identifier**

**Definition:** An identifier which is an instance of a particular, named scheme

**CamelCase:** designationIdentifier

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.17. Day of Week is Range**

**Definition:** A statement expressing if the days of the week identified define a range or not.

**CamelCase:** dayOfWeekIsRange

**Alias:**

**Value type:** boolean

**Remarks:** A True value is an indication that the identified days of the week define a range between and inclusive of those days.

**5.18. Day of Week**

**Definition:** Any one of seven days in a week.

**CamelCase:** dayOfWeek

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Sunday | The first day of the week. |
| 2 | Monday | The second day of the week. |
| 3 | Tuesday | The third day of the week. |
| 4 | Wednesday | The fourth day of the week. |
| 5 | Thursday | The fifth day of the week. |
| 6 | Friday | The sixth day of the week. |
| 7 | Saturday | The seventh day of the week. |

**5.19. Category of Relationship**

**Definition:** Expresses constraints or requirements on vessel actions or activities in relation to a geographic feature, facility, or service.

**CamelCase:** categoryOfRelationship

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Prohibited | use of facility, waterway or service is forbidden |
| 2 | Not Recommended | use of facility, waterway or service is not recommended |
| 3 | Permitted | use of facility, waterway, or service is permitted but not required |
| 4 | Recommended | use of facility, waterway, or service is recommended |
| 5 | Required | use of facility, waterway, or service is required |
| 6 | Not Required | use of facility, waterway or service is not required |

**5.20. Membership**

**Definition:** Indicates whether a vessel is included or excluded from the regulation / restriction / recommendation / nautical information

**CamelCase:** membership

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | included | Vessels with these characteristics are included in the regulation/restriction/recommendation/nautical information. |
| 2 | excluded | Vessels with these characteristics are excluded from the regulation/restriction/recommendation/nautical information. |

**5.21. Telecommunication Service**

**Definition:** Classification of methods of communication over a distance by electrical, electronic, or electromagnetic means.

**CamelCase:** telecommunicationService

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Voice | The transfer or exchange of information by using sounds that are being made by mouth and throat when speaking. |
| 2 | Facsimile | A system of transmitting and reproducing graphic matter (as printing or still pictures) by means of signals sent over telephone lines. |
| 3 | SMS | Short Message Service is a form of text messaging communication on phones and mobile phones. |
| 4 | Data | A representation of facts, concepts or instructions in a formalised manner suitable for communication, interpretation or processing. |
| 5 | Streamed Data | Data that is constantly received by and presented to an end-user while being delivered by a provider. |
| 6 | Telex | A system of communication in which messages are sent over long distances by using a telephone system and are printed by using a special machine (called a teletypewriter). |
| 7 | Telegraph | An apparatus, system or process for communication at a distance by electric transmission over wire. |
| 8 | Email | Messages and other data exchanged between individuals using computers in a network. |

**5.22. Telecommunication Identifier**

**Definition:** An identifier, such as words, numbers, letters, symbols, or any combination of those used to establish a contact to a particular person, organisation or service.

**CamelCase:** telecommunicationIdentifier

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.23. Sector Line Length**

**Definition:** A sector is the part of a circle between two straight lines drawn from the centre to the circumference. Sector line length specifies the displayed length of the line, in ground units, defining the limit of the sector.

**CamelCase:** sectorLineLength

**Alias:**

**Value type:** integer

**Remarks:** No remarks.

**5.24. Sector Bearing**

**Definition:** A sector is the part of a circle between two straight lines drawn from the centre to the circumference. Sector bearing specifies the limit of the sector.

**CamelCase:** sectorBearing

**Alias:** SECTR1 SECTR2

**Value type:** real

**Remarks:** The values given to the common limits of adjacent sectors should be identical. The orientation of bearing is from seaward to the central object. This conforms with the method used in 'List of Lights' publications. A generic term such as 'to shore' cannot be used; a specific bearing must be encoded. Where a light sector limit is defined as 'to the shore', it should be encoded using a value that ensures that, when the limit is drawn, it will fall entirely on land.

**5.25. Category of Schedule**

**Definition:** The type of schedule, for instance opening, closure, etc.

**CamelCase:** categoryOfSchedule

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Normal Operation | The service, office, is open, fully manned, and operating normally, or the area is accessible as usual. |
| 2 | Closure | The service, office, or area is closed. |
| 3 | Unmanned Operation | The service is available but not manned. |

**5.26. Orientation Value**

**Definition:** The angular distance measured from true north to the major axis of the feature.

**CamelCase:** orientationValue

**Alias:** ORIENT

**Value type:** real

**Remarks:** No remarks.

**5.27. Orientation Uncertainty**

**Definition:** The best estimate of the accuracy of a bearing.

**CamelCase:** orientationUncertainty

**Alias:**

**Value type:** real

**Remarks:** No remarks.

**5.28. Picture Information**

**Definition:** A set of information to provide credits to picture creator, copyright owner etc.

**CamelCase:** pictureInformation

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.29. Source Date**

**Definition:** The production date of the source; for example the date of measurement.

**CamelCase:** sourceDate

**Alias:** SORDAT

**Value type:** date

**Remarks:** No remarks.

**5.30. Picture Caption**

**Definition:** Short description of the purpose of the image.

**CamelCase:** pictureCaption

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.31. Pictorial Representation**

**Definition:** Indicates whether a pictorial representation of the feature is available.

**CamelCase:** pictorialRepresentation

**Alias:** PICREP

**Value type:** text

**Remarks:** The 'pictorial representation' could be a drawing or a photo. The string encodes the file name of an external graphic file (pixel/vector).

**5.32. Frequency Shore Station Transmits**

**Definition:** The shore station transmitter frequency.

**CamelCase:** frequencyShoreStationTransmits

**Alias:** FRQTXM

**Value type:** integer

**Remarks:** Examples: 4379.1 kHz becomes 043791; 13162.8 kHz becomes 131628.

**5.33. Frequency Shore Station Receives**

**Definition:** The shore station receiver frequency.

**CamelCase:** frequencyShoreStationReceives

**Alias:** FRQRXV

**Value type:** integer

**Remarks:** Examples: 4379.1 kHz becomes 043791; 13162.8 kHz becomes 131628.

**5.34. Postal Code**

**Definition:** Known in various countries as a postcode, or ZIP code, the postal code is a series of letters and/or digits that identifies each postal delivery area.

**CamelCase:** postalCode

**Alias:** POSCOD Postcode ZIP Code

**Value type:** text

**Remarks:** No remarks.

**5.35. Country Name**

**Definition:** The name of a nation.

**CamelCase:** countryName

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.36. Administrative Division**

**Definition:** A generic term for an administrative region within a country at a level below that of the sovereign state.

**CamelCase:** administrativeDivision

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.37. City Name**

**Definition:** The name of a town or city.

**CamelCase:** cityName

**Alias:** CITYNM

**Value type:** text

**Remarks:** No remarks.

**5.38. Delivery Point**

**Definition:** Details of where post can be delivered such as the apartment, name and/or number of a street, building or PO Box.

**CamelCase:** deliveryPoint

**Alias:** DELPNT

**Value type:** text

**Remarks:** No remarks.

**5.39. Distance**

**Definition:** A numeric measure of the spatial separation between two locations.

**CamelCase:** distance

**Alias:**

**Value type:** real

**Remarks:** No remarks.

**5.40. Category Of Dangerous Or Hazardous Cargo**

**Definition:** Classification of dangerous goods or hazardous materials based on the International Maritime Dangerous Goods Code (IMDG Code).

**CamelCase:** categoryOfDangerousOrHazardousCargo

**Alias:** CATDHC

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | IMDG Code Class 1 Div. 1.1 | Explosives, Division 1: Substances and articles which have a mass explosion hazard. |
| 2 | IMDG Code Class 1 Div. 1.2 | Explosives, Division 2: Substances and articles which have a projection hazard but not a mass explosion hazard. |
| 3 | IMDG Code Class 1 Div. 1.3 | Explosives, Division 3: Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard. |
| 4 | IMDG Code Class 1 Div. 1.4 | Explosives, Division 4: Substances and articles which present no significant hazard. |
| 5 | IMDG Code Class 1 Div. 1.5 | Explosives, Division 5: Very insensitive substances which have a mass explosion hazard. |
| 6 | IMDG Code Class 1 Div. 1.6 | Explosives, Division 6: Extremely insensitive articles which do not have a mass explosion hazard. |
| 7 | IMDG Code Class 2 Div. 2.1 | Gases, flammable gases. |
| 8 | IMDG Code Class 2 Div. 2.2 | Gases, non-flammable, non-toxic gases. |
| 9 | IMDG Code Class 2 Div. 2.3 | Gases, toxic gases. |
| 10 | IMDG Code Class 3 | Flammable liquids. |
| 11 | IMDG Code Class 4 Div. 4.1 | Flammable solids, self-reactive substances and desensitized explosives. |
| 12 | IMDG Code Class 4 Div. 4.2 | Substances liable to spontaneous combustion. |
| 13 | IMDG Code Class 4 Div. 4.3 | Substances which, in contact with water, emit flammable gases. |
| 14 | IMDG Code Class 5 Div. 5.1 | Oxidizing substances. |
| 15 | IMDG Code Class 5 Div. 5.2 | Organic peroxides. |
| 16 | IMDG Code Class 6 Div. 6.1 | Toxic substances. |
| 17 | IMDG Code Class 6 Div. 6.2 | Infectious substances. |
| 18 | IMDG Code Class 7 | Radioactive material. |
| 19 | IMDG Code Class 8 | Corrosive substances. |
| 20 | IMDG Code Class 9 | Miscellaneous dangerous substances and articles. |
| 21 | Harmful Substances in Packaged Form | Harmful substances are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code). Packaged form is defined as the forms of containment specified for harmful substances in the IMDG Code. |

**5.41. Category of Cargo**

**Definition:** Classification of the different types of cargo that a ship may be carrying.

**CamelCase:** categoryOfCargo

**Alias:** CATCGO

**Value type:** enumeration

**Remarks:** If item 7 is used, the nature of dangerous or hazardous cargoes can be amplified with category of dangerous or hazardous cargo.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Bulk | Unpacked homogenous cargo poured loose in a certain space of a vessel e.g. oil or grain. |
| 2 | Container | One of a number of standard sized cargo carrying units, secured using standard corner attachments and bar. |
| 3 | General | Break bulk cargo normally loaded by crane. |
| 4 | Liquid | Any cargo loaded by pipeline. |
| 5 | Passenger | A fee paying traveller. |
| 6 | Livestock | Live animals carried in bulk. |
| 7 | Dangerous or Hazardous | Dangerous or hazardous cargo as described by the IMO International Maritime Dangerous Goods code. |
| 8 | Heavy Lift | Indivisible heavy items of weight generally over 100 tons, and width or height greater than 100 metres. |
| 9 | Ballast | Material carried by a ship to ensure its stability. |

**5.42. Signal Frequency**

**Definition:** The frequency of a signal.

**CamelCase:** signalFrequency

**Alias:** SIGFRQ

**Value type:** integer

**Remarks:** No remarks.

**5.43. MMSI Code**

**Definition:** The Maritime Mobile Service Identity (MMSI) Code is formed of a series of nine digits which are transmitted over the radio path in order to uniquely identify ship stations, ship earth stations,coast stations, coast earth stations, and group calls. These identities are formed in such a way that the identity or part thereof can be used by telephone and telex subscribers connected to the general telecommunications network principally to call ships automatically.

**CamelCase:** mMSICode

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.44. Contact Instructions**

**Definition:** Instructions provided on how to contact a particular person, organisation or service.

**CamelCase:** contactInstructions

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.45. Communication Channel**

**Definition:** A channel number assigned to a specific radio frequency, frequencies or frequency band.

**CamelCase:** communicationChannel

**Alias:** COMCHA

**Value type:** text

**Remarks:** The expected input is the specific VHF-Channel. The attribute 'communication channel' encodes the various VHF-channels used for communication.

**5.46. Category of Communication Preference**

**Definition:** Classification of frequencies, VHF channels, telephone numbers, or other means of communication based on preference.

**CamelCase:** categoryOfCommunicationPreference

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Preferred Calling | The first choice channel or frequency to be used when calling a radio station. |
| 2 | Alternate Calling | A channel or frequency to be used for calling a radio station when the preferred channel or frequency is busy or is suffering from interference. |
| 3 | Preferred Working | The first choice channel or frequency to be used when working with a radio station. |
| 4 | Alternate Working | A channel or frequency to be used for working with a radio station when the preferred working channel or frequency is busy or is suffering from interference. |

**5.47. Call Sign**

**Definition:** The designated call-sign of a station (radio station, radar station, pilot, ...).

**CamelCase:** callSign

**Alias:** CALSGN

**Value type:** text

**Remarks:** No remarks.

**5.48. Call Name**

**Definition:** The designated call name of a station; for example, radio station, radar station, pilot.

**CamelCase:** callName

**Alias:**

**Value type:** text

**Remarks:** This is the name used when calling a radio station by radio; for example, "Singapore Pilots".

**5.49. Date Variable**

**Definition:** A day which is not fixed in the Gregorian calendar.

**CamelCase:** dateVariable

**Alias:**

**Value type:** text

**Remarks:** Examples: The fourth Thursday in November; new moon day of Kartika (Diwali); Easter Sunday.

**5.50. Date Fixed**

**Definition:** The date of an event.

**CamelCase:** dateFixed

**Alias:**

**Value type:** S100\_TruncatedDate

**Remarks:** No remarks.

**5.51. Category of Authority**

**Definition:** The type of person, government agency or organisation granted powers of managing or controlling access to and/or activity in an area.

**CamelCase:** categoryOfAuthority

**Alias:** CATAUT

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 2 | Border Control | The administration to prevent or detect and prosecute violations of rules and regulations at international boundaries. |
| 3 | Police | The department of government, or civil force, charged with maintaining public order. |
| 4 | Port | Person or corporation, owners of, or entrusted with or invested with the power of managing a port. May be called a Harbour Board, Port Trust, Port Commission, Harbour Commission, Marine Department. |
| 5 | Immigration | The authority controlling people entering a country. |
| 6 | Health | The authority with responsibility for checking the validity of the health declaration of a vessel and for declaring free pratique. |
| 7 | Coast Guard | Organization keeping watch on shipping and coastal waters according to governmental law; normally the authority with responsibility for search and rescue. |
| 8 | Agricultural | The authority with responsibility for preventing infection of the agriculture of a country and for the protection of the agricultural interests of a country. |
| 9 | Military | A military authority which provides control of access to or approval for transit through designated areas or airspace. |
| 10 | Private Company | A private or publicly owned company or commercial enterprise which exercises control of facilities, for example a calibration area. |
| 11 | Maritime Police | A governmental or military force with jurisdiction in territorial waters. Examples could include Gendarmerie Maritime, Carabinierie, and Guardia Civil. |
| 12 | Environmental | An authority with responsibility for the protection of the environment. |
| 13 | Fishery | An authority with responsibility for the control of fisheries. |
| 14 | Finance | An authority with responsibility for the control and movement of money. |
| 15 | Maritime | A national or regional authority charged with administration of maritime affairs. |
| 16 | Customs | The agency or establishment for collecting duties, tolls. |

**5.52. Category of Vessel Traffic Service**

**Definition:** Classification of vessel traffic services based on the nature of the control or services provided.

**CamelCase:** categoryOfVesselTrafficService

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Information Service | A service to ensure that essential information becomes available in time for on-board navigational decision-making. |
| 2 | Traffic Organization Service | A service to assist on-board navigational decision-making and to monitor its effects. |
| 3 | Navigational Assistance Service | A service to prevent the development of dangerous maritime traffic situations and to provide for the safe and efficient movement of vessel traffic within the VTS area. |
| 4 | Ship Reporting Service | A service established by a relevant authority consisting of one or more reporting points or lines at which ships are required to report their identity, course, speed and other data to the monitoring authority. |
| 5 | Local Port Service | A service established to provide port information without interaction between the customer and the service provider. This information could be inter-alia berthing information, availability of port services, shipping schedules, meteorological and hydrological data. |

**5.53. Status**

**Definition:** The condition of an object at a given instant in time.

**CamelCase:** status

**Alias:** STATUS

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Permanent | Intended to last or function indefinitely. |
| 2 | Occasional | Acting on special occasions; happening irregularly. |
| 3 | Recommended | Presented as worthy of confidence, acceptance, use, etc. |
| 4 | Not in Use | Use has ceased, but the facility still exists intact; disused. |
| 5 | Periodic/Intermittent | Recurring at intervals. |
| 6 | Reserved | Set apart for some specific use. |
| 7 | Temporary | Meant to last only for a time. |
| 8 | Private | Administered by an individual or corporation, rather than a State or a public body. |
| 9 | Mandatory | Compulsory; enforced. |
| 11 | Extinguished | No longer lit. |
| 12 | Illuminated | Lit by floodlights, strip lights, etc. |
| 13 | Historic | Famous in history; of historical interest. |
| 14 | Public | Belonging to, available to, used or shared by, the community as a whole and not restricted to private use. |
| 15 | Synchronized | Occur at a time, coincide in point of time, be contemporary or simultaneous. |
| 16 | Watched | Looked at or observed over a period of time especially so as to be aware of any movement or change. |
| 17 | Unwatched | Usually automatic in operation, without any permanently-stationed personnel to superintend it. |
| 18 | Existence Doubtful | A feature that has been reported but has not been definitely determined to exist. |
| 19 | On Request | When you ask for it. |
| 20 | Drop Away | To become lower in level. |
| 21 | Rising | To become higher in level. |
| 22 | Increasing | Becoming larger in magnitude. |
| 23 | Decreasing | Becoming smaller in magnitude. |
| 24 | Strong | Not easily broken or destroyed. |
| 25 | Good | In a satisfactory condition to use. |
| 26 | Moderately | Fairly but not very. |
| 27 | Poor | Not as good as it could be or should. |
| 28 | Buoyed | Marked by buoys. |
| 29 | Fully Operational | Entire observation platform is operating in accordance with, or exceeding, manufacturer specifications. |
| 30 | Partially Operational | At least one instrument that is part of an observation platform is not operating to manufacturer specification. |
| 31 | Drifting | Floating platform at the mercy of environmental elements, whether intentional or not. |
| 32 | Broken | Fractured or in pieces. |
| 33 | Offline | Observation platform is intentionally not reporting an environmental observation. |
| 34 | Discontinued | Observation station, suite of instruments, or an individual instrument, for a particular location, has been removed and is no longer at the particular location. |
| 35 | Manual Observation | Observations made by a human observer. |
| 36 | Unknown Status | Status of an observation platform, suite of instruments, or individual instrument is not known or unspecified. |
| 37 | Confirmed | Made certain as to truth, accuracy, validity, availability, etc. |
| 38 | Candidate | Item selected for an action. |
| 39 | Under Modification | Item that is in the process of being modified. |
| 41 | Under Removal / Deletion | Item in the process of being removed or deleted. |
| 42 | Removed / Deleted | Item that has been removed or deleted. |
| 43 | Candidate for Modification | Item selected for modification. |

**5.54. Restriction**

**Definition:** The official legal statute of each kind of restricted area.

**CamelCase:** restriction

**Alias:** RESTRN

**Value type:** enumeration

**Remarks:** Defines the kind of restriction(s), for example, the restriction for 'a game preserve' may be 'entry prohibited', the restriction for an 'anchoring prohibition' is 'anchoring prohibited'. The complete information about the restriction(s), actually held in handbooks or other publications, may be encoded using an Information type.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Anchoring Prohibited | An area within which anchoring is not permitted. |
| 2 | Anchoring Restricted | A specified area designated by appropriate authority, within which anchoring is restricted in accordance with certain specified conditions. |
| 3 | Fishing Prohibited | An area within which fishing is not permitted. |
| 4 | Fishing Restricted | A specified area designated by appropriate authority, within which fishing is restricted in accordance with certain specified conditions. |
| 5 | Trawling Prohibited | An area within which trawling is not permitted. |
| 6 | Trawling Restricted | A specified area designated by appropriate authority, within which trawling is restricted in accordance with certain specified conditions. |
| 7 | Entry Prohibited | An area within which navigation and/or anchoring is prohibited. |
| 8 | Entry Restricted | A specified area designated by appropriate authority, within which navigation is restricted in accordance with certain specified conditions. |
| 9 | Dredging Prohibited | An area within which dredging is not permitted. |
| 10 | Dredging Restricted | A specified area designated by appropriate authority, within which dredging is restricted in accordance with certain specified conditions. |
| 11 | Diving Prohibited | An area within which diving is not permitted. |
| 12 | Diving Restricted | A specified area designated by appropriate authority, within which diving is restricted in accordance with certain specified conditions. |
| 13 | No Wake | Mariners must adjust the speed of their vessels to reduce the wave or wash which may cause erosion or disturb moored vessels. |
| 14 | Area To Be Avoided | An IMO declared routeing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ships. |
| 15 | Construction Prohibited | The erection of permanent or temporary fixed structures or artificial islands is prohibited. |
| 16 | Discharging Prohibited | An area within which discharging or dumping is prohibited. |
| 17 | Discharging Restricted | A specified area designated by an appropriate authority, within which discharging or dumping is restricted in accordance with specified conditions. |
| 18 | Industrial or Mineral Exploration/Development Prohibited | An area within which industrial or mineral exploration and development are prohibited. |
| 19 | Industrial or Mineral Exploration/Development Restricted | A specified area designated by an appropriate authority, within which industrial or mineral exploration and development is restricted in accordance with certain specified conditions. |
| 20 | Drilling Prohibited | An area within which excavating a hole on the sea-bottom with a drill is prohibited. |
| 21 | Drilling Restricted | A specified area designated by an appropriate authority, within which excavating a hole on the sea-bottom with a drill is restricted in accordance with certain specified conditions. |
| 22 | Removal of Historical Artefacts Prohibited | An area within which the removal of historical artefacts is prohibited. |
| 23 | Cargo Transhipment (Lightening) Prohibited | An area in which cargo transhipment (lightening) is prohibited. |
| 24 | Dragging Prohibited | An area in which the dragging of anything along the bottom, e.g. bottom trawling, is prohibited. |
| 25 | Stopping Prohibited | An area in which a vessel is prohibited from stopping. |
| 26 | Landing Prohibited | An area in which landing is prohibited. |
| 27 | Speed Restricted | An area within which speed is restricted. |
| 28 | Overtaking Prohibited | A specified area designated by appropriate authority, within which overtaking is generally prohibited. |
| 29 | Overtaking of Convoys by Convoys Prohibited | A specified area designated by appropriate authority, within which overtaking between convoys is prohibited. |
| 30 | Passing or Overtaking Prohibited | A specified area designated by appropriate authority, within which passing or overtaking is generally prohibited. |
| 31 | Berthing Prohibited | A specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not berth. |
| 32 | Berthing Restricted | A specified area designated by appropriate authority, within which berthing is restricted. |
| 33 | Making Fast Prohibited | A specified area designated by appropriate authority, within which vessels, assemblies of floating material or floating establishments may not make fast to the bank. |
| 34 | Making Fast Restricted | A specified area designated by appropriate authority, within which making fast to the bank is restricted. |
| 35 | Turning Prohibited | A specified area designated by appropriate authority, within which all turning is generally prohibited. |
| 36 | Restricted Fairway Depth | An area within which the fairway depth is restricted. |
| 37 | Restricted Fairway Width | An area within which the fairway width is restricted. |
| 38 | Use of Spuds Prohibited | The use of anchoring spuds (telescopic piles) is prohibited. |
| 39 | Swimming Prohibited | An area in which swimming is prohibited. |
| 40 | SOx Emission Restricted | An area within which the emission of SOx is restricted. |
| 41 | NOx Emission Restricted | An area within which the emission of NOx is restricted. |

**5.55. Jurisdiction**

**Definition:** The jurisdiction applicable to an administrative area.

**CamelCase:** jurisdiction

**Alias:** JRSDTN

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | International | Involving more than one country; covering more than one national area. |
| 2 | National | An area administered or controlled by a single nation. |
| 3 | National Sub-Division | An area smaller than the nation in which it lies. |

**5.56. Category of Restricted Area**

**Definition:** The official legal status of each kind of restricted area defines the kind of restriction(s), for example the restriction for a 'game reserve' may be 'entering prohibited'.

**CamelCase:** categoryOfRestrictedArea

**Alias:** CATREA

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Offshore Safety Zone | The area around an offshore installation within which vessels are prohibited from entering without permission. Special regulations protect installations within a safety zone and vessels of all nationalities are required to respect the zone. |
| 4 | Nature Reserve | A tract of land or water managed so as to preserve its flora, fauna, physical features, etc. |
| 5 | Bird Sanctuary | A place where birds are bred and protected. |
| 6 | Game Reserve | A place where wild animals or birds hunted for sport or food are kept undisturbed for private use. |
| 7 | Seal Sanctuary | A place where seals are protected. |
| 8 | Degaussing Range | An area, usually about two cables diameter, within which ships' magnetic fields may be measured; sensing instruments and cables are installed on the sea bed in the range and there are cables leading from the range to a control position ashore. |
| 9 | Military Area | An area controlled by the military in which restrictions may apply. |
| 10 | Historic Wreck Area | An area around certain wrecks of historical importance to protect the wrecks from unauthorized interference by diving, salvage or deposition (including anchoring). |
| 12 | Navigational Aid Safety Zone | An area around a navigational aid which vessels are prohibited from entering. |
| 14 | Minefield | An area laid and maintained with explosive mines for defence or practice purposes. |
| 18 | Swimming Area | An area in which people may swim and therefore vessel movement may be restricted. |
| 19 | Waiting Area | An area reserved for vessels waiting to enter a harbour. |
| 20 | Research Area | An area where marine research takes place. |
| 21 | Dredging Area | An area where dredging is taking place. |
| 22 | Fish Sanctuary | A place where fish (including shellfish and crustaceans) are protected. |
| 23 | Ecological Reserve | A tract of land managed so as to preserve the relation of plants and living creatures to each other and to their surroundings. |
| 24 | No Wake Area | An area in which a vessels' speed must be reduced in order to reduce the size of the wake it produces. |
| 25 | Swinging Area | An area where vessels turn. |
| 26 | Water Skiing Area | An area within which people may water ski and therefore vessel movement may be restricted. |
| 27 | Environmentally Sensitive Sea Area | A generic term which may be used to describe a wide range of areas, considered sensitive for a variety of environmental reasons. |
| 28 | Particularly Sensitive Sea Area | An area that needs special protection through action by IMO because of its significance for regional ecological, socio-economic or scientific reasons and because it may be vulnerable to damage by international shipping activities. |
| 29 | Disengagement Area | An area near a fairway where vessels can go to clear the way or make an about turn and possibly return to a waiting area when nautical conditions impose it. |
| 30 | Port Security Area | An area in which defence, law and treaty enforcement, and counter-terrorism activities that fall within the port and maritime domain apply. |
| 31 | Coral Sanctuary | A place where coral is protected. |
| 32 | Recreation Area | An area within which recreational activities regularly take place and therefore vessel movement may be restricted. |
| 33 | Ship Pollution Emission Control | An area within which the ship pollution emission is controlled. |

**5.57. Category of Marine Protected Area**

**Definition:** -

**CamelCase:** categoryOfMarineProtectedArea

**Alias:**

**Value type:** S100\_CodeList

**Remarks:** -

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | IUCN Category Ia | - |
| 2 | IUCN Category Ib | - |
| 3 | IUCN Category II | - |
| 4 | IUCN Category III | - |
| 5 | IUCN Category IV | - |
| 6 | IUCN Category V | - |
| 7 | IUCN Category VI | - |

**5.58. Source Type**

**Definition:** Type of the source.

**CamelCase:** sourceType

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Law or Regulation | Treaty, convention, or international agreement; law or regulation issued by a national or other authority. |
| 2 | Official Publication | Publication not having the force of law, issued by an international organisation or a national or local administration. |
| 7 | Mariner Report, Confirmed | Reported by mariner(s) and confirmed by another source. |
| 8 | Mariner Report, Not Confirmed | Reported by mariner(s) but not confirmed. |
| 9 | Industry Publications and Reports | Shipping and other industry publications, including graphics, charts and web sites. |
| 10 | Remotely Sensed Images | Information obtained from satellite images. |
| 11 | Photographs | Information obtained from photographs. |
| 12 | Products Issued by HO Services | Information obtained from products issued by Hydrographic Offices. |
| 13 | News Media | Information obtained from news media. |
| 14 | Traffic Data | Information obtained from the analysis of traffic data. |

**5.59. Source**

**Definition:** The publication, document, or reference work from which information comes or is acquired.

**CamelCase:** source

**Alias:**

**Value type:** text

**Remarks:** May be populated with the corresponding paper chart Notice to Mariners numbers, although other references are permitted.

**5.60. Reported Date**

**Definition:** The date that the item was observed, done, or investigated.

**CamelCase:** reportedDate

**Alias:** SORDAT

**Value type:** S100\_TruncatedDate

**Remarks:** No remarks.

**5.61. Interoperability Identifier**

**Definition:** -

**CamelCase:** interoperabilityIdentifier

**Alias:**

**Value type:** URN

**Remarks:** -

**5.62. Display Name**

**Definition:** A statement expressing if a feature name is to be displayed in certain system display settings or not.

**CamelCase:** displayName

**Alias:**

**Value type:** boolean

**Remarks:** Where it is allowable to encode multiple instances of feature name for a single feature instance, only one feature name instance can indicate that the name is to be displayed (display name set to True).

**5.63. Language**

**Definition:** The method of human communication, either spoken or written, consisting of the use of words in a structured and conventional way.

**CamelCase:** language

**Alias:**

**Value type:** text

**Remarks:** The language is encoded by a 3 character code following ISO 639-2/T.

**5.64. Name**

**Definition:** The individual name of a feature.

**CamelCase:** name

**Alias:** OBJNAM

**Value type:** text

**Remarks:** No remarks.

**5.65. Date End**

**Definition:** The latest date on which an object (for example a buoy) will be present.

**CamelCase:** dateEnd

**Alias:** DATEND

**Value type:** S100\_TruncatedDate

**Remarks:** The Date End should be encoded using 4 digits for the calendar year (YYYY), 2 digits for the month (MM) (for example April = 04) and 2 digits for the day (DD). When no specific month and/or day is required/known, indication of the month and/or day is omitted, and replaced with dashes (-). When no specific year is required (that is, the event or date range ends at the same time each year) the following two cases may be considered:- same day each year: ----MMDD- same month each year: ----MM--This conforms to ISO 8601: 2004. Date End indicates the latest date of an event or the end of a date range. It is used to indicate the end of a fixed date range, the end of a periodic date range, or the removal or cancellation of a feature at a specific date in the future.

**5.66. Date Start**

**Definition:** The earliest date on which an object (for example a buoy) will be present.

**CamelCase:** dateStart

**Alias:** DATSTA

**Value type:** S100\_TruncatedDate

**Remarks:** The Date Start should be encoded using 4 digits for the calendar year (YYYY), 2 digits for the month (MM) (for example April = 04) and 2 digits for the day (DD). When no specific month and/or day is required/known, indication of the month and/or day is omitted, and replaced with dashes (-). When no specific year is required (that is, the event or date range ends at the same time each year) the following two cases may be considered:- same day each year: ----MMDD- same month each year: ----MM--This conforms to ISO 8601: 2004. Date Start indicates the earliest date of an event or the start of a date range. It is used to indicate the start of a fixed date range, the start of a periodic date range, or the deployment or implementation of a feature at a specific date in the future.

**5.67. File Locator**

**Definition:** The location of a fragment of text or other information in a support file.

**CamelCase:** fileLocator

**Alias:**

**Value type:** text

**Remarks:** Application schemas must describe how the associated file is identified. The associated file will commonly be named in a file reference co-attribute of the same complex attribute. Each DCEG must specify requirements for the format of the associated file and the semantics of file locator. For example, the value of file locator may be an HTML ID in an HTML file, line number in a text file) or a bookmark in a PDF file.

**5.68. File Reference**

**Definition:** The file name of an externally referenced text file.

**CamelCase:** fileReference

**Alias:** TXTDSC

**Value type:** text

**Remarks:** No remarks.

**5.69. Headline**

**Definition:** Words set at the head of a passage or page to introduce or categorize.

**CamelCase:** headline

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.70. Text**

**Definition:** A non-formatted digital text string.

**CamelCase:** text

**Alias:** INFORM NINFOM

**Value type:** text

**Remarks:** Should be used, for example, to hold the information that is for short cautionary or explanatory notes. Therefore, text populated in text must not exceed 300 characters. Text may be in English, or in a national language. No formatting of text is possible within text. If formatted text, or text strings exceeding 300 characters, is required, then an alternate concept should be used.

**5.71. Linkage**

**Definition:** Location (address) for on-line access using a URL/URI address or similar addressing scheme.

**CamelCase:** linkage

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.72. Name of Resource**

**Definition:** Name of the online resource.

**CamelCase:** nameOfResource

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.73. Category of Text**

**Definition:** Classification of completeness of textual information in relation to the source material from which it is derived.

**CamelCase:** categoryOfText

**Alias:** CATTXT

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Abstract or Summary | A statement summarizing the important points of a text. |
| 2 | Extract | An excerpt or excerpts from a text. |
| 3 | Full Text | The whole text. |

**5.74. Source Indication**

**Definition:** Information about the source document, publication, or reference from which object data or textual material included or referenced in a dataset are derived.

**CamelCase:** sourceIndication

**Alias:**

**Value type:** text

**Remarks:** Content of featureName is source authority name.

**5.75. Category of Vessel**

**Definition:**

**CamelCase:** categoryOfVessel

**Alias:**

**Value type:** S100\_CodeList

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | General Cargo Vessel | - |
| 2 | Container Carrier | - |
| 3 | Tanker | - |
| 4 | Bulk Carrier | - |
| 5 | Passenger Vessel | - |
| 6 | Roll-On Roll-Off | - |
| 7 | Refrigerated Cargo Vessel | - |
| 8 | Fishing Vessel | - |
| 9 | Service | - |
| 10 | Warship | - |
| 11 | Towed or Pushed Composite Unit | - |
| 12 | Tug and Tow | - |
| 13 | Light Recreational | - |
| 14 | Semi-Submersible Offshore Installation | - |
| 15 | Jack-Up Exploration or Project Installation | - |
| 16 | Livestock Carrier | - |
| 17 | Sport Fishing | - |

**5.76. Category of Vessel Registry**

**Definition:** The locality of vessel registration or enrolment relative to the nationality of a port, territorial sea, administrative area, exclusive zone or other location.

**CamelCase:** categoryOfVesselRegistry

**Alias:**

**Value type:** enumeration

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Domestic | The vessel is registered or enrolled under the same national flag as the port, harbour, territorial sea, exclusive economic zone, or administrative area in which the object that possesses this attribute applies or is located. |
| 2 | Foreign | The vessel is registered or enrolled under a national flag different from the port, harbour, territorial sea, exclusive economic zone, or other administrative area in which the object that possesses this attribute applies or is located. |

**5.77. In Ballast**

**Definition:** Whether the vessel is in ballast.

**CamelCase:** inBallast

**Alias:**

**Value type:** boolean

**Remarks:** No remarks.

**5.78. Logical Connectives**

**Definition:** Expresses whether all the constraints described by its co-attributes must be satisfied, or only one such constraint need be satisfied.

**CamelCase:** logicalConnectives

**Alias:** LOGCON

**Value type:** enumeration

**Remarks:** Is intended to be used with co-attributes that encode limits on vessel dimensions, type of cargo, and other characteristics. The combination of constraints described by logicalConnectives and its co-attributes defines a subset of vessels to which information described by a feature or information type instance applies (or does not apply, is required, recommended, etc.). The relationship between the vessel subset and the information is indicated by an association - see PermissionType and InclusionType). The two listed values of logicalConnective are two of the basic operations of Boolean logic. The third basic operation (not) is not used.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Logical Conjunction | All the conditions described by the other attributes of the object, or sub-attributes of the same complex attribute, are true. |
| 2 | Logical Disjunction | At least one of the conditions described by the other attributes of the object, or sub-attributes of the same complex attributes, is true. |

**5.79. Thickness of Ice Capability**

**Definition:** The thickness of ice that the ship can safely transit.

**CamelCase:** thicknessOfIceCapability

**Alias:**

**Value type:** integer

**Remarks:** No remarks.

**5.80. Vessel Performance**

**Definition:** A description of the required handling characteristics of a vessel including hull design, main and auxiliary machinery, cargo handling equipment, navigation equipment and manoeuvring behaviour.

**CamelCase:** vesselPerformance

**Alias:**

**Value type:** text

**Remarks:** No remarks.

**5.81. Action or Activity**

**Definition:** The action or activity of a vessel.

**CamelCase:** actionOrActivity

**Alias:**

**Value type:** S100\_CodeList

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Navigating With a Pilot | Carrying a qualified pilot as part of the vessel navigation team. |
| 2 | Entering Port | Navigating a vessel into a port. |
| 3 | Leaving Port | Navigating a vessel out of a port. |
| 4 | Berthing | A signal station for the control of vessels when berthing. |
| 5 | Slipping | Detaching a vessel from a wharf or jetty. |
| 6 | Anchoring | Attaching a vessel to the seabed by means of an anchor and cable. |
| 7 | Weighing Anchor | Detaching a vessel from the seabed by recovering an anchor and cable. |
| 8 | Transiting | Navigating a vessel along a route or through a narrow gap, such as under a bridge or through a lock. |
| 9 | Overtaking | Navigating a vessel past another traveling broadly in the same direction. |
| 10 | Reporting | Providing details such as the name, location or intentions of a vessel. |
| 11 | Working Cargo | Loading or unloading cargo. |
| 12 | Landing | Placing crew or passengers on shore. |
| 13 | Diving | A signal or message warning of diving activity. |
| 14 | Fishing | Hunting or catching fish. |
| 15 | Discharging Overboard | Releasing anything into the sea; often ballast water; or spoil from dredging elsewhere. |
| 16 | Passing | Navigating a vessel past another travelling broadly in the opposite direction. |

**5.82. Category of RxN**

**Definition:** The principal subject matter of regulations, restrictions, recommendations or nautical information.

**CamelCase:** categoryOfRxN

**Alias:**

**Value type:** S100\_CodeList

**Remarks:** No remarks.

**Listed Values:**

|  |  |  |
| --- | --- | --- |
| **Code** | **Label** | **Definition** |
| 1 | Navigation | The process of directing the movement of a craft from one point to another. |
| 2 | Communication | Transmitting and/or receiving electronic communication signals. |
| 3 | Environmental Protection | Pertaining to environmental protection. |
| 4 | Wildlife Protection | Pertaining to wildlife protection. |
| 5 | Security | Pertaining to security. |
| 6 | Customs | The agency or establishment for collecting duties, tolls. |
| 7 | Cargo Operation | Pertaining to cargo operations. |
| 8 | Refuge | Pertaining to a place of safety or refuge. |
| 9 | Health | The authority with responsibility for checking the validity of the health declaration of a vessel and for declaring free pratique. |
| 10 | Natural Resources or Exploitation | Pertaining to natural resources or exploitation. |
| 11 | Port | Person or corporation, owners of, or entrusted with or invested with the power of managing a port. May be called a Harbour Board, Port Trust, Port Commission, Harbour Commission, Marine Department. |
| 12 | Finance | An authority with responsibility for the control and movement of money. |
| 13 | Agriculture | The science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products. |

**6. Complex Attributes**

**6.1. Bearing Information**

**Definition:** A bearing is the direction one object is from another object.

**CamelCase:** bearingInformation

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Cardinal Direction |  |  | EN | 0, 1 |
| Distance |  |  | RE | 0, 1 |
| Sector Bearing | (SECTR1)  (SECTR2) |  | RE | 0, 2 (ordered) |
| Information | (INFORM) |  | C | 0, \* |
| Orientation Value | (ORIENT) |  | (S) RE | 1, 1 |

**6.2. Contact Address**

**Definition:** Direction or superscription of a letter, package, etc., specifying the name of the place to which it is directed, and optionally a contact person or organisation who should receive it.

**CamelCase:** contactAddress

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Delivery Point | (DELPNT) |  | TE | 0, 1 |
| City Name | (CITYNM) |  | TE | 0, 1 |
| Administrative Division |  |  | TE | 0, 1 |
| Country Name |  |  | TE | 0, 1 |
| Postal Code | (POSCOD)  (Postcode)  (ZIP Code) |  | TE | 0, 1 |

**6.3. Feature Name**

**Definition:** Provides the name of an entity, defines the national language of the name, and provides the option to display the name at various system display settings.

**CamelCase:** featureName

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Display Name |  |  | BO | 0, 1 |
| Language |  |  | TE | 1, 1 |
| Name | (OBJNAM) |  | TE | 1, 1 |

**6.4. Fixed Date Range**

**Definition:** An active period of a single fixed event or occurrence, as the date range between discrete start and end dates.

**CamelCase:** fixedDateRange

**Alias:**

**Remarks:** Dates must be encoded in the format YYYYMMDD; using 4 digits for the calendar year (YYYY) and, optionally, 2 digits for the month (MM) (for example April = 04) and 2 digits for the day (DD). When no specific month and/or day is required/known, the values are replaced with dashes (-). The date range of a recurring event or occurrence must be encoded using periodicDateRange.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Date Start | (DATSTA) |  | TD | 0, 1 |
| Date End | (DATEND) |  | TD | 0, 1 |

**6.5. Frequency Pair**

**Definition:** A pair of frequencies for transmitting and receiving radio signals. The shore station transmits and receives on the frequencies indicated.

**CamelCase:** frequencyPair

**Alias:** FRQPAR

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Frequency Shore Station Receives | (FRQRXV) |  | IN | 0, 1 |
| Frequency Shore Station Transmits | (FRQTXM) |  | IN | 0, 1 |

**6.6. Graphic**

**Definition:** Pictorial information such as a photograph, sketch or other graphic, optionally accompanied by descriptive information about the graphic and the location relative to its subject from which it was made.

**CamelCase:** graphic

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Pictorial Representation | (PICREP) |  | TE | 1, \* |
| Picture Caption |  |  | TE | 0, 1 |
| Source Date | (SORDAT) |  | DA | 0, 1 |
| Picture Information |  |  | TE | 0, 1 |
| Orientation Value | (ORIENT) |  | (S) RE | 1, 1 |

**6.7. Information**

**Definition:** Textual information about the feature. The information may be provided as a string of text or as a file name of a single external text file that contains the text.

**CamelCase:** information

**Alias:** INFORM

**Remarks:** At least one of the sub-attributes file reference or text must be populated.The sub-attribute file reference is generally used for long text strings or those that require formatting, however, there is no restriction on the type of text (except for lexical level) that can be held in files referenced by sub-attribute file reference.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| File Locator |  |  | TE | 0, 1 |
| File Reference | (TXTDSC) |  | TE | 0, 1 |
| Headline |  |  | TE | 0, 1 |
| Language |  |  | TE | 0, 1 |
| Text | (INFORM)  (NINFOM) |  | TE | 0, 1 |

**6.8. Online Resource**

**Definition:** Information about online sources from which a resource or data can be obtained.

**CamelCase:** onlineResource

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Online Resource Linkage URL |  |  | UL | 1, 1 |
| Protocol |  |  | TE | 0, 1 |
| Application Profile |  |  | TE | 0, 1 |
| Name of Resource |  |  | TE | 0, 1 |
| Online Resource Description |  |  | TE | 0, 1 |
| Protocol Request |  |  | TE | 0, 1 |
| Online Function |  |  | EN | 0, 1 |

**6.9. Orientation**

**Definition:** (1) The angular distance measured from true north to the major axis of the feature. (2) In ECDIS, the mode in which information on the ECDIS is being presented. Typical modes include: north-up - as shown on a nautical chart, north is at the top of the display; Ships head-up - based on the actual heading of the ship, (e.g. Ships gyrocompass); course-up display - based on the course or route being taken.

**CamelCase:** orientation

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Orientation Uncertainty |  |  | RE | 0, 1 |
| Orientation Value | (ORIENT) |  | RE | 1, 1 |

**6.10. Periodic Date Range**

**Definition:** The active period of a recurring event or occurrence.

**CamelCase:** periodicDateRange

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Date Start | (DATSTA) |  | TD | 1, 1 |
| Date End | (DATEND) |  | TD | 1, 1 |

**6.11. RxN Code**

**Definition:** A summary of the impact of the most common types of regulation, restriction, recommendation and nautical information on a vessel.

**CamelCase:** rxNCode

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of RxN |  |  | CL | 0, 1 |
| Action or Activity |  |  | CL | 0, 1 |
| Headline |  |  | TE | 0, 1 |

**6.12. Schedule by Day of Week**

**Definition:** The nature and timings of a daily schedule by days of the week.

**CamelCase:** scheduleByDayOfWeek

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Schedule |  | 1 : Normal Operation  2 : Closure  3 : Unmanned Operation | EN | 0, 1 |
| Time of Day Start |  |  | (S) TI | 0, 99 (ordered) |

**6.13. Sector Limit**

**Definition:** A sector is the part of a circle between two straight lines drawn from the centre to the circumference. The sector limit specifies the limits of the sector In a clockwise direction around the central feature (for example a light).

**CamelCase:** sectorLimit

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Sector Limit One | (SECTR1) |  | C | 1, 1 |
| Sector Line Length |  |  | (S) IN | 0, 1 |

**6.14. Sector Limit One**

**Definition:** A sector is the part of a circle between two straight lines drawn from the centre to the circumference. Sector limit one specifies the first limit of the sector. The order of sector limit one and sector limit two is clockwise around the central feature (for example a light).

**CamelCase:** sectorLimitOne

**Alias:** SECTR1

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Sector Bearing | (SECTR1)  (SECTR2) |  | RE | 1, 1 |
| Sector Line Length |  |  | IN | 0, 1 |

**6.15. Sector Limit Two**

**Definition:** A sector is the part of a circle between two straight lines drawn from the centre to the circumference. Sector limit two specifies the second limit of the sector. The order of sector limit one and sector limit two is clockwise around the central feature (for example a light).

**CamelCase:** sectorLimitTwo

**Alias:** SECTR2

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Sector Bearing | (SECTR1)  (SECTR2) |  | RE | 1, 1 |
| Sector Line Length |  |  | IN | 0, 1 |

**6.16. Telecommunications**

**Definition:** A means or channel of communicating at a distance by electrical or electromagnetic means such as telegraphy, telephony, or broadcasting.

**CamelCase:** telecommunications

**Alias:**

**Remarks:** If no value is populated for the sub-attribute telecommunication service, this means the service is by voice communication. If no value is populated for the sub-attribute telecommunication carrier, this means the service is by land line communication.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Communication Preference |  | 1 : Preferred Calling  2 : Alternate Calling  3 : Preferred Working  4 : Alternate Working | EN | 0, 1 |
| Contact Instructions |  |  | TE | 0, 1 |
| Telecom Carrier |  |  | TE | 0, 1 |
| Telecommunication Identifier |  |  | TE | 1, 1 |
| Telecommunication Service |  | 1 : Voice  2 : Facsimile  3 : SMS  4 : Data  5 : Streamed Data  6 : Telex  7 : Telegraph  8 : Email | EN | 0, 1 |
| Time of Day Start |  |  | (S) TI | 0, 99 (ordered) |

**6.17. Text Content**

**Definition:** Textual material, or a pointer to a resource providing textual material. May be accompanied by basic information about its source and relationship to the source.

**CamelCase:** textContent

**Alias:** TXTCON

**Remarks:** Exactly one of sub-attributes onlineResource or information must be completed in one instance of textContent. Product specifications may restrict the use or content of onlineResource for security. For example, a product specification may forbid populating onlineResource. Product specification authors must consider whether applications using the data product may be prevented from accessing off-system resources by security policies.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Category of Text | (CATTXT) | 1 : Abstract or Summary  2 : Extract  3 : Full Text | EN | 0, 1 |
| Source |  |  | TE | 0, 1 |
| Source Type |  | 1 : Law or Regulation  2 : Official Publication  7 : Mariner Report, Confirmed  8 : Mariner Report, Not Confirmed  9 : Industry Publications and Reports  10 : Remotely Sensed Images  11 : Photographs  12 : Products Issued by HO Services  13 : News Media  14 : Traffic Data | EN | 0, 1 |
| Reported Date | (SORDAT) |  | TD | 0, 1 |

**6.18. Time Intervals by Day of Week**

**Definition:** The regular weekly operation times of a service or schedule.

**CamelCase:** timeIntervalsByDayOfWeek

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Day of Week |  | 1 : Sunday  2 : Monday  3 : Tuesday  4 : Wednesday  5 : Thursday  6 : Friday  7 : Saturday | EN | 0, 7 (ordered) |
| Day of Week is Range |  |  | BO | 0, 1 |
| Time of Day End |  |  | TI | 0, 99 (ordered) |
| Time of Day Start |  |  | TI | 0, 99 (ordered) |

**6.19. Vessels Measurements**

**Definition:** Values, discovered by measuring, that correspond to vessels characteristics.

**CamelCase:** vesselsMeasurements

**Alias:**

**Remarks:** VSLVAL has been set to REAL assuming 3 decimal places, i.e.: 10.000 m. That would give the result: 1. VSLMSM [VSLCAR=4 (draught); VSLVAL=10.5; VSLUNT=1 (m); COMPOP=2 (>=) ] the regulation applies for vsl of 10.5 m draught and above. 2. VSLMSM [VSLCAR=9 (deadweight); VSLVAL=2000; VSLUNT=4 (ton); COMPOP=5 (=) ] the regulation applies for vsl of exactly 2000 DWT. 3. VSLMSM [VSLCAR=1 (L.O.A.); VSLVAL=150; VSLUNT=1 (m); COMPOP=3 (<)] the regulation applies for vsl of less than 150 m length. Using a further example: 4. [VSLMSM [VSLCAR=1 (L.O.A.); VSLVAL=50; VSLUNT=1 (m); COMPOP=1 (>)]], CATVSL=3 (tanker), LOGCON=1 (and), LIMTYP=2 (required); associated to a PILBOP object: tankers with LOA > 50.0 m must use the PILBOP. In an example for tankers between 50 and 100 m in length, the coding is like this: 5. [VSLMSM [VSLCAR=1 (L.O.A.); VSLVAL=50; VSLUNT=1 (m); COMPOP=1 (>)], [VSLCAR=1 (L.O.A.); VSLVAL=100; VSLUNT=1 (m); COMPOP=3 (<)]], CATVSL=3 (tanker), LOGCON=1 (and), LIMTYP=2 (required).

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Vessels Characteristics |  | 1 : Length Overall  2 : Length at waterline  3 : Breadth  4 : Draught  6 : Displacement Tonnage  7 : Displacement Tonnage, Light  8 : Displacement Tonnage, Loaded  9 : Deadweight Tonnage  10 : Gross Tonnage  11 : Panama Canal/Universal Measurement System Net  12 : Tonnage  13 : Suez Canal Net Tonnage | EN | 1, 1 |
| Vessels Characteristics Value |  |  | RE | 1, 1 |
| Vessels Characteristics Unit |  | 3 : Metric Ton  4 : Ton  5 : Short Ton  6 : Gross ton  7 : Net Ton  9 : Suez Canal Net Tonnage | EN | 1, 1 |
| Comparison Operator |  | 1 : Greater than  2 : Greater than or equal to  3 : Less than  4 : Less than or equal to  5 : Equal to  6 : Not equal to | EN | 1, 1 |

**6.20. designation**

**Definition:** An official name, title or description. This can be an identifier itself, or an identifier which is an instance of a named designation scheme.

**CamelCase:** designation

**Alias:**

**Remarks:** No remarks.

**SubAttribute Bindings:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S-10x Attribute** | **S-57 Acronym** | **Allowable Encoding Value** | **Type** | **Multiplicity** |
| Designation Scheme |  |  | TE | 0, 1 |
| Designation Identifier |  |  | TE | 0, 1 |
| Jurisdiction | (JRSDTN) |  | EN | 0, 1 |
| Text | (INFORM)  (NINFOM) |  | TE | 0, 1 |

**7. Roles**

**7.1. Applies in location**

**Definition:** The location in which the information item applies

**CamelCase:** appliesInLocation

**Alias:**

**Remarks:** No remarks.

**7.2. Control authority**

**Definition:** The controlling organization or authority for a geographically located service

**CamelCase:** controlAuthority

**Alias:**

**Remarks:** No remarks.

**7.3. Controlled service**

**Definition:** The service controlled by an organisation or authority

**CamelCase:** controlledService

**Alias:**

**Remarks:** No remarks.

**7.4. The RxN**

**Definition:** The regulation, restriction, recommendation, or nautical information

**CamelCase:** theRxN

**Alias:**

**Remarks:** No remarks.

**7.5. The service hours for a non-standard workday**

**Definition:** The usual service hours to which an exception applies

**CamelCase:** theServiceHours\_nsdy

**Alias:**

**Remarks:** No remarks.

**7.6. Partial working day**

**Definition:** The work hours for a non-standard workday

**CamelCase:** partialWorkingDay

**Alias:**

**Remarks:** No remarks.

**7.7. Responsible authority**

**Definition:** The responsible authority

**CamelCase:** responsibleAuthority

**Alias:**

**Remarks:** No remarks.

**7.8. The marine protected area**

**Definition:** The marine protected area for which the authority is responsible

**CamelCase:** theMarineProtectedArea

**Alias:**

**Remarks:** No remarks.

**7.9. The organisation**

**Definition:** The organisation to which information relates

**CamelCase:** theOrganisation

**Alias:**

**Remarks:** No remarks.

**7.10. The information**

**Definition:** The information

**CamelCase:** theInformation

**Alias:**

**Remarks:** No remarks.

**7.11. Permission**

**Definition:** -

**CamelCase:** permission

**Alias:**

**Remarks:** No remarks.

**7.12. Vsl Location**

**Definition:** -

**CamelCase:** vslLocation

**Alias:**

**Remarks:** No remarks.

**7.13. TheApplicationRXN**

**Definition:** -

**CamelCase:** theApplicationRXN

**Alias:**

**Remarks:** No remarks.

**7.14. Is Applicable To**

**Definition:** -

**CamelCase:** isApplicableTo

**Alias:**

**Remarks:** No remarks.

**7.15. The Authority**

**Definition:** -

**CamelCase:** theAuthority

**Alias:**

**Remarks:** No remarks.

**7.16. The Contact Details**

**Definition:** -

**CamelCase:** theContactDetails

**Alias:**

**Remarks:** No remarks.

**7.17. The Authority Srv Hrs**

**Definition:** -

**CamelCase:** theAuthority\_srvHrs

**Alias:**

**Remarks:** No remarks.

**7.18. The Service Hours**

**Definition:** -

**CamelCase:** theServiceHours

**Alias:**

**Remarks:** No remarks.

**7.19. Information Provided For**

**Definition:** -

**CamelCase:** informationProvidedFor

**Alias:**

**Remarks:** No remarks.

**7.20. Provides Information**

**Definition:** -

**CamelCase:** providesInformation

**Alias:**

**Remarks:** No remarks.

**8. Information Associations**

**8.1. Associated RxN**

**Definition:** Association between a geographic location and a regulation, restriction, recommendation, or nautical information

**CamelCase:** AssociatedRxN

**Alias:**

**Remarks:** No remarks.

**Role:** The RxN

**Role:** Applies in location

**8.2. Exceptional workday**

**Definition:** Exception to the usual working day

**CamelCase:** ExceptionalWorkday

**Alias:**

**Remarks:** No remarks.

**Role:** Partial working day

**Role:** The service hours for a non-standard workday

**8.3. Protected area authority**

**Definition:** There may be more than one such authority depending on how responsibilities are divided

**CamelCase:** ProtectedAreaAuthority

**Alias:**

**Remarks:** No remarks.

**Role:** Responsible authority

**Role:** The marine protected area

**8.4. Service control**

**Definition:** The controlling authority for a service area

**CamelCase:** ServiceControl

**Alias:**

**Remarks:** No remarks.

**Role:** Control authority

**Role:** Controlled service

**8.5. Related organisation**

**Definition:** Related organisation

**CamelCase:** RelatedOrganisation

**Alias:**

**Remarks:** No remarks.

**Role:** The organisation

**Role:** The information

**8.6. Permission Type**

**Definition:** Association class for associations describing whether the subsets of vessels determined by the ship characteristics specified in APPLIC may (or must, etc.) transit, enter, or use a feature.

**CamelCase:** PermissionType

**Alias:**

**Remarks:** No remarks.

**Role:** Vsl Location

**Role:** Permission

**8.7. Inclusion Type**

**Definition:** Association class specifying the relationship between the subset of vessels described by an APPLIC data object and a regulation (restriction, recommendation, or nautical information).

**CamelCase:** InclusionType

**Alias:**

**Remarks:** No remarks.

**Role:** TheApplicationRXN

**Role:** Is Applicable To

**8.8. Authority Contact**

**Definition:** -

**CamelCase:** AuthorityContact

**Alias:**

**Remarks:** No remarks.

**Role:** The Authority

**Role:** The Contact Details

**8.9. Authority Hours**

**Definition:** -

**CamelCase:** AuthorityHours

**Alias:**

**Remarks:** No remarks.

**Role:** The Authority Srv Hrs

**Role:** The Service Hours

**8.10. Additional Information**

**Definition:** -

**CamelCase:** additionalInformation

**Alias:**

**Remarks:** No remarks.

**Role:** Information Provided For

**Role:** Provides Information

**9. Feature Associations**