|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | ES | pages (29, 30, 114, 115, 119, 128) | various definitions / remarks | ge | I have marked in yellow on several pages (29, 30, 114, 115, 119, 128) of the attached document the term "Navigational Aid", which I understand should be replaced by "Aid to Navigation" if they really mean buoys, lighthouses, etc. |  | Accepted. |
|  | UK | Figure 4 Base classes | 1.4.1.  page 8 |  | Boolean: should these have a default rather than being optional or should they only be included if true?  Multiplicity missing for:  feaureName.name  periodDateRange.dateStart and dateEnd  onlineResource: url |  | Default multiplicity [1] is not displayed by EA.  Keep displayName optional, conforming to S-101: “If not populated the default rules provided in the portrayal catalogue will be used.” |
|  | UK | Figure 5 Layout | 1.4.2  Page 9 |  | Multiplicity missing:  MooringWarpingFacility.mooringFacilityIdentifier  Berth.minimumDepth  Berth.uNlocationCode  contructionInformation.textContent  locationByMetreMark.fromMetreMark  All .geometry  Would be clearer if it was explicitly defined |  | Default multiplicity [1] is not displayed by EA.  geometry for AnchorBerth will be set to Point,Surface. Multiplicity for geometry will be 0..1 |
|  | BSH | 1.4.2 Figure 5 |  | te | Feature type HarbourAreaAdministrative, simple attribute availablePortServices should be a complex attribute |  | Accepted |
|  | BSH | 1.4.2 Figure 5 |  | te | Feature type HarbourAreaAdministrative, simple attribute generalHarbourInformation should be a complex attribute |  | Accepted |
|  | UK | Figure 10 | 1.4.7  Page 13 |  | wasteDisposalService list numbering missing from MARPOL II Category X  List numbering missing from berthingAssistance, transportationService and technicalPortService |  | Numeric codes will be known only after registry acceptance. |
|  | rmm | 1.4.8 | wrapper attributes | te | Complex attributes cargoHandling, depthsDescription, descriptionOfFacilitiesLayout, generalPortDescription, landmarks, limitDescription, majorLights, markedBy, offshoreMarks, usefulMarks, weatherResource, historicalAspectsOfTheHarbour  All but two of these complex attributes are merely wrappers around textContent, invented because the S-100 FC model conflates attribute names with type names. | (From 14 Jan. notes): The alternatives are: (1) define an enumeration of the names of the attributes in question, or (2) use the headline sub-attribute of textContent with a constraint on its values that is specific to this feature. | Comment from IIC insisted on retention as “wrapper” complex attributes.  Postpone to 1.x. |
|  | rmm | 1.4.9 | Figure 12 | te | Bindings of textContent and information are redundant. See Authority, ServiceHours, Applicability, NonstandardWorkingDay, ContactDetails. | Remove textContent from the abstract class InformationType. Add textContent to AbstractRxN and Entrance. | Accept |
|  | UK |  | 1.4.19.1.1 |  | Classification of Medical Service - Suggest “Classification and availability of medical services.” | [RM: Classification of medical services by the nature of the service provided.] | Partially accepted.  Availability is implicit, services not provided must not be encoded. |
|  | UK |  | 1.4.19.1.1 |  | Classification of services for the repair of the vessel or onboard equipment Suggest “Classification and availability of services for vessel repairs and maintenance of onboard equipment” | [RM: Classification of services for vessel repairs and maintenance of onboard equipment.] | Partially accepted.  Availability is implicit, services not provided must not be encoded. |
|  | UK |  | 1.4.19.1.1 |  | Classification of services for the adjustment of vessel equipment or for assessments pertaining to cargo, compliance with regulations, safety, or security. Does not include repairs to the vessel or onboard equipment Is this in reference to compass swinging, cargo surveys, radio surveys etc. Don’t think description is as clear as it could be? | [RM: “Does not include…” will be made the Remark. If the definition is not clear that suggests a problem with the original model.] | No other change for Ed. 1.0.  Revisit in Ed. 1.x. |
|  | UK |  | 1.4.19.1.1 |  | Classification of assistance available for any kind of manoeuvring and berthing operations  Think this could be confused with tugs and pilotage. Suggest “Classification and availability of assistance for berthing operations” | [RM: Classification of assistance for berthing operations.] | Partially accepted.  Availability is implicit. |
|  | GE | 1.4.19.1.1 |  | GE | availablePortServices | Consider extension of availablePortServices as complex attribute with two sub-attributes  + essentialAvailablePortService  + non-essentialAvailablePortService | Not accepted. Distinction between essential & non-essential unclear and likely to be subjective. Revisit in Ed. 1.x if still an issue. |
|  | GE | 1.4.19.1.1 |  | GE | Enumerations of availablePortServices reflect services that the vessel could take advantage of. | Consider availablePortServices as generic applicable for the whole port area.  In addition, consider availablePortServices as an entry to each individual feature type Berth and AnchorBerth.  [RM: Prima facie OK, but if it’s attached to both a harbour area and its subdivisions, the semantics must be defined, and the effort need to acquire, ingest, and encode that information must be balanced against its utility in S-131. For example if it is NOT attached to a Berth, does it mean the Berth provides all the services mentioned in the instance attached to the harbour area, or none of them, or are the services provided at that Berth merely unspecified?  Should availablePortServices be a complex attribute, or should its sub-attributes be individually bound to feature class(es)? Should it be one or more information types instead?] | It is currently bound to HarbourAreaAdministrative, that would be the whole port area (Figure 7).  Postpone bindings to additional features to Ed. 1.x. |
|  | GE | 1.4.19.1.1 |  | GE | There are several further important services that should be mentioned, e.g. bunker operations (fresh water, fuel oil, lub oil), electricity supply (shore connections) and supply of provisions (food and beverages, spare sparts) | [RM: A supplyServices enumeration is depicted in the 0.1 model but it is not used anywhere.] | Will add a supplyService attribute to availablePortAServices. |
|  | SJC | ~~HarbourAreaAdministrative/~~ | availablePortServices | te | Missing the attribute for encoding supply services.  [RM: availablePortServices is a complex attribute and any changes to it will apply wherever it is used - see GE comment about binding it to other features too.] | Add the attribute supplyService to availablePortServices and include items such as fuel, fresh water, provisions. | See GE comment above. |
| S-131 V0.2 | CHS CA | Port Services |  |  | There seem to be the supply services | I suggest adding Supply services in part or total  Supply services   * Water * Provisions * Bank * Cargo Handling * Electric energy * Fuel - gas * Fuel - diesel * Laundromat * Lubricants * Pharmacy * Restaurant * Ship supply * Steam * Toilet | See GE comment above.  Note that some of the listed values, or very similar entries, already exist in the registry and those will have to be used instead, e.g., gas/diesel fuel will have to be combined. |
|  | UK |  | 1.4.19.1.2 |  | cargo handling operations within the given area. Includes Import cargoes and Export cargoes. Why is import and export important? | [RM: Can the original modelling team respond?] | Delete “Includes import…”. |
|  | UK |  | 1.4.19.1.3 |  | constructionInformation Suggest this should be developmentInformation, could construction be too limiting?? | [RM: See S-101 DCEG guidance (included after list of comments).  “developmentInformation” could be confused with the S-121-defined listed value “development: Describes a feature that is in development”). which relates to some kind of legal status. WMO also uses variations of “development” to describe ice formation.] | Not accepted  Keep name constructionInformation |
|  | UK |  | 1.4.19.1.3 |  | typeOfDevelopment Multiplicity missing, also missing in “Layout” model | [RM: Given that there is a textContent co-attribute, this attribute is not needed, textContent can be used to describe the type of development.] | Retained, with multiplicity changed from 1 to 0..1. Consider removal in Ed. 1.x. |
|  | UK |  | 1.4.19.1.4 |  | categoryOfDepthsDescription Multiplicity missing |  | Default multiplicity [1] is not displayed by EA. |
|  | UK |  | 1.4.19.1.6 |  | See 1.4.19.1.3 – in terms of development instead of construction & 1.4.19.1.2 - is import and export important |  | See comments on 1.4.19.1.2 & 1.4.19.1.3. |
|  | UK |  | 1.4.19.1.6 |  | Description of historical aspects of the harbour Some ports have historical wrecks with limitations,  don’t see the need for this. How does this support navigation? | [RM: Not clear why historicity matters for S-131. If there are restricted areas or obstructions they should be encoded as such, preferably as geo features in the underlying ENC.] | Remove historical­AspectsOfTheHarbour. Underlying ENC should encode wrecks, restricted areas, or obstructions. |
|  | NO | 1.4.19.1.6  genealHarbourInformation | HistoricalAspectsOfTheHarbour | ed | Perhaps use some of the same description as is used under general Port Description, for definition. Limit to only aspects that are relevant for navigation/safety? | [RM: “Historical aspects which could have an impact on the mariner’s/company’s safety or professional reputation”? Would be preferable to encode such information in ways that are more meaningful for navigation.] | (See UK comment above) |
|  | GE | 1.4.19.1.6 |  | GE | historicalAspectsOfTheHarbour  The history of the port might not be of interest for the vessel. If a navigator is interested in the history of the port a museum or the internet might be a better source instead of ECDIS. | Remove historicalAspectsOfTheHarbour | (See UK comment above) |
|  | UK |  | 1.4.19.1.9 |  | Landmarks - Could this not get confused with Landmark “A prominent object at a fixed location on land which can be used in determining a location or a direction.” In GI registry | [RM: Rename to significantLandmarks.] | Accepted & renamed. |
|  | UK |  | 1.4.19.1.11 |  | majorLights Major lights are only from fixed structures. So a buoy cant be a major light. Amended extract from S-4 B-470.2, suggest “A navigationally significant light essential for marking landfalls, offshore dangers, shipping routes, port access channels or protection of the marine environment” |  | Accepted |
|  | UK |  | 1.4.19.1.12 |  | The navigational aids used to mark an area or object AtoN’s not navigational aids |  | Accepted |
|  | UK |  | 1.4.19.1.13 |  | fromMetreMark Multiplicity missing |  | Default multiplicity [1] is not displayed by EA. |
|  | UNH |  | locationByMetreMark  1.4.19.1.13 | Te | The name was originally MeterMarkNumber  The definition should follow guidance in Port Information Manual 3.06 page 3 and contain: bollard number, manifold number *or* ramp number | Propose generic name: locationNumber  Update definition to be inclusive with more examples. | OBE, that definition is used for BerthPosition; also, see SJC and RMM comments on Berth, etc. |
|  | UK |  | 1.4.19.1.14 |  | Navigational aids that are useful in situational awareness when offshore Not sure this definition is correct. Offshore marks are generally located offshore. Platforms, light vessels etc | [RM: Can original modelling team clarify intent and explain the difference between offshoreMarks and usefulMarks?  Note that “offshore” has defined meanings in the IHO Dictionary and in US law:  IHO: (1) (adj. and adv.). Away from the shore. (2) (n.) The comparatively flat zone of variable width which extends from the outer margin of the rather steeply sloping shoreface to the edge of the continental shelf.  US CFR: Offshore area means the area up to 38 nautical miles seaward of the outer boundary of the nearshore area. (“Nearshore area” also has a specific definition.)] | TBD.  Aids to navigation or prominent marks located away from the shore. |
|  | UK |  | 1.4.19.1.15 |  | Navigational aids that are useful in situational awareness Useful marks should are easily visible and identifiable and are used for position fixing. They are not limited to AtoN’s Not sure current description covers this. Suggest “Aids to Navigation or prominent marks which are clear visible and identifiable which may be used in determining location or direction.” | [RM: Revised definition:  Aids to Navigation or prominent marks which are usually clearly visible and identifiable enough to be used in determining location or direction.] | Accepted with modification |
|  | UK |  | 1.4.19.1.16 |  | onlineResource [0-1] Would you never have multiple resource links? |  | Not accepted. The multiplicity of the weatherResource attribute could be made 0..\* instead, but is there is a use scenario where a port provides multiple web sites for local weather information? |
|  | rmm | 1.4.19.12 & 1.4.11 | categoryOfMaritimeBroadcast | te | Note in Figure 14 about need for categoryOfMaritimeBroadcast and categoryOfRadioMethods. | Remove categoryOfMaritimeBroadcast as being in scope for S-123 rather than S-131.  Retain categoryOfRadioMethods, it describes how to communicate with an authority or service provider. | Accept |
|  | GE | 1.4.21.3.1 |  | GE | berthingAssistance  The enumeration does not clearly reflect the intention. Why is Tractor mentioned? A tractor tug could be a Tug – Harbour, too. If there is a request to mention different types of tugs a complex attribute “tug” might be more useful.  In general, Germany is questioning the necessity of “Tractor” as an individual attribute instead of using the different tug types. By doing so the term Tractor would become superfluous. | Consider a complex attribute “tug”  <<complex attribute type>>  Tug  + categoryOfTug  + BollardPull [t]  + maximumSpeed [kn]  …  <<complex attribute type>>  categoryOfTug  + typeOfTug  + areaOfOperation  <<enumeration>>  typeOfTug  ASD = 1  Tractor = 2  Rotor = 3  Carrousel = 4  …  <<enumeration>>  areaOfOperation  Deep Sea = 1  Harbour = 2  Salvage = 3  … | Postpone elaboration of tug assistance information (category, bollard pull, speed, area of operation, etc.) to Ed. 1.x. Attribute describing bollard pull will be added for other uses, see later comment on 1.4.28.  Recommendations:  (1) Remove listed values for specific tug types from the berthingAssistance enumeration,  (2) define a single listed value “tug” (A small, powerful boat used to push or pull barges or to help maneuver larger vessels) - but all large ports will have tugs?  (3) add a text attribute tugInformation to availablePortServices (defn: Textual description of the types and capacities of available tugs). |
|  | GE | 1.4.21.3.1 |  | GE | berthingAssistance  The liability question should be considered, which has effects on the data provision. Who will check the data provided by the port, referring to tugs and the various tug types in particular? | [RM: Producers can always avoid including any information they are unsure about, or add a disclaimer in an associated NauticalInformation object, textContent attribute, or QualityOfNpnbathymetricData meta-feature.] | Accepting the recommendation in the previous row should reduce concerns about liability. |
|  | GE | 1.4.21.3.1 |  | GE | The proposed description of berthingAssistance is too detailed.  Germany believes that an information on the availability of **manoeuvringAssistance** in a harbour provided as a Boolean attribute is sufficient. | [RM: Since the multiplicity is 0.., Hydrographic Offices can always omit this attribute.] | Not accepted.  berthing assistance was included in the 0.1 model. Reduction can be discussion point for Ed. 1.x if necessary. |
| S-131 V0.2 | CHS CA | CathegoryOfAnchorage |  |  | Should we add Anchorage restricted area? | [RM: Clarification needed as to what is meant by “anchorage restricted area”. The CATACH enumeration in the GI registry has no value for “restricted anchorage" or the equivalent, though there are various more-specific restrictions including time-limited anchorages. Note that areas where anchoring is restricted or prohibited are covered by the enumeration attribute restriction.] | Postpone to 1.x |
| S-131 V0.2 | CHS CA | CathegoryOfAnchorage |  |  | Why there is a CategoryOfAnchorage and there is a Anchorage area in the CategoryOfPortSection | [RM: categoryOfAnchorage denotes the type of AnchorBerth, the “anchorage area” in categoryOfPortSection denotes the type of port section feature. They are different features in S-101.] | No change to model |
|  | UK |  | 1.4.21.3.4  Page 51 |  | Shoal depths From IHO dictionary “. An offshore hazard to surface NAVIGATION with substantially less clearance than the surrounding area and composed of unconsolidated material.” | [RM: “offshore” is problematic in the context of S-131, since we are talking about ports. Also, confirm whether the nature of the bottom (“unconsolidated material”) is relevant in the context of S-131.  The GI registry contains a slightly different definition: “shoal”, defined as follows:  A shallow elevation composed of unconsolidated material that may constitute a hazard to surface navigation.] | Modified.  Replace with existing registry value “shoal”. |
|  | UK |  | 1.4.21.3.4  Page 51 |  | Description of controlling depths  From IHO Dictionary: The least DEPTH in the approach or CHANNEL to an area, such as a PORT or ANCHORAGE, governing the maximum DRAFT of vessels that can enter. |  | Accepted; Also, “depths” -> “depth” to conform to registry. |
|  | UK |  | 1.4.21.3.5  Page 52 |  | Ropes from Ashore : Public = TBD  I can only guess that this means the use of shore lines for mooring rather than ship's (or small craft's) lines? Clarification needed from the original proposer.  Some ports make you take their heaving line. I have not been to a port that make you use their ropes. Don’t know what this is for. |  | Revise: Heaving Lines from Shore (Heaving lines must be taken from shore.) |
|  | UK |  | 1.4.21.3.6  Page 53 |  | An area of water or enlargement of a channel used for turning vessels Already in registry |  | Agreed, will use registry definition. |
|  | UK |  | 1.4.21.3.6  Page 53 |  | Harbour Basin : Public  A sheltered body of water available for port operations connecting either with the sea, with an outer port or with another basin. Generally an almost land locked area leading off an inlet, firth or sound. Also, an area of water limited in extent and nearly enclosed by structures alongside which vessels can lie Already in registry “An enclosed area of water surrounded by quay walls constructed to provide means for the transfer of cargos from and to ships.” |  | Accepted, will use registry definition. |
|  | UK |  | 1.4.21.3.6  Page 53 |  | Pilot Boarding Place : Public  A location offshore where a pilot may board a vessel in preparation to piloting it through local waters.  [Registry, Feature Pilot Boarding Place] Do we have pilot disembarkation? | [RM: “Offshore” may be problematic for port areas?  Registry contains enumeration pilotMovement with listed values {embarkation, disembarkation, pilot change}]  pilotMovement defn.: Classification of pilot activity by arrival, departure, or change of pilot. It may also describe the place where the pilot's advice begins, ends, or is transferred to a different pilot | replace with listed value pilotMovement. Note that the registry definition will have to be the same as the attribute. |
|  | UNH | categoryOfPortSection | Pilot Boarding Place  1.4.21.3.6 | Te | Our definition should only be a location on the water where a pilot boards. (this mentions “offshore”)  S-127 takes care of this anyway | seems best to leave this out of s-131 | See UK comment on pilot boarding place. |
|  | UK |  | 1.4.21.3.6  Page 53 |  | Maneuvering Area : Public  An enlargement of a channel for turning vessels. Also called manoeuvering basin.  [S-32] Same as turning basin?? |  | Accepted.  That will duplicate “turning basin” which is already a listed value. |
|  | UNH | categoryOfPortSection | Turning Basin/Maneuvering Area  1.4.21.3.6 | Te | What is the difference between turning basin and the maneuvering area? Is one maybe closer to port zones and one further out?  Turning Basin is already in the registry, but Maneuvering area is in S-32 and seems more generic | Either Eliminate Turning Basin and Keep Maneuvering Area. Or define them to be specific to the sections using them. | Accepted.  Eliminating maneuvering area since turning basin is already in registry. |
|  | NO | 1.4.21.3.7 | categoryofWaterwayArea | ge | Support proposal to merge categoryOfPortSection and categoryOfWaterwayArea, as they partly overlap. |  | Accepted |
|  | UNH | categoryOfPortSection/categoryOfWaterwayArea | 1.4.21.3.6/  1.4.21.3.6 | Te | Because this is so similar to waterwayArea would like to see a better definition/intent for use and guidance for when/why to use.  Both have:  turning basin/ manoeuvring area  port fairway / fairway (this should be in waterway only)  seaplane Area/Seaplane Operating Area (this in waterway only) | Explain the intent for use and how it differs from waterwayArea. Are both really necessary?  Port section (based on this category) seems more clearly defined within the closer to shore areas whereas the waterway areas are more on transit to berthing areas. | Will be merged. See NO comment above. |
|  | BSH | 1.4.21.3.6  1.4.21.3.7 | categoryOfPortSection/categoryOfWaterwayArea | te | The intention to separate them was based on the assumption that a port section can be a composition of many waterway areas.  Example: The categoryOfPortSection value 3 „Harbour Basin“ includes many waterways each directing to another berth | [RM: Can use the same attribute in both waterway area and port section features, if necessary with local restrictions on allowed values.] | Will be merged. See other comments (NO, UNH). |
|  | UK |  | 1.4.21.3.7  Page 54 |  | Safety Zone : Public  The area around an installation within which vessels are prohibited from entering without permission This is in IHO dictionary, although I believe we should deviate, I wonder if we should change the attribute name to avoid future confusion. Suggest Port Safety Zone. From IHO dictionary “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.” | [RM: Revised definition:  The area around a port facility or harbour installation within which vessels are prohibited from entering without permission.] | Accepted/modified.  Name will be portSafetyZone, definition is revised. |
|  | UK |  | 1.4.21.3.7  Page 54 |  | Seaplane Operating Area : Public  An area in which sea-planes anchor or may anchor.  Is an operating area not different to an anchorage? I limited, but I thought the operating area is where it taxi’s, takes off and lands?? | [RM: In S-101, anchorages for seaplanes must be encoded as AnchorageArea or AnchorBerth with categoryOfAnchorage=6 (seaplane anchorage); there is also the geo feature SeaplaneLanding­Area (A designated portion of water for the landing and take-off of seaplanes).] | Rename this listed value to seaplaneLandingArea (registry will require the existing definition). Add listed value seaplaneAnchorage. |
|  | UK |  | 1.4.21.3.8  Page 55 |  | Ashore fire brigade : Public = 1  A shore based organised body of people trained to extinguish fires.  Is Brigade international? Suggest “Local Fire Service”? | [RM: Change label: Shore based firefighting  Definition: Personnel and equipment that are capable of combating a fire from ashore.  Remark: Generally do not have training in or capability of boarding and combating a fire on a vessel. For example, portable fire pumps and shore side fire trucks.] | Modified. |
|  | NO | 1.4.21.3.8  firefightingService | Fire-fighting boat | ed | Definition:  Motorboat with pump and equipment intended for firefighting. (translated)  Source: the College of Fire Thermology  <http://kbt.no/faguttrykk.asp?Uttrykk=brannb%E5t>  (only available in Norwegian) |  | Modified, using definition proposed by UK. |
|  | UK |  | 1.4.21.3.8  Page 55 |  | Fire-fighting boat : Public = 2  A boat fitted with fire pumps and other fire-fighting apparatus for assisting vessels and protecting warehouses and piers against damage by fire.  Simplify.. suggest “specialised watercraft with fire-fighting apparatus designed for fighting shoreline and shipboard fires.” |  | Accepted, need source. |
|  | UK |  | 1.4.21.3.8  Page 55 |  | Onboard trained fire brigade : Public = 3  An organised body of people with special training in extinguishing fires on vessels and offshore installations.  Suggest “Marine or Maritime trained fire brigade” definition “Local Fire Service with specialist maritime training” | Onboard firefighting: Trained firefighting personnel with the capability of boarding and combating a fire on a vessel. | Modified. |
|  | UK |  | 1.4.21.3.9  Page 55&56 |  | De-ratting : Public = 2  Recommend deletion, covered by shipSanitationControl Agree, old term no longer in use  De-ratting Certificate : Public = 3  Recommend deletion, covered by shipSanitationControl.  Agree  De-ratting exemption certificate : Public = 4  Recommend deletion, covered by shipSanitationControl.  Agree |  | Accepted. |
| S-131 V0.2 | CHS CA | Medical services  Security-Safety-Emergency services and Ship sanitation Control |  |  | There seem to be a confusion between Medical services and Security-Safety-Emergency services and Ship sanitation Control | I suggest the following:  Sanitation and border control (these services are often together):   * De-ratting * De-ratting Certificate * De-ratting exemption certificate * Fumigation * Quarantine * SSCC * SSCEC * Customs * Immigration   Security, Safety, Emergency Services   * Coast Guard * Environmental Emergency * Emergency coordination center * Guard or security service * Police * Rescue * Ambulance * Infirmary or medical services * Vaccination center | Delete de-ratting, de-ratting certificate, de-ratting exemption certificate from medical services (see UK comment above).  Retain medical services, ship sanitation control, and security/safety/emergency services as separate attributes. |
|  | SJC | medicalService |  | te | De-ratting related items should be in shipSanitationControl.  De-ratting certificates have been replaced by ship sanitation control certificates, effective 2007.  Fumigation seems to be measures applied to certain types of cargoes or containers, not a medical service for persons. | Delete de-ratting related items and Fumigation. | Agreed, see previous comments. |
|  | UK |  | 1.4.21.3.10  Page 56 |  | Bows to seaward : Public = TBD  Vessel is secured perpendicular to the wharf with bow to seaward.  Do we need Port side and Starboard side only mooring? | [RM: Original 0.1 model had “bow to seaward” & “stern to wall” - which appear to be the same thing. Can original modelling team clarify?  Are “port-side” & “starboard-side” also needed? If so - definitions?] | TBD, pending definitions |
|  | rmm |  | 1.4.21.3.10 methodOfSecuring |  | GI Registry defines:  singlePointMooring: A mooring structure used by tankers to load and unload in port approaches or in offshore oil and gas fields. The size of the structure can vary between a large mooring buoy and a manned floating structure.  singleBuoyMooring: A large mooring buoy used by tankers to load and unload in port approaches or in offshore oil and gas fields.  Other types of moorings in the registry:  catenaryAnchorLegMooring, mooringTower, tautWireMooring, singleAnchorLegMooring, mooringCable, tieUpWall, dolphin, deviationDolphin:, mooringBuoy | Use registry definitions of SPM and SBM.  Consider whether other types of moorings (see categoryOfMooringWarpingFacility, categoryOfInstallationBuoy) should be added to methodOfSecuring. | Will use registry definitions of SBM & SPM in Ed. 1.0.  Postpone consideration of other mooring structures to Ed. 1.x. |
|  | NO | 1.4.21.3.11 repairService | Bridge | ed | Definition: Bridge equipment repair? |  | Accepted. Better definition needed, even “bridge equipment repair” repeats words in the name. |
|  | UK |  | 1.4.21.3.11  Page 57 |  | Bridge : Public = 1  Bridge repair?  Is this needed? |  | Original model had it. See NO comment above. |
|  | UK |  | 1.4.21.3.11  Page 58 |  | Diver Services : Public = 3  A service for underwater repair  “A service for underwater inspection and repair” |  | Accepted |
|  | UK |  | 1.4.21.3.11  Page 58 |  | Electronic equipment : Public = 5  A service for repair of electronic equipment  Overlap with Navigational Equipment. Suggest “A service for the repair of ships electronic systems” |  | Accepted |
|  | UK |  | 1.4.21.3.11  Page 58 |  | Navigational equipment : Public = 7  A service for repair of navigational and electronic equipment  Overlap with electronic equipment – suggest A service for repair of navigational equipment” |  | Accepted |
|  | UK |  | 1.4.21.3.12  Page 59 |  | Rescue : Public = 8  Registry has Sea Rescue Control: A unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region.  Is this description appropriate for S-131, given that it says "...within a search and rescue region"? SAR regions cover large areas of the ocean. If a different defintion is needed, maybe:  port rescue: rescue operations in the port area?  Keep simple “Local search and rescue service” |  | TBD. Will change to “sea rescue control” if “rescue as defined is declined by the registry. |
|  | NO | 1.4.21.3.15 transportationService | Bicycle | ed | Is it relevant to include bicycle in this list? | [RM: Received model had it. Original modelling team should explain why it is needed.] | TBD. Deletion recommended |
|  | UK |  | 1.4.21.3.15  Page 61 |  | Bus  A bus is a large motor vehicle which carries passengers from one place to another. Buses often drive along particular routes  English Collins dictionary | [RM: Received model had it. Original modelling team should explain why it is needed.] | TBD. Delete or replace with busStation, which is already defined in the registry. |
|  | UK |  | 1.4.21.3.15  Page 62 |  | Sea : Public  Transportation by sea.  Isn’t it a little obvious there is transportation by sea. We are describing a port. | [RM: Received model had it. Original modelling team should explain why it is needed.  The concept “sea” is defined in the registry as follows: (1) The great body of salt water in general, as opposed to land; ocean. (2) One of the smaller divisions of the oceans. (3) The state of the surface of the ocean with regard to wave or swell, as a calm sea. See Cross Sea, Head Sea, Beam Sea, Following Sea, Quartering Sea, Sugar Loaf Sea.] | TBD. Deletion or refinement recommended. |
|  | SJC | wasteDisposalService | 1.4.21.3.16 | te | The categorization in MARPOL Annex II have been changed from Category A, B, C, D to Category X, Y, Z, OS, effective 2007.  IMO reference data model approved by FAL45 has a table of code lists maintained by IMO, including Code List for Waste type as needed by MEPC.1/Circ.834/Rev.1 (2018): CONSOLIDATED GUIDANCE FOR PORT RECEPTION FACILITY.  [RM: see figures below.] | Change the items and ordering to be consistent with those in the waste type code list maintained by IMO, as follows:  MARPOL Annex I Oily bilge water  MARPOL Annex I Oily residues (sludge)  MARPOL Annex I Oily tank washings (slops)  MARPOL Annex I Dirty ballast water  MARPOL Annex I Scale and sludge from tank cleaning  MARPOL Annex I Other oily waste  MARPOL Annex II Category X substance  MARPOL Annex II Category Y substance  MARPOL Annex II Category Z substance  MARPOL Annex II OS - other substances  MARPOL Annex IV Sewage  MARPOL Annex V A- Plastics  MARPOL Annex V B- Food wastes  MARPOL Annex V C- Domestic wastes  MARPOL Annex V D- Cooking oil  MARPOL Annex V E- Incinerator ashes  MARPOL Annex V F- Operational wastes  MARPOL Annex V G- Animal carcasses  MARPOL Annex V H- Fishing gear  MARPOL Annex V I- E-waste  MARPOL Annex V J- Cargo residues (non-HME)  MARPOL Annex V K- Cargo residues (HME)  MARPOL Annex VI Ozone-depleting substances and equipment containing such substances  MARPOL Annex VI Exhaust gas-cleaning residues  Then, definition per item seems unnecessary, since all the items are categorized according to MARPOL and MEPC.1/Circ.834/Rev.1.  If definitions are still needed, then perhaps a pattern can be used, such as follows:  MARPOL Annex I Dirty ballast water  Definition: The service with facility to receive oil related waste/residue of the type Dirty ballast water, as specified in MARPOL Annex I.  MARPOL Annex II Category X substance  Definition: The service with facility to receive chemical/ Noxious liquid substances related waste/residue of Category X substance, as specified in MARPOL Annex II.  MARPOL Annex V A- Plastics  Definition: The service with facility to receive garbage related waste/residue of the type Plastics, as specified in MARPOL Annex V.  MARPOL Annex VI Exhaust gas-cleaning residues  Definition: The service with facility to receive air pollution related waste/residue of the type Exhaust gas-cleaning residues, as specified in MARPOL Annex VI. | Agreed.  Definition of each item is required by the GI registry.  Note that (1) not all ports provide information exactly according to these categories (see figures added in col. 6); (2) breakdown into sub-categories requires precise and complete details to be encoded in datasets, down to that level of detail.  “oily mixtures containing chemicals” → “other oily waste”?  Occasional lack of distinctions related to Annex V (Garbage). |
|  | UNH | wasteDisposalService | 1.4.21.3.16 | Te | Inland ENC has categoryOfRefuseDump  1 – cargo residue/slop  2 – waste oil  3 – grey/black water  4 – domestic refuse | Should this be reused or modeled after? | Overtaken by events. Will use MARPOL categories and definitions (see SJC comment on wasteDisposalService above). |
|  | UNH | wasteDisposalService | Slop disposal  1.4.21.3.16 | Te | Cargo Residue/Slop in IHO dictionary (inland ENC) | Definition: A facility where vessels can dispose of cargo residues and/or slops | Overtaken by events. Will use MARPOL categories and definitions (see SJC comment on wastDisposalService above). |
|  | UK |  | 1.4.21.5 |  | SafetyNET : Public = 7  SafetyNET is an international automatic direct-printing satellite-based service for the promulgation of navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages - maritime safety information (MSI) - to ships  Out of date, should be Enhanced Group Call | [RM: Definitions from Circ. 1364 & 1310 below.  **MSC.1/Circ.1364/Rev.2, 2020]** SafetyNET is an international automatic direct-printing satellite-based service for the promulgation of Maritime Safety Information (MSI), navigational and meteorological warnings, meteorological forecasts, Search and Rescue (SAR) related information and other urgent safety-related messages to ships. It has been developed as a safety service of the Inmarsat C Enhanced Group Call (EGC) system to provide a simple and automated means of receiving MSI and SAR related information on board ships at sea.  **MSC.1/Circ.1310/Rev.1, 2014]** International SafetyNET service means the coordinated broadcast and automatic reception of maritime safety information via the Inmarsat Enhanced Group Call (EGC) system, using the English language, in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended. | Not accepted.  Definition is in registry and appears to be based on Circ. 1364/Rev2. |
| S-131 V0.2 | CHS CA | categoryOfVessel |  |  | Should there be CategoryOfBerth or is it covered by the categoryOfVessel?:   * For grain * For Oil and gas * For other liquids * For bulk cargo * Cruise liners * Roll-on/roll-off * General * Lay and Lay-by berth   For cargo containers? |  | categoryOfBerth is not needed, associated Applicability (1.4.12, Fig. 15) will encode cargo using categoryOfCargo and vessel type using categoryOfVessel.  cruise liners = passenger  grain = bulk  oil = bulk  lay & lay-by = (new? definition needed)  “container terminal” and “container” are both defined in the registry |
|  | NO | 1.4.21.17 categoryOfHarbourFacility | QuarantineStation | te | Missing definition | [RM: Defined in registry. “A medical control center located in an isolated spot ashore where patients with contagious diseases from vessel in quarantine are taken.”] | Will use existing registry definition. |
|  | UNH | categoryOfHarbourFacility | 1.4.21.17 | ed | Attribute capitalization is inconsistent | To be consistent with IHO Registry items all attributes should be capitalized. | Accepted. |
|  | UNH | categoryOfHarbourFacility | Service harbour  1.4.21.17 | ed | Definition: The word “which” is missing after “within” (taken from IHO registry) | Add “which” after “within” | Accepted |
|  | NO | 1.4.21.18  CategoryOfPreference | Alternate 2 | ge | The use of an alternative option: Will this necessarily always be situation-dependent and not necessarily static? (not necessarily the same place from time to time?) |  | Delete. This attribute is not used in S-131. |
|  | UNH | FeatureType | locationMRN  1.4.22  & Fig. 5 | te | locationMRN name. Features have geometries so it will inherently also link the locations | Rename to more generic MRN so it can link all the features (not just a location) | Not accepted. Distinction between MRN and locationMRN unclear.  locationMRN already exists in the Registry. Trying to add concepts to the Registry that are similar to existing concepts leads to questions, rejections and delays. |
|  | rmm | AnchorBerth |  |  | This class has no local attributes in the model, only inherited attributes. In S-101 it has category, radius, and status attributes (plus others which are, in S-131, inherited). | Reconsider omission of category, radius, and status attributes. | Postpone to 1.x. |
|  | SJC | 1.4.28  Berth |  | te | The definition of Berth in IMO reference data model is more suitable for S-131 than that in IHO S-32. | Change the definition of berth  from “Place in which a ship is moored at wharf (Source: IHO S-32)”  to “The space assigned to or taken up by a ship when anchored or when lying alongside a quay, wharf, jetty, or other structure (Source: IMO reference data model, approved by FAL45)” | Not accepted. A product specification cannot redefine an entry that is already in the GI Registry. |
|  | SJC | 1.4 28  Berth | minimumDepth | te | Need to reference to a vertical datum. | 1. Definition: the minimum depth of the berth (the berth pocket, or body of water at the berth) measured from a specified sounding datum, usually maintained by the authority.   [p.s. Definition of Berth Pocket: Body of water at the berth or anchor berth with sufficient footprint to allow the vessel to make fast to the shore or mooring buoys or to anchor (NP100), Source: Port Information Manual]   1. Specify that the sounding datum should be the same as the chart datum; otherwise, need another attribute “soundingDatum” | Modified. Rename as minimumBerthDepth: The least depth of the body of water at the berth with sufficient footprint to allow a vessel to make fast to the shore or mooring buoys, or to anchor.  Remark: The minimum depth is measured from a specified sounding datum and usually maintained by the port authority.  DCEG will have an encoding note requiring referencing to the chart datum. |
|  | SJC | Berth | berthElevation | te | Need to reference to a vertical datum.  Better be consistent with the “elevation” attribute of the Coastline, or the “height” attribute of the ShorelineConstruction | 1. Rename to elevation or height 2. Use the definition in GI registry : “The altitude of the ground level of an object, measured from a specified vertical datum.” for elevation; or “The value of the vertical distance to the highest point of the object, measured from a specified vertical datum” for height. 3. Specify that the vertical datum should be the same as the chart datum; otherwise, need another attribute “verticalDatum” . | Accepted, will re-use existing “elevation” attribute from registry.  DCEG will have an encoding note requiring referencing to the chart datum. |
|  | SJC | Berth | cathodicProtectionSystem | te | A more relevant definition of cathodicProtectionSystem would facilitate the understanding of the use of this attribute. | “Cathodic protection is applied, sometimes in conjunction with protective coatings, to protect the external surfaces of steel harbour installations and appurtenances from corrosion due to seawater, brackish water, saline mud or soil fill.  Cathodic protection works by supplying sufficient direct current to the immersed external surface of the structure to change the steel to electrolyte potential to values where corrosion is insignificant.”   1. Source: ISO 13174:2012(en), Cathodic protection of harbour installations | Modified.  “A system used to protect a metallic structure against corrosion by supplying direct current to the immersed external surface of the structure.” |
|  | SJC | Berth | categoryOfBerthLocation | te | To further reflect the use of this attribute in the definition (The berth type available) | Change the definition to “categorization of the berth according to the way berth location or extent is defined”. | Modified.  Classification of a berth according to the method of describing its location or extent. |
|  | SJC | Berth |  | te | Add an attribute locationByGlnExtension | Definition: One or more Global Location Number (with extension part), e.g. of a bollard, defining a point on or a linear extent of a berth.  p.s. GLN extension part should be of less than 20 alphanumeric characters. | Modified, add the following attributes:  meterMarkNumber  gLNExtension  bollardNumber  manifoldNumber  rampNumber  Definitions follow. |
|  | rmm | Berth BerthPosition WaterwayArea | various location attributes | te | There are various means of denoting locations in textual or numeric (but not coordinate or name) form, such as meter mark numbers, bollard numbers, manifold number, ramp number, plain text. It is necessary to know what kind of object or structure or marking the number indicates. | Define specific attributes for each type of location description and bind to the appropriate features. Definitions like the enumeration above, but adapted to simple attribute types.  meterMarkNumber [0..2]{ordered}: text (An identifier for a specific position along a linear extent of a wharf, quay, or jetty)  gLNExtension [0..1]: text The GLN extension component is used to identify internal physical locations within a location which is identified with a GLN. Must conform to the rules for GLN extension. (GS1 specification).  bollardNumber [0..2] {ordered}: text (An identifier used to locate a specific bollard (a small shaped post, mounted on a wharf or dolphin used to secure ship’s lines)  manifoldNumber [0..2] {ordered}:text An identifier for a specific location on a manifold (a pipe or chamber with several openings  rampNumber [0..1]: text An identifier for a specific ramp (a sloping structure that can be used as a landing place for small vessels, landing ships, or a ferry boat, or for hauling a cradle carrying a vessel, or for the transfer of rolling cargo). |  |
|  | SJC | Berth |  | te | Add an attribute locationByReferencePosition | Definition: One or more reference points, defining a point on or a linear extent of a berth. | Not accepted. Point-type spatial attribute of associated BerthPosition encodes this information. |
|  | UNH | Berth | terminalIdentifier  1.4.28  & Fig. 5 | Te | terminalIdentifier should link to terminal MRN | Rename to terminalMRN Change type to URN[0..1]  [RM: In received V 0.1 model, the type of Terminal.terminalId is text, as is type of Berth.terminalIdentifier  NOTE: (a) Terminal inherits locationMRN from FeatureType, (b) there is a Terminal/Berth feature association which encodes that link (Figure 7).  Given the feature association, terminalIdentifier is redundant in Berth.] | Retain original modelling as text attribute.  Deletion recommended, given the Terminal/Berth feature association. |
|  | BSH | 1.4.28 | Berth  BerthPosition  MooringWarpingFacility |  | Need additional element to describe bollards in more detail: bollard capacity, bollard type?  The types are (Source: Bollard-Catalog.pdf http://www.nauticenter.com › pdf › Bollard-Catalog):  Single bitt bollard  Double bitt bollard  T-Head bollard  Staghorn bollard  Kidney bollard  Cleats  Regarding the units, often tons are used. We found also examples where kN is used. These units can easily be converted. So, decide what suits best.  I don’t know whether the bollard type information is really needed. If not we can simply add a “bollardLoadCapacity” attribute to the MORFAC feature. That is the simplest solution.  Units can also be added to the official list of units, if not already covered there. | It becomes more complex if a “categoryOfBollardType” attribute is needed.  Option 1: Separate bollard from MORFAC and add categoryOfBollardType to S-101 (that can be challenging) or,  Option 2: Keep MORFAC unchanged as generic S-101 content and provide categoryOfBollardType and units in S-131 as specific Marine Harbour Infrastructure Information.  [RM: If S-131 is to make this an enumeration an authoritative source with a comprehensive list of types and definitions is needed.] | Recommend:-  1. Add optional attribute bollardLoadCapacity to each of the three features.  Defn: The rated pull force for a bollard or other structure used to secure a vessel’s lines at a berth, a mooring facility or to a tug.  Type: Real  Unit tonne (force) (“tonnes” seems to be more widespread than kiloNewton, though more ambiguous).  2. Add optional attribute bollardDescription :text  Defn. A textual description of the type of bollard at a berth or mooring facility.  3. Postpone consideration of categoryOfBollard to Ed. 1.x. |
|  | UK |  | 1.4.21.29  P |  | The depth of water necessary to float a vessel fully loaded. (http://en.wikipedia.org/wiki/Ship\_measurements; 24 July 2010)  Should be Draft? Not sure this is the best definition. IHO dictionary had “The vertical distance, at any section of a vessel from the surface of the water to the bottom of the keel. When measured at or near the bow, it is referred to as draft forward and when measured at or near the stern as draft aft. The mean draft is the mean of the drafts forward and aft. These drafts are more specifically described as displacement drafts as opposed to navigational drafts which are measured to the lowest appendage to the hull as opposed to the keel.” |  | Not accepted, item is already defined in the GI registry. |
|  | UK |  | 1.4.29  P107 |  | bollardNumber : Real Public  Multiplicity: ( [0..1], Allow duplicates: 0, Is ordered: False )  **Name:** Bollard Number  **Definition:** An identifier used to locate a specific bollard (a Small shaped post, mounted on a wharf or dolphin used to secure ship’s lines.  **Source**: [S-32 IHO Hydrographic Dictionary](http://iho-ohi.net/S32/index.php))  ----  **Definition2:**The number is either the bollard number/meter mark, manifold or ramp number.  **Source2:** Port Information Manual  Prefer first description. Need to close bracket. |  | Accepted, see BSH comment on 1.4.28 above. |
|  | UK |  | 1.4.29  P107 |  | availableBerthingLength : Real Public  Multiplicity: ( [0..1], Allow duplicates: 0, Is ordered: False )  **Name:** Available Berthing Length  **Definition:** The total length of berthing space available between the berth’s extent  **Source:** adapted from the Port Information Manual (briana)  (Can't find it in the Port Information Manual - Raphael.)  **Definition 2**: The length of a berth or dock which is available for use.  Prefer definition 2 |  | Accepted, will use definition 2. |
|  | SJC | BerthPosition |  | te | Current definition in model 0.2 is the same as that in IMO reference data model approved by FAL45. | Add the source to the definition.  The position along the line of a berth, specified by one point (e.g. bollard, manifold or ramp number), allowing the ship to berth in the correct position along the berth. (Source: IMO reference data model) | Original source is Port Information Manual. |
|  | SJC | BerthPosition | bollardNumber | te | bollardNumber is of type real ?  Definition2:The number is either the bollard number/meter mark, manifold or ramp number.?? | replace bollardNumber with attributes as follows   1. locationByReferencePosition (for cases using named or numbered reference point, e.g. bollard, manifold or ramp number, encoded as alphanumerics) and 2. locationByGlnExtension (for cases using GLN extension as identification of the reference point. The alphanumeric bollard number or names of less than 20 characters can be used as the GLN extension) | See BSH comment on 1.4.28 above. |
|  | UNH | categoryOfHarbourFacility | 1.4.33 | Te | There is no guidance here as to what enumerated values are allowed. | List of applicable enumerated values | Feature catalogue will list allowed values; any recommendations? |
|  | UNH | HarbourAreaAdministrative | 1.4.33 | Te | There is no guidance here as to when to use it. How to know when to use this vs HarbourAreaSection? Would be possible to create duplicate values without more clarity. | Explain the intent for use and how it differs from HarbourAreaSection. | This is for the DCEG to describe. Suggested text? |
|  | SJC | HarbourAreaSection | availablePortServices | te | In model 0.2, availablePortServices is an attribute of the HarourAreaAdministrative only.  Some services may be available only in certain parts of the harbour, not the whole harbour. | 1. Add the attribute availablePortServices at least to the HarbourAreaSection. 2. Consider adding the attribute availablePortServices also to the Terminal. | There are suggestions elsewhere to add it to Berth and AnchorBerth too. See GE comment on 1.4.19.1.1.  Postpone to Ed. 1.x. |
|  | UNH | HarbourAreaSection | 1.4.34 | Te | This definition is almost identical for HarbourAreaAdministrative  (The area over which a harbour authority has jurisdiction.)  Seems confusing and could lead to duplicates or unintended uses. | Explain the intent for use and how it differs from HarbourAreaAdministrative. Are both really necessary? | This is for the DCEG to describe. Suggested text?  Feature was in the 0.1 model I received. Postpone to Ed. 1.x. |
|  | UNH | categoryOfPortSection | 1.4.34 | ed | Why no enumerated list proposed and just values in parenthesis?  It would be beneficial to standardize the sections so they are commonly used in the same way.  The Name should be simplified to only one | 1: Anchorage  2: Basin  3: Berth Pocket  4: Fairway  5: Turning Basin  Also, get rid of “Category of Waterway” in name | categoryOfPortSection will be merged into categoryOfWaterway, see earlier comments. |
|  | UNH | mooringFacilityIdentifier | 1.4.35 | ed | Name and camelCase should be same for consistency | Name: Mooring Facility Identifier (not Id, or change to mooringFacilityId camelCase) | Accepted |
|  | rmm | MooringWarpingfacility | 1.4.35 | te | (From 14 Jan. notes) Consider adding status[0..\*] and condition[0..1] attributes. Recommended values for S-131 are a subset of the S-101 values:  status (4: not in use; 6: reserved; 7: temporary; 8: private)  condition (1: under construction; 3: under reclamation; 5: planned construction) | No comments received. | Postpone to 1.x. |
|  | UK |  | 1.4.36 |  | Please refer to earlier comments on Aids to navigation and comments on landmarks and offshoremarks, major lights and useful marks |  | Earlier comments addressed. |
|  | NO | 1.4.37 & (figure) 1.4.3 Physical Infrastructure | StraddleCarrier | ge | Isn’t straddle carrier a mobile device? How is it supposed to appear in map? |  | TBD.  Original modelling team should clarify. |
|  | UK |  | 1.4.39 |  | categoryOfHarbourFacility : categoryOfHarbourFacility Public  Multiplicity: ( [0..1], Allow duplicates: 0, Is ordered: False )  Classification of harbour use.  **allowed values:**  1 = RoRo terminal  3 = Ferry terminal  7 = Tanker Terminal  8 = Passenger Terminal  10 = Container Terminal  11 = Bulk Terminal  The features listed here are not consecutive as they have been split from those existing allowable S-57 attributes for Category of Harbour Facility (CATHAF) which is attributable for Harbour Facility (HRBFAC) features. |  | Noted. S-131 cannot change the codes assigned in the GI registry. |
|  | NO | 1.4.39 Terminal | terminalIdentifier | ed | Identifier for terminal – is this code standardized or auto-generated? It does not say what format or form the code is entered in. |  | Identifier will presumably be that assigned by the port. Original modelling team should clarify. |
|  | SJC | Terminal | categoryOfHarbourFacility | te | Instead of using categoryOfHarbourFacility with values limited by that attribute for terminals, why not use another attribute categoryOfTerminal. | Replace categoryOfHarbourFacility with categoryOfTerminal.  Besides the allowed values of the categoryOfHarbourFacility listed in model 0.2, such as:  **allowed values:**  1 = RoRo terminal  3 = Ferry terminal  7 = Tanker Terminal  8 = Passenger Terminal  10 = Container Terminal  11 = Bulk Terminal  the following items may be added to the attribute categoryOfTerminal:  LNG terminal  Chemical terminal  Cruise terminal  Dry bulk terminal  Liquid bulk terminal  Break bulk cargo (General cargo) terminal  Multi-purpose terminal  Grain terminal  Ore terminal  Cement terminal  Coal terminal  Fuel oil and LPG terminal  Single Point Mooring for Oil tankers  wind energy/project cargo terminal  Harbor craft piers  Refrigerated cargo (reefer) terminal | Not accepted. The existing enumeration attributes “product” and categoryOfCargo cover the suggested additions.  Add “product” and “categoryOfCargo” as optional attributes to Terminal.  Definitions for the following are needed before they can be added:  liquid bulk (“liquid” already exists)  wind energy/project cargo  refrigerated cargo  harbour craft facility ( “service harbour” already exists)  SPM - see Berth.methodOfSecuring. It can’t be in two different enumeration attributes. |
|  | UK |  | 1.4.40 |  | See previous comments on markedBy | [RM: Presumably this is above “navigational aids” vs. “aids to navigation”.] | Addressed earlier |
|  | BSH |  | 1.4.40 | te | Feature type WaterwayArea, simple attribute categoryOfPortSection, multiplicity details |  | Attribute is mandatory EA does not show multiplicity for mandatory attributes. |
|  | UK |  | 1.4.46 |  | Please refer to earlier comments on Aids to navigation and comments on landmarks and offshoremarks, major lights and useful marks |  | Addressed earlier. |
| S-131 V0.2 | CHS CA | Port’s Infrastructure |  |  | I find it hard to distinguish what should be on S-101 and what should be on S-131 and what should be on both. I almost find that there is more details on S-101 and it should be the otherway around. It is hard to find logic in that sense.  S-101 Port features:  Geo Features – Ports  • Crane  • Gate  • Mooring trots  • Dyke  • Causeway  • Dam  • Pontoon  • Locks  • Hulks  • Piles  • Conveyor | Port’s Infrastructure is missing:   * Crane (type and capacity) * Warehouse (storage) * Cargo sheds * Cold storage * Grain elevator * Gate * Mooring trots * Dyke * Causeway * Dam * Pontoon * Locks * Hulks * Piles * Conveyor | Postpone to 1.x.  Not in received model 0.1. |
| S-131 V0.2 | CHS CA | Port’s Infrastructure |  |  | Building functions in S-101 that we might be missing in infrastructure?  • harbour-masters office  • water-police station  • pilot lookout  • transit shed/warehouse  • power station  • cooling  • airship mooring  • ore crusher  • pumping station  • boathouse  • customs office  • hospital  • police station  • pilot office  • headquarters for district control  • factory  • administrative  • sea rescue control |  | Postpone to 1.x.  Not in received model 0.1. |
| S-131 V0.2 | CHS CA | Layout |  |  | Areas in S-101 that might be part of port and harbour layout. Do we miss these?:  Geo Features - Areas   * Custom zone * Free port area * Pilotage disctrict * Anchor berth * Cargo transhipment area   Geo Features - Restricted Areas   * Degaussing ranges * Anchoring restricted |  | Postpone to 1.x.  Not in received model 0.1.  (Anchor Berth is included in Ed. 1.0; degaussing ranges are provided for under Waterway Area (cf. categoryOfWaterwayArea.) |
| S-131 V0.2 | CHS CA | Layout |  |  | Is ReportableServiceArea missing as a feature type? |  | Intentionally omitted, reporting is not in the received V. 0.1 model. Postpone to 1.x. |

**[A] Extract from S-101 DCEG about construction**

**8.1 Works in progress and projected (see S-4 – B-329)**

An ENC can seldom show the exact state of work under construction because it may not be known by the encoder and, even if known, may be expected to change between ENC updates (see Section 31). Where it is possible to provide the mariner with an indication of the status of work under construction, under reclamation or planned, it must be done using the appropriate feature (for example **Shoreline Construction**, **Causeway**, **Dock Area**, **Dry Dock**, **Pipeline Submarine/On Land**), with the attribute **condition** populated as *1* (under construction), *3* (under reclamation) or *5* (planned construction). Where the encoder wishes to provide such information to the mariner and the details of the works are not known (nature and extent of the works), this should be done using the feature **Caution Area** (see clause 16.10), with known details of the works encoded using the complex attribute **information** (see clause 2.4.6).

If it is required to provide the mariner with an indication of the date to which information regarding the works is current, it must be done using the attribute **reported date** (see clause 27.147).

The coastline existing before the beginning of the works should remain encoded as a **Coastline** or **Shoreline Construction** feature until the completion of the works.

As the works progress and further information is supplied to the Producing Authority, ENC datasets should be updated appropriately through the issue of updates to the dataset or publication of new editions of the dataset (see clause 31.2.3).

On completion of the works, full encoding of the new feature(s) in accordance with the relevant clauses in this document must be achieved, and incorporated in the relevant ENC dataset through the issue of an update to the dataset or publication of a new edition of the dataset (see Section 31).

**8.1.1 Works on land (see S-4 – B-329.1)**

Features likely to be prominent from seaward should be encoded as described above, where possible. New docks, locks, canals, etc, being excavated should be encoded similarly. The works must be covered by the feature **Land Area** (see clause 5.4) until completion of the works.

**8.1.2 Works at sea (see S-4 – B-329.2-5)**

Works at sea which will extend the coastline seaward, where the line of the future coastline (including piers, etc) is known, must be encoded, where required, as described in clause 8.1 above, using the appropriate features. The existing coastline should remain until the works are completed and the new coastline has been established. The area of reclamation or construction must also be covered by the appropriate feature(s) from the Skin of the Earth. This may be **Depth Area** at commencement of the works, or if the works are planned and have not yet commenced; **Unsurveyed Area** while reclamation/construction is in progress but the area is still covered by water; or **Land Area** where the area of the works has been reclaimed (that is, is always dry).

Works at sea which will be wholly or partly submergedwhen completed, such as training walls or pipelines must be encoded, if required, using the appropriate feature relevant to the completed feature, in accordance with clause 8.1 above. The appropriately attributed depth information, if known, or **Unsurveyed Area**, must cover the works as appropriate.

Where the extent or nature of the works is unknown, they must be encoded, where required, using the feature **Caution Area** as described in clause 8.1 above.

Because lights and buoys marking the limits of works at sea may be moved without notice, they should be encoded only where it is considered safe to do so. Alternatively, this information may be included by encoding the complex attribute **information**, sub-attribute **text**, for instance, *Outer end marked by red lights*.