

Dear Eivind,

My comments :

- As S124Preamble inherits from S124_InformationType, then the S124Preamble has an URN attribute. So, we don't need a warningIdentifier (URN) in S124_messageSeriesIdentifier

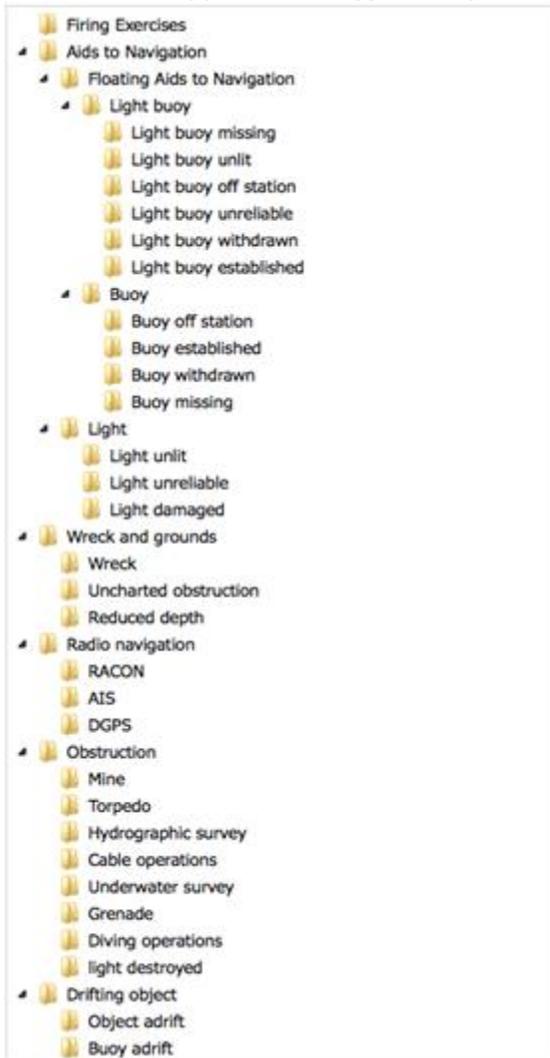
- The cardinality of S124-affectedChartPublication must be [1..*] for NM. So, this attribute should be move on both S124_NMPreamble and S124_NWPreamble with the appropriate cardinality.

- S124_NMPreamble/S124_warningHazardType is not S124_warningType but it is S124_warningHazardType (or a S124_NMHazardType if the types are different for T&P NM)

-- S124_FeatureType/areaAffected and geometry: at least 1 PointCurveOrSurface is mandatory.

- S-124References/messageReference: S124_messageSeriesIdentifier [0..*] : the cardinality should be [1..*]

- S124_warningHazardType : the list should be reviewed and developed while considering a hierarchy or tree structure approach as suggested by DMA:



Perhaps, only the element of the lowest level should be in the NW data (eg "Light buoy unlit" instead "Aids to navigation" + "Floating Aids to Navigation" + "Light buoy" + "Light buoy unlit"). The hierarchy of lists would not be used in NW data, but it would be very useful for the production systems.

All the best,

Yves

Dear Eivind,

We have had a meeting today where we have discussed S-124 and here is the result of that meeting. (we are, as a lot of the members, very busy in our office at the moment...)

Our thoughts:

1. What is the envisaged relationship between S-124 and S-101?
2. In what scenarios should temporal updates (P & T NM) be disseminated via S-124?
Our concern is that complexity could be added to the whole supply chain if the same information is addressed by more than one PS.

Indeed, what is the relationship between S-124 and other (if any) S-100 based PS?

It seems that the overarching architecture (structure) of S-100 product concept is lacking, making it less clear how products interoperate or are in other ways linked.

3. As a future “information service producer” we are thinking of the means by which the necessary information is made available to the mariner. In this vision we believe that the temporal aspect will be a guiding perspective. The effectiveness of the production process, the way of communication etc. must be considered. When should S-124 be the preferred mean?
4. Enumerations in general shouldn’t be text, rather an encoded list which would reduce the risk of spelling errors in specifying the exact phrase like in warningHazardType.
5. Open enumerations is also questionable since it contradicts the effect of enumeration as a principle.
6. countryType enumeration should refer to the complete list in ISO 3166 and not an open enumeration. The same goes for language ISO0639-3 type.
7. What about met warnings are these also to be considered in S-124 or is that included in another S product?
8. Metadata regarding the S-124 message can as an alternative be realized using an envelope in the service specification for S-124 and therefore need not be included in the message itself.
9. There is also a need to agree on the different use cases around NW and NM as described in the ppt on Dropbox.
10. The S-124 product specification should include a clear definition of NM.
11. We have had internal discussions about if NAVAREAS are really needed in S-124. The NAVAREA pattern is a result of a combination of the footprints of the first generation of Inmarsat satellites and nations willing to be a Navarea Coordinator. This happened in the 1970:th and we are hesitant to use these areas in next generations MSI system.
12. Military exercises and firing operations are a very common reason for Navigational Warnings and should be a separate item.
13. Navigational Warnings about drifting hazards must always have a TIME connected to the POSITION. The TIME must indicate when the drifting object was observed in the stated position.
14. Could “Dangerous wrecks” and “Newly discovered hazards” be under a new common item “Wrecks and other obstructions”?
15. Where does Navigational Warnings about Low water level fit in? (in the MSI manual it is

mentioned together with "Tsunamis and other natural phenomena". Should it be there or in some other S-XXX prodspec?)

16. Dredging is a frequent and well defined activity at sea, where does it fit in? Can it be a separate item?

17. Regarding "seismic survey", a more generic expression could be "survey operations"?

Kind regards,

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Hello Eivind,

My general comment is that there should be overarching mapping/harmonization between IHO S-53 (NAVTEX, SafetyNET, etc. methods for encoding of Navigational Warnings) and S-124 method. The target of S-124 should be:

- Facilitate mapping between NAVTEX, SafetyNET, etc. and S-124 in order that the onboard viewer software can detect duplicates and show the same information received from multiple channels as a single Navigational Warning. I could foresee that the single displayed item could indicate from which channels the information is received and for example if S-124 method include more details have a method to improved amount of details (I mean that if vessel first receive NAVTEX, then a later S-124 for the same Navigational Warning could get information additional to NAVTEX to be displayed by the viewer)
- Mapping/harmonization requires that S-124 include a table between S-53 and S-124 (for items to be mapped see clauses 5, 6 and 7 of the S-53). Mapping/harmonization should be in a level sufficient for machine-conversions between different formats.
- I assume that the planned "DCEG" for the S-124 could clarify a lot of the mapping/harmonization between S-53 and S-124. I encourage to make the DCEG available at the same time as the S-124 Product Specification is put forward for review before planned publication. I feel that a DCEG or equivalent is essential to understand how the theoretical object model would be used.
- The documented mapping/harmonization between S-53 and S-124 would be also very useful for those authorities which plan to use an integrated system of Navigational Warning. As integrated system I mean a system which has an editor and database of Navigational Warnings and which is capable to producer appropriate digital versions for each delivery channel (for example NAVTEX, SafetyNET, Iridium, S-124 dataset delivery, etc.)

Below are my comments for document " S-124 Domain Model 20180322.docx"

- Figure 1: S-124 Features and Info Types. I am able to find A) location/area of warning, B) reference to object in other product specs (I assume that ID: URN could act for example as a reference to an AtoN which has drifted from its position), C) applicable dates of warning (publication,

cancellation). But I miss “identifier” which could connect S-124, Navtex, Inmarsat SafetyNet, iridium, etc. versions of a Navigational Warning as the same. You remember that we discussed this during S-100WG meeting.

- Figure 2: S-124 Domain Objects. There is a “to do” list in right hand side of the figure. The “to do” list include an idea to use a code list. I assume that the use of code list in the viewer requires a separate downloading from the referenced URL. This is ok for shore use with full access to Internet, but not practical for onboard use with limited access or even no access to Internet. I mean that for cyber security reason the ECDIS and Radar most probably are isolated from Internet with a gateway (see for example IEC 61162-460) which block all Internet protocols and only allow file transfer through a secure store-and-forward file storage (called DMZ in IEC 61162-460). Therefore one is prepared to use machine readable catalogue files preloaded from S-100 registry but one is not prepared to fetch anything based technical methods which require access to any Internet protocol.
- Figure 3: S-124 Enums and Codelists. I have noted “should drive portrayal” notes. I support the notes and I am looking forward for the Portrayal catalogue of the S-124.

Best regards
Hannu

Dear Eivind, Dear All - good day

Totally there is one technical issue relating to the labelling geometry. It was discussed before it but this point is remained for me yet.

For instance, One navigational part contains several points and these points should be labeled by feature name attribute.

Using current schema we should create the same number of geometries in one navigational warning part (because multiplicity for geometry is 1..*).

Labelling should be implemented by the encoding of FeatureName attribute. In order to not duplicate geometries we need to associate our feature names with geometries. But the current schema doesn't allow to make thus. If geometry in the FeatureName attribute with multiplicity 0..* will not filled in then the FeatureName should be linked to the mandatory geometries in the S124_featureType. But we have no such association now. Thus the current schema allows creation of labelling for geometries in One navigational warning part when geometries will be duplicated in the gml-file.

I'm attaching the gml-example please check it.

I would appreciate if you will revert me corrected example without duplication of geometries. Now my opinion, we need to specify multiplicity as 0..* for all geometry elements. In this case it will work.

P.S.: The attribute FeatureName (labelling) can be used for assigning of time moments in position when the message contains information about drifting hazards (containers in the sea). And the mariner using ECDIS or other software will be able to see track of container on the map with time moments in the past.

Best regards Denis Fokin



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