



S-124 progress

Report of the S-124 Correspondence Group of the WWNWS-Sub-Committee

By France

NIPWG3

Membership

- Brazil, Canada, China, Republic of Korea (KHOA), C-MAP, TRANSAS and INMARSAT joined the CG during the period.
- The members are: Australia, Brazil, Canada, China, Denmark (Danish Maritime Authority - DMA), France, Greece, Japan, New-Zealand, Norway, Republic of Korea, Sweden, Turkey, United-Kingdom, United States, CIRM, KRISO, TRANSAS, INMARSAT and Eivind Mong.



Activities since NIPWG2 – Points to be considered

Introduction

- Focused on the development the S-100 ProdSpec for the Navigational Warnings (NWs) of the World Wide Navigational Warning Service (WWNWS).
- The WWNWS is part of the MSI service of the Global Maritime Distress and Safety System (GMDSS).
- NAVAREA, Sub-area and coastal warnings produced by Coordinators and currently broadcast via SafetyNET and NAVTEX.
- S-124 should be also suitable for local NWs.
- MET forecasts and MET warnings are not in the perimeter.



Modeling (main activity during the period)

- NW = HAZARD + POSITION
- Goal : to structure the data to allow new functionalities on board in response to the users needs like:
 - Improvement of the filtering of NWs
 - Automatic report of the NWs in a graphic overlay, over the ENC on ECDIS.



Modeling

- NWs: additional information to the chart but independent of the ENC content and can be used as a standalone product.
 - S-101 ENCs is not a condition for S-124
- In August 2015, the CG adopted an harmonized model from KRISO-Jeppesen with input from DMA (ACCSEAS project) for the continuation of its work.
- Beyond the perimeter of the S-124, this model covers also T&P NMs



Modeling

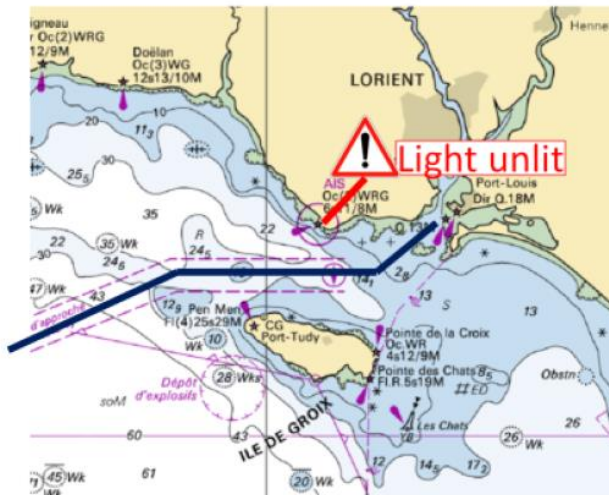
This model was modified to reach some expectations:

- Detection by the ECDIS of an event not on the ship's route but in the neighborhood of the route and affecting the safety of navigation along the route (eg. a light unlit on the coast).

Affected Area

-> ECDIS : detect the NWs of interest/along the planned route

Without Affected Area



With Affected Area



WARNING ! Light unlit !



Modeling

Other expectations:

- Filtering according to the period of time when the danger subject of the NW is active.
- NWs in English and in national language.
- Easy cross reading from the descriptive text and the associated locations on the chart display.
 - To be addressed more generally for products which provide additional information to the chart via descriptive texts
 - In the model, a NW may be a set of several geo-objects (FeatureType) reflecting the separate localized parts of the NW.
 - The use of labels on geometries could also ease the cross reading
 - feasibility in using S-100 (GML) to be confirmed.

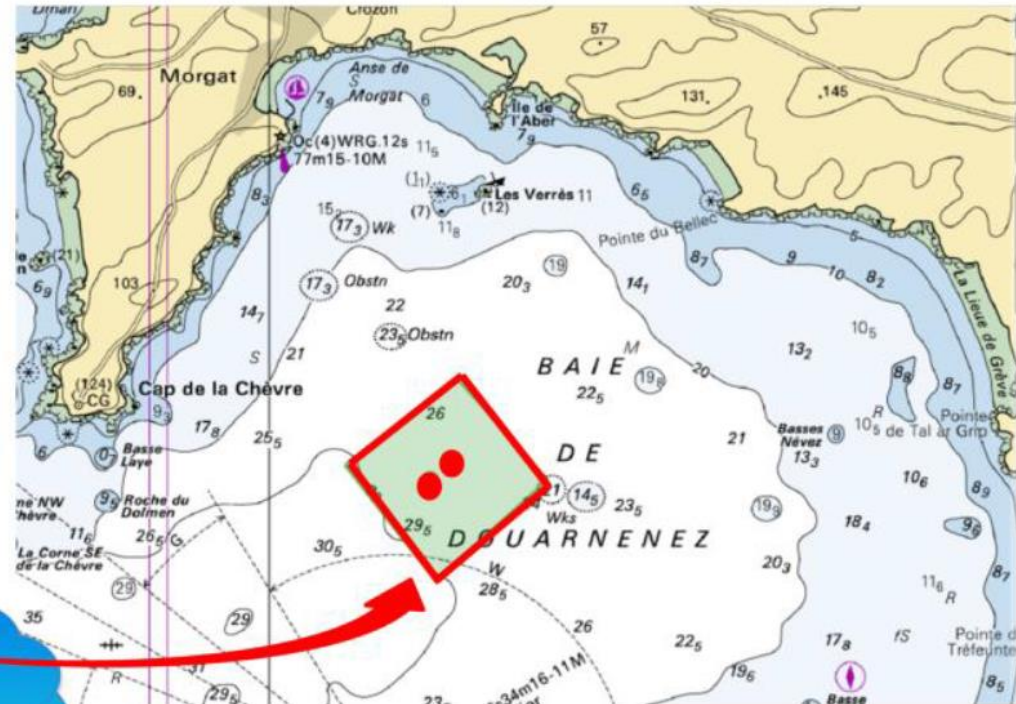


NavWarn 12/2016

Iroise

A ship has sunk 48-09.55N
004-26.94W. The wreck is
marked by an emergency buoy
blue and yellow 48-09.37N
004-27.32W. Refloating
operations are ongoing in the
area bounded by 48-09.54N
004-28.74W, 48-10.49N 004-
26.87W, 48-09.38N 004-
25.37W, 48-08.26N 004-
27.24W. This area is restricted.

With an unique NavWarnPart
localized by 2 points and a polygon



Where is the
buoy on the
chart?



With multiple NavWarnParts

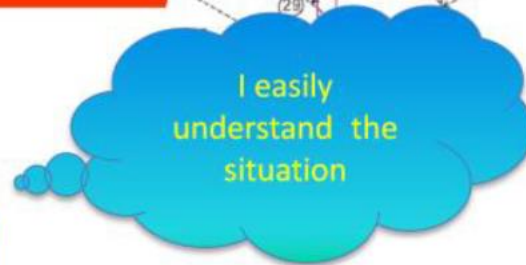
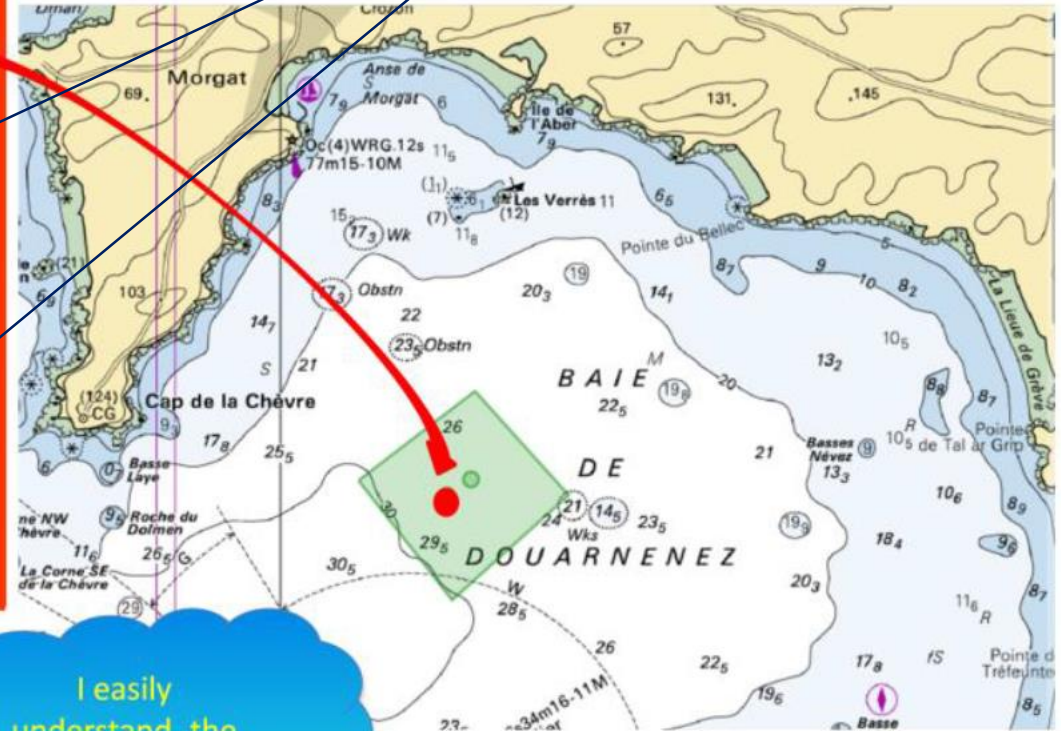
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Modeling

- First version of the draft ProdSpec issued in Dec 2015.
- Data samples of S-124 NWs produced.
- **The model is not stabilized and will evolve further on !**
 - S-124 CG didn't create new elements in the IHO S-100 Registry at this stage.
- The GC achieved a “paper” encoding exercise based on various samples of real NWs to review the draft ProdSpec.
- The comments provided by members gave indications on how the model should be amended.
- **The changes to be done are under discussion.**



General comments:

- Coordinators worry about the complexity of the model.
- NWs must be easily and quickly promulgated.
- the structuring of the data must be justified by obvious benefits to the end user.
- noting that the ergonomics of the production systems should help to overcome some difficulties in data creation.

Demonstrators and test-beds will be useful to make things more concrete and so refine the ProdSpec.

DMA has already offered that some of the testing of the model take place into the EfficienSea 2 project.



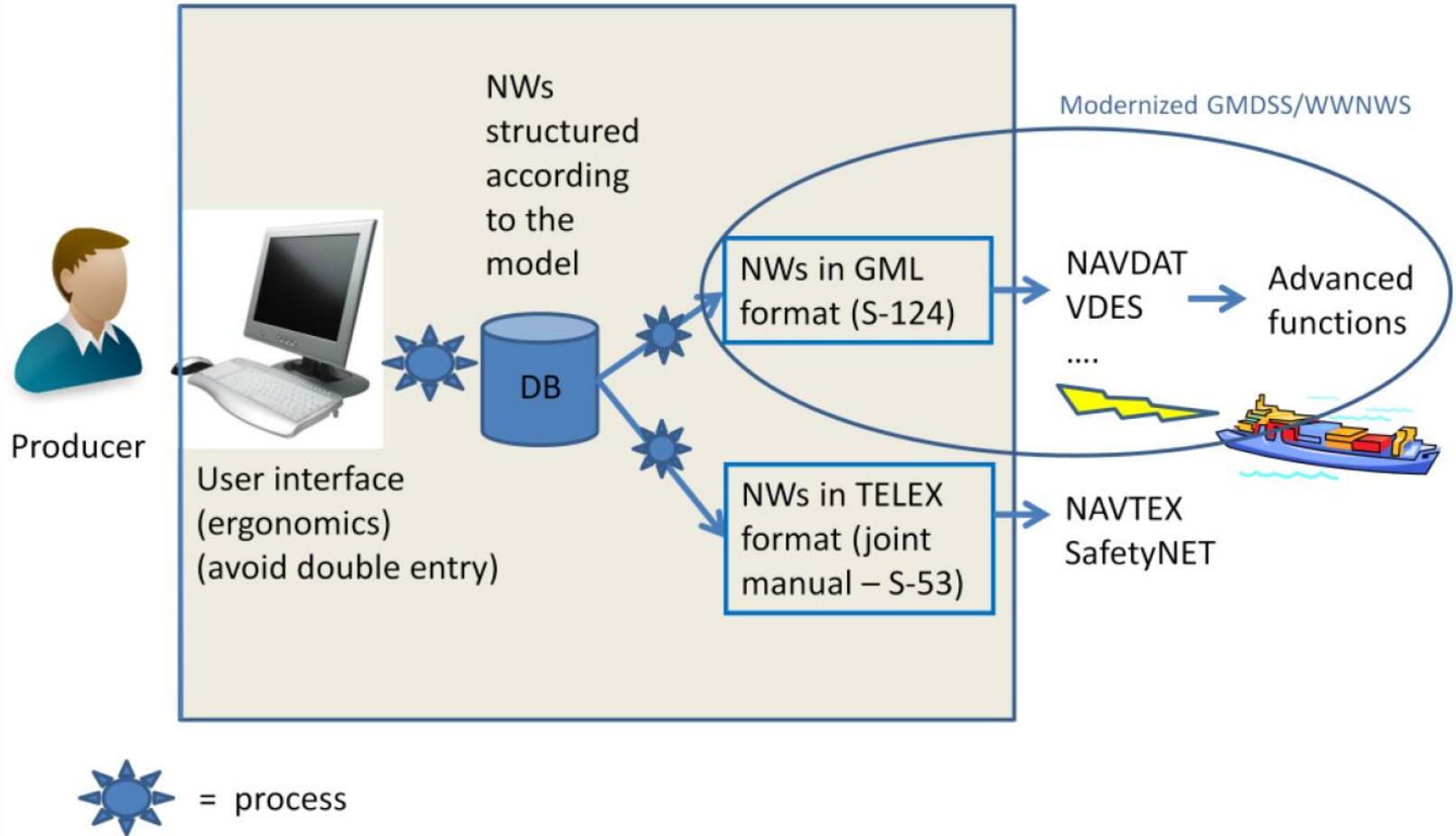
The WWNWS context

- Coordinators will need a production system for issuing S-124 NWs.
- NWs are currently produced using simple text editors of messaging.
- S-124 strongly impacts the coordinators.

- During the period of transition, NWs will be produced both as current NWs (compliant with IMO/IHO/WMO Joint MSI Manual) and as S-124 NWs.
- to be considered in the design of the production systems and therefore in the design of S-124.



System for a dual production



The WWNWS context

- The NWs of the WWNWS are currently broadcast via NAVTEX and SafetyNET in a **TELEX format**.
- Out of the perimeter of the WWNWS, AIS has the capability to exchange navigation safety information via Application Specific Messages in a **specific binary format**.
- S-124 NWs will be data in S-100 format, i.e. an ISO format like GML or ISO8211.



The WWNWS context

- The current NAVTEX, SafetyNET and AIS will not be able to convey NWs in S-124.
- S-124 NWs should be distributed by new communication systems (NAVDAT, VDES, ...) identified in the modernization plan of the GMDSS under development.
- ❑ The development of technical and operational recommendations for the services of these new communication systems should be included in the modernization plan of the GMDSS.



Development of new systems on-board

- The S-124 CG was involved in the IHO response to the new IMO draft Module F of the Performance Standards for INS (Display of information received via Communication Equipment – coordinated by China).
- The S-124 CG contributed to the Product Specification Interoperability Analysis carried out by the S-100WG.
- The S-124 CG will liaise with the NIPWG which is part the correspondence group coordinated by Norway on the development of the “Guideline for the Harmonized display of information received via communication equipment”.
- These items will contribute to define the portrayal of the NWs. This subject will be addressed when the model is stabilized (2017).



Way ahead (tentative schedule)

- Review the ProdSpec for a version ready for test-beds (2017)
- Define the portrayal of the NW (2017-2018)
- Proceed to test-beds in relation with projects (2017-2018)
- Submit S-124 PS for endorsement (2019 ?)

The S-124 CG will continue to liaise and cooperate with NIPWG on subjects of common interest.



Action Required of the NIPWG

The NIPWG is invited to note the report.



Thank you for your attention

