

# S-124 model

## Explanations and comments

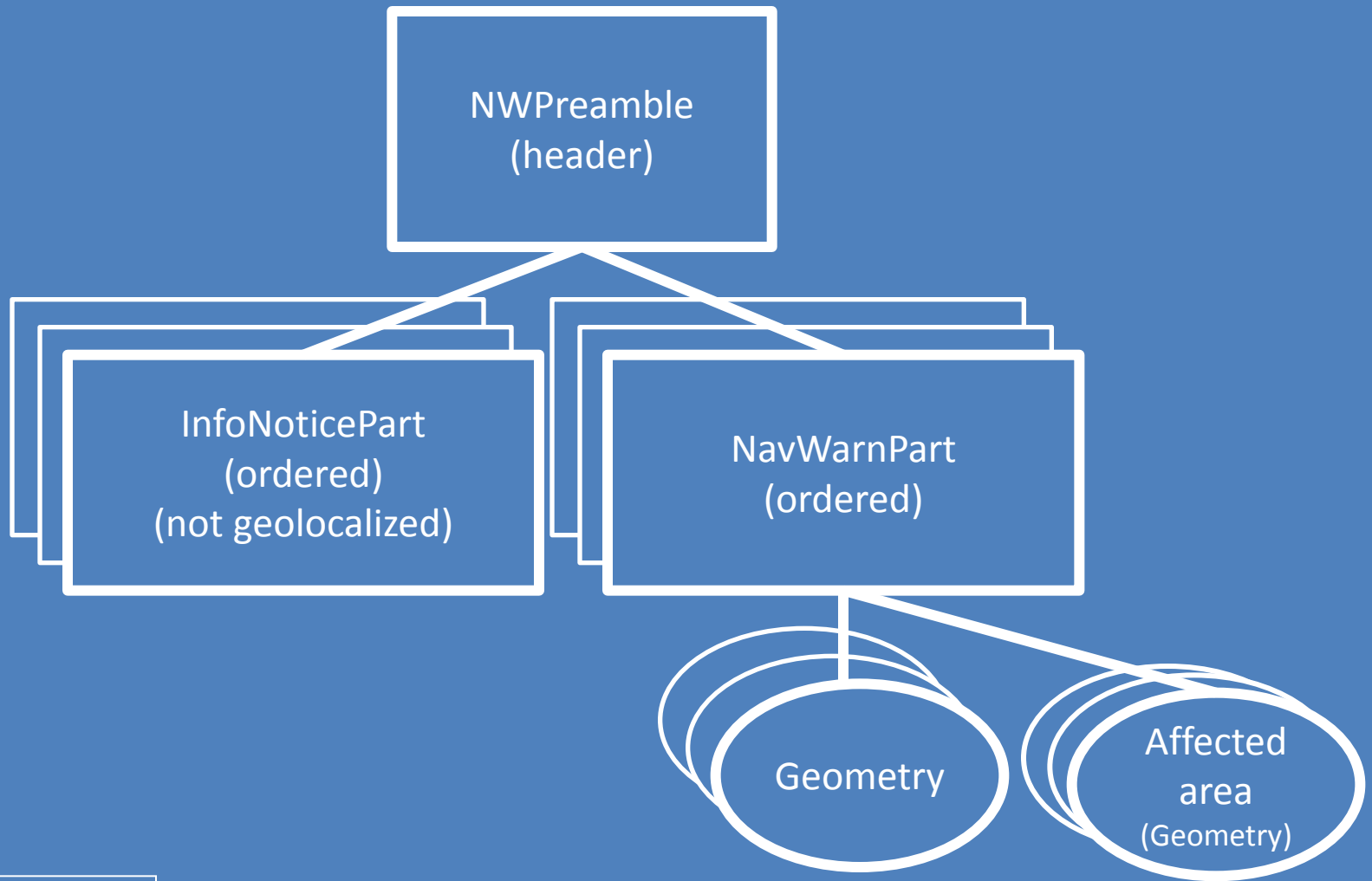
S-124 CG – WWNWS8

# Summary of the comments received via the encoding exercise

## General comments to be considered (CA, FR, GR, JP, NO, SE, US, CMAP)

- **Too much complex**
- We must bear in mind that Navigational Warnings must be easily promulgated
- We must see obvious benefits and needs to the end user
- We fully understand the need for improving in order to display MSI on a digital way but...
- Elements useful for internal management of NWs or for broadcast but out of the scope of the PS (product for the end user)
- Should be suitable for the dual production period
- New production systems will be needed to produce S-124 data. The producer will only see the user interface (ergonomics)
- Data should be machine readable in the respect of functions expected from systems on board (ECDIS)

# The NavWarn model

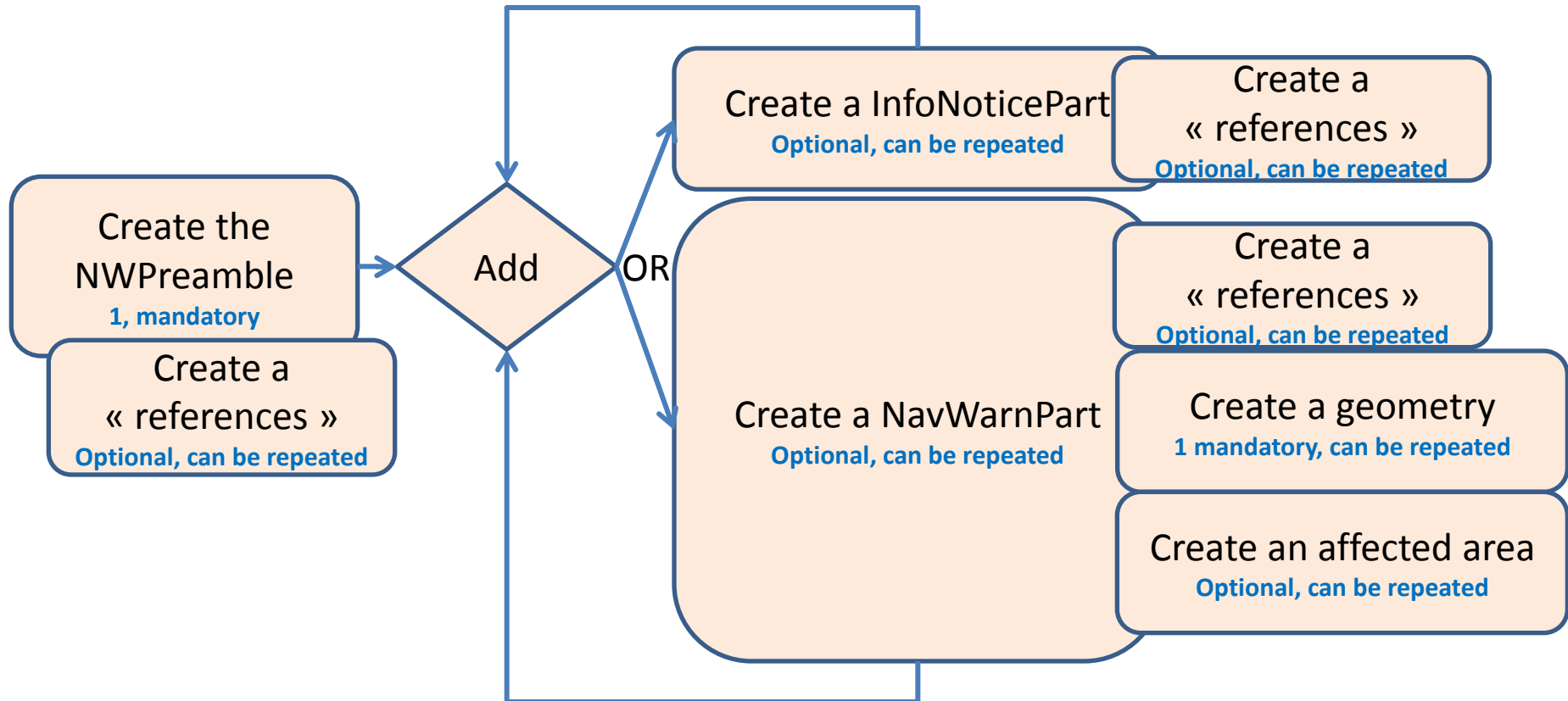


+ References

1 InfoNoticePart or 1 NavWarnPart at least

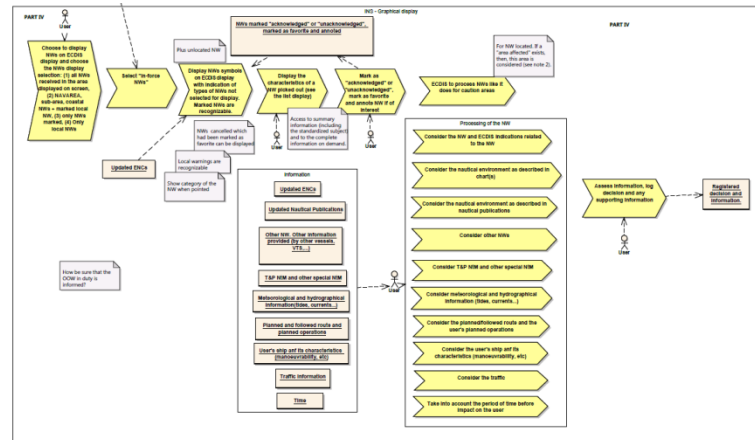
# Create a NavWarn

Example of sequence for a production system



# Why all these components?

- An history: KRISO-Jeppesen harmonized model with input from DMA (sept 2015) – a combined model for NWs and T&P NtMs
- Shipboard user scenario with solutions (2015)



- > Detection by the ECDIS of a danger in the neighborhood of the planned route
  - > affected area
- > Indication of time of CPA outside or in the period of time of the danger
  - > Time attributes
- NWs in English and in national language -> S 124\_LocalizedText
- Ease the combined reading (graphic display and text) when a NW describes different things in different locations -> several NavWarnParts

# Why all these components?

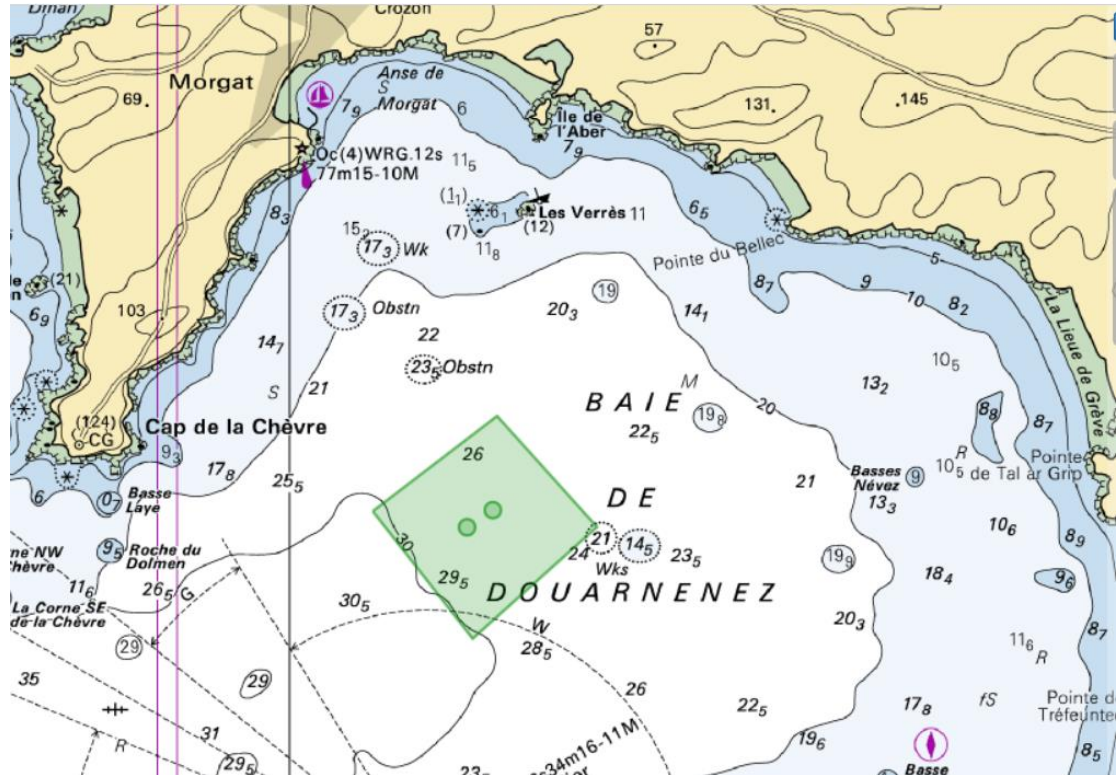
- **NavWarnPart and/or InfoNoticepart**
  - S100 requirement: distinction between geolocalized features and no-geolocalized features-> S-100 Info Classes and Geo classes
  - Example of no-geolocalized feature: A NW related to malfunctioning of a satellite-navigation service
- **Possibly several NavWarnParts**
  - Ease user when reading information from the graphic display to the text and from the text to the graphic display

# NavWarn and its graphic display

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.



Geometries displayed

**Point**

48-09.55N  
004-26.94W

**Point**

48-09.37N  
004-27.32W

**Surface**

48-09.54N  
004-28.74W,  
etc

# With an unique NavWarnPart It is possible !

NW Preamble

NavWarn 12/2016  
Iroise

NavWarnPart n°1

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.

**Point**

48-09.55N  
004-26.94W

**Point**

48-09.37N  
004-27.32W

**Surface**

48-09.54N  
004-28.74W,  
etc



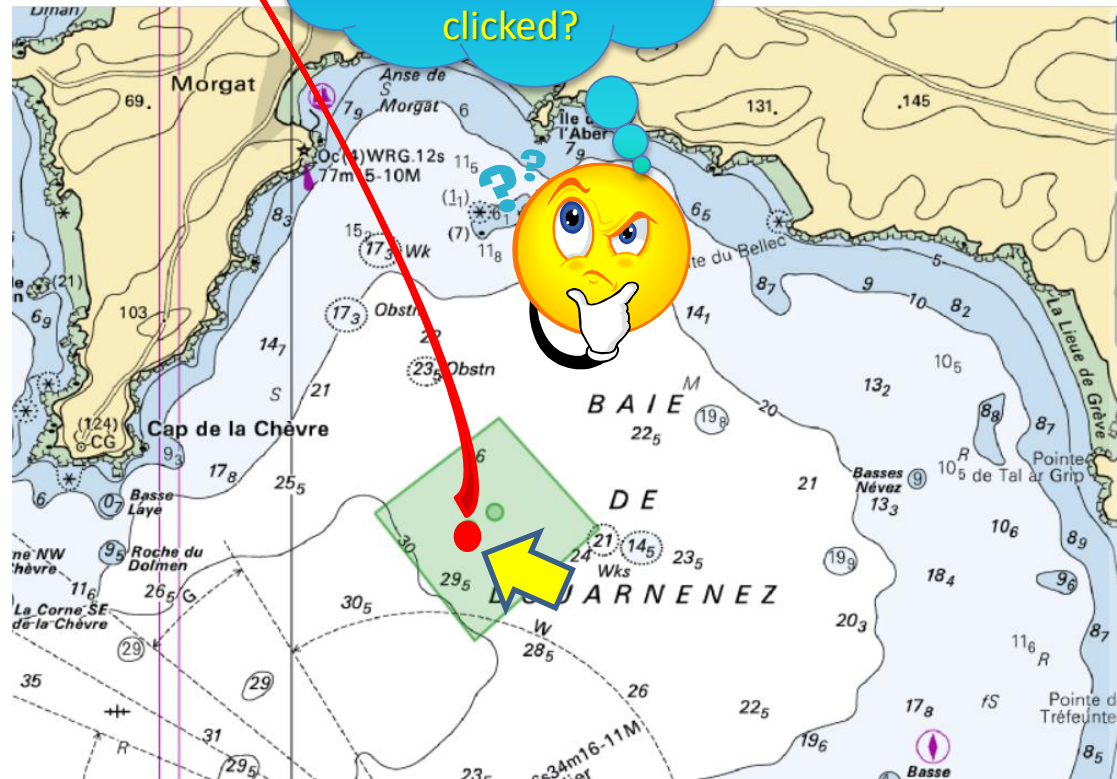
# With an unique NavWarnPart

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.

How to find  
within the text  
the part which  
relates to what I  
clicked?

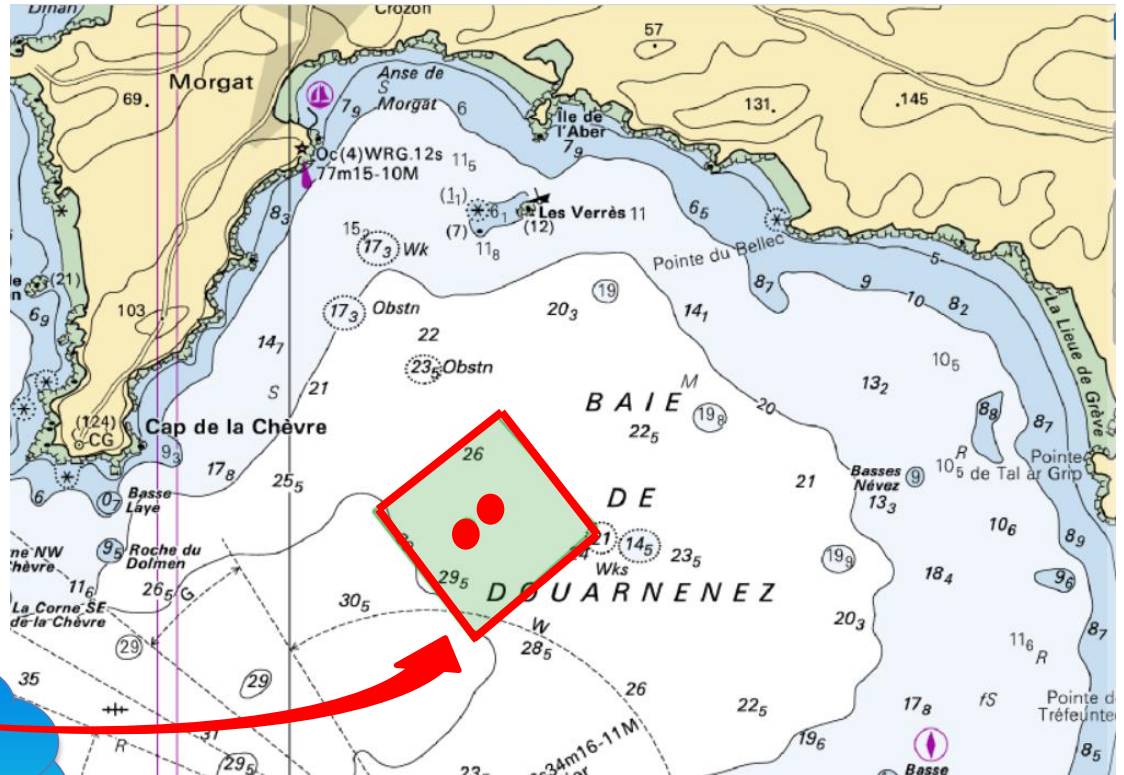


NavWarn 12/2016

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.

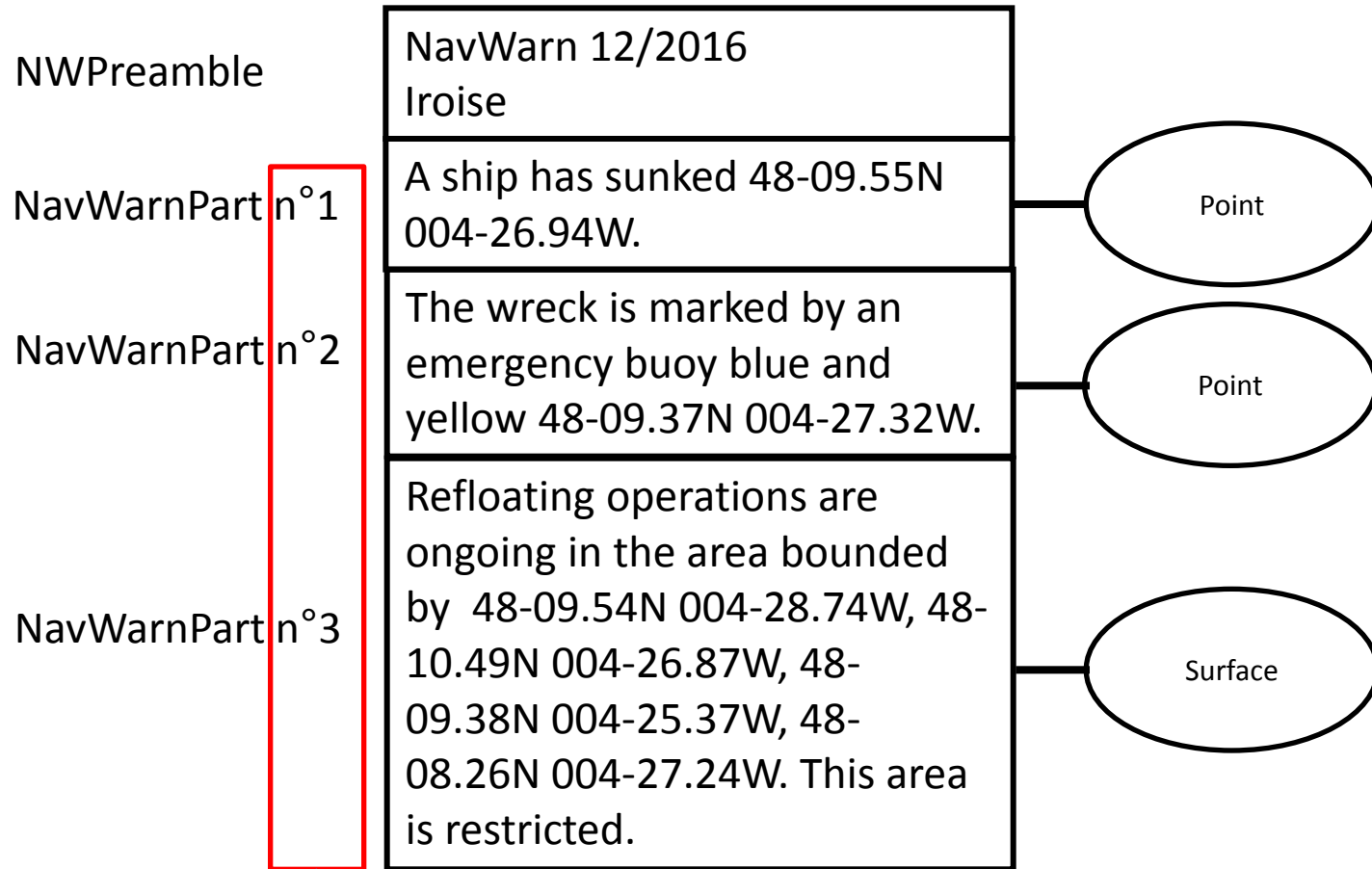
With an unique NavWarnPart



Where is the  
buoy on the  
chart?



## With several NavWarnParts



**Ordered** for a sequential reading of the NavWarn

Can be an ordered mix of NavWarnParts and InfoNoticeParts

NavWarn 12/2016

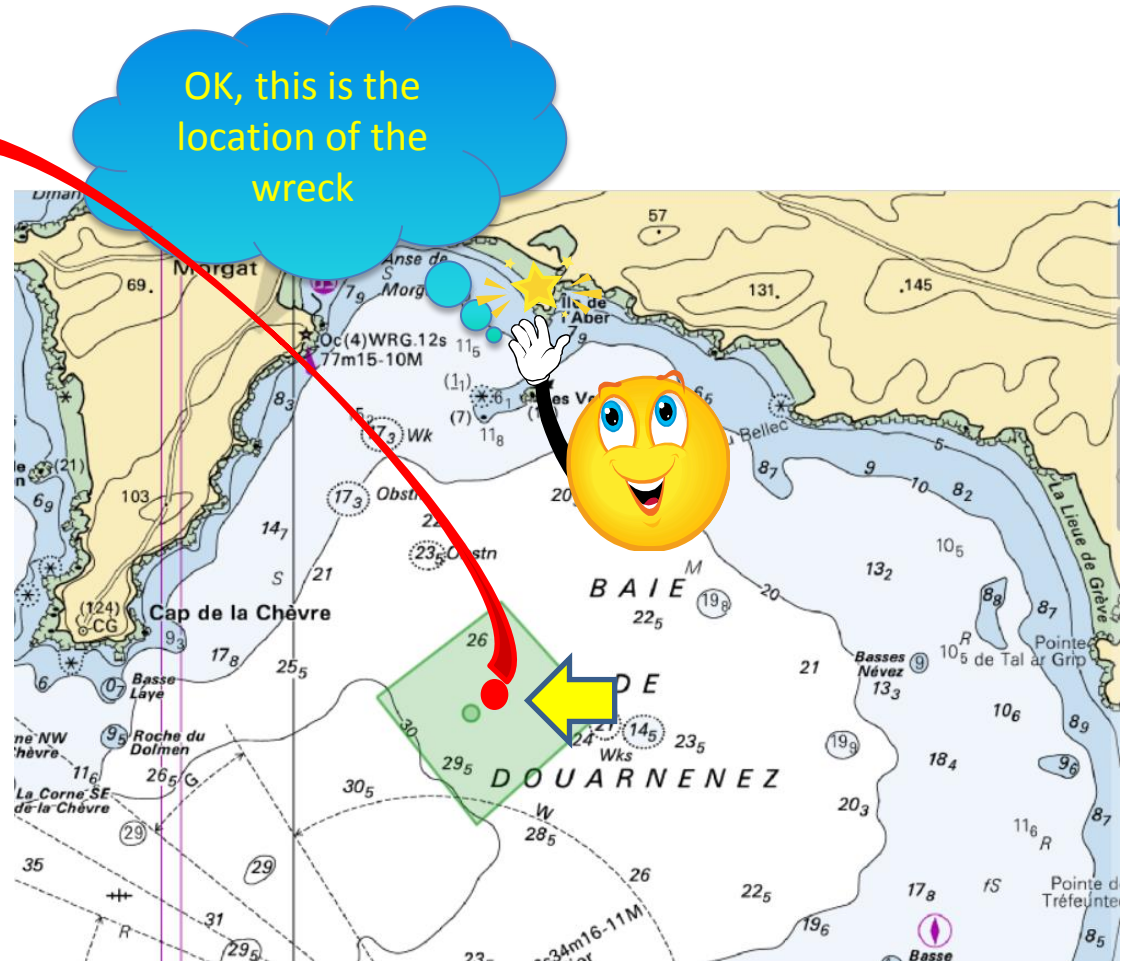
Iroise

A ship has sunked 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 several NavWarnParts





NavWarn 12/2016

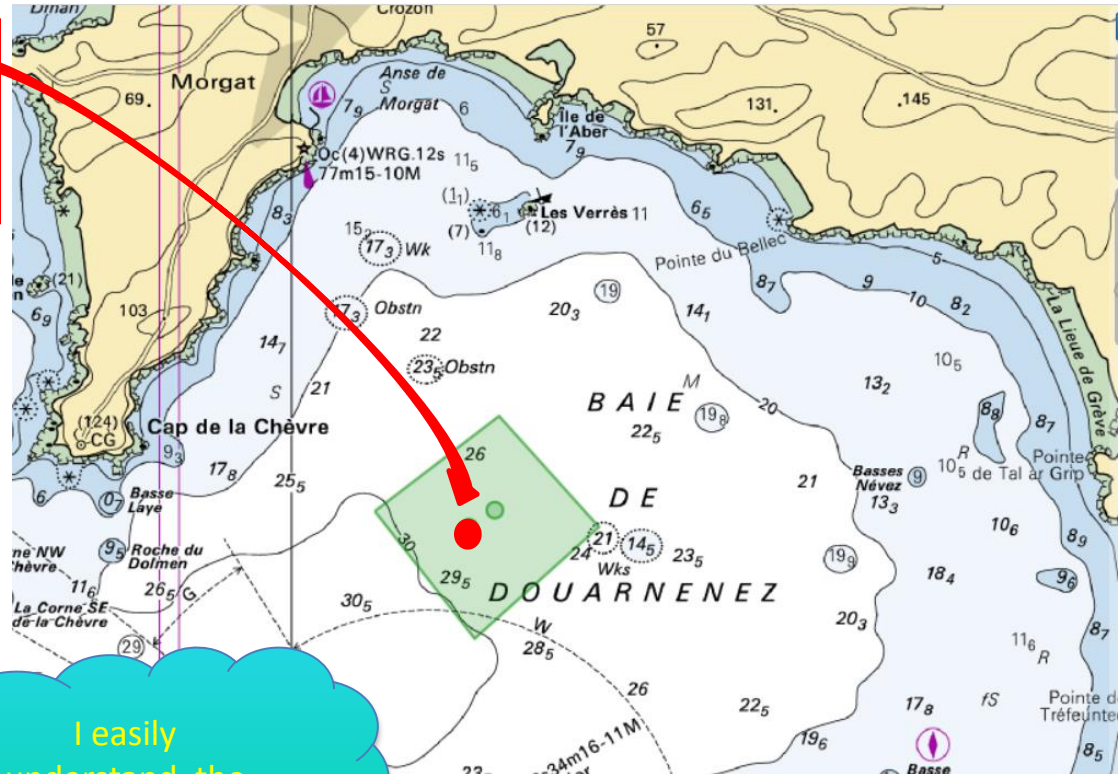
Iroise

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 multiple NavWarnParts



I easily  
understand the  
situation

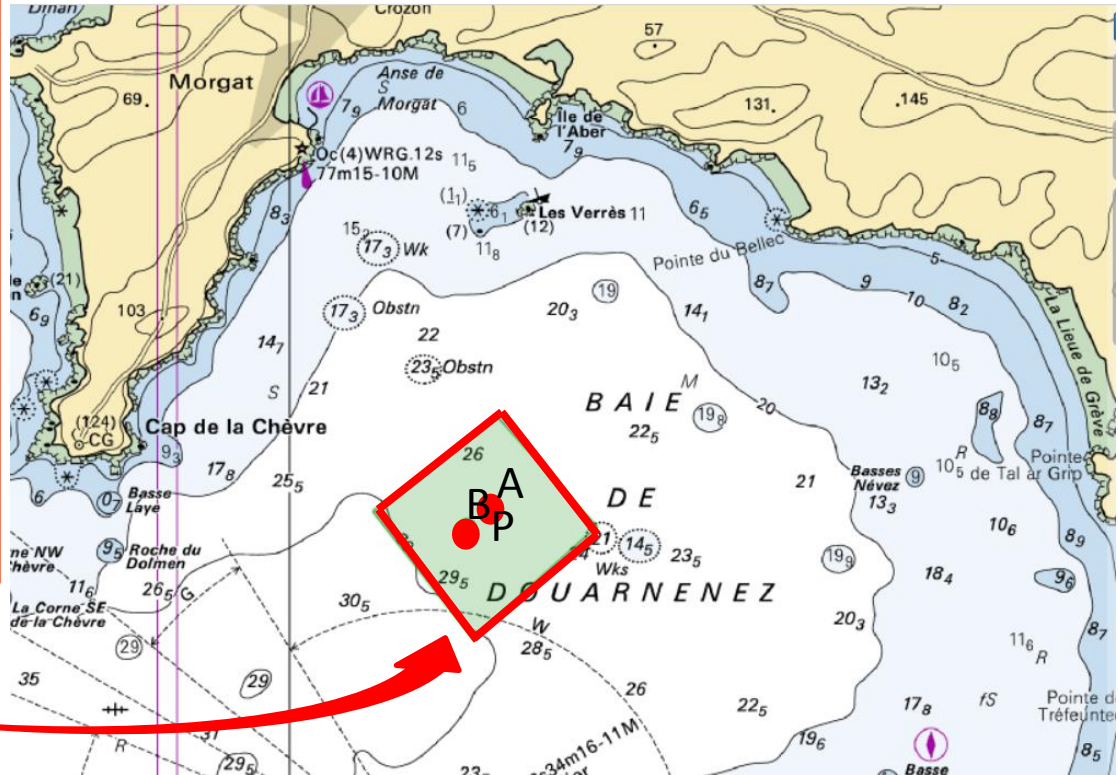
## Another solution

-> Use geometry description

NavWarn 12/2016

Iroise

A ship has sunk at position A 48-09.55N 004-26.94W. The wreck is marked by an emergency buoy blue and yellow at position B 48-09.37N 004-27.32W. Refloating operations are ongoing in the area P 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.



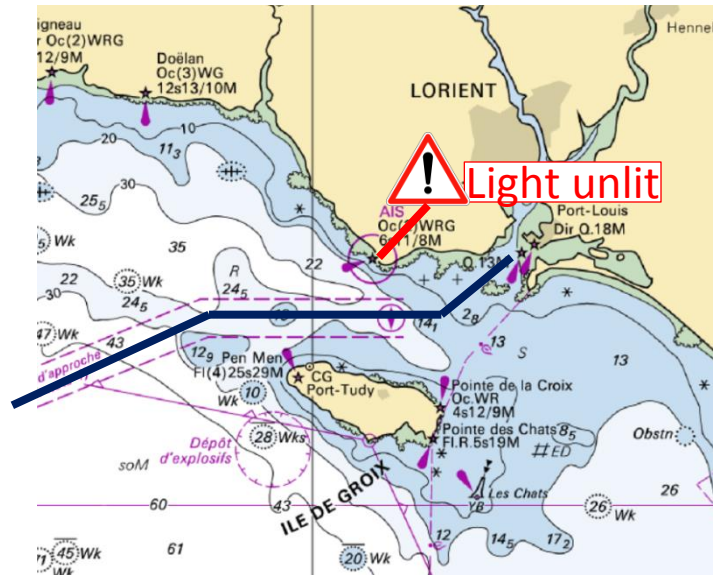
Same text as  
the geometry  
descriptions

Display of the  
geometry  
descriptions  
(texts A, B, P)

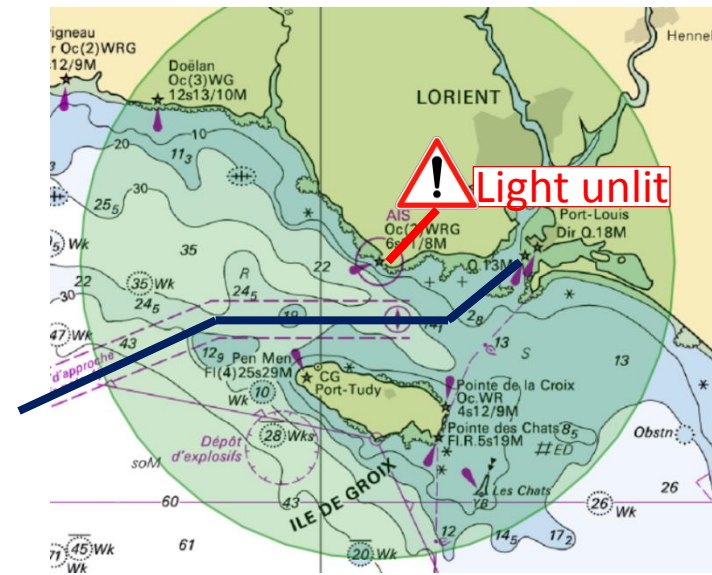
## Affected Area

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

Without Affected Area

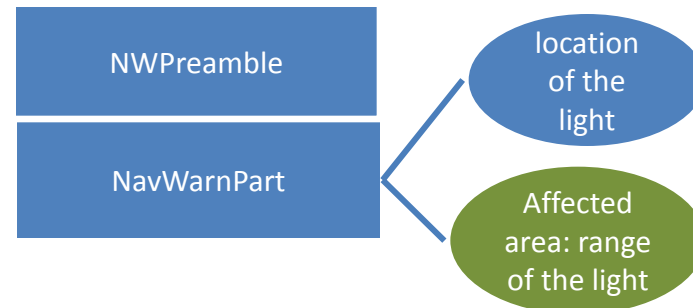


With Affected Area




Filtering according to the planned route: the ECDIS can not detect the danger

**Alert : light unlit along the planned route !** [see NavWarn 15/2016](#)



# Summary of the detailed comments

## Useless or inappropriate attributes (to be confirmed)

- periodicDateRange (seasonal period: )  (*Jun-sep*)
- ScheduleByDoW (days/hours of activation within the week)
- AffectedCharts
- ListOfLightNumber
- ENCFeatureReference
- Restriction (category of...)
- HorizontalDatum (except if useful for ECDIS)
- Coordinate Reference Systems (except if useful for ECDIS)
- sourceIndication
- sourceDate
- ReferenceType: source reference
- ReferenceType: repetition, update

|                 |
|-----------------|
| Mon 9 am - 6 pm |
| Tue 9 am - 6 pm |
| Wed 9 am - 6 pm |
| Thu 9 am - 6 pm |
| Fri 9 am - 6 pm |
| Sat 9 am - 6 pm |
| Sun close       |



# Summary of the detailed comments

## Attributes to be reviewed (all, but especially):

- Title and generalCategory
  - For a short text display? Light unlit
  - Title OR generalCategory ?
    - Title: free text
    - generalCategory: harmonized list to be reviewed, to be extended
- generalArea: more than 1 should be possible, ordered (eg ARTIC OCEAN/AMUNDSEN GULF)?
- fixedDateRange: 0, 1 or more (several periods of time) reflecting a calendar, we need a reference time (UTC, local)
- keySubject, information, graphic:
  - how to use them?
  - Do we allow attachments?
  - Is a unique attribute “subject” sufficient?

## Other topics:

- Review the distribution of the attributes on the classes
  - eg why fixedDateRange is not an attribute of InfoNoticePart?
- Review mandatory and optional attributes (eg keySubject is not mandatory!)
- Simplify references
- Define something machine readable for the management of S-124 NWs status (in force – cancelled) by the system on board.
- “no-geolocalized” NWs: how will the ECDIS manages them? Can we geolocalize them using an affected area = service area of the producer or = to the geometries of general Areas?

# System for a dual production

