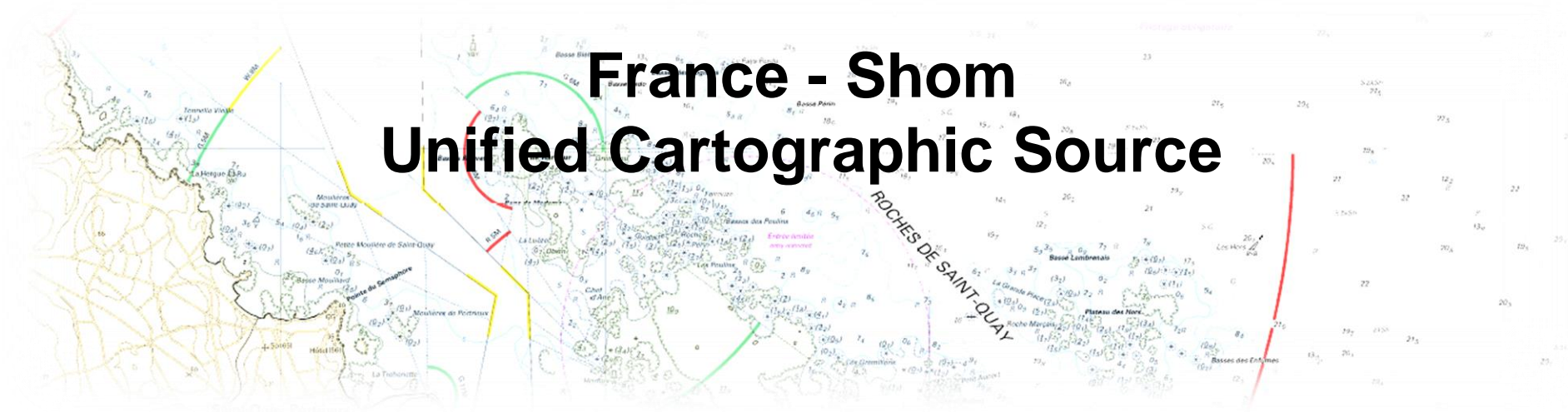




IHO

International
Hydrographic
Organization

13th Meeting of the WENDWG



Agenda Item 07.1Ad

WENDWG13, Aalborg, Denmark – 21 – 23 February 2023

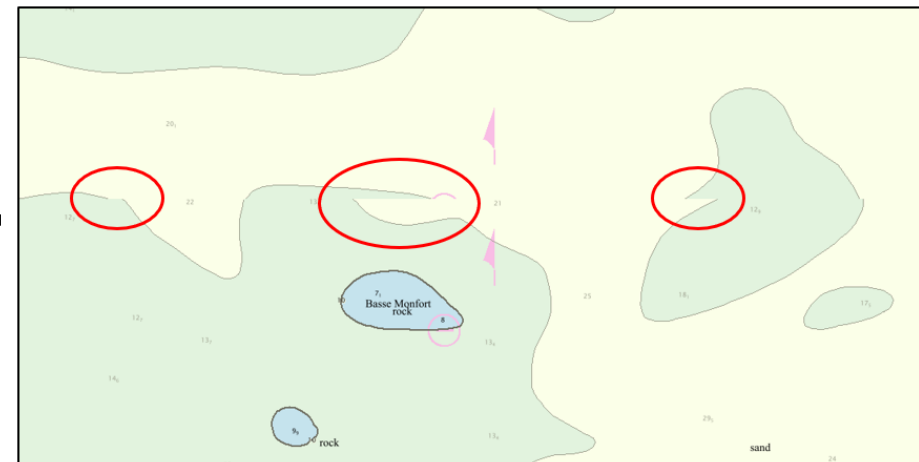


IHO

INTRODUCTION/BACKGROUND

International
Hydrographic
Organization

IMPACT OF MULTIPLE-SCALE CONTENT



- Cartographic discontinuities exist between ENC's
 - within the same usage band : inconsistent compilation scales and different charting methods
 - of two different usage bands
 - within the Shom ENC scheme and between the Shom ENC's and the ENC's of other HOs
- Consequences :
 - difficulties in using the nautical charted information by mariners and other users
 - risk of navigation error when displayed on an ECDIS



IHO

A DATA-CENTRIC APPROACH TO BUILD THE UNIFIED CARTOGRAPHIC SOURCE

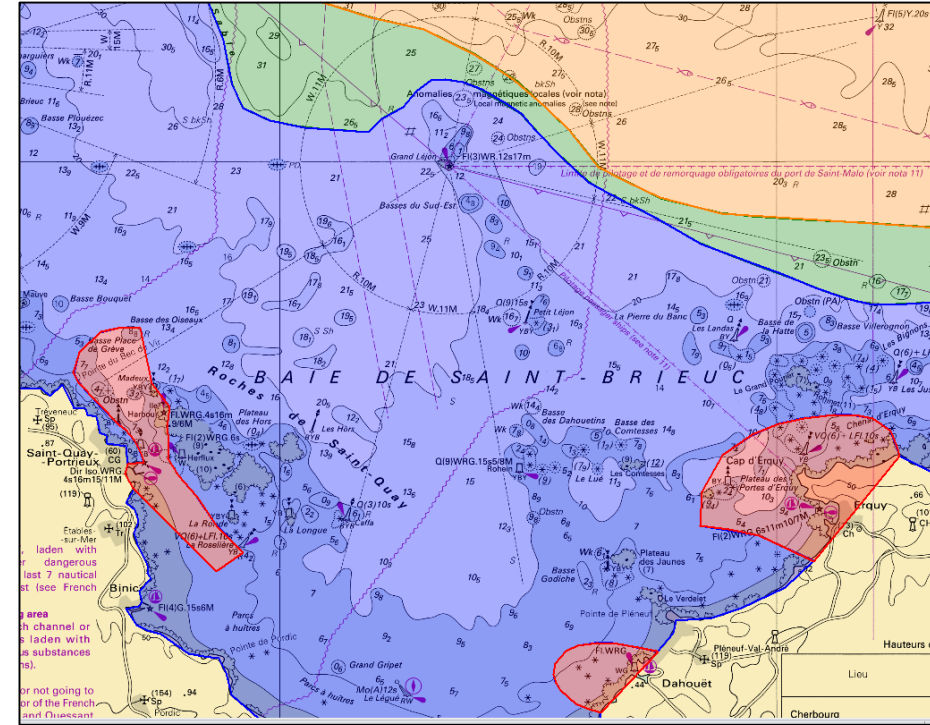
International
Hydrographic
Organization

A single cartographic content per area

In one area, the scale will be adopted taking into account :

- Known hazards and bathymetry
- Navigation practice and density
- Economic activities (harbour, wind farm, etc.)

Result will be the **Unified Cartographic Source (FCU)** as the assemblage of the areas of different scales





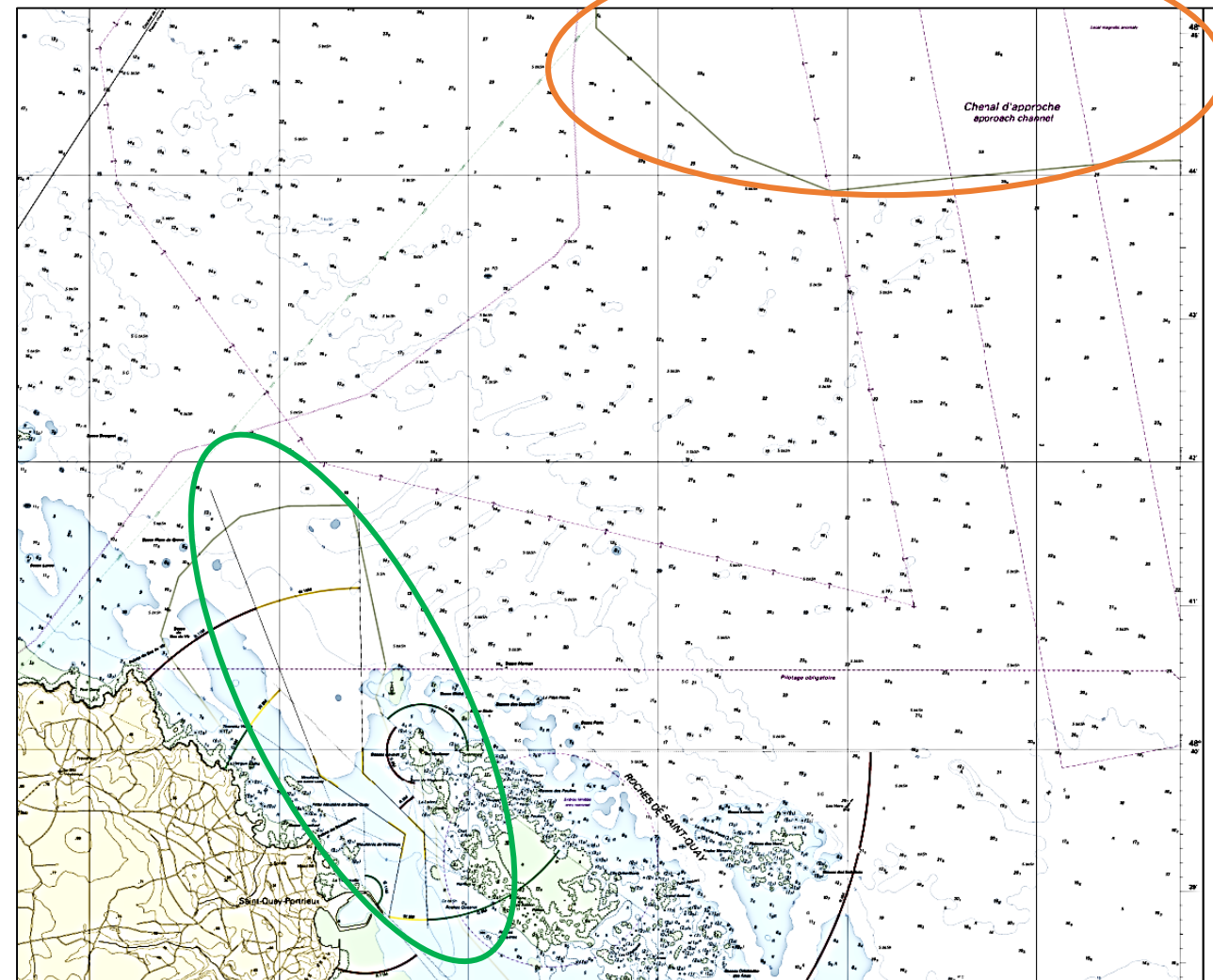
IHO

CHARTS AND ENCS FROM THE UNIFIED CARTOGRAPHIC SOURCE

International
Hydrographic
Organization

Each chart (ENC/paper) will be the view/extraction from the FCU

- Where the chart scale is the same or **higher than** the FCU in an area, the content will be the FCU
- Where the chart scale is **smaller than** the FCU, the content will be a minimal cartographic representation
- **There is no intention to change the current FR ENC and Paper Chart schemes**





IHO

UNIFIED CARTOGRAPHIC SOURCE BENEFITS

International
Hydrographic
Organization

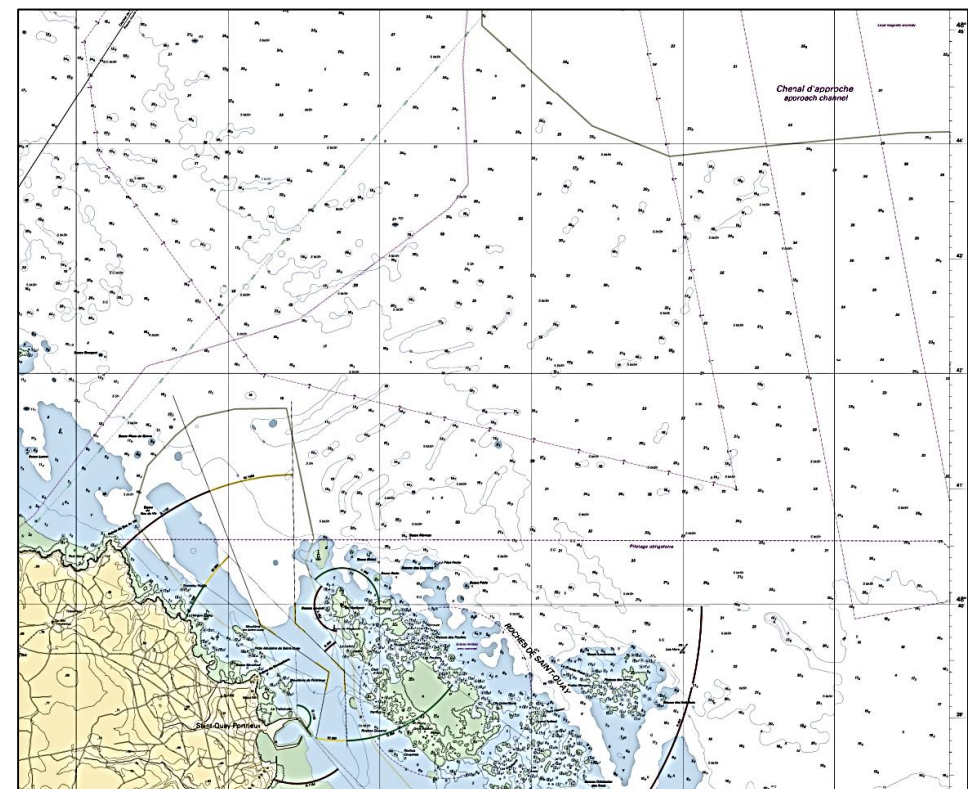
Improve **safety of navigation** (use of appropriate scale)

Remove discontinuities (true seamless cartographic representations)

Easier and less time consuming maintenance

Cartographers will focus on **most sensitive areas**

Will allow future developments for **automatization** of paper chart and **chart on demand**





IHO

EVOLUTIONS AND ADAPTATIONS

International
Hydrographic
Organization



High level of **automation in cartographic production** (new tools available)

Review of **cartographers' methods**

Consultation with mariners and regulatory authorities (in progress) and foreign countries where France is the charting authority

Possible interactions with other HOs and within RHCs **to harmonize scales**

Adaptation of charts (paper charts, ENC, etc.)

No impact on the transition to the dual-fuel period:

the full coverage of the FR S-101 ENCs will be available for the first ECDIS S-100



IHO

ACTIONS TO BE CONSIDERED BY THE WENDWG

International
Hydrographic
Organization

- **To note this paper**