

**B STRATEGIC ASPECTS OF THE WORK OF HOs – TECHNICAL ISSUES**

**B1 ENC consistency and display issues / user feedback and lessons learned**

**The need for consistency and improvement in ENC encoding**

**Background:**

Consistency issues have been raised on many occasions at WEND, HSSC and also in Hydrographic Commissions such as NSHC. The UK in common with other nations has difficulty in finding the experienced staff and resources to make the necessary improvements to ENCs. Over the last three years UK has put considerable effort into increasing ENC coverage in support of the introduction of the IMO ECDIS carriage requirement rather than concentrating on consistency issues. However more effort is now being allocated to this task and the re-scheming of ENCs around UK waters to allocate them to the correct usage band to ensure consistency with other NSHC producers is now underway.

As the number of ships fitted with ECDIS and using ENCs grows the amount of feedback from users can be expected to increase. The Nautical Institute has recently initiated an ECDIS forum and a number of questions related to ENC display have already been posted. In addition UK has received feedback from shipping companies which points to a range of issues that they would wish to see improved. Many of these are related to ECDIS design features (such as the 'unfriendliness' of the Pick Report) but a significant number are ENC display issues.

Whilst clearly needed for consistency, the ENC standards at the same time severely constrain some forms of cartographic input into the ENC production process. From the feedback received to date it is becoming clear that this lack of cartographic input (such as the inability to highlight single names or objects rather than whole classes of them) can be a problem for the mariner who may find that he does not have the clear display that he has been accustomed to with the paper chart.

In response to mariner's feedback the UK has set up an internal working group to review the issues raised. The group looks at current encoding practice for GB cells and where possible proposes changes to improve display. In many cases it is not possible to improve the situation due to the constraints imposed by the standards. In some cases whilst a 'work around' could be used, difficulties would be encountered through the introduction of inconsistencies with adjoining cells from other producers. In researching queries the group sometimes looks at the encoding practices used by other producers and it is clear that many nations have developed their own encoding 'work arounds' to improve the ENC display.

The production of ENC's is still in its infancy in comparison with paper charts and UK believes that nations have much to learn from each other to ensure that a 'best practice' is developed and shared between nations and that IHO standards and guidance continue to improve. CHRIS20 recommended that Hydrographic Commissions consider setting up ENC consistency and harmonisation working groups along similar lines as those used by the Baltic Sea Commission. Such a group could also exchange ideas on how to improve the ENC display (within current encoding constraints) and could promote best practice encoding within the NSHC region and engage with IHO WGs for consideration of wider adoption

The following are a few examples of issues highlighted by the mariner:

- Dredged Areas: Depth only available via Pick Report. At least one nation has found a 'workaround' for this.
- Minor sectored lights stand out much more readily on the ENC than major landfall lights that are not sectored.
- ECDIS systems don't display the swinging circle for anchorages (the radius can be found from the Pick Report).
- Isolated dangers which do not have a depth value assigned and which, in the majority of cases pose no danger to surface navigation contribute to unnecessary screen clutter.

### **Recommendations**

The NSHC Conference is invited to note the increasing user feedback on ENC's and to consider setting up a harmonisation working group on similar lines to that employed by the Baltic Sea Hydrographic Commission and as recommended by CHRIS20.