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| Direction des opérations, de la production  et des services | |
| Division produits nautiques | |
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| **Draft S-67 “Mariner’s guide to accuracy of Electronic Navigational Charts (ENC)”** |

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Please find Shom comments on the draft version (edition 0.5) of S-67. For convenience, and as Shom participates in numerous working groups that were asked for comments by DQWG (NCWG, ENCWG, NPWG, HSPT,…), it was decided to provide these comments directly to DQWG.

**S-67 Shom comments**

# General comments

The document is actually a guide to CATZOC, but only as depicted in ENCs, the title and content should also reflect the use of ZOC in paper charts.

The purpose of this standard, and to whom it is addressed, is not so clear :

* If it’s a guide to the Mariner, as is implied by the title, 20 pages is far too long. The document should be lighter and more focused on the key points (if CATZOC needs 20 pages to be explained to the end-user, then it is hopeless…).
* It seems that HOs still have different views on how to code a CATZOC : in our opinion, the first point should be to normalize the way HOs handle the CATZOC in their products, and only then, to explain what is done to the Mariner. This should include the way CATZOC is portrayed in paper charts. S-67, with perhaps even more details and examples, should then be addressed to the HOs, and a short summary should be extracted from this document to target the Mariner.

In several occurrences, the way CATZOC is described could lead a mariner into thinking that it is a Go / No Go indicator. We all agree that a CATZOC D area should be avoided if possible, but that does not mean that a CATZOC B or even A1/A2 is completely “safe to navigate” : a thoroughly surveyed area (CATZOC A1) may have parts that are full of dangers (and in that case it means “real” dangers, not “probable large depth anomalies”…). It seems obvious, but the mariner has to look at the data on the chart itself, not just the CATZOC to choose his track. Inaccurate wording in a IHO standard might even have potential legal consequences in case of a grounding in a “good” ZOC area.

The “hotel-rating” parallel is an extreme example of this possible confusion : whereas a 6-Star hotel definitely means “go there!”, a 6-star ZOC only means that all features in the ENC have been accurately assessed (for an hotel, it could well mean that every item of comfort has been precisely qualified and the conclusion being to avoid this hotel at all cost if you don’t want cold water, filthy linen and cockroaches crawling all over the place…).

The limitation of CATZOC in areas subject to change is another key-point that is not too clear (and not only in this document). The proposed way of addressing this problem here (p.7 : *“…national hydrographic offices should downgrade the assigned ZOC category, restoring it only once a replacement survey is incorporated into a chart*”) is debatable. It would mean changing the ZOC over time in the products as long as you don’t have new data. For the moment both S4 and UOC only urge to downgrade the ZOC after a major natural disaster. Once more, explaining things to the mariner should not be done until clear rules have been set for producing HOs.

# Editorial comments

§2 table of ZOC categories

DGPS should only be an example of augmented GNNS

The different techniques quoted here might be unknown to the Mariner, they would need to be explained somewhere.

§4.1 1st paragraph

*“…-it only once there is confidence…”* : “matters” seems to be missing

§4.1 example

An example with depths in meters would be less confusing.

More importantly, the conclusion “*It proves that the 1899 survey, if it was the only survey in this area, could not be trusted for any vessel with a draft greater than 1.5 – 2 metres “* is misleading. If the 1899 survey was the only one in the area, almost any depth could have existed between the lines, and thus it could not be trusted regardless of the ship’s draft.

§5.1 alternative way to asses ZOC

This whole paragraph should be deleted. The number of stars is just the representation of the ZOC on an ECDIS and should not be confused with the “navigability” of an area (see general comments).

§5.2

Caution should be exerted with the introduction of under keel clearance, and probably no figures should be given.

It is not clear to whom the “possible advice” are addressed : Harbour Master? Mariner?

Moreover, A1 is not equivalent to S44 special order, as is emphasized in the last paragraph, and if one has to mix ZOC and order of the survey (not included in the chart nor in the ENC) to make a decision, it makes things very complicated indeed…

§6

Should be re-written to be a real summary of what has been said before.