**Paper for Consideration by NCWG7**

**Retiring stump symbol**

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| ***Submitted by:*** | BSH (Germany) |
| ***Executive Summary:*** | Harmonising/Standardising INT1 symbology by retiring a rarely/only locally used version of symbol K43.1 and K43.2 |
| ***Related Documents:*** | INT1 K43.1/K43.2; S-4 B-422.9 |
| ***Related Projects:*** | None |

**Introduction / Background**

Standardising chart symbols helps to facilitate reading and interpreting charts. Though there is the INT1, some listed versions of chart symbols are only common for specific regions. In many cases these versions of chart symbols are more complex than their alternatives and often hinder automatic usage of chart symbols in chart production due to their complexity. NCWG and INT1-SubWG strive to reduce the number of those chart symbols to improve readability of charts for a safer navigation.

**Analysis / Discussion**

Some of these chart symbols described above are INT1 symbols K43.1 and K43.2 which are used to depict stumps of posts or piles which are wholly submerged (OBSTRN, CATOBS=1 snag/stump, WATLEV=3 always under water/submerged). While K43.1 is used for a more general depiction, K43.2 shows the exact position of the object. Currently there are two versions of K43.1 (see figure 1): a set of stump symbols grouped together (version 1) and a dotted circle with an added category description (version 2).

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| *Fig. 1: Current versions of INT1 symbol K43.1* | |

For K43.2 there is only one version (see figure 2).

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| *Fig. 2: Current version of INT1 symbol K43.2* |

Versions 1 of K43.1 and K43.2 are not found in ordinary Admiralty charts. They may only appear in adopted charts (UKHO INT1 Edition 8, 2020). However, NOAA (and NGA) lists besides these both INT 1 versions of K43.1 and K43.2 in its ChartNo1 a completely different set of chart symbols for this issue (Edition 13, 2019).

S-52 uses version 2 of the chart symbol. In S-52 there is no distinction between a general depiction and showing the exact position of an object.

It should be considered that chart symbol K43.2 does not take up as much space as version 2 of K43.1 and can easily be placed automatically in the chart during chart production.

**Conclusions**

Retiring version 1 of INT1 symbol K43.1 (set of stump symbols grouped together) and K43.2 will facilitate the usage of ENC and Paper Chart as there will no longer be a different symbolisation of identical objects.

Before that we need to know in which MS charts they are still common use.

Although the positional symbol takes less place than the obstruction circle, it makes rare sense to keep it.

**Recommendations**

It is recommended to either retire version 1 of INT1 symbol K43.1 (set of stump symbols grouped together) and K43.2 or to mark them as obsolescent (depending on feedback from other member states). To allow a better characterization of the depicted object the information stored in CATOBS should be used to label the chart symbol (similar to the suggestion in S-4 B-422.9).

**Justification and Impacts**

Reducing the number of available versions of INT1 symbol K43.1 and retiring K43.2 will facilitate chart usage and harmonise depiction in ENC and paper chart.

The proposed change will impact chart production guidelines in MS still using version 1 of INT1 symbol K43.1 (set of stump symbols grouped together) and K43.2. Considering the positive effect that will be achieved by the proposed change this is deemed to be justified.

The proposed priority is medium.

**Action required of NCWG**

The NCWG is invited to:

a. discuss and

b. endorse recommendation