Paper for Consideration by ENCWG2

Line type MAGVAR - What is appropriate symbol

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Executive Summary:	This paper is about what is appropriate symbol for line type MAGVAR
Related Documents:	N/A
Related Projects:	Recently published new editions of S-52 PresLib 4.0.1 and S-64 ed 3.0.1

Introduction / Background

1. This paper is from our observation while testing implementation of PresLib ed 4. Fact is that there is no problem between published S-52 and S-64. The issue is about what is appropriate for presentation of MAGVAR.

2. Current (and previous) editions of PresLib use symbol MAGVAR01 for point geometry and symbol MAGVAR51 for line and area geometry. Pivot point of MAGVAR01 is in the middle of the symbol, while pivot point of MAGVAR51 is in a faraway offset from the symbol. Obviously the faraway offset has been set to avoid overlapping with other centred symbol for a co-shared area.
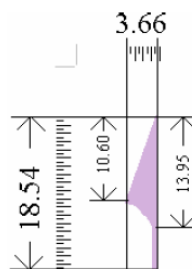
Symbol Name:	SY(**MAGVAR51**)	RN: 167

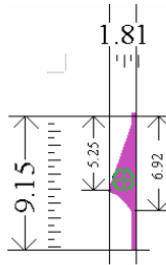|	
Symbol Explanation:	cursor pick site for magnetic variation along a line or over an area
Look up table affected:	line symbols area symbols with plain boundaries area symbols with symbolized boundaries
Pivot Point Column: Pivot Point Row:	2.53 36.74
Width of Bounding Box: Height of Bounding Box:	3.66 18.54

Symbol Name:	SY(**MAGVAR01**)	RN: 166

Symbol Explanation: cursor pick site for magnetic variation at a point

Look up table affected: paper chart point symbols
                              simplified point symbols

Pivot Point Column: 1.08
Pivot Point Row: 4.47

Width of Bounding Box: 1.81
Height of Bounding Box: 9.15

3. For the end user the presentation of point type MAGVAR object is clear and understandable. Also the presentation of area is also understandable, if the drawn area is big enough to fit the symbol with large offset inside the area. Neither of these are in focus of this paper.

4. However the presentation of a line is very confusing. User sees the symbol. If he try to cursor pick the object from the symbol he will get nothing as the line is nearly 38 mm from the symbol (i.e. outside any reasonable cursor pick collection area). Below is an example of a MAGVAR line. Note that the related text is close enough to the magenta line of the MAGVAR object to be associated with it (this detail is ok), while MAGVAR51 symbol is very far away (this detail is not ok).

varn 10.00

Conclusions
5. What is possible to do? First alternative would be just to change symbol instruction SY(MAGVAR51) to SY(MAGVAR01) for lines. Pro is very simple to execute, con is that the size of MAGVAR01 symbol is half of the MAGVAR51. Second alternative is to use the original shape of MAGVAR51, but to move the pivot point for to the centre of the symbol. This method requires creation of new symbol MAGVAR52 so that the original MAGVAR51 would remain with its large offset for use by areas.

Recommendations
6. We do not propose immediate change as it would not suit the ongoing ECDIS software upgrades to be completed by end of Aug 2017. However this is a real issue and should be addressed at least at that time when S-101 ENC charts will get their portrayal published for real end user use. We assume that in the future there will be long time period for parallel and mixed use of S-57 and S-101. Therefore the S-52 PresLib should be updated at the same time as S-101 portrayal will be available for the majority of on-board end users.

Action Required of ENCWG
The ENCWG is invited to:

     a)   note the issue presented in this paper

     b)   consider what is the best way forward and act based on that decision