Paper for Consideration by ENCWG

[Extended use of NEWOBJ for V-AIS]

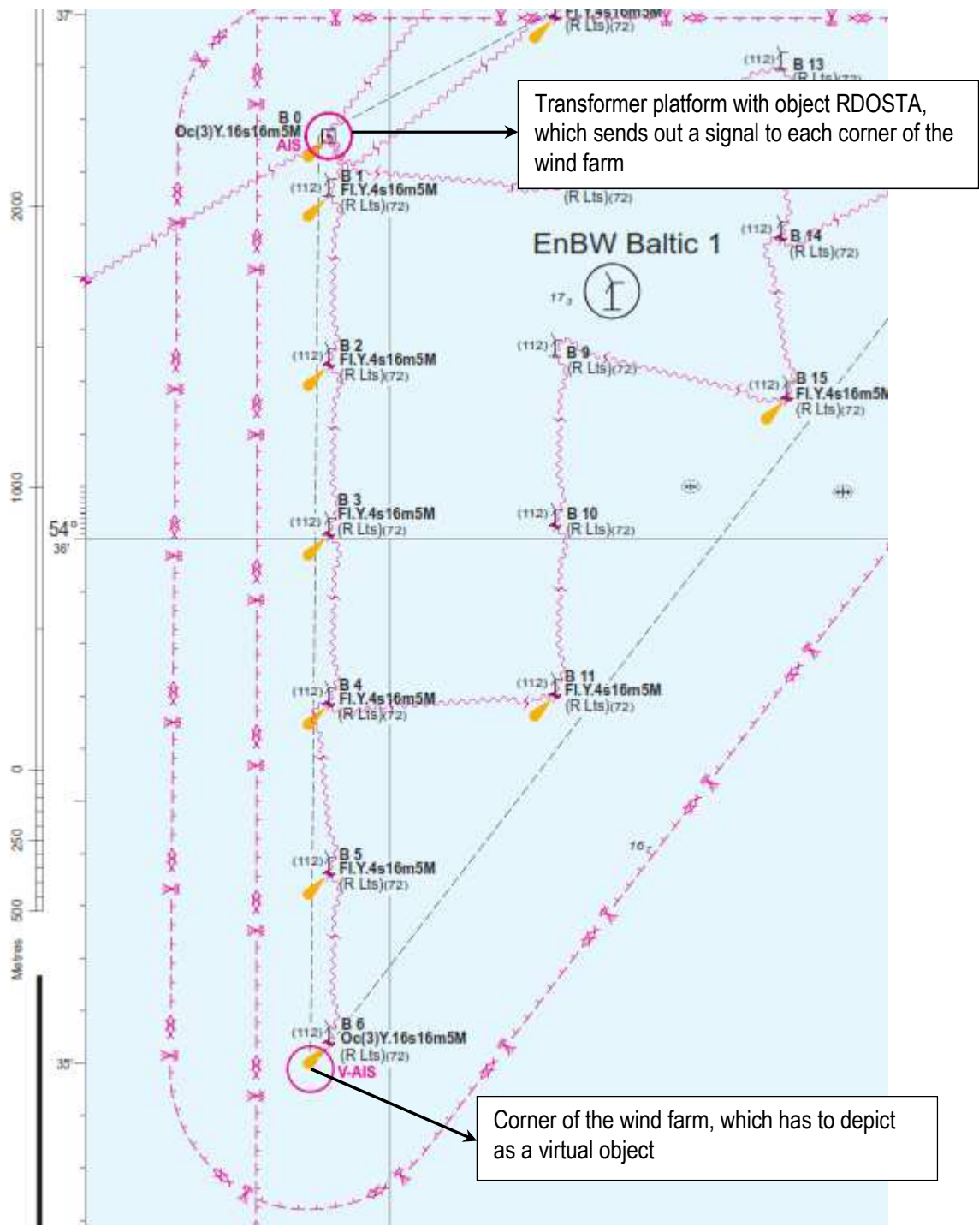|	
Submitted by:	BSH (Germany)
Executive Summary:	Proposal for the representation of a separate V-AIS object.
Related Documents:	S-57 Appendix B.1, Annex A – Use of the Object Catalogue (UOC)
Related Projects:	

Introduction / Background

During the last months several wind farms in the German waters were put into operation or are just being built. The virtual identification of parts of the wind farms is thereby an important aid to navigation. In most cases the corners of a wind farm are depicted with such V-AIS objects. Resulting from this we had to chart these V-AIS in our ENCs, but for this case S-57 Appendix B.1, Annex A – Use of the Object Catalogue (UOC) doesn't offer an appropriate way.

Analysis/Discussion

The UOC shows in chapter 12.14.1.1 how to use the NEWOBJ object class to encode virtual AIS aids to navigation. All of the given possibilities are virtual buoys. In our special cases we either have to encode a V-AIS object in conjunction with a wind turbine or as a separate object.

1. If a wind turbine is coincident with the corner of a wind farm and marked as a virtual object we currently use the object RDOSTA . But in terms of content this encoding is incorrect.
2. If the corners of a wind farm are marked as virtual objects but not coincident with a wind turbine, we do not encode the situation in the ENC, only in the corresponding paper chart. The following example shows the situation in the paper chart:
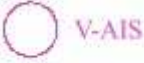
Transformer platform with object RDOSTA, which sends out a signal to each corner of the wind farm

Corner of the wind farm, which has to depict as a virtual object

Paper chart detail of wind farm EnBW Baltic 1 in the Baltic Sea

Conclusions

As shown in both cases above we propose that V-AIS should be usable via the NEWOBJ as stand-alone object and in combination with other real world objects like a wind turbine.

Following amendment should be implemented:

Purpose of Virtual Aid	CLSDEF	CLSNAM	SYMINS	PORTRAYAL
Undetermined virtual object	A Virtual object which indicates any obstruction for navigation	Virtual AtoN	SY(BRTHNO01);TX('V-AIS',3,2,2,'15110',2,0,CHMGD,11)	V-AIS

Recommendations

Add the possibility to create a separate V-AIS object via NEWOBJ to the UOC in chapter 12.14.1.1

Justification and Impacts

The benefit would be to have the possibility to show V-AIS as a stand-alone object and a better possibility to combine V-AIS with real world objects.

Action Required of ENCWG

The ENCWG is invited to agree to this proposal.