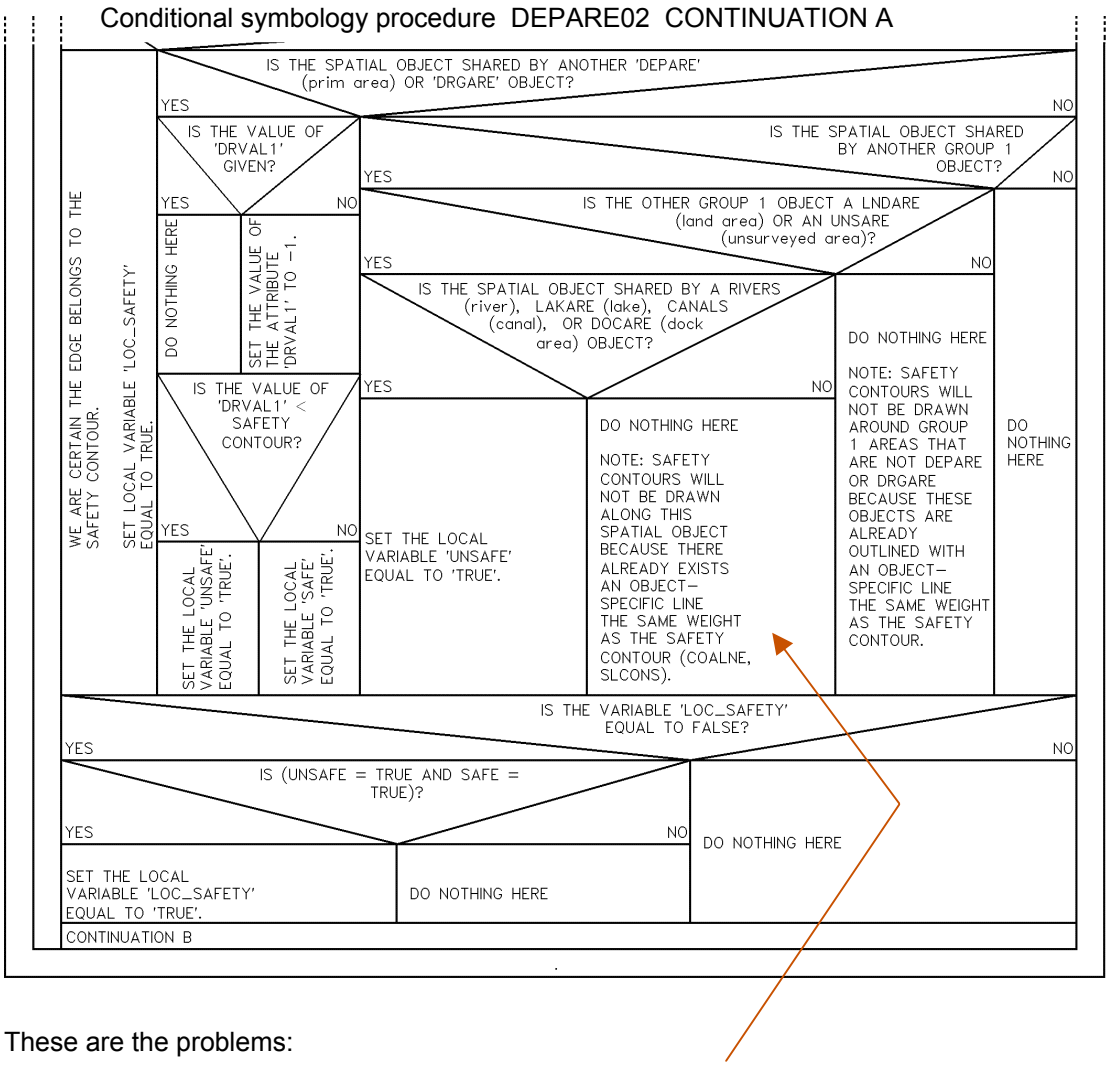
IHO CSMWG 16
IHB Monaco 29-31 May 2006

REPORT by SAM Electronics on S-52 Presentation Library
Generation of the Safety Contour.

From: Bernhard Nöggerath, SAM Electronics, Bremen, Germany
Sent: April 21, 2006

The generation of the safety contour was completely modified in the PL 3.3 to a method using the edges of the DEPARE and DRGARE objects. The “linear depth areas” will no longer be required.

With this method in some cases the generation of the safety contour does have some problems, but with a small modification all these problems could be solved.



These are the problems:

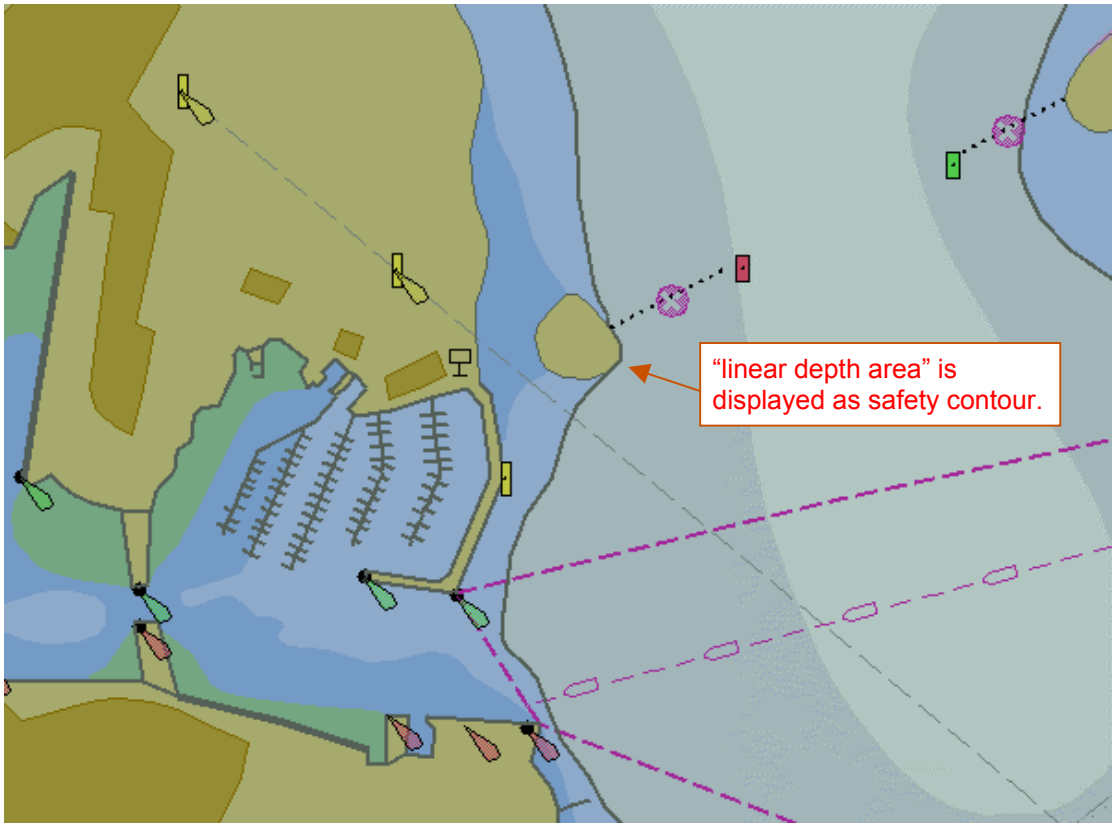
- The lines of type COALNE are <u>not</u> displayed with the same weight as the safety contour.
  COALNE : width = 1, colour = CSTLN

- The lines of type SLCONS are often <u>not</u> displayed with the same weight as the safety contour.
  SLCONS : width = 1 / 2 or 4, colour = CSTLN

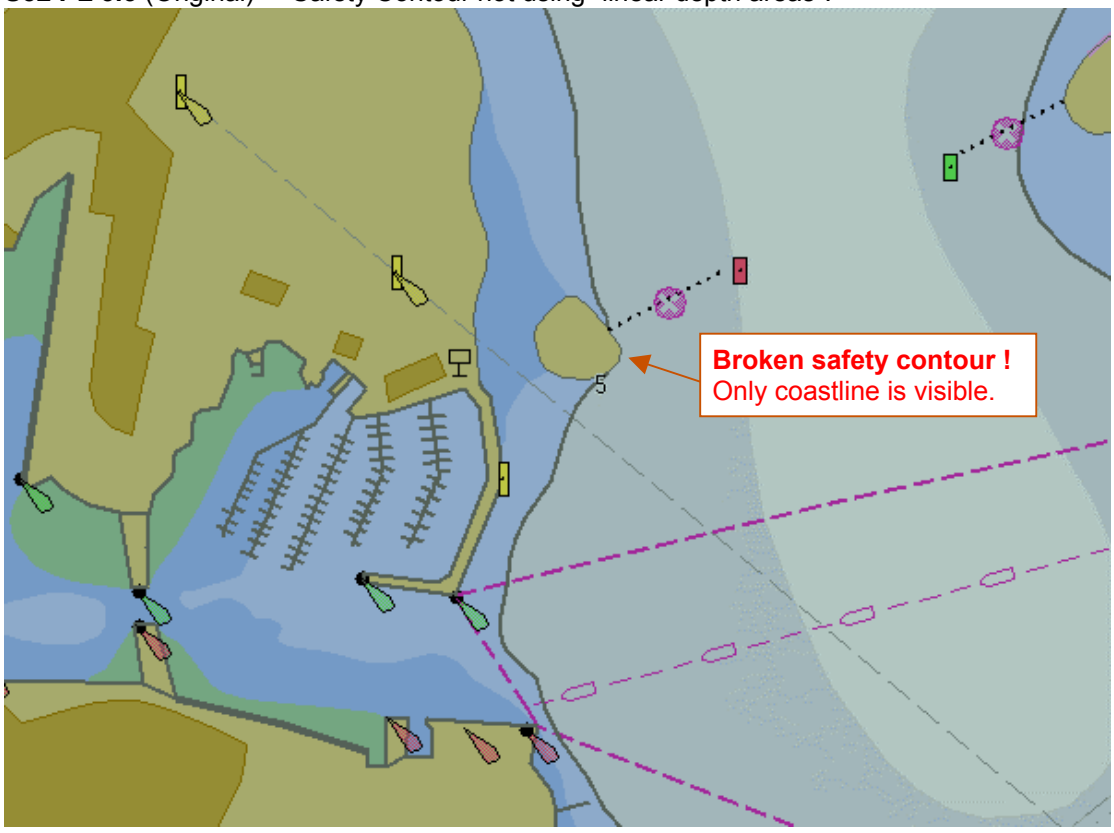
Safety Contour: width = 2, colour = DEPSC

1. Example in the IEC TDS :

S52 PL 3.2 Safety Contour is constructed using “linear depth areas”.

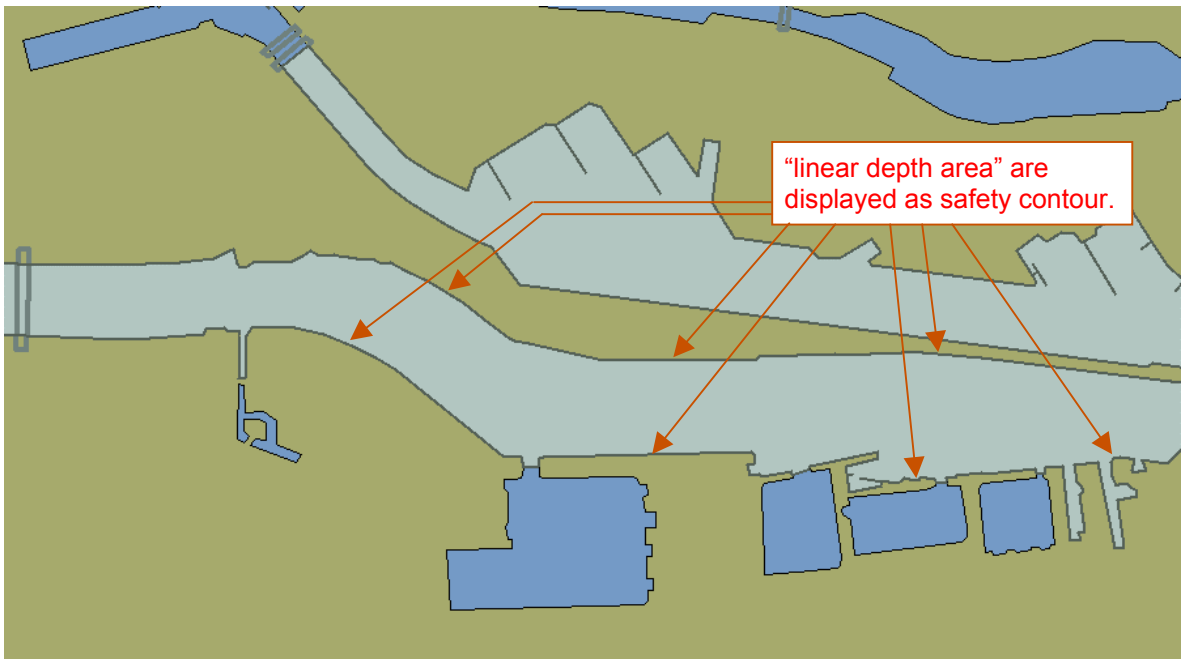


S52 PL 3.3 (Original) Safety Contour not using “linear depth areas”.

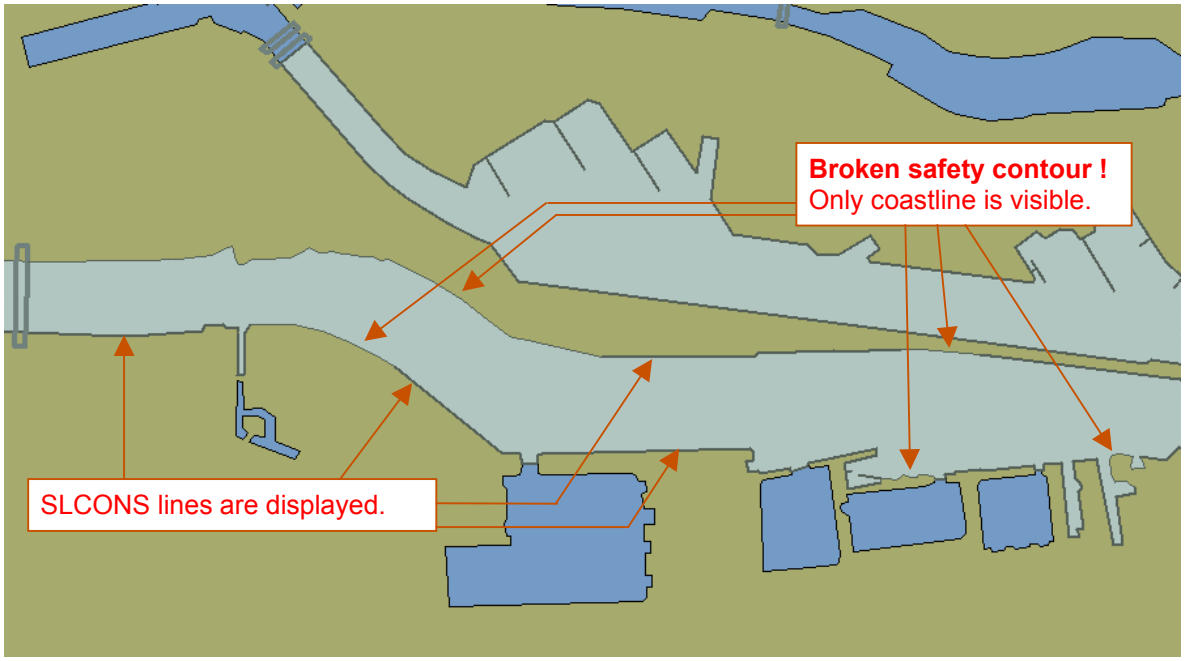


2. Example in the IEC TDS :

S52 PL 3.2 Safety Contour is constructed using “linear depth areas”.

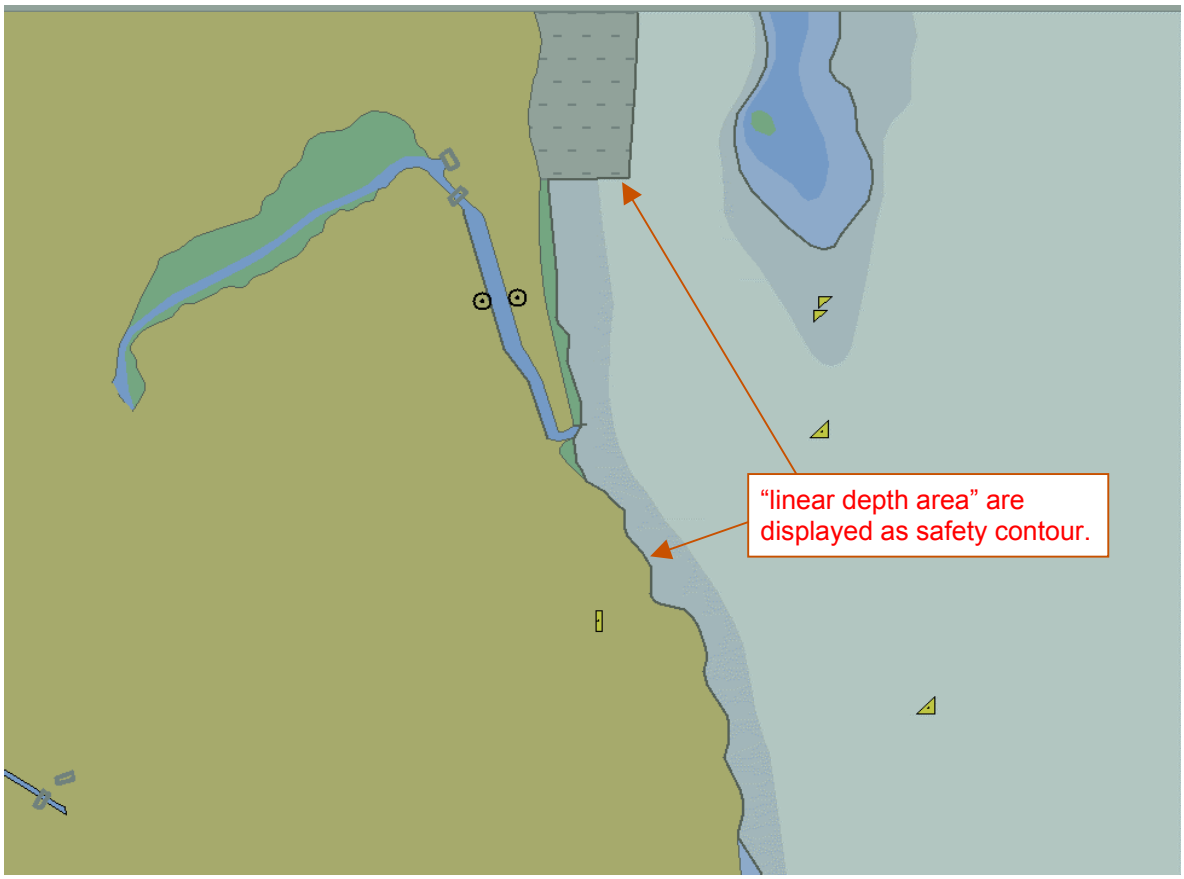


S52 PL 3.3 (Original)

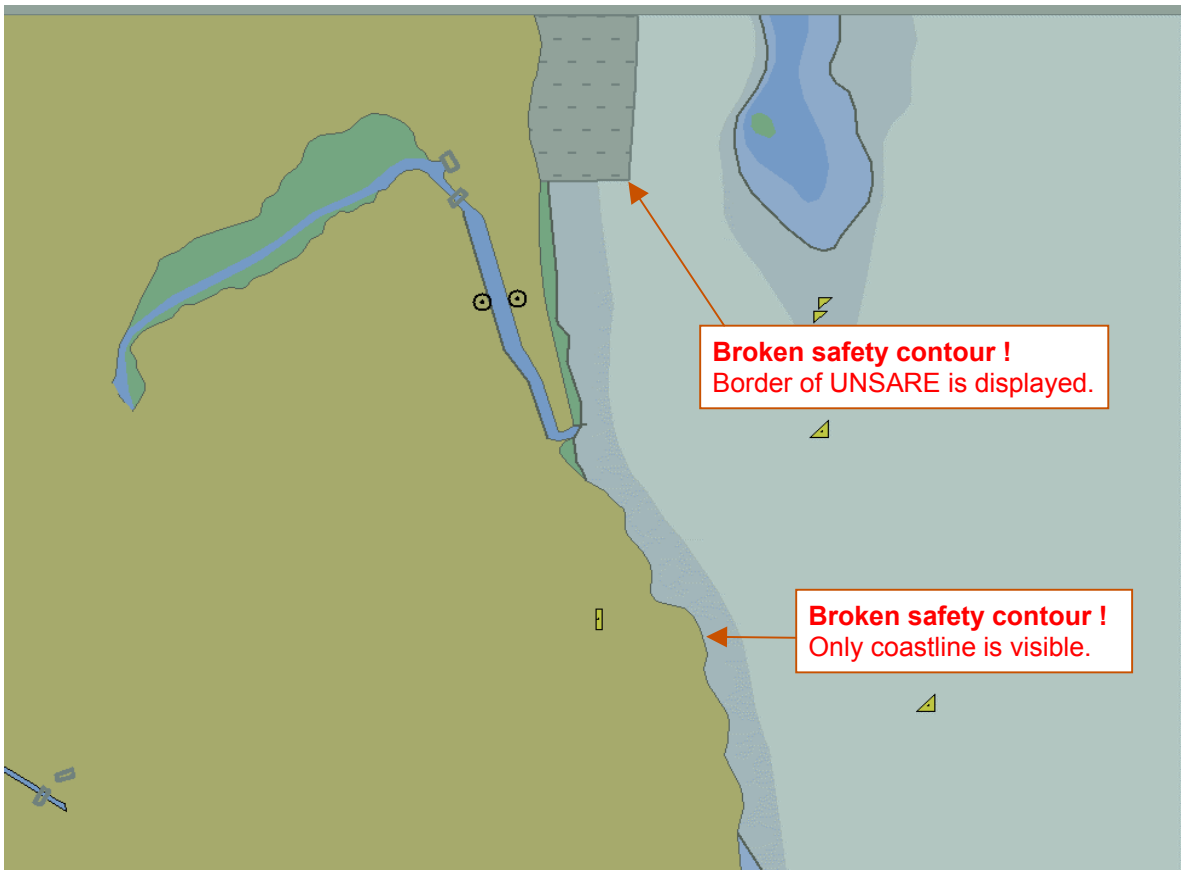


3. Example in the IEC TDS :

S52 PL 3.2 Safety Contour is constructed using “linear depth areas”.

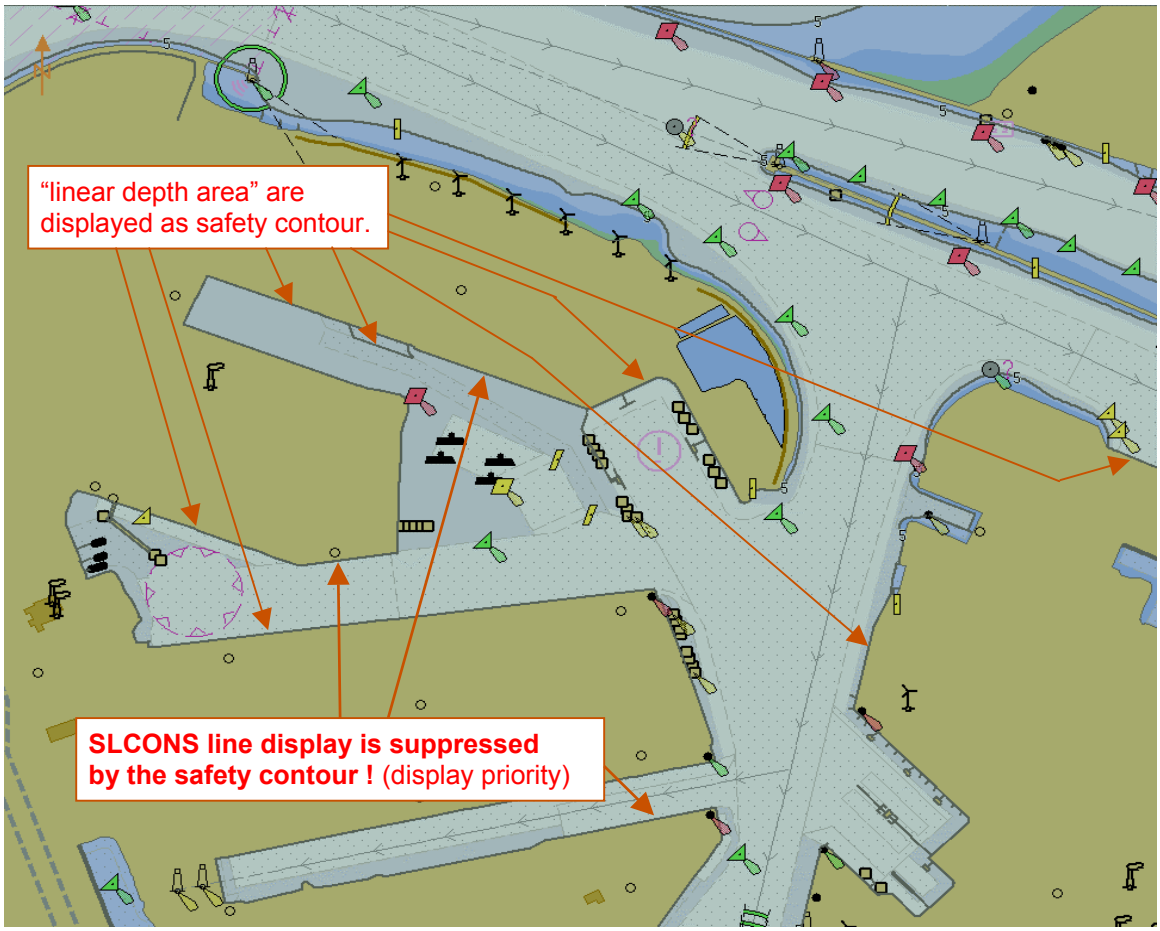


S52 PL 3.3 (Original)

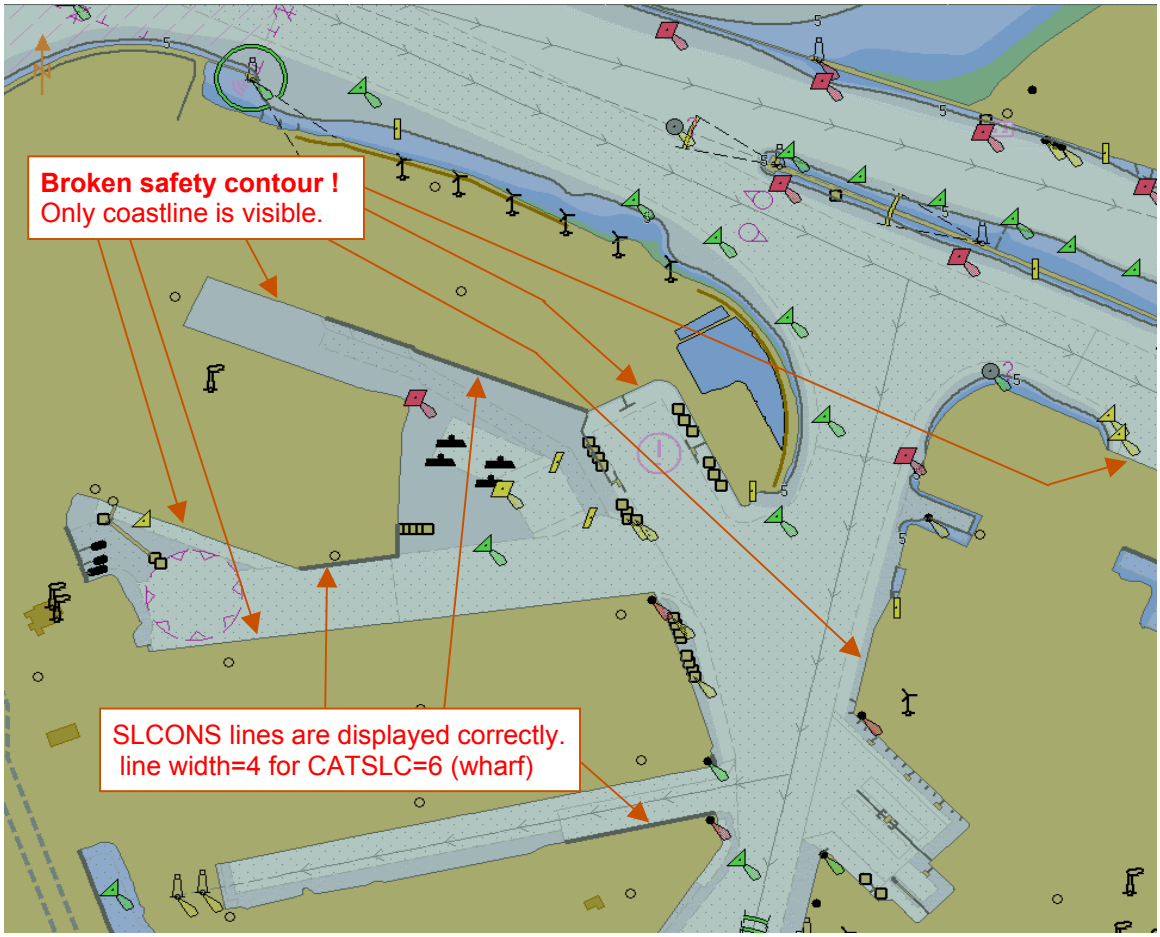


Example in a "real" chart cell : Cell: NL50132A Ed.3 Upd.1 "Europort"
Position: 51:57.8 N , 004:04.0 E

S52 PL 3.2 Safety Contour is constructed using "linear depth areas".

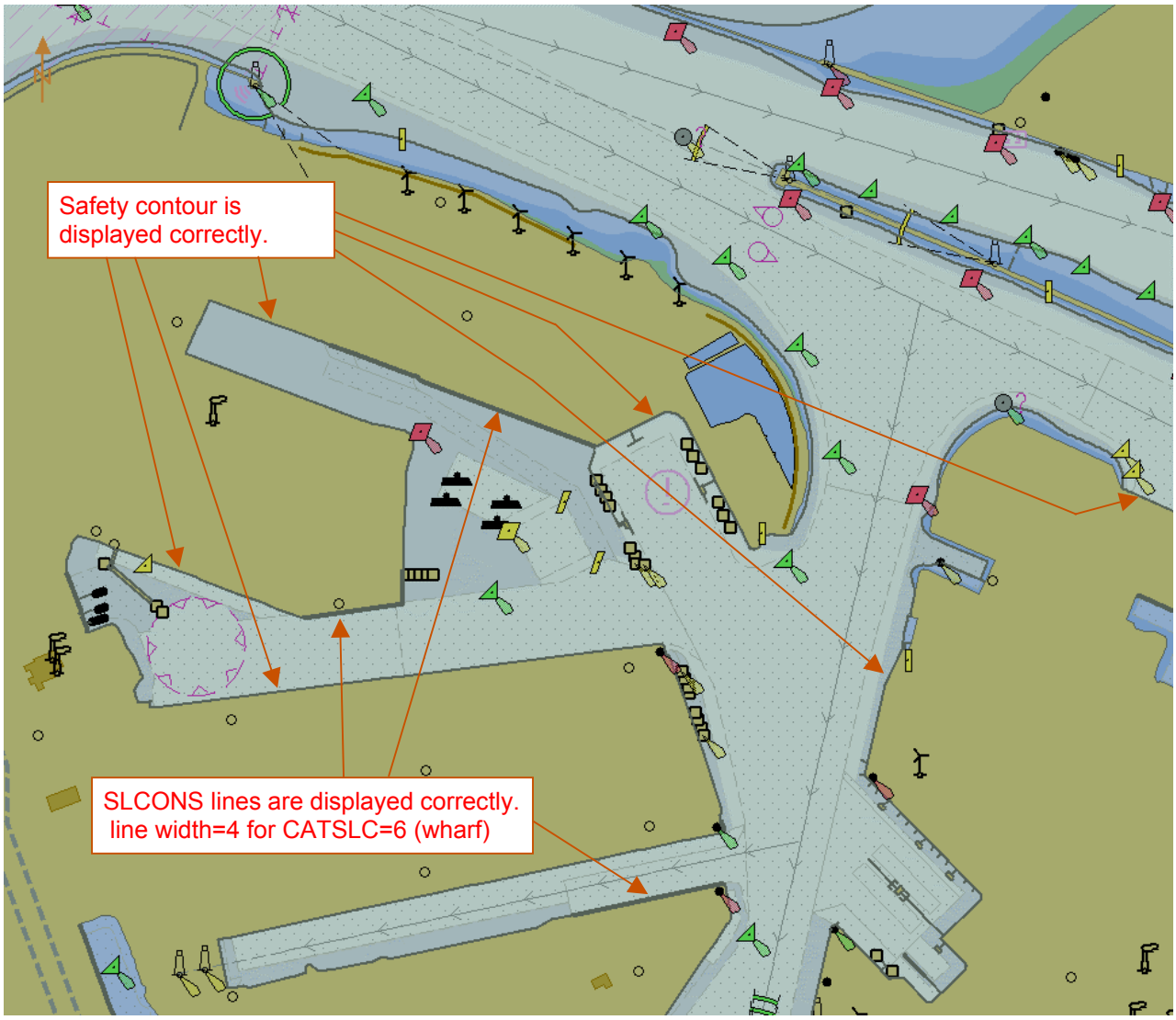


S52 PL 3.3 (Original)



Example in a "real" chart cell : Cell: NL50132A Ed.3 Upd.1 "Europort"
Position: 51:57.8 N , 004:04.0 E

S52 PL 3.3 Proposed modified conditional symbology procedure for constructing the Safety Contour.

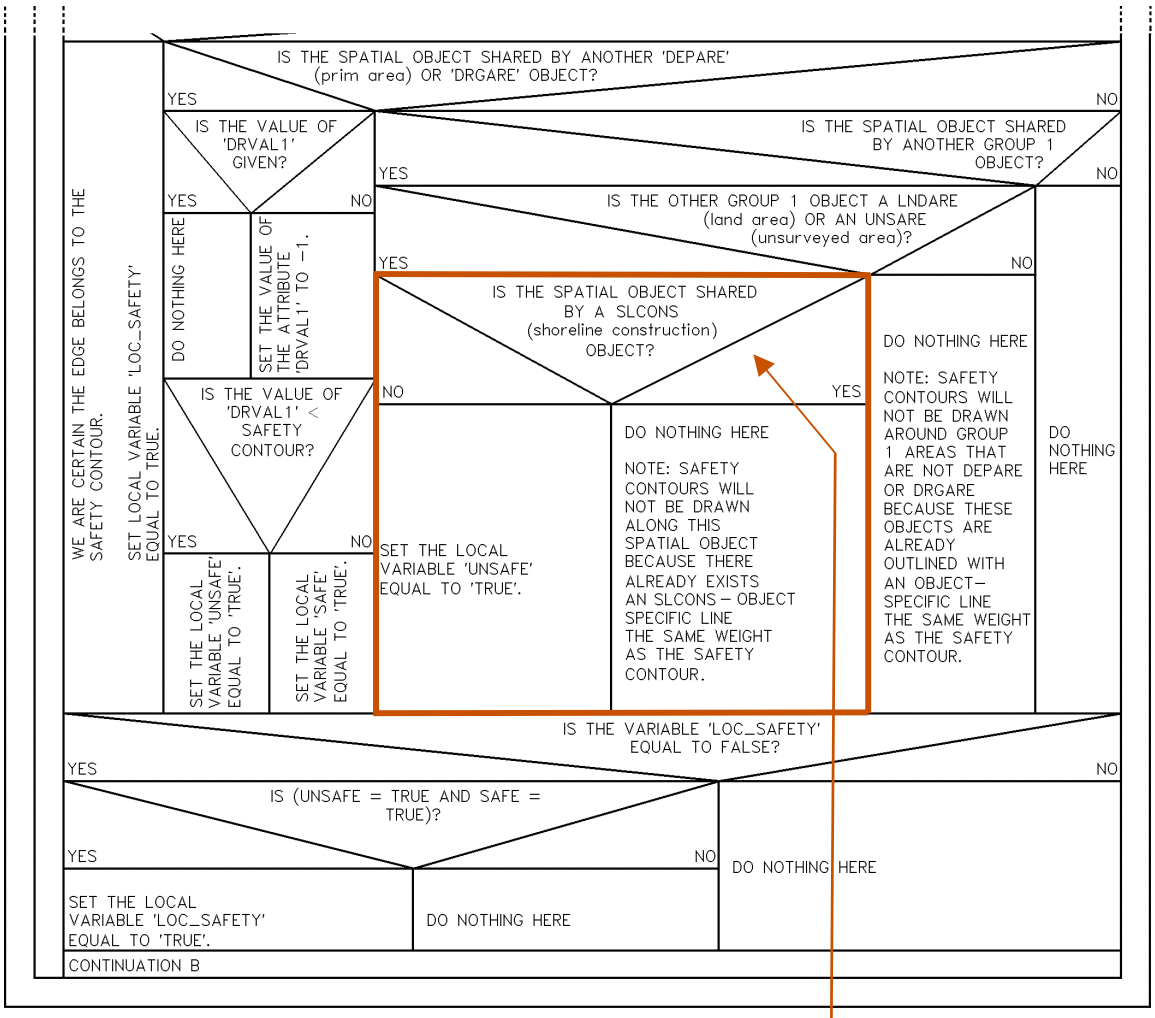


With using the proposed modified conditional symbology procedure for constructing the safety contour all the listed problems with broken safety contours are solved.

Also the border of the UNSARE (unsurveyed area, 3. Example in the IEC TDS) will be displayed as part of the safety contour.

Proposal for modification by SAM Electronics to solve the listed problems:

Conditional symbology procedure DEPARE03 CONTINUATION A :



Proposal for the modification of this conditional branch :

Consequence:

If there are no SLCONS objects which are sharing the same edge than the answer is NO and the local variable ´UNSAFE´ is set to ´TRUE´.

The old additional checking for sharing of RIVERS, LAKARE, CANALS or DOCARE is not necessary because this edge is shared by LNDARE or UNSARE and therefore the condition is definitely ´unsafe´ in this case.

If there is a SLCONS object sharing the same edge than the answer is YES and this edge will not be displayed as part of the safety contour, but will be displayed by the conditional symbology procedure ´SLCONS03´ which belongs always to the DISPLAYBASE category.

Best Regards,
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