

**Paper for Consideration by CSPCWG**  
**Wharfside obstructions**

<b>Submitted by:</b>	UK
<b>Executive Summary:</b>	Korea asked a question about wharfside obstructions. An answer provided by Secretary CSPCWG may be of interest to WG members
<b>Related Documents:</b>	S-4: B-321, B-414
<b>Related Projects:</b>	None

### Introduction / Background

Korea asked a question about wharfside obstructions. It may be that this issue is more widespread because of changes in ship design. Korea was asked if their CSPCWG representative could prepare a paper on the subject for consideration by the Working Group, as this is a good example of a technical cartographic issue that would benefit from discussion in a meeting. Unfortunately, no Korean representative is able to attend the meeting and submit a paper. Consequently, the following is submitted as an INF paper, to give opportunity for members to familiarise themselves with the issue, in case there is time for discussion.

Korean question: [Note: Words in brackets added by Secretary to clarify English].

I have a question on compilation on how to display depths on the wharf. Let me explain it. The wharf are [is] dredged and surveyed. But the vertical area of the wharf side is composed of 6m spread base blocks. As you know, when being dredged on the wharf, 6m spread base blocks on the seabed are constructed to protect the wharf. Because of this block, the depths around 6m long block area is lower [less] than planned depth. The remaining seabed has the planned depths.

The recently constructed vessel shape looks like a round [U-shape] not a reverse triangle [V-shape] so round shape vessels can touch seabed with base blocks on the wharf. For the safety of vessels who will moor on the wharf, it seems that the depths of seabed with the blocks will [should] be displayed on the chart but if the depths is [are] displayed on the chart, vessels are afraid of mooring on the wharf.

Is there any way to express such depths in the wharf on the chart? Is it possible to make space without depths?

### Analysis / Discussion

Answer from CSPCWG Secretary (words in [ ] added in this paper):

You raise an interesting question. If I understand you correctly, the wharf you refer to does not have a vertical side all the way to the dredged sea floor. There is a ledge or slope which intrudes up to 6m into the dredged area. A vessel with a 'U' shaped bottom may possibly collide with this ledge or slope when coming alongside the wharf.

The charting method will depend largely on the scale of the chart. You could consider the following; more than one may be appropriate depending on circumstances:

- If the scale is very large [including berthing scale ENC], it may be possible to show the inner limit of the dredged area (dashed line) parallel with the wharf, so that vessels know that the dredged depth is

not continuous right up to the wharf side. It may be possible to show some actual soundings in this narrow area, or possibly use 'out of position soundings' to show the 'alongside depth', as explained in S-4 B-412.2. Such soundings would need to be shown sufficiently frequently to indicate that it is not possible to avoid them by berthing between the soundings.

- Choice of tints may allow this area to be shown in blue tint while the dredged area is white, which will draw attention to the problem.
- If the scale is too small to show the dredged limit parallel with the wharf, it is still possible to show some 'out of position' soundings alongside, either within the dredged area or on land beside the wharf. This is allowed for by S-4 B-414.5.
- A chart note may be useful to explain the problem, advising the chart user to contact the harbour authority (or pilot) for advice whether it is possible to berth a particular vessel alongside and possibly refer to an associated publication providing more details.
- A large scale inset plan could be used to show more detail.
- A diagram showing the profile of the side of the wharf could be included.

It is not recommended to include a danger line alongside the wharf, as this usually indicates that the structure is not intended for berthing alongside at all (as detailed in S-4 B-322).

This may be a case where paper charts are restricted as to what can be achieved, while more detail could be shown on a berthing scale ENC.

[It will be necessary to also consider how the information will be maintained and the role of the port authority in that].

### **Conclusions**

Changing ship design may make this a common problem. Some, or all, of the above options could help to warn navigators of potential danger.

### **Recommendations**

Consider adding some compilation guidance, possibly at B-321.1 (Quays, piers, wharves, jetties and moles), with cross references within B-414 (Dredged areas).

### **Justification and Impacts**

Korea has exposed a problem which might be universal.

Any additional words could be included in the current review of B-300.

### **Action required of CSPCWG**

The CSPCWG is invited to:

- Consider the issue and advise the CSPCWG officers of any necessary action.