

## NAVIGATIONAL ADVISORY PANEL REPORT

<b>NAP Date:</b>	26/01/2007	<b>Owner:</b>	Harbour Master (lower)	<b>NAP Ref:</b>	17	<b>NAP Title:</b>	Under Keel Clearance
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### Panel Members:

Name	Organisation	Name	Organisation	Name	Organisation
G Dickins	H.M.L	T Miller	Inner List Pilot		
J Pinder	Port Hydrographer	S Clark	Sea Pilot		
B Goldman	V.T.S.M	C Wheeler	Sea Pilot		
R Stanbrook	D.H.M.L				

Detail / Terms of Reference	Observation/Recommendation
<p>To consider the suitability now, and in the future, of the current under keel clearances (UKC) used in the port having regard to PIANC recommendations of 10% of draught.</p> <p>To consider the implications of any recommended changes in UKC on the accessibility to the port of current and known future deep draughted vessels.</p> <p>To make recommendations to the Chief Harbour Master and the Navigational Management Team on any changes required to UKC requirements.</p>	<ol style="list-style-type: none"> <li>1. Pilots and ships' masters apply dynamic factors of squat, heel and tidal conditions in addition to the static recommended UKC. These factors are different for every ship and pilots vary speed over known shallow areas to reduce squat and heel as necessary. Large container ships seem to have a large GM and may not be too prone to excessive heel on turns. Large deep draught tankers do not generally heel on turns. A shallow water squat table used by pilots confirms that at low speeds over known shoal areas, the dynamic effects of squat are negligible</li> <li>2. The nature of the Thames river bed dictates that UKC is not necessarily a function of draught and the existing static factors of 0.9 metres on the flood and 1.4 metres on the ebb still hold good provided dynamic factors are applied first.</li> <li>3. Sample passage plans using 10% of draught UKC for a deep draught vessel (13 metres) indicate there would be reduced 'windows' for berths below the Lower Hope and on neap tides denied access to berths above Coalhouse Point. Trade will potentially be affected.</li> <li>4. Medway Ports are known to apply 10% for all their vessels in PLA waters. Some ships have &lt;0.9 metres UKC.</li> </ol> <p><u>Recommendations</u></p> <ol style="list-style-type: none"> <li>5. The existing UKC of 0.9 metres on flood and 1.4 metres on ebb should be retained as a final UKC after dynamic factors have been applied by masters and Pilots.</li> <li>6. Provided that dynamic factors are applied, the UKC of 1.2 metres applied by Inner List Pilots might be dispensed with and 0.9 metres UKC used.</li> <li>7. A UKC of 0.5 metres should, so far as possible, be maintained by vessels manoeuvring to and from berths. The UKC on the berth is a matter for the berth and ship's master but where a ship is required to always remain afloat,</li> </ol>

	<p>this must be adequate.</p> <ol style="list-style-type: none"><li>8. The above recommendations must be discussed with Medway Ports as they could affect their smaller vessels.</li><li>9. The recommended UKC should be promulgated in Admiralty Sailing Directions, PLA Tide Tables and Notice to Mariners. The recommended UKC should be advisory rather than mandatory.</li></ol>

Panel Chairman:	G T Dickins	Signature:	Date:	01/02/2007
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