

Editorial

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In our June issue we presented three papers intended for a themed issue on dredging. As explained then, the response to our call for papers on this topic was overwhelming, reflecting the interest in the subject, and more than could fill a single issue. We are pleased to therefore be able to publish another three papers on dredging in this issue.

In the first of these papers, Middlemiss *et al.* (2014) describe an improved method for measuring and analysing data to determine measurable dredging 'source terms'. Sediment brought into suspension during dredging may have a potential impact on the environment. Acoustic Doppler current profiler (ADCP) devices are often used to determine the so-called source term of suspended sediment. The conventional application of the ADCP makes it difficult to measure the suspended solids concentration near the bed. The source term can be measured more accurately when two ADCPs are used, where one instrument is vertically orientated. This leads to a slightly higher value of the source term in the example given in the paper.

An important process in the dredging industry is hydraulic transportation of slurries in pipelines. The energy needed for transportation is directly related with the head loss over the length of the pipeline. Lowest energy consumption is achieved when the flow is near the deposition-limit velocity. In the paper by Matoušek and Krupička (2014) the interfacial friction between the sliding bed and turbulent flow above this bed is improved by a new formulation of the bed roughness. This leads to a better prediction of the head loss in the sliding bed regime.

Centrifugal pumps are mostly used in dredging practice to pump sediment water mixtures through pipelines. Torsional vibration analysis is performed to avoid vibrations of the pump and drive system. The Eigen frequencies are governed by the mass of the impeller and added mass of the surrounding fluid. Based on model experiments, van Wijk (2014) presents a simple engineering formula derived to determine the added mass moment of inertia of an impeller. The most important influencing factors are captured accurately. The dataset resulting from these experiments is thought to be unique and, since it is based on first principles, it should prove to be useful in engineering practice.

In our fourth and final paper, Guneroglu *et al.* (2014) outline the case for a dynamic adaptive approach to marine spatial

planning. An area in the southern Black Sea is used to illustrate the various conflicting demands on the coast. The authors suggest a three-domain management system for putting comprehensive marine spatial planning into effect.

This issue begins with a briefing paper on research presented over the years at the well-established Breakwaters Conference (Allsop, 2014a). Considerable changes have taken place in the world of maritime engineering over the last 30 years, uniquely charted by the proceedings from this long-running conference series. With the proceedings of the 10th conference in this series now available (Allsop and Burgess, 2014) the author has taken the opportunity to look back at the publications from previous events, to consider what advances have, or have not, been made in that time. It is interesting to observe that some of the points raised in 1983 remain unanswered and continue to be as pertinent today as back then. Much of the advice and guidance in those papers (and the published discussions) throughout the last 30 years is seen as being as insightful and relevant today as at the time of their writing.

We also welcome a discussion (Negro Valdecantos *et al.*, 2014) of one of our previously published papers: Comparative study of breakwater crown wall – calculation methods (Negro Valdecantos *et al.*, 2013). The contributors add to the information provided in the original paper by identifying further work since available that could assist those working in this field. As we have previously conveyed to readers of this publication, the editorial panel are keen to include discussion on any of the papers or articles that appear in the journal.

Lastly, we draw your attention to the very sad and untimely passing of Professor Andrew Bradbury, who will have been known to many readers of this journal (Allsop, 2014b). Andy was a talented, inspirational, enthusiastic and hugely popular figure in the world of coastal engineering. He embraced the principles of improving our understanding of coasts, sharing knowledge freely and helping to develop others. A reminder of Andy's contributions to our industry is included in this issue. He will be sorely missed and remembered fondly.

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