

Award-winning paper in 2013

Papers published in *Maritime Engineering* are eligible for awards from the Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Friday 17 October 2014, ICE president Geoff French presented an award to the following paper published in *Maritime Engineering* in 2013. The editorial panel nominated their best papers and an awards committee chaired by Quentin Leiper allocated the awards.

Halcrow Prize

The Halcrow Prize, awarded for the best paper on maritime engineering, was awarded to Dam and Blik (2013).

Abstract

Due to the construction of two cross-shore groynes near Waarde in the Western Scheldt estuary, the Netherlands, morphological changes in the area have occurred. A mud flat has developed between the groynes and at the tip of the groynes scour has occurred which has contributed to channel migration. Both the sand and mud fraction have contributed to this change. In this paper a process-based morphological model is presented that can reproduce most morphological changes thanks to the fact that both fractions are taken into account, as well as the interaction between sand and mud. Using the model, 5 years of morphological changes were simulated from the construction of the groynes onwards. The Brier-skill score of the erosion/sedimentation pattern is 0.35, which means that the model has significant skill and can be classified as reasonable. A regression coefficient of 0.66 is found for the observed and modelled mud content in the bed after 5 years, which means that the model can reproduce the mud content reasonably well for most locations. The model can clearly distinguish between a sand- or mud-dominated area.

REFERENCE

Dam G and Blik AJ (2013) Using a sand–mud model to hindcast the morphology near Waarde, the Netherlands. *Proceedings of the Institution of Civil Engineers – Maritime Engineering* **166**(2): 63–75, <http://dx.doi.org/10.1680/maen.2011.43>.



Figure 1. ICE President Geoff French with Halcrow Prize winners Gerard Dam and Abraham Blik