

Wishing you every happiness this holiday season and a prosperous and peaceful year.

This is the 29th [newsletter](#) of the *Knowledge Centre Manoeuvring in Shallow and Confined Water*, which aims to consolidate, extend and disseminate knowledge on the behaviour of ships in shallow and confined water.

Often, ships sail in shallow and confined water when calling or leaving a harbour. In access channels the presence of banks will induce hydrodynamic forces on the ship. When the access channel is relatively narrow and the ship sails on the centre line of the canal, the induced forces by the starboard and port sided bank compensate each other. If docks or canals are located along the main channel, this will result in transient effects (due to the local asymmetry of the channel layout) which may result in peaks in forces and moments. These forces/moments will vary rapidly in time (more or less from the moment the bow of the ship reaches the changed section until the stern is again on the symmetric channel). To further investigate these transient [bank effects](#) in a high blockage environment, model tests were carried out earlier this year in the [shallow water towing tank](#). These tests will be the base to further improve the mathematical model for bank effects as implemented in the [ship manoeuvring simulators](#) of FHR.



In December 2016, the towing carriage of the towing tank has received a significant upgrade. From now on, it is possible to fully steer a ship model in 4 degrees of freedom (surge, sway, roll and yaw). The first ship model which will run a captive 4 DOF program is the well-known [benchmark container ship KCS](#), newly built at scale 1/52.667. The KCS will be tested at four different under keel clearances, at different constant heel angles and including harmonic roll motion as well.

The knowledge centre is preparing a publication containing a selection of the results from model tests carried out with the DTC ship model in waves. The results of these tests will be available on simple [request](#) and can be used as benchmark data. We encourage you to publish your findings based upon these data at the [5th MASHCON](#) conference which will be held in Ostend 2019. Furthermore, the [proceedings](#) of our [4th MASHCON](#) conference earlier this year are openly available.



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