



Maritime DTU
Center for Maritime Activities

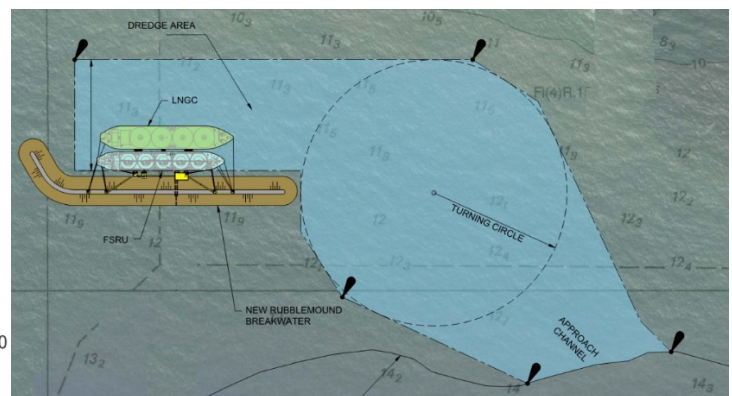
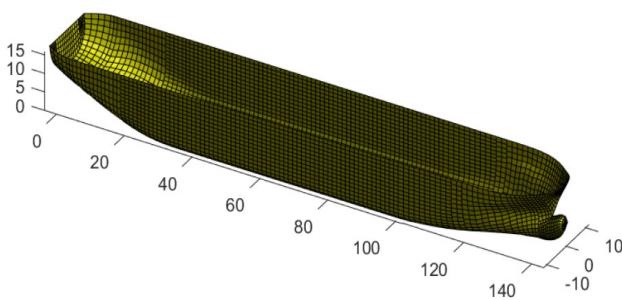
Optimization of LNG terminals at exposed sites

Type of project: MSc

Project description:

LNG is replacing oil to become the dominant energy source. There is a high demand for more LNG bulk terminals as the worldwide market continues to grow. Some of these terminals are planned at exposed sites where the need for a breakwater is important for the ability of the facility to maintain operations and to ensure the survivability of the terminal infrastructure.

The objective of the project is to study the wave-vessel hydrodynamic interaction for vessels entering the terminal where the vessel can be exposed still to open sea conditions before being completely sheltered behind the breakwater. The transition zone between the open sea and the terminal area (sheltered area) can play an important role in determining the extent of the dredging depth of the channel and turning circle. The guidelines recommend dynamic studies for such cases to predict the vessel motions and subsequently determine the under keel clearance (UKC) for these vessels. Once UKC are determined the navigation area can be optimized considering the wave conditions, terminal operations, and frequency of vessels calling at the terminal.



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