

WAVE MEASUREMENTS PORT OF ROTTERDAM

VERIFICATION TRANSMISSION COEFFICIENT NOORDERDAM

During the storm season 2008 – 2009, Svašek Hydraulics has carried out wave measurements at the harbour entrance of the Port of Rotterdam. The wave measurements have been initiated to verify formulas to calculate wave transmission through the Noorderdam (a rubble mount breakwater).

For wave transmission through the Noorderdam, a combination of high-water levels (including surge) with high waves from North West directions is governing. The expectation is that during these events, wave transmission is the normative load combination for the revetments along the GateLNG terminal.

For the verification of the transmission, on both sides of the Noorderdam, Datawell Waverider Buoys are installed from December 17th 2008 to May 16th 2009. Unfortunately during this whole period, very few storm conditions did occur and verification of the transmission coefficient could only be analysed for operational conditions.

The harbour resonance wave model HARES was used to calculate the diffraction patterns around the breakwater to subtract wave diffraction from measured wave height to arrive at a transmitted wave height.

CLIENT

Gate LNG

LOCATION

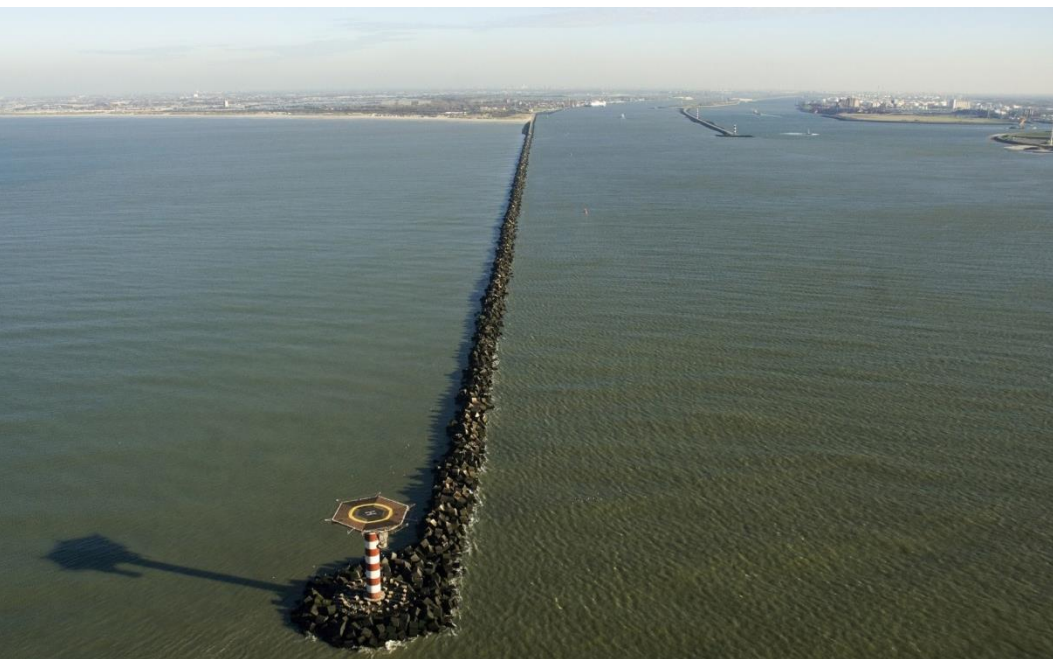
Maasvlakte, Rotterdam

DATE

2008 - 2009

SERVICES

Wave measurements during storm season, verification of transmission coefficient



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