



Deriving correction factors Eastern Scheldt

The design wave conditions for the sea defences in the Eastern and Western Scheldt are assessed with the numerical wave model SWAN in 1997 and 1998. Projectbureau Zeeweringen is using this wave conditions for the design of 325 km of sea defence along both Scheldts.

In different hindcasts is concluded that SWAN can be used, but correction factors must be applied for decreasing the difference between measurement and model simulation. All hindcasts are based on simulation storms in the North Sea and Western Scheldt. The results of these studies are also used for correcting the different wave parameters at the Eastern Scheldt.

In this study storms are simulated at the Eastern Scheldt to determine the reliability in this area. The analysis contains much statistical quantities and individual comparisons of wave spectra and wave parameters.

Finally for each wave parameters correction factors are derived whereby the difference between measurement and model simulation is minimized. This relation between measurement and model simulation is applied to all design wave conditions in the Eastern Scheldt and is now specific for this area only.

Clients

Projectbureau Zeeweringen
Deltares

Location

Eastern Scheldt

Datum

2012

Services

SWAN wave computations and
Statistical analysis for comparison
with wave measurements