

Full tidal survey in the Braakmanhaven

The Sloehaven near Vlissingen and the Braakmanhaven near Terneuzen are subject to severe siltation. Zeeland Seaports aims to reduce the siltation. For the development of a suitable intervention or strategy, it is indispensable to have insight into the mechanisms behind the siltation transport processes. Therefore, Svašek Hydraulics has performed a survey campaign for both harbours.

The campaign consists of:

- 13-hours sailing current measurements with a vessel-mounted AWAC in order to gain insight into the current patterns and the vertical structure of the currents;
- Turbidity measurements with a vessel-mounted Optical Backscatter Sensor (OBS) and water sampling, in order to determine the vertical profiles of the silt concentration;
- Grab samples with which the grain size distribution of sediment on the bed is determined.

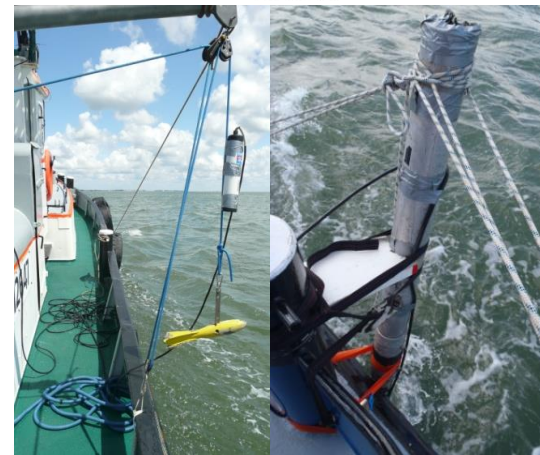
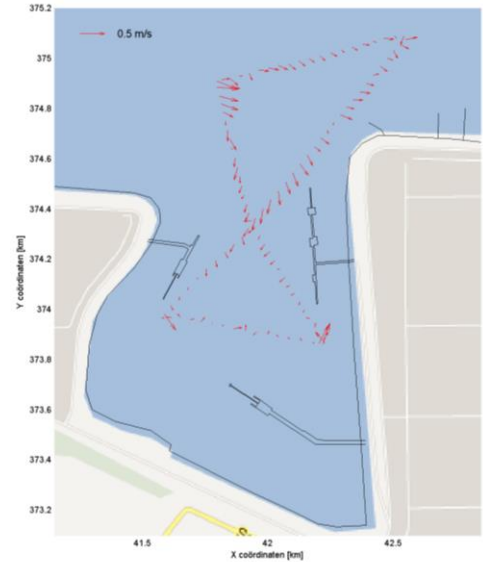
In both harbours measurements have been conducted during a spring and during a neap tide. The obtained data has resulted in good insight into the current patterns and associated silt transport. An unexpected 3D flow phenomenon has been identified. Furthermore, the survey data has been used to validate the FINEL2D and 3D models of the Western Scheldt. Both models are, in a later stage of the project, used to investigate the effects of potential interventions to reduce the siltation in the harbours.

CLIENT
Zeeland Seaports

LOCATION
Braakmanhaven, The Netherlands
Sloehaven, The Netherlands

DATE
2011

SERVICES
Current measurements,
Turbidity measurements,
Data processing and analysis.



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