

Sedimentation Study

Lomé, Togo

Lomé Container Terminal had requested Svašek Hydraulics to study the sedimentation along the coastline and the impact of the sedimentation on further expansion of the container terminal.

The harbour extension is protected by a sandy beach. To enhance the level of protection a 250 m long spur groin has been constructed in 2012 aiming to retain sand and thereby widening the protective beach and a 'far' future extension of another 300 m is foreseen. A secondary aim of this groin is to reduce the sedimentation of the harbour entrance by blocking the eastward directed sediment flux caused by the predominantly SSW swell.

This study had the following objectives:

- Assess the effectiveness of the present spur groin
- Assess the effectiveness of the 'far' future groin which is extended by another 300 m.
- Quantify the annual maintenance dredging requirement of the approach channel both for the 300 m and the 600 m long spur groin.
- Investigate the predictability of currents in the harbour entrance.

This study aimed to provide insight into the amount of sand passing-by the tip of the groin. The second aim was to quantify the annual maintenance dredging requirement of the approach channel.

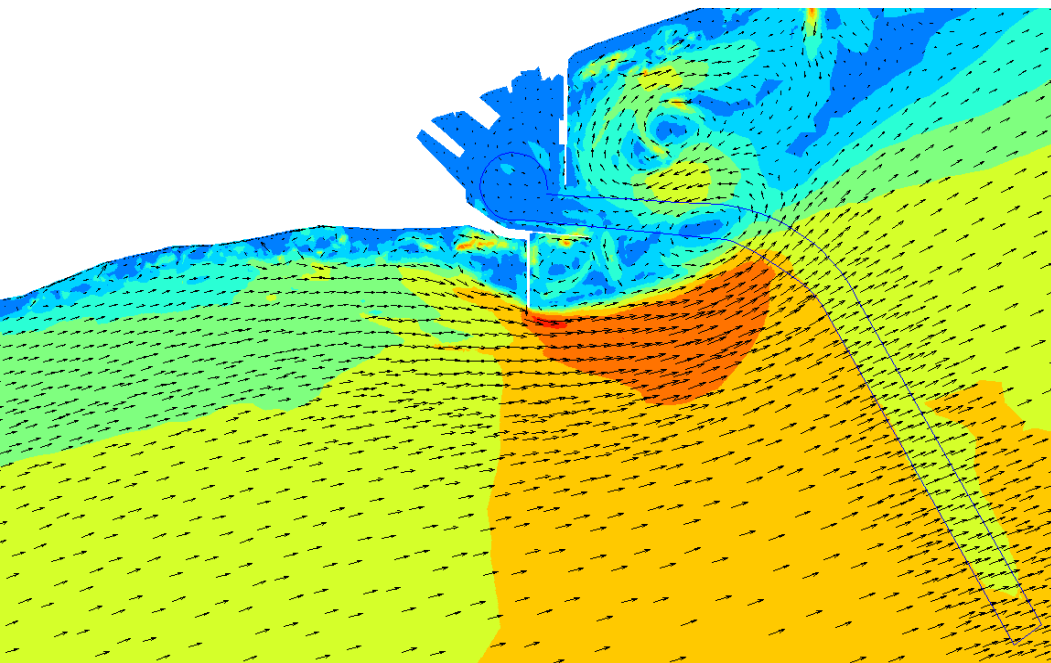
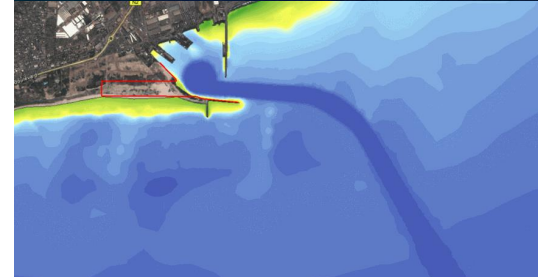
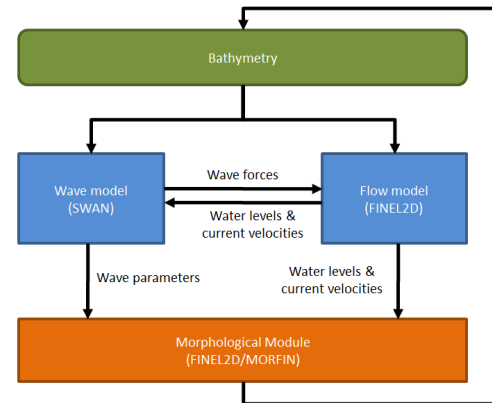
For this study a morphological 2D model (FINEL2D) was developed coupled with wave modelling (SWAN) to calculate long term development of the coastline and studying current patterns around the harbour.

CLIENT
Lomé Container Terminal (LCT)

LOCATION
Lomé, Togo

DATE
2013

SERVICES
Morphological modelling
Wave modelling
Advise on future developments



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