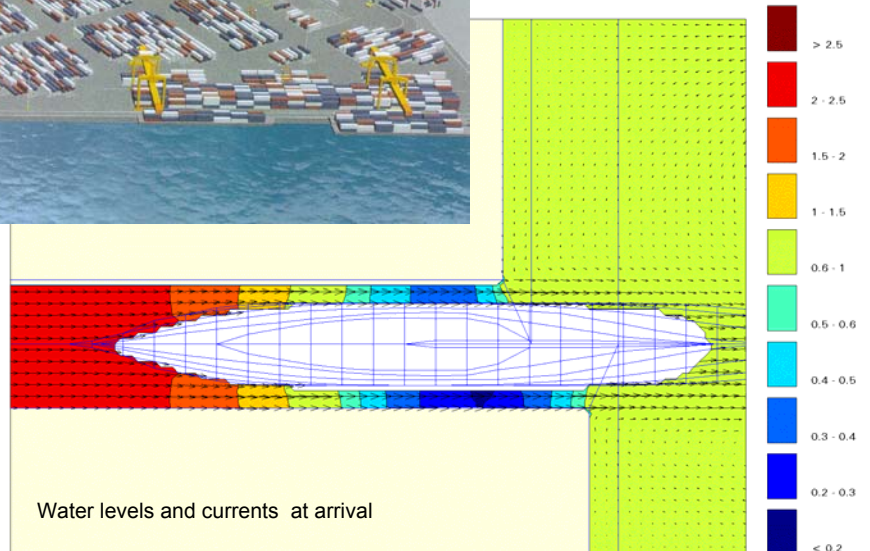




Ceres container terminal



Hydraulic and nautical aspects Ceres Terminal, Amsterdam

The Port Management of Amsterdam, in co-operation with Ceres Terminal Inc., is working on the development of a container terminal in the Amerikahaven, Amsterdam. Part of the development comprises a dock type basin, the so-called Indented Berth (I.B.). Loading/offloading of containers will take place by 9 cranes with a total capacity of 300 TEU per hour.

The return current due to entrance of a ship and the water displacement due to use of the bow thruster will determine the maximum hydraulic loads on the bottom protection of the I.B. In combination with the wind these loads also determine the manoeuvrability of large vessels during the entrance procedure.

The following services were provided:

- determination of wind and hydraulic loads on the container vessel
- 3D flow modelling of the basin
- optimisation of basin dimensions from hydraulic and nautical point of view
- design of the bottom protection
- specification and supervision of real time bridge simulator study
- hydraulic design of pull-in system for large container vessels

Client
Gemeentelijk Havenbedrijf
Amsterdam, the Netherlands

Location
Amerikahaven, Amsterdam, the
Netherlands

Date
1999 (study)

Services
Determination hydraulic and wind
loads, 3D flow modelling,
optimisation basin dimensions,
design bottom protection,
supervision real time simulations,
hydraulic design pull-in system.

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