

Al Maya Fishing Port, Libya

This project concerns a mathematical model study of the final design of the Al Maya Fishing Port and the accompanying breakwater.

The extreme wave conditions in front of the breakwater are determined with the use of a refraction model which translates the off shore wave conditions to a near shore design wave condition for the breakwater.

Under daily conditions the harbour resonance characteristics of the harbour basins are investigated. The basins consist of vertical walls, with a high wave reflection coefficient. The influence of various breakwater lay out designs on the wave conditions within the harbour basins are modelled with the wave penetration model HARES.

With the results of the wave penetration study a downtime analysis of berthed fishing boats was assessed.

Finally the water circulation within the harbour basins has been modelled with a 3 dimensional numerical flow model to confirm the natural flushing rate of the harbour.

Client Shabiat Al Jafara

> Location Libya

Date 2002 (study)

## Services

Wave propagation study, wave penetration study (HARES), breakwater lay out optimisation study (HARES), downtime analysis, water circulation study

> Associated Firms Royal Haskoning

