عنوان مقاله:

Numerical Modelling of Tidal Eddies in Harbours Using the Algebraic Stress Turbulence Model

محل انتشار:

سومین همایش بین المللی سواحل، بنادر و سازه های دریایی (سال: 1377)

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خلاصه مقاله:

A depth integrated hydrodynamic model includin~ various turbulence models has been developed and applied to predict the tide induced circulation in narrow entranced rectangular harbours with large aspect ratios. The length to breadth ratio (LIB) varies fiom 1/4 to 4 and corresponds to a range of geometries studied in a parallel laboratory model experimental programme. Emphasis has been focused on comparing different turbulence models including: the mixing length, depth integrated k-s and algebraic stress models to predict accurately the velocity patterns within such basins. In the zero equation turbulence model, three closed boundary representations have been used for the turbulence difksion terms in the numerical model. However, in applying the two equation turbulence model, only the no-slip representation has been used for the solid boundaries. The numerical model results have been compared with the experbntal data and it was found that the k-s and algebraic stress models generally produced the most accurate .results for the tests considered within the harbours

کلمات کلیدی: