

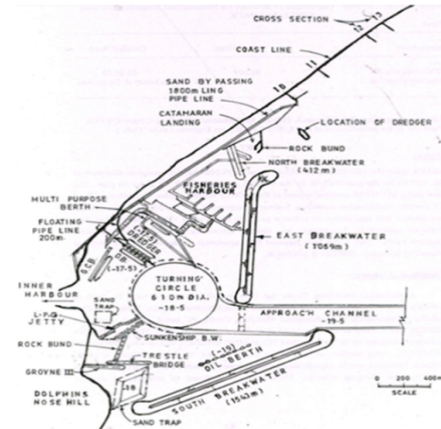
VISAKHAPATNAM PORT, ANDHRA PRADESH

Background

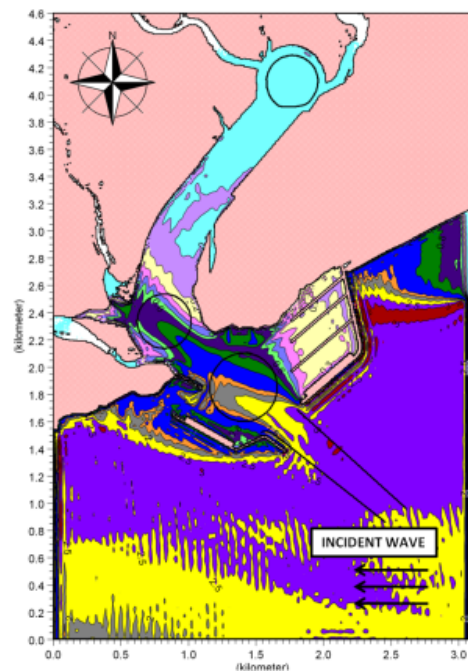
Visakhapatnam Port in Andhra Pradesh is one of the major ports on the east coast of India. Visakhapatnam port is developed in different stages as Inner Harbour and Outer harbour. River Meghadrigedda joins the harbour area on the western side at the Inner Harbour. Several Hydraulic model studies have been conducted at CWPRS right from the planning of Visakhapatnam port and for its stage-wise expansion.

Studies Conducted

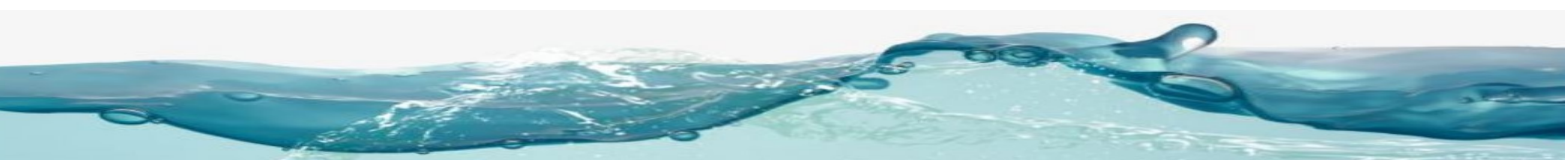
- Design of optimum layout / breakwater system to achieve round-the-year tranquility at Ore Berth
- Configuration of sand trap to tackle littoral drift problem
- Sand-bypassing system evolving beach nourishment strategy to maintain dynamic equilibrium of down-drift coastline
- Design of groyne for separating Fisheries Harbour from Outer Harbour
- Studies for Off-Shore Tanker Terminal (OSTT) to achieve desired tranquility conditions with additional rubble lining to south breakwater
- Suitable extension of General Cargo Berth
- Studies for the alignment of LPG jetty
- Evolving type of structure for Multi-Purpose Berth / Container Terminal
- Reconfiguration of sand trap in view of the crude-oil pipe-line laid from Single Point Mooring system, achieving the best efficacy for trapping SW Monsoon drift
- Alignment and design of rock-bund for catamaran harbour basin
- Shifting of sand trap south of south breakwater for contemplated development by Indian Navy on southern side
- Design of suitable dredge pattern in the inner harbour to achieve suitable flow- dynamics
- Estimation of siltation in the Inner Harbour ascertaining the effect of deepening of streams debouching into the inner harbour
- Studies for the development of naval facilities evolving suitable scheme through physical and numerical models
- Radioactive tracer studies for identification of suitable dumping grounds
- Assessing impact of Hudhud Cyclone on Outer Harbour

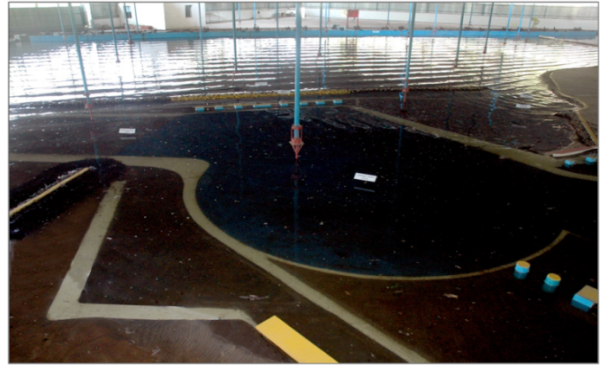


Layout of existing outer harbour of Visakhapatnam Port



Numerical Model Wave Height Distribution





Physical Model: Wave Propagation

Outcome and Benefits

Studies covering various aspects contributed in the optimum planning, execution and maintenance of various facilities and also helped in evolving suitable sites in connection with dredging and disposal strategies.

