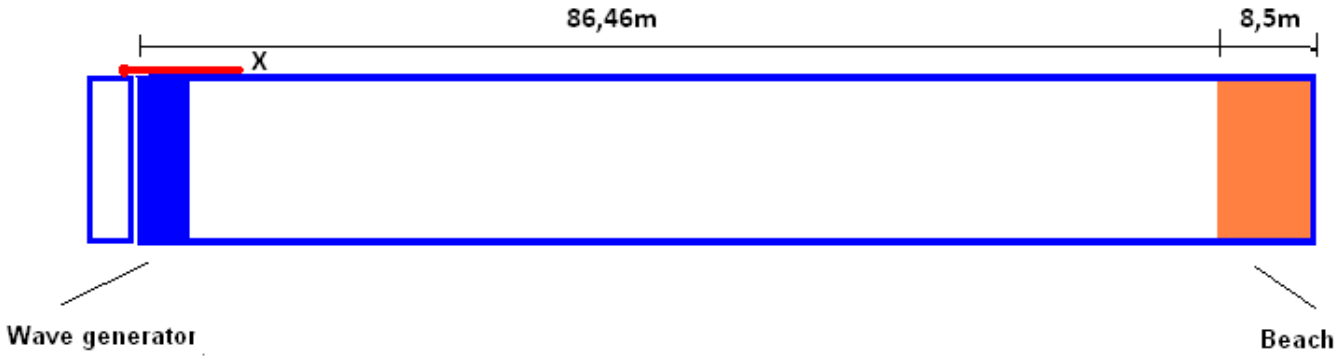
Name of organization **Escuela Técnica Superior de Ingenieros Navales (ETSIN)** Universidad Politécnica de Madrid Model Basin Research Group - CEHINAV	**Year of information updating** 2016
Year established 1967	**Year of joining the ITTC** 1990
Address ETSI Navales. Avda. Arco de la Victoria, 4. CP28040. Madrid. Spain	**Status in the ITTC** Member
Contact details(phone, fax, e-mail) Tel: +34 91 336 7154 / 7156 Fax: +34 91 544 2149 Email: luis.perezrojas@upm.es	**Website** http://canal.etsin.upm.es/

Type of facility Towing Tank	**Year constructed/upgraded** 1967/1970
Name of facility Model Basin CEHINAV-UPM	**Location** (if different from the above address)

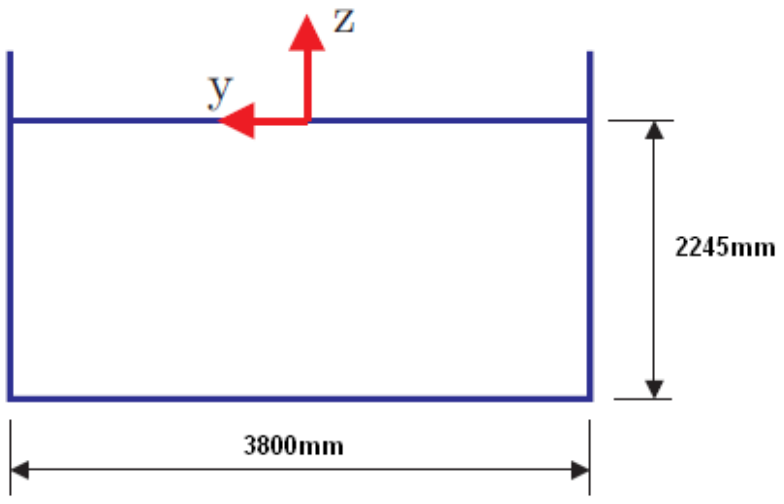
Main characteristics (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top)
Length: 100m; Width: 3.8m; Depth: 2.2 m

Drawings of facility

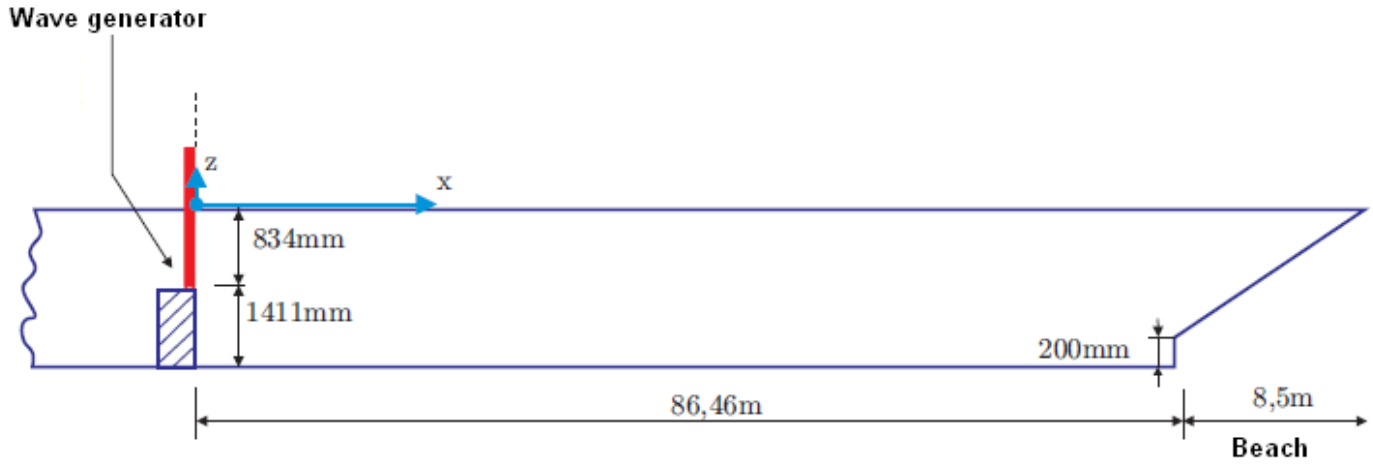
Top-view plan



Corss-section-view plan



Longitudinal-section



Detailed characteristics (carriages, wave/current/wind generators, instrumentations, etc.)

1. Towing carriage: Max. Speed: 3.5 m/s
2. Wave Generator, regular and irregular waves (deep water conditions, T<=1,7s, H<=0.35m, λ<=4.5m).
3. Linear actuator for measurement of damping and added masses.
4. Optical tracking tools for motion recording - OptiTrack).
5. Balance (6 components) type FX2.5 for resistance test.
6. Milling facilities, 5 axes.
7. Fully equipped single degree of freedom angular motion sloshing rig

Applications(Tests performed)

1. Model manufacturing and instrumentation.
2. Ship hull experimental optimization.
3. Propeller performance experimental assessment.
4. Towing test: Ship resistance.
5. Seakeeping tests for both ships and renewable energy devices, including wind turbine platforms.
6. Installation test of offshore platforms.
7. Forced and Free oscillation tests of both ships and offshore platforms.
8. Streamlines test.
9. Survival test.
10. Seakeeping and mooring modeling.
11. Antiroll tank design, test and modeling / Sloshing tests.
12. Particle methods SPH codes development.
13. CFD codes use and development.
14. Ship techno-economic model life time assessment tool development.

Published description (Publications on this facility)

Sierra, H., “Inauguración del Canal de Experimentación Naval de la ETS de Ingenieros Navales de Madrid. Descripción del nuevo Canal”. Ingeniería Naval, Nº 384. Junio 1967.