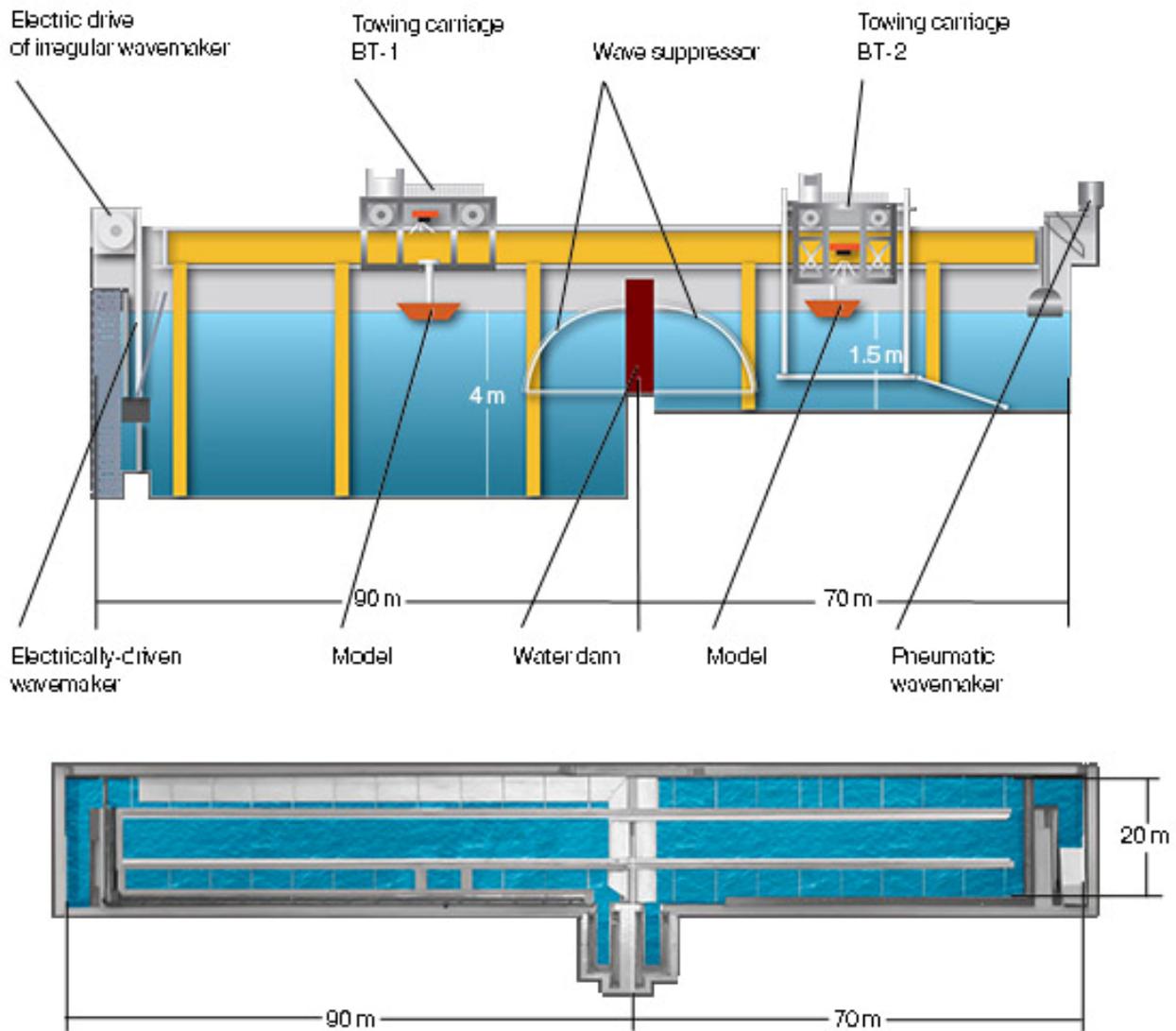


Name of organization Krylov State Research Centre		Year of information updating 2016	
Year established 1894		Year of joining the ITTC 1955	
Address 44, Moskovskoe shosse, St. Petersburg, 196158, Russian Federation		Status in the ITTC <i>member organization</i>	
Contact details (phone, fax, e-mail) Phone: +7 (812) 3866937 Fax: +7 (812) 386-69-43 E-mail: 9_otd@ksrc.ru		Website http://www.krylov-center.ru/	
Type of facility Seakeeping/maneuvering model basin		Year constructed/upgraded 1967/2014	
Name of facility Seakeeping model basin		Location (if different from the above address) Same	
Main characteristics (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top) Basin dimensions: 161 x 20 x 4 m (LxWxH)			

Drawings of facility



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

BASIN: Consists of two parts:

- deep-water (89 x 20 x 4 m);
- shallow-water (72 x 20 x 1.5 m).

Two parts of basin are physically separated with gate.

CARRIAGES: Two electrical moving carriages with thyristor drive system in each basin part. Automotive speed control in ranges:

- deep-water part from 0.1 up to 3.5 m/s (5.5 m/s – full length);
- shallow-water part from 0.1 up to 2.5 m/s.

Carriage in shallow-water part has movable floor to locally change depth under model.

WAVE GENERATORS: Deep-water part. Electromechanical sectioned long-crested irregular wave generator along short and long sides.

Generates waves at any desired angle with respect to the basin centerline. Wave height

from 0.01 up to 0.3 m, wave length from 1.0 up to 12.0 m.

Shallow-water part. Pneumatic long-crested irregular wave generator along short side. Wave height from 0.01 up to 0.3 m, wave length from 1.0 up to 8.0 m.

WAVE ABSORBERS: Beach type wave absorbers on the opposite side of wave generators. Along short side wave absorbers can be removed under water.

MODELS: Length of models up to 4 m, weight up to 350 kg.

INSTRUMENTATIONS: 6x dimensional optical trackers, single and multi-axis dynamometers of different types, wave height probes, single and multi-axis accelerometers, pressure sensors, digital cameras (including underwater).

Applications (Tests to be performed)

Tests on models in deep-water part in regular and irregular waves at different heading angles:

- ship's resistance in calm water and waves;
- ship's 6 DoF motions (including influence of marine stabilizer);
- moored vehicle's 6 DoF motions;
- measurement of global / local wave loads in ship's hull (including slamming one);
- ship's hydrodynamic coefficients measurement in calm water;
- measurement of drift forces

Tests in shallow-water part in regular and irregular waves at different both heading angles and depths

- moored vehicle's 6 DoF motions;
- measurement of drift forces in shallow water;
- measurement of global / local wave loads in fixed objects hull in current and waves;
- ship's hydrodynamic coefficients measurement in calm water in shallow water.

Published description (Publications on this facility)

http://krylov-center.ru/eng/experimental_facilities/basin-sea/