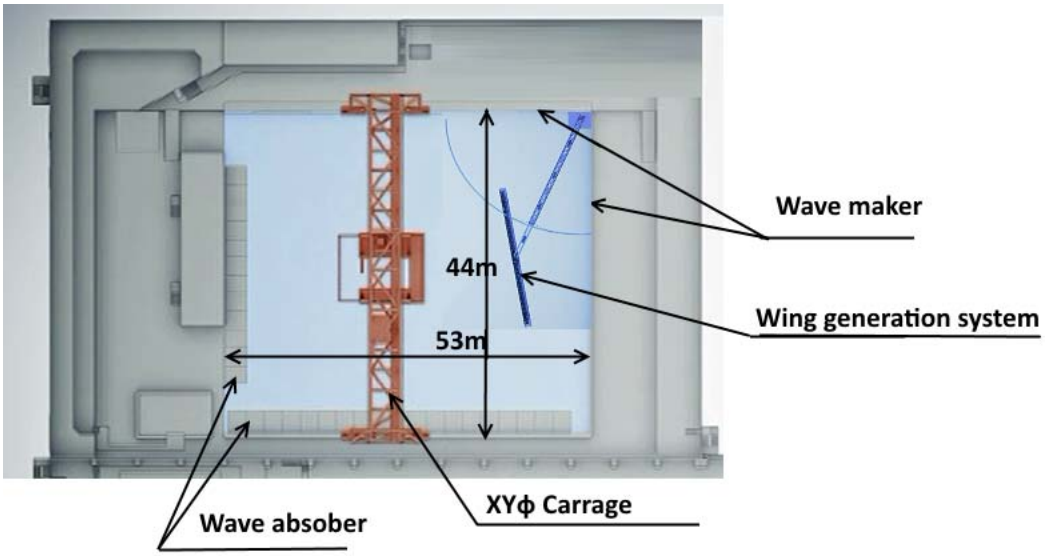
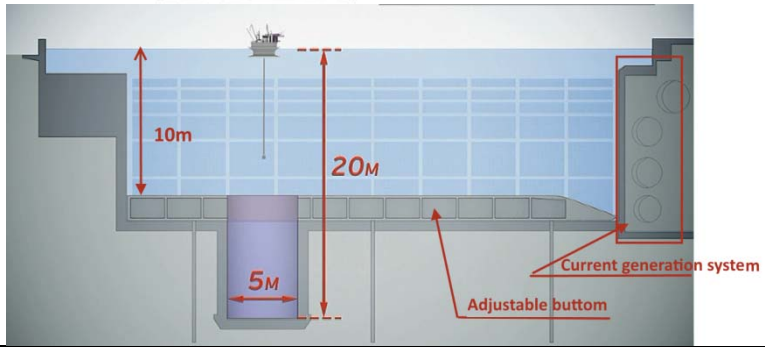
Name of organization Krylov State Research Centre	**Year of information updating** 2016
Year established 1894	**Year of joining the ITTC** 1955
Address 44, Moskovskoe shosse, St. Petersburg, 196158, Russian Federation	**Status in the ITTC** *member organization*
Contact details (phone, fax, e-mail) Phone: +7 (812) 386-69-37 Fax: +7 (812) 386-69-43 E-mail: 9_otd@ksrc.ru	**Website** http://www.krylov-center.ru/

Type of facility Offshore model basi	**Year constructed / upgraded** *2017 (be brought into use)*
Name of facility Offshore model basi	**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: 53 x 44 x 10 (20) m (LxWxH)

Drawings of facility





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

BASIN: Basin dimensions is 53 x 44 x 10 (20) m. Deep water pit with diameter 5 m gives extra 10 meters

CARRIAGES: electrical moving X, Y, φ carriages with thyristor drive system. Automotive speed control in ranges
X – 6,0 m/s (acceleration 0,8g)
Y – 4,0 m/s
The carriage can move with the model or follows the model's movement in the horizontal plane.

WAVE GENERATORS: segmented wave generators consisting of hinged flaps. Each flap is controlled separately by a driving motor and has a width of 50 cm. The capacity of the wave generator is up to a significant wave height of

0.45 m at a peak period of 2 seconds. The system is equipped with compensation of wave reflection from the model and the wave absorbers. All wave spectra's such as ITTC, ISSC, JONSWAP, TMA, Pierson-Moskowitz, 2 peak spectra's (such as Torsethaugen), single Freq waves can be modeled.

WAVE ABSORBERS: Beach type wave absorbers on the opposite side of wave generators. Along long side wave absorbers equipped with extra flap.

WIND: Wind can be simulated by an movable platform with electrical fans

ADJUSTABLE BOTTOM: 53 x 44 m adjustable bottom allows changing the depth in range 0 – 10 meter.

CURRENT: Current can be simulated with all kinds of profiles (hurricane, deep water current etc). Six independed layers with different speed and direction.

MODELS: Length of models up to 10 m.

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)

- Offshore structure models, fixed, moored or controlled by dynamic positioning in waves, wind and current;
- Captive or free sailing manoeuvring tests in shallow water;
- Ship's resistance in calm water and waves;
- Seakeeping tests in waves and wind from any directional;
- measurement of global / local wave loads in ship's hull (including slamming one);
- Oscillation (PMM) and rotating arm tests in calm water and waves with a restrained model to determine hydrodynamic coefficients;
- measurement of drift forces;
- Captive or free sailing manoeuvring tests in calm water and waves;
- Installation and sea transport tests of offshore constructions;
- Tests on moored or fixed objects to determine motions and loads due to waves and wind

Published description (Publications on this facility)
http://krylov-center.ru/eng/experimental_facilities/