INTERNATIONAL TOWING TANK CONFERENCE CATALOGUE OF FACILITIES
TOWING TANKS, SEAKEEPING AND MANOEUVERING BASINS

USA

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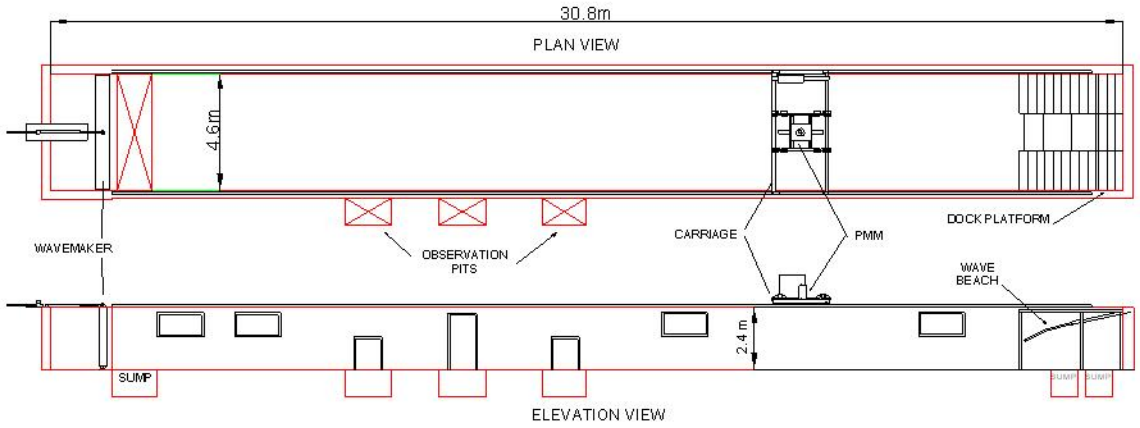
UNO TOWING TANK (1988)



DESCRIPTION OF CARRIAGE:	Unmanned, box girder with standard and optional shallow water instrument beams.
TYPE OF DRIVE SYSTEM AND TOTAL POWER:	Cable drive with 10 HP A/C motor
MAXIMUM CARRIAGE SPEED:	3.66 m/s (12 ft/s)
OTHER CAPABILITIES:	Digitally controlled electric powered horizontal Planar Motion Mechanism (PMM).
WAVE GENERATION CAPABILITY:	Regular, transient, and irregular waves. Wave Length 0.3m – 22m Wave Height 0.5m
WAVEMAKER TYPE AND EXTENT:	Single Flap 2.5m X 4.6m
BEACH TYPE AND LENGTH:	Segmented Arc, 4m X4.6m
METHOD OF IRREGULAR WAVE GENERATION:	Software generated random spectra with digital control of wave board. Spectra include ISSC, JONSWAP, Bretschneider, Pierson-Moskowitz and custom user defined.
OTHER CAPABILITIES:	Capacitance and sonic wave probes.
INSTRUMENTATION:	Various single and multi-axis load cells used with resistance and PMM dynamometer. Accelerometers, rate gyros, and 6DOF inertial instruments. Pressure transducers and Particle Image Velocimeter (PIV)
MODEL SIZE RANGE:	1.75m-3m length ship models
MODEL TRACKING TECHNIQUES:	Heave, pitch and sinkage measured by LVDT. Optical 6DOF tracking device. Mechanical 6DOF motion sensing transducer (MST).
TESTS PERFORMED:	Resistance in calm water and waves. Wave induced motions and loads on submerged and floating structures. Maneuvering tests using horizontal planar motion mechanism PMM
PUBLISHED DESCRIPTION:	"Design of the University of New Orleans Ship Offshore University Laboratory," - R. Latorre – ASME Journal of Energy Resources Technology Vol. 12 pp 91-96 1988 "Introduction to University of New Orleans Ship Offshore University Laboratory Towing Tank" – R. Latorre IPEN Journal No.2 May 1988