Scawvex, Project Description

The SCAWVEX project is executed within the framework of the Marine Science and TechnologyProgramme (MAST) of the European Commission. SCAWVEX stands for Surface Current And Wave Variability EXperiment. The primary objective of SCAWVEX is to measure the spatial and temporal variability of ocean surface waves and currents by:

- utilising the full range of state of the art measurement techniques and models of waves and currents to assemble data sets necessary for understanding their spatial and temporal variability in coastal regions;
- intercomparing data sets from HF-Radar / SAR / altimeter / accelerometers / ADCP / current meters / pressure cells / X-Band radar.

The intercomparison will examine:

statistical intercomparison methodologies the response characteristics of the instruments the spatial and temporal averaging of the instrument effects of wave-current interaction The National Institute for Coastal and Marine Management (Rijksinstituut voor Kust en Zee/RIKZ) is one of the participants in SCAWVEX. Other participants are Sheffield University (project co-ordinator), Universität Hamburg, SINTEF, Proudman Oceanographic Laboratory and Delft Hydraulics.
One of the field test sites for the SCAWVEX project is the sea area around Port of Rotterdam. Rijkswaterstaat has taken care of the deployment of dedicated measuring equipment in addition to data retrieval from the operational Rijkswaterstaat monitoring network (North Sea Measuring Network).

The "In-Situ" measurements:

Field measurements by means of "in-situ" instruments has formed a major part of the SCAWVEX project. The collected data has come from dedicated moorings, two directional Waveriders, the North Sea Measuring Network and SILTMAN data. Special moorings have been used for data collection:

- bottom mounted ADCP at the Euro15 location;
- mooring at the Euro15 location with a C/T String and a S4 current meter;
- POL frame at the Maasvlakte Noord location.

The mooring contained a conductivity-temperature string (5 elements; 2.5 m apart) and an S4 electro-magnetic current meter 2.5 m below the sea surface. POL has supplied and supported a bottom mounted frame. RIKZ has arranged the deployment and recovery of the frame. Due to penetrated seawater in both the hull of the ADCP and the C/T String near Euro15, by a still unknown cause, unfortenately both instruments did not record any data.