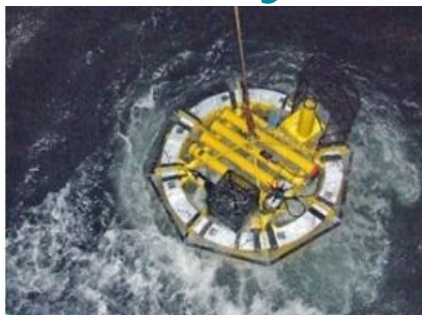


# In situ Measurements of Seabed Mobility



Partrac has recently directly measured seabed erosion and deposition rates at a deep water location on the UK continental shelf. This initiative comprises part of a partnership project led by Portsmouth, NOC and Cefas and funded by the UK Natural Environment Research Council (NERC) and supported equally by Defra as part of the Marine Ecosystem Connections (MECs) project.

In a collaborative venture with Dr Gary Fones of Portsmouth University and Dr Ruth Parker and her colleagues at the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), Partrac deployed their 'Voyager II' benthic flume at three offshore sites as part of a benthic nutrient exchange research programme.

Technical Director Kevin Black, who headed up the field operations, stated, "Benthic flume technology has been around for about 20 years, but it has been used exclusively for academic projects, in shallow water locations. The flume instrument Partrac has developed is rated to 200m depth and this has provided us with the capacity to collect seabed mobility data at deep water locations. This is the first time anywhere in the world that erosion and deposition rates have been physically measured at such depths, and we obtained some excellent data. The results we have obtained are exciting as they open the prospect to obtaining reliable data on seabed sediment transport to support the offshore community activities. Quantitative data on erosion-deposition rates are critical to evaluation of pipeline burial/de-burial rates, and knowledge of drill cuttings mobility is central to decommissioning activities in the oil and gas industry which are about to begin in earnest. The offshore wind energy developers also require accurate sediment transport rate information in order to underpin scour risk evaluations".

Voyager II is scheduled to be used again in ongoing second and third phases of the linked benthic MECs projects in August and September 2008.