

Introduction

To investigate suitable mooring configurations and associated problems with the station keeping of moored wave energy devices, a large scale mooring test facility in realistic sea condition will be deployed to support the SWRDA Wave Hub project. The test facility will be implemented and operated by associated PRIMaRE members from the University of Exeter based at the Cornwall Campus. Once the mooring test facility is fully commissioned it will enable researchers or developers to test mooring arrangements prior to full scale installation.

Installation location:



Falmouth Bay, Cornwall, UK

Water depth 25m

Environmental condition monitoring:

- Multiple acoustic Doppler systems for waves/current (ADCPs)
- Onshore weather station
- Water quality measurements

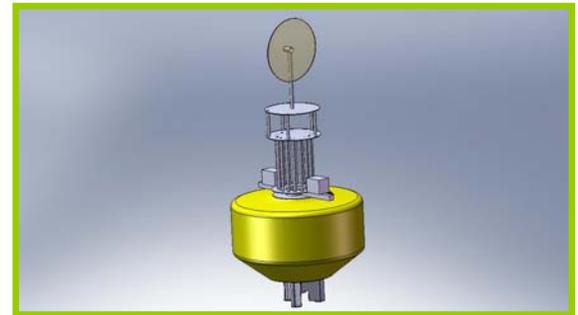
Instrumentation of test arrangement:

Buoy:

- 6 degree motion measurement system
- DGPS system
- Structural stress measurements
- Directional wind data on buoy

Mooring system:

- Tri-axis top-end load cell
- In-line load cells
- Anchor point load cells
- Mid-line load cells

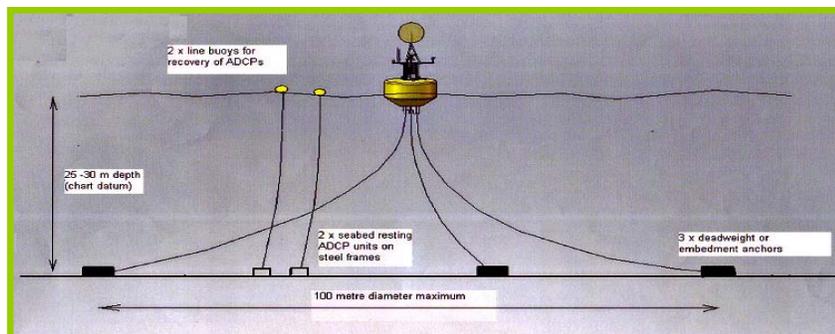


Communication:

- Real time data to shoreline

Support:

- Data analysing centre
- Local deployment support



Mooring configurations:

- Single leg
- Multiple leg
- Catenary
- Taut

Preliminary installation:

Late summer 2008

Long term installation:

Early spring 2009

Associated PRIMaRE members: Hydrodynamics and Marine Operation (Moorings)

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