

This Is How a Project With the Deep and Long Moorings Is Done



Metocean Services International is nearing completion of a project with the deep and long moorings. Since the company was founded in 2003, MSI has conducted hundreds of mooring deployments in 55 countries worldwide. In late 2018, Total contracted them to mobilise what would be their longest moorings for deployment in the deepest water so far (3,150m) at locations just

north of the border between South Africa and Namibia.

Meteorology, Waves and Current Profiles

The moorings comprise a surface buoy to measure meteorology, waves and current profiles as well as an I-type mooring to measure full water column current profiles and water quality. Because the top of the I-type mooring needed to be near the surface, special attention was paid to the mooring design. This was modelled using third-party software to ensure that the instruments remain at their intended depths, taking into account the type of rope used for the mooring, as well as the expected metocean conditions on-site.



One of the moorings

Data from the surface buoy is transmitted in real-time via the Inmarsat DataPro service where it is displayed on a password-protected website for the client to access. This also allows MSI to monitor the status of the buoy, which also has automatic alerts configured if it moves outside a preset watch circle or if water intrusion is detected.

Environmental Baseline Study

The initial deployment of the equipment was timed to coincide with an environmental baseline study (EBS) which was subcontracted by MSI to Benthic Solutions Ltd (BSL). The dual scope of work meant that the vessel used, the OYA from ABC Maritime, had to be outfitted in Walvis Bay with an A-frame, winch and generator. The EBS comprised sediment and water sampling, water quality measurements, seabed photography and video, passive acoustic monitoring (PAM) and marine mammal observations (MMO).

Longest Moorings in the Deepest Water

At the first of two interim service visits, conducted in April 2019, the I-type mooring was serviced and the vessel carried additional personnel from BSL to collect more PAM and MMO data. At the second service visit, both moorings were recovered and redeployed and MSI is now planning for the final demobilisation of the project in November 2019.

Although this project involved the longest moorings in the deepest water so far for the company, the processes followed were the same as for all other projects. Meticulous planning, the highest HSE standards and vast experience of the team ensured a smooth start and continuous progress of the project.

About the company

MSI provides meteorological and oceanographic (metocean) measurement services on a worldwide basis and since company inception in 2003 has completed more than 150 measurement programmes in 55 countries. Its success in efficiently planning and managing these projects can be attributed to an in-depth approach to individual projects, combined with extensive experience in the offshore oil and gas industry and a dedicated team of highly qualified and experienced engineers. Its operations are supported by ISO-certified Quality Management Systems and an HSE management system which complies with IOGP and NORSOK standards.

