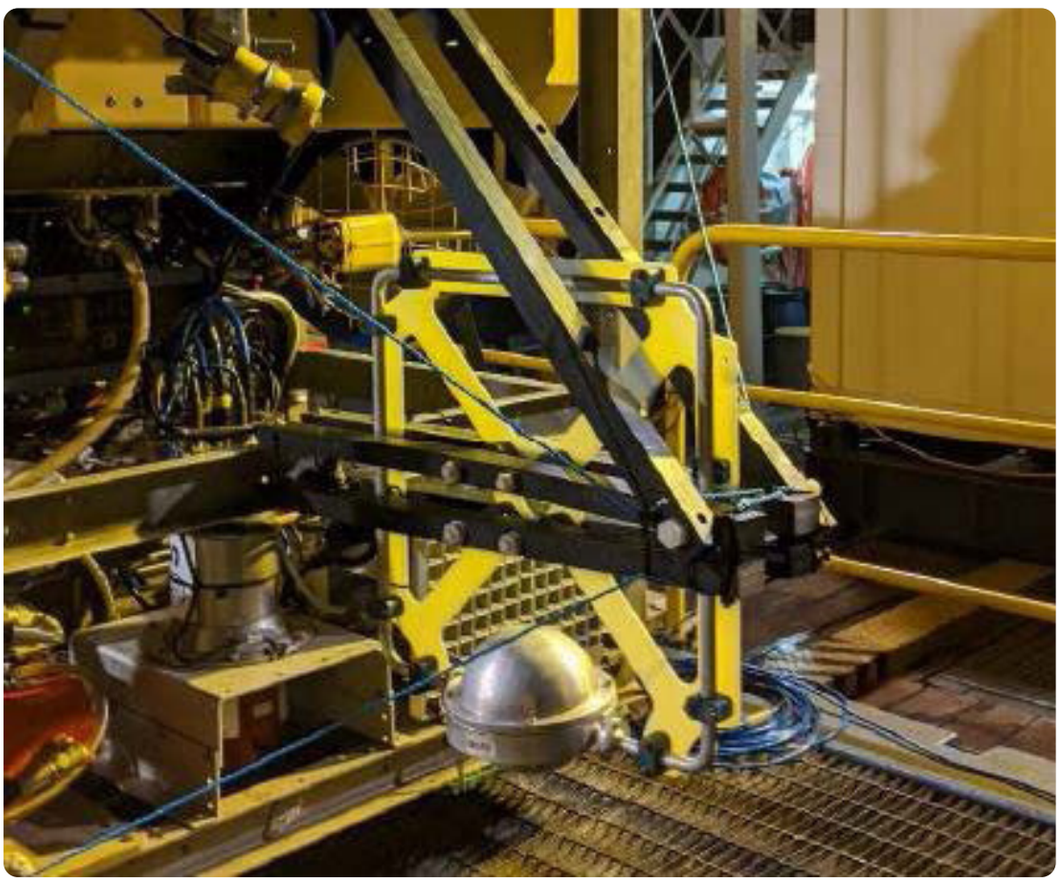
Engineering
Excellence
Underwater

SMD ARTEMIS

Company: N-Sea
Location: DanTysk, North Sea - Germany
Artemis system: Artemis Active
Cable type: HVDC cable
Detection range: 4m
Vehicle: Work Class ROV



Background

N-Sea is an integrated subsea solution provider, specialising in cable installation and repair. In 2020, we collaborated with N-Sea on several trials, designed to test the capabilities of SMD Artemis when tracking live, toned, and dead cables.

SMD Artemis was selected to challenge both vertical and horizonal range capabilities, whilst assessing systems accuracy against TSS 350.

Thanks to its advanced electromagnetic detection technology, SMD Artemis set a new industry benchmark across all missions, demonstrating a proven ability to deliver accurate tracking data in challenging offshore conditions.

The Challenge

- Tracking at increased altitudes to avoid seabed obstacles, enabling faster survey operations.
- Surveying a live HVDC cable without disrupting power transmission
- Maintaining accuracy of cable position whilst pushing the horizonal and vertical range from product to vehicle

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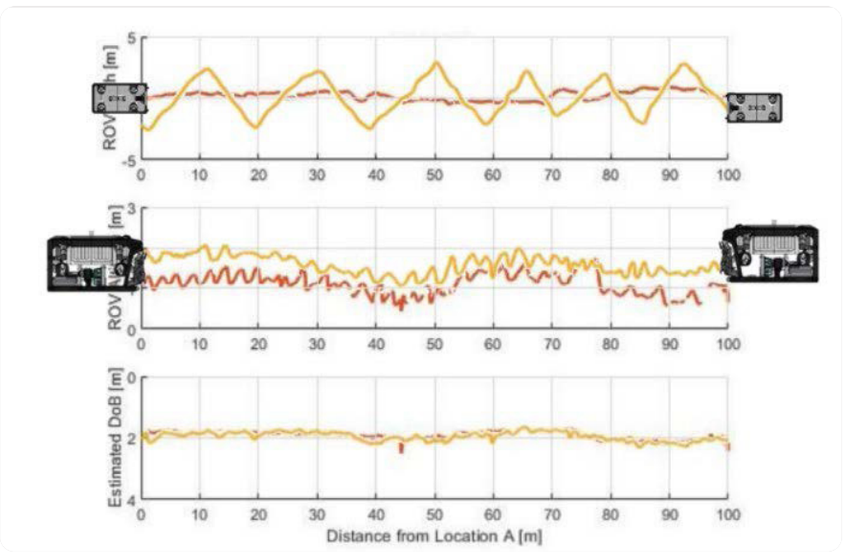
The Outcome

Artemis successfully tracked an HVDC cable buried at a depth of 2m depth by utilising a 3,000Hz self-induced signal, all without interruption to the power transmission. The system demonstrated reliable and stable performance, maintaining accurate tracking with a vertical standoff distance of up to 2m as well as horizontal offsets up to 2.5 m, proving a sensing range of 4m.

Survey data quality showed almost no degradation at increased offsets and was comparable to previous results from the tone-induced TSS 350 survey. This demonstrates Artemis's ability to deliver precise, non-intrusive monitoring of buried HVDC infrastructure under challenging conditions.

> **"These trials demonstrate SMD Artemis' superior operational tolerance maintaining tracking integrity at significant vertical and horizontal offsets, conditions that would challenge conventional solutions."**

Jack McCusker, Innovation Programme Manager, SMD



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Get in Touch

Artemis systems are now available for hire through global rental company RTS.

For more information on Artemis systems, please contact:

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