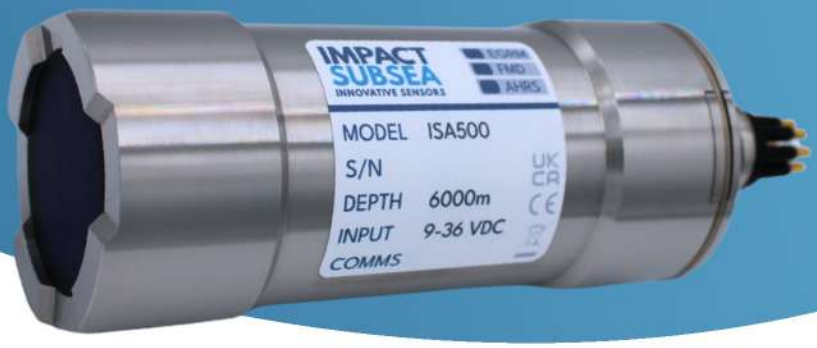
Case Study:

HYDROCONSULT - ISA500 ANCHOR PILE POSITIONING



Overview

Hydroconsult, a leading specialist in Hydrographic and Geophysical Survey, has successfully utilised Impact Subsea's ISA500 Echosounders to achieve precise positioning of multiple anchor piles during offshore infrastructure projects.

The project required highly accurate and real-time feedback on pile positioning to ensure successful installation in challenging subsea environments.

Challenge

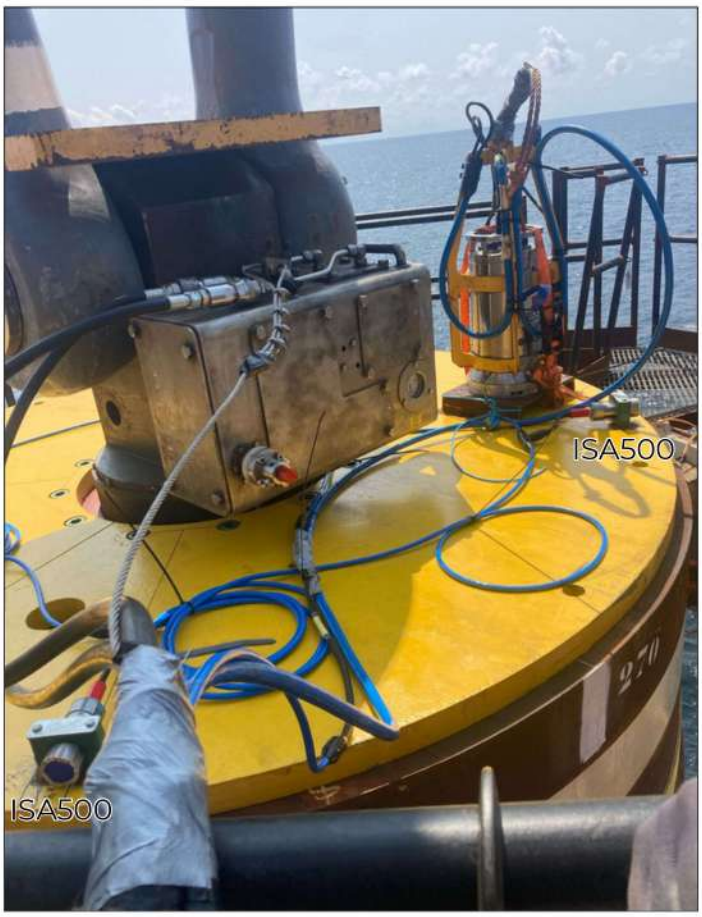
Accurately positioning anchor piles during subsea installation is critical for the structural integrity and longevity of offshore constructions.

Hydroconsult sought a robust solution that would:

- Provide real-time positional feedback.
- Ensure measurement accuracy within millimeter tolerances.
- Simplify cabling and installation requirements.

The Solution: ISA500 Echosounder

Hydroconsult selected the **ISA500 Echosounder** from Impact Subsea for this application, primarily due to its **1mm measurement accuracy**, compact form factor and robust communication options.



ISA500 mounted around the top of pile.
Source: JK -Hydroconsult

ISA500 APPLICATIONS INCLUDE:

Scour Monitoring | Touchdown Monitoring | Hydro-graphic Survey | Motion Reference | Wave Height Measurement | Equipment Deployment | Under Ice Measurement | Underwater Positioning | ROV & AUV Altitude, Heading & Attitude |

www.impactsubsea.co.uk/isa500/

IMPACT SUBSEA
INNOVATIVE SENSORS

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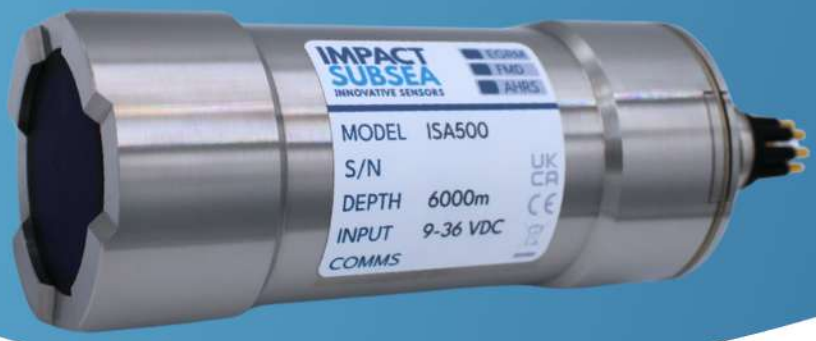
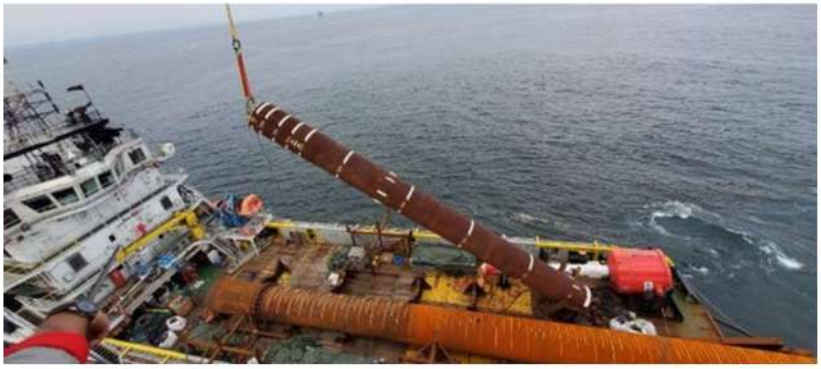
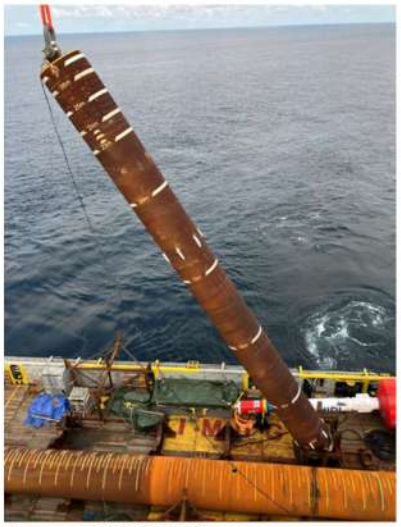


Performance & Verification

The ISA500 Echosounders achieved a verified accuracy of 1mm, confirmed through subsea caliper measurements conducted by divers. The real-time graphical feedback provided by the EIVA NaviPac software enabled precise control over the pile installation process, improving efficiency and ensuring exact placement.



Source: GEOCEAN
Anchor piles during subsea installation.



Source: GEOCEAN

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System Setup:

- Four ISA500 Echosounders were mounted around the top of each pile being installed.
- The sensors provided continuous real-time positioning data, visualised through the EIVA NaviPac software interface.
- RS485 serial communications allowed the sensors to be multi-dropped across a single screened twisted pair cable, significantly reducing cabling complexity.
- The entire system, including four ISA500 Echosounders, a 4-way splice cable, cable reel, topside communications interface and power supply was supplied as a ready-to-integrate package by Impact Subsea.

"The system was very useful for realtime monitoring. Throughout the whole operation the system has been working fine with no interruptions"

Yann Vincenot,
Technical Manager, Hydroconsult.

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