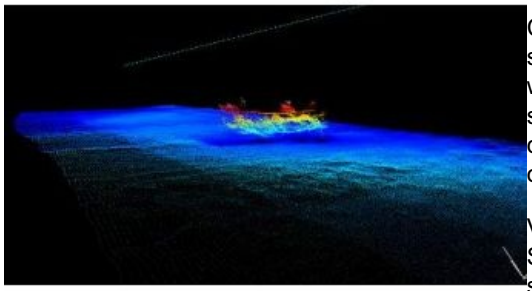
High-resolution Multibeam Surveys Completed



Coastline Surveys Ltd (UK) has completed three high-resolution multibeam hydrographic surveys in the Southern North Sea, using the latest-generation R2SONIC 2024 combined with an iXBlue Octans MKIII Gyro / MRU and C-NAV 3050 RTK GPS positioning. The survey vessel MV FlatHolm managed to complete the three surveys in quick succession during short weather windows, with minimal downtime due to weather for clients in offshore dredging, marine renewables and energy decommissioning sectors.

Vessel mobilisation was supervised by Andy Johnson, CSL's head of Hydrographic Services, who brought his extensive knowledge and experience of the R2SONIC 2024 system to bear on the projects. Detailed preparation, including a complete re-survey of the MV *FlatHolm*'s instrument offsets, helped the team to acquire the excellent results. mobilisations are seldom without their challenges and yet again detailed preparation during mobilisation has proven worthwhile.

With over 20 user selectable frequencies from 200-400kHz selectable 'on-the-fly' during survey operations, the upgrade to using the Broadband R2SONIC 2024 system has enabled very high quality results to be produced quickly and efficiently proving the ability to quickly mobilise and deploy a high resolution survey system. MV *FlatHolm* gives flexibility in the European coastal survey area to 100km offshore, being large enough to remain on site for up to 7 days and yet small enough to operate in relatively shallow (<5-6m) water. The vessel is currently based in her home port of Lowestoft.

Imagery collected during patch test quality checking included the 1916 wreck of HMS *Kaphreda* observed below in approx 22m water clearly showing superstructure, entangled nets and scour hollows beneath the wreck.