

# Western Isles Connection Survey Operations Completed



Seabed survey contractor Bibby HydroMap completed geophysical, geotechnical, benthic and land survey operations along the route from mainland Scotland to the Isle of Lewis, UK, on behalf of client SHE Transmission. Three vessels were used during the survey; 27.5m DP1 *Bibby Tethra* for offshore geophysics, geotechnical sampling and benthic operations, 14m MV *Proteus* for

nearshore geophysics and the 9m RIB *Cougar* to ensure overlap between the inshore and land survey.

Over 1,000 line km of survey data were acquired with *Bibby Tethra*, using the vessel's newly installed [dual head Kongsberg EM2040-4](#), with the towed [Edgetech 4200 side scan sonar](#) and Geometrics magnetometer positioned using the new Sonadyne Mini-Ranger 2 [USBL](#). Shallow [sub-bottom profiler](#) data were also acquired using the vessel's hull-mounted Applied Acoustics pinger. Despite the challenging environmental conditions, geophysical operations were completed ahead of schedule yielding high quality data.

*Bibby Tethra*'s scope of work also included conducting over 80 CPTs and vibrocores, in addition to 26 benthic drop down video and grab sampling stations.

## Challenges for Survey Operations

Bibby HydroMap project manager Simon Baldwin comments saying that operating between the North-West highlands and the Western Isles always presents a number of challenges for survey operations including highly variable water depths and seabed gradients, the restricted manoeuvrability associated with working within the stunning sea lochs, and also the general remote nature of the survey location in terms of logistics and support. In spite of all of these testing conditions the surveyors were able to carry out the integrated, multidisciplinary, multi-vessel survey safely and within a swift timescale. The vessels are fast gaining a deep working knowledge of this area following years of work supporting