

## Global Marine provide marine engineering services supporting deep sea scientific research

VENUS (Victoria Experimental Network Services provided Under the Sea) is a unique subsea laboratory that provides live data to the ocean research community. Global Marine was selected as the contractor for the project to lay the foundation of the laboratory off the coast of Vancouver Island, British Columbia, Canada.

The VENUS observatory consists of two main ocean cable arrays, one in the Saanich Inlet and the second cable extends from Iona Causeway into the southern portion of the Strait of Georgia.

Both arrays are equipped with a number of oceanographic sensors for measuring a variety of properties, including seawater temperature, salinity, dissolved gases, zooplankton distributions, ambient sound, currents, and tides.

### SERVICES PROVIDED

Global Marine provided an end-to-end solution to the customer from initial surveys through to the installation of the fibre optic cable system, which included:

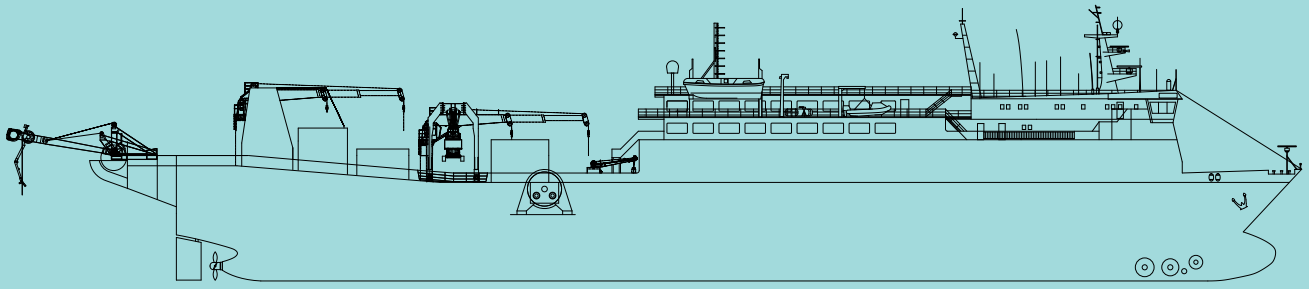
- Desk survey
- Route engineering
- Shore end installation
- Main lay operations
- Post project reporting

#### VESSEL: WAVE VENTURE

Cable Length: 43km

Node Depth: 95m, 300m & 175m

Location: Vancouver Island, BC, Canada



## ASSETS

Wave Venture is a multi-purpose offshore vessel and is capable of handling the wide variety of subsea tasks required by such diverse industries which, as well as deep sea research, includes telecommunications and oil & gas.

Wave Venture was converted to an offshore support vessel in 1999 and has completed numerous projects which include Batam Dumai in Indonesia as well as the Venus installation.

## THE PROJECT

Global Marine were first commissioned to complete the desk top survey identifying the ideal location for node and sensor positioning. With this completed, Global Marine installed the system on behalf of the University of Victoria, British Columbia, Canada working in partnership with CanadianOceanWorks International.

The first phase of the installation involved the deployment of 40 kilometre of cable and two node bases in offshore waters just north of Vancouver International Airport.

At the ocean observatory site the second phase was completed with the installation of the nodes at three specific previously identified sites. The node in the Saanich Inlet is located 95m below the surface. In the Strait of Georgia, there are two nodes, one at 300m in the central Strait and the second at 175m towards the Fraser River Delta.

*“The Strait of Georgia is one of the most forbidding places to deploy an ocean observatory, but the high currents, the Fraser sediments, the active seafloor and the busy traffic are all the reasons why we need to be there. We’re pushing the leading edge of technology to establish a foothold on the seafloor. With full connectivity we’ll begin to unravel the secrets of the strait.”*

Dr Verena Tunnicliffe  
VENUS Project Director



For further information on Global Marine please visit:  
[GLOBALMARINE.CO.UK](http://GLOBALMARINE.CO.UK) or contact our sales team.

UK: +44 1245 702000 | Asia: +65 65131300

PART OF THE  
**GLOBAL MARINE | GROUP**