

Jasco Amar Mission to Venus Ocean Observatory

JASCO Applied Sciences has commenced an AMAR product demonstration and data gathering mission on the Venus Ocean Observatory. Two of JASCO's AMARs have been deployed at two different locations on the Venus Ocean Observatory in the Strait of Georgia, Canada. The primary purpose is to demonstrate the multi-sensor, real-time data collection and streaming capability of JASCO's AMAR product. Of specific interest to JASCO are the real-time detection, identification and localisation of individual southern resident killer whales.

The AMAR is JASCO's product offering for the real-time collection and delivery of data and information for ocean observing. AMAR enables scientists to collect multi-sensor data from oceanographic instruments and arrays of hydrophones in real time. Scientists can receive in-situ data and derived information in real time if AMAR is connected to an associated telemetry system. AMAR can also act as an Autonomous Multichannel Acoustic Recorder.

These devices are often deployed autonomously as multi-sensor data collection and recording devices. These two specific instruments will be used as research and development tools to enable JASCO to test automated detection, identification and localisation algorithms in a real-time ocean environment.

The data collected by these two instrument nodes will also be shared with other scientific researchers and organisations under the Ocean Networks Canada data sharing framework and associated agreements. They will be used in a number of planned experiments and research project activities.

One AMAR is fitted with an array of four hydrophones and a Roll, Pitch & Yaw motion sensor. The second AMAR is fitted with an array of four hydrophones, an Oxygen sensor, a Turbidity sensor and a Roll, Pitch & Yaw motion sensor. The hydrophone arrays enable the systems to estimate the direction of a particular received sound. JASCO's data processing and visualisation software products will also be demonstrated during this project. Several iterations of these processing and visualisation products are planned over the deployment period.

AMAR instruments are used by both JASCO and our customers to gather critical in-situ oceanographic and acoustic data. AMARs are used in both autonomous and real-time settings. AMARs are available for purchase or can be leased from JASCO to support measurement or monitoring projects. JASCO provides acoustic propagation and environmental modeling, oceanographic instrument deployment, recovery & data analysis and environmental impact assessment services globally.

<https://www.hydro-international.com/content/news/jasco-amar-mission-to-venus-ocean-observatory>
