



AUV Services



Autonomous Underwater Vehicles (AUV) provide definite advantages due to their ease of deployment and ability to be colocated. UTECH provides versatile, cost-effective AUV services using the Teledyne Gavia system. UTECH's team has considerable global experience in the operation of these units. The system can be operated from vessels of opportunity or beach launched, capable of undertaking missions at up to 4 knots in water depths from 4 - 1000 meters. Multiple AUVs launched from a common platform allow up to 30 hours of data collection in any 24 hour period. The AUVs are positioned with INS aided via LBL/USBL or emulated USBL, providing optimal acquisition accuracy with enhanced repeatability.

UTECH's fleet of AUVs all have the following sensor modules:

- Digital camera with strobe
- Obstacle avoidance sonar (Imagenex)
- Multi-beam echo sounder (Geoswath+ 500kHz/Klein 3500)
- Inertial navigation system (Kearfott T-24 + DVL)
ROVINS INS+ DVL
- Dual-frequency side-scan sonar (Marine Sonic Technology 900/1800kHz)
- Depth sensor (Keller 33X)
- Sound velocity (Valeport Mini-SVS)

To this system, UTECH has developed a world-class sensor package: the CHIRP III sub-bottom profiler module, a low-power system modified by Teledyne Benthos specifically for AUV operations.

The resulting package provides an ideal platform for pre-engineering submarine cable and pipeline route surveys. Due to its extreme portability and robust operational performance, coupled to multiple battery modules, the system is particularly well suited for operations of up to 6 hours such as:

- Renewables market, site and route pre-engineering
- Area site investigations
- Post-hurricane pipeline inspection
- Submarine telecommunication cable route surveys
- Environmental baseline surveys

The battery modules are portable and easily swapped out, facilitating extended missions and efficient data transfer.

Ongoing research and development in conjunction with the University of Delaware's Oceanographic Department and industry specialists expands and enhances the capabilities of the AUV platform. This allows the AUVs to undertake additional tasks such as cable and ferrous metal detection by means of magnetometer, hydrocarbon seep and leak-detection modules.