Blue Ocean
MARINE TECH SYSTEMS

The exploitation of distributed swarms of low cost, interoperable, remote autonomous underwater systems will fundamentally change data acquisition and reporting protocols in the short to medium term.

Company Overview

Established in 2014, Blue Ocean Marine Tech Systems is an Australian-owned maritime technology innovator and operator specialising in autonomous, low-cost, underwater vehicles providing data acquisition solutions.

Blue Ocean's experience has enabled it to develop highly- reliable methodologies to prepare, deploy and recover oceanic gliders, which undertake data acquisition and reporting surveys of up to 90 days in length.

World-leading, patent protected underwater remote and autonomous technology with a demonstrated track record of commercialisation across several applications

Key target segments including:

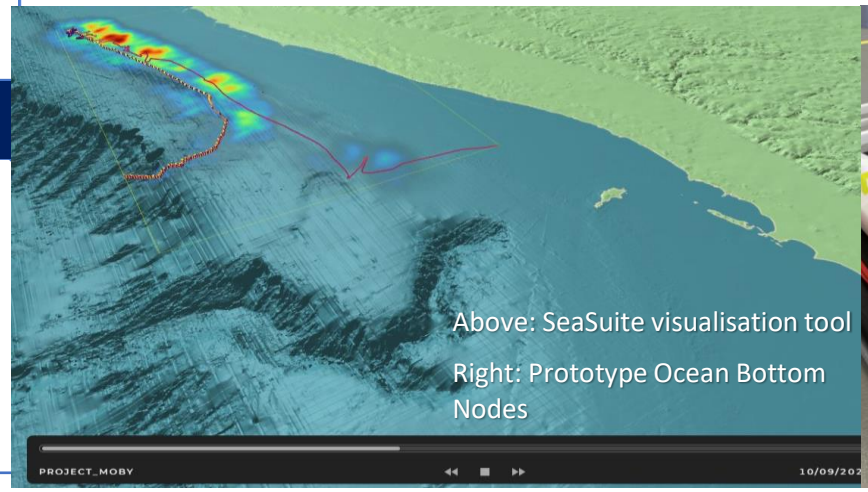
- Offshore energy – sustainable ocean bottom seismic and inspection, repair and maintenance of assets
- Defence – long-duration, wide area, low-cost, overt or covert data gathering and surveillance
- ESG and emerging applications
  - Marine mammal monitoring and reporting
  - Offshore renewables and monitoring of carbon capture, utilisation and storage, decommissioning and deep-sea mining

Customers & Partners

NAVY Serving Australia with Pride
ROYAL NAVY
Ministry of Defence
VALE
bp
woodside
JASCO APPLIED SCIENCES
ExxonMobil
JADESTONE ENERGY
Australian Government Department of Defence Science and Technology
Australian Government Department of Defence
[dstl]
CARNARVON PETROLEUM LTD
Worley
Santos
L3HARRIS

Discriminators

- Proven ability to detect, track and report in near real time discrete tonals from underwater noise sources including marine mammals
- World-leading subsea remote and autonomous systems expertise disrupting the economics of marine data collection and subsea surveillance
- Strong history of successful project delivery and service provision for energy industry and Defence clients in both the UK and Australia
- Highly-experienced in-house Research and Development (R&D) team.
- Demonstrated ability to develop and implement novel Autonomous Underwater Vehicle (AUV) based solutions in both industry and defence sectors
- Revolutionary, intelligent and scalable systems utilising long-endurance, persistent, swarming AUVs capable of landing and relaunching from the seabed
- Responsive operations team with numerous successful missions completed globally
- Patent-protected IP



Above: SeaSuite visualisation tool

Right: Prototype Ocean Bottom Nodes

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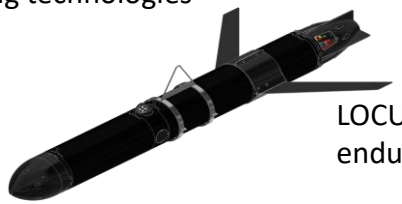
"There [is] growing concern over the potential impacts of ocean noise on the … overall wellbeing of marine species. Human-caused sound can affect animals by:

- *Causing temporary or permanent hearing loss*
- *Causing a stress response*
- *Forcing animals to move from their preferred habitat or divert from their migratory path*
- *Disrupting feeding, breeding/spawning, nursing, and communication behaviours."* **[NOAA]**

Technology

- Novel maritime autonomous system in-house Research & Development capability
- Low cost, long endurance swarming and seabed landing AUV design, development and qualification (LOCUS)
- Integration of JASCO OceanObserver acoustic spatial arrays into AUV gliders
- SeaSuite™ Maritime underwater remote Command, Control, Communications & Intelligence (C3I) systems development
- Systems engineering and integration. Data fusion and 4D visualisation
- Technology is lower cost and provides higher density data with lower health & safety impacts than existing technologies



LOCUS in-house developed long-endurance, seabed landing AUV

Operations

- The Blue Ocean Marine Tech Systems strengths are its unique ability to swarm and land on the seabed large fleets of underwater gliders plus its market-leading proprietary marine data visualisation, mission planning, deployment piloting and data processing software which has been developed to meet civilian and defence requirements and timelines.
- Maintenance, servicing, mission planning and execution for a wide range of Autonomous Underwater Vehicles
- Broad range of Autonomous Underwater Vehicle applications including hydrographic, optical, methane detection, oceanographic and passive acoustic sensing
- Owns and operates a large Australian-based commercial fleet of gliding AUVs
- Dedicated operations and engineering facility at Bibra Lake, close to Australian defence facilities at HMAS Stirling and Swanbourne Barracks
- Rapid deployment capability for AUVs off the Australian and British coasts

Partnership – JASCO Applied Sciences

Combining Blue Ocean MTS vehicles with JASCO Applied Sciences passive acoustic OceanObserver spatial array and overlaid with SeaSuite™ data visualisationa and mission planning tools, offers customers from defence and commercial offshore industries unique, comprehensive and continuous marine mammal monitoring and reporting capabilities also able to be applied to detection and tracking of other underwater noise sources.

JASCO APPLIED SCIENCES

AUV fitted with OceanObserver sensors

About Blue Ocean MTS

- Defence Industry Security Program (DISP) member
- ISO 45001 (Australia)
- ISO 9001 (Australia and United Kingdom)

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