

OSEAN

UNDERWATER TECHNOLOGY



MOBY PROFILING FLOAT 4000 meters

The MOBY profiling float designed by OSEAN is a deep, low-cost, long-lived, platform that mobilizes passively drifting autonomous hydrophones for MERMAID seismology program and CTD for deep Argo program mission.

APPLICATIONS

- MERMAID Seismology Monitoring
- Deep ARGO program mission
- Expanded versatility for other applications

FEATURES

- Autonomy up to 5 years
- Autonomous profile to 4000m (13,123 ft)
- Landing and Park on the sea floor capability
- Iridium/RUDICS Communication and GNSS localization
- One-year continuous recording MERMAID data buffer
- Designed based on a modular structure to facilitate integrating additional sensors
- Rugged Lightweight Housing
- Launch and recovery hook for easy deployment and recovery

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TECHNICAL SPECIFICATIONS



MECHANICAL CHARACTERISTICS

Hull: Glass sphere 17"
 Overall Length: 131 cm with removable IRIDIUM/GPS Antenna
 Overall shell diameter: 55 cm
 Weight in Air: 57kg
 Depth rating: 4000 meters – 13,123 ft

TELEMETRY

Communication: Iridium/RUDICS
 Localization: GNSS WAAS/EGNOS compatible
 User software interface: DIAGNOSTIC via Bluetooth (PC / MAC)

PRESSURE SENSOR

Range: 0 – 410 bar
 Accuracy: 0.2% FS

DEEP ARGO CTD

Sensor: SBE61 CTD or RBRargo³ CTD
 Features: Continuous profile on ascent
 Sampling every hour on drift (pressure, temperature, salinity)

ACOUSTIC MERMAID

Sensor: Hydrophone
 Bandwidth: 0.1 Hz to 12 Hz
 Sound pressure level: 180 dB ref 1μPa (Full scale)
 Resolution: 24 bits
 Sample rate: 40 SPS
 Data Buffer: 1 year of continuous recording

OPERATION

Lifetime: Up to 300 MERMAID cycles (8 days)
 Up to 330 deep ARGO cycle (10 days)
 Up to 200 deep ARGO & MERMAID cycle (10 days)
 Landing capability: Able to park on the sea floor on request
 Power supply: Lithium (Multimodal & IATA Certified) / Alkaline
 Operating temperature: -2°C to 35°C
 Shipping: Wood shipping crates (international)

