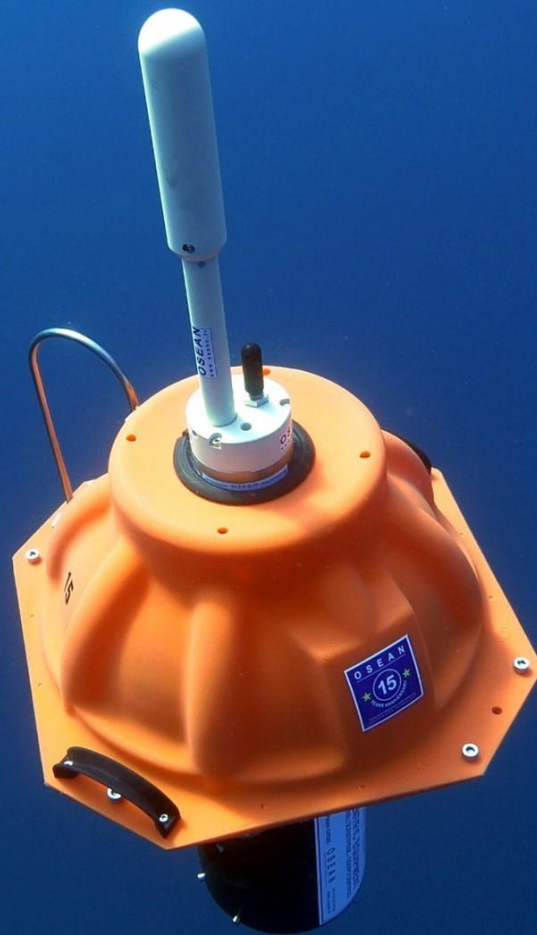
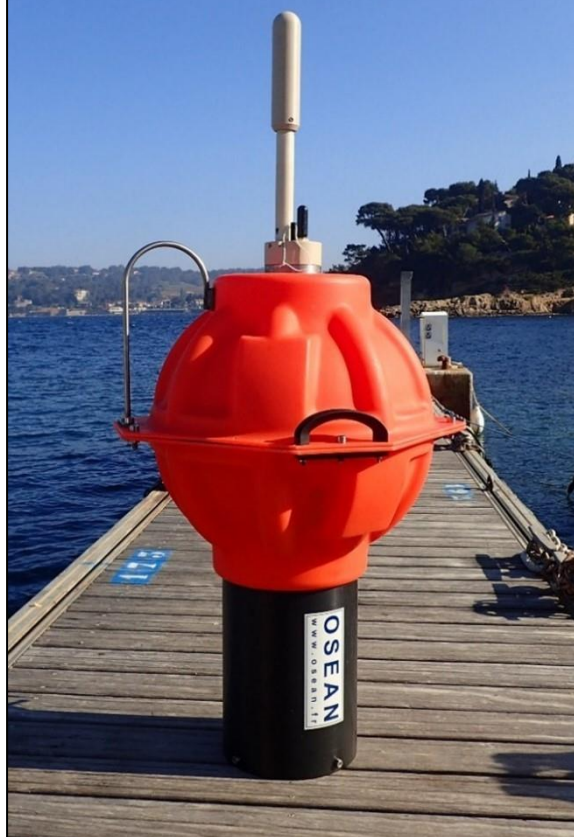


OSEAN

UNDERWATER TECHNOLOGY



MERMAID PROFILING FLOAT 2000 meters

The MERMAID profiling float is a radical, low-cost, long-lived, platform that mobilizes passively drifting autonomous hydrophones for seismology, with options available to adapt it for other sensing needs.

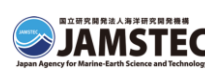
Designed by OSEAN under the umbrella of the international EarthScope-Oceans program, with worldwide academic partners.

APPLICATIONS

- Seismology Monitoring
- Expanded versatility for other applications

FEATURES

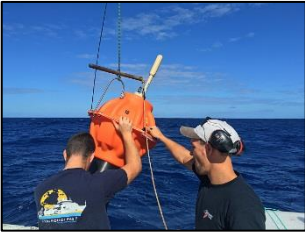
- Autonomy up to 5 years
- Autonomous profile to 2000m (6,561 ft)
- Landing and Park on the sea floor capability
- Iridium/RUDICS Communication and GNSS localization
- One-year continuous recording data buffer
- Designed based on a modular structure to facilitate integrating additional sensors
- Rugged Lightweight Housing
- Launch and recovery hook for easy deployment and recovery



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451 128 755 R.C.S. TOULON - SIRET 451 128 755 00035 - APE 2612Z - TVA CEE FR 82 451 128 755

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:	60 kg
Depth rating:	2000 meters – 6561 ft

TELEMETRY

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

PRESSURE SENSOR

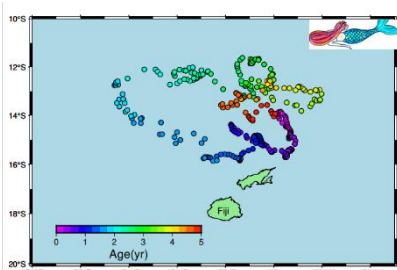
Range:	0 – 210 bar
Accuracy:	0.2% FS

ACOUSTIC MERMAID

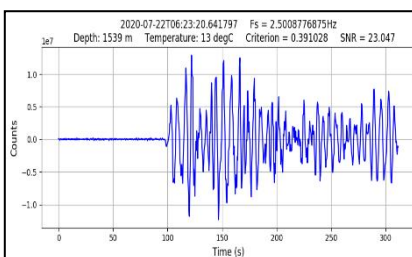
Sensor:	Hydrophone
Bandwidth:	0.1 Hz to 12 Hz
Sound pressure level:	180 dB ref 1µPa (Full scale)
Resolution:	24 bits
Sample rate:	40 SPS
Data Buffer:	1 year of continuous recording

OPERATION

Lifetime:	Up to 300 MERMAID cycles
Power supply:	Lithium (Multimodal & IATA Certified) / Alkaline
Operating temperature:	-2°C to 35°C
Shipping:	Wood shipping crates (international)



B06's Fifth birthday on 06/27/2023



Seismogram recorded by the B51 float
Magnitude 7.8 earthquake in Alaska, 07/22/2020

