

MICROBS

OCEAN BOTTOM SEISMOMETER



Ahead of the CurveSM

MICROBS

DEEP OCEAN BOTTOM SEISMOMETER



MicrOBS is a new generation of autonomous deep 4C Ocean Bottom Seismometer.

Operated from any vessel, MicrOBS dives by itself to reach the sea floor to begin the seismic acquisition. Integrating a combination of 3-C low distortion geophones plus an hydrophone, it will record P-S waves up to 24 days.

At any time, by sending a specific signal from the vessel, MicrObs will release its anchor to get up to the surface. Sending a radio signal and activating a flash light, it will be retrieved easily to download its data.

DEEPWATER CAPABILITY

- Down to 6000 m

EASE - OF - USE

- Light and compact design

MAINTENANCE FREE

- External connection for data retrieval and battery charge

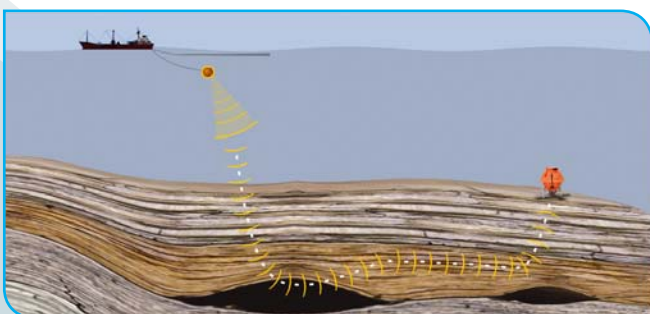


APPLICATIONS

DEEP REFRACTION SEISMIC

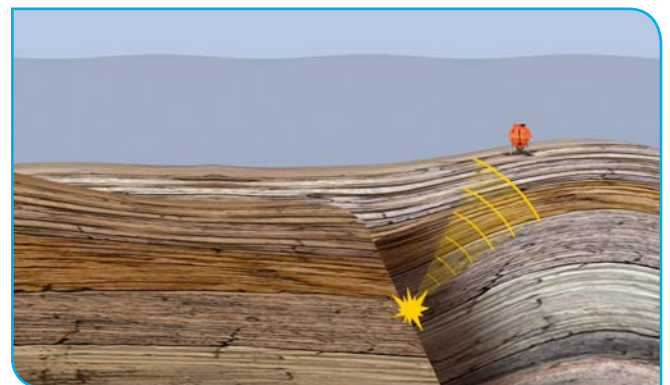
MicrOBS has been designed for deep water refraction seismic surveys. Using it in wide angle geometry provides excellent refractor arrivals from crustal discontinuities.

With 4C multi-component recording, MicrOBS would allow accurate characterization of P & S velocities in deep crustal layers



SEISMOLOGY

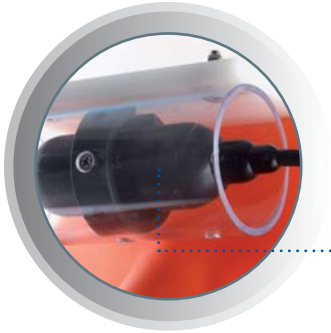
MicrOBS records and monitors earthquakes and natural seismicity to determine epicentre and associated mechanisms in active tectonic areas.



FEATURES & BENEFITS

Controllable release from surface

Acoustic receptor (patented technology)



Multi localization devices

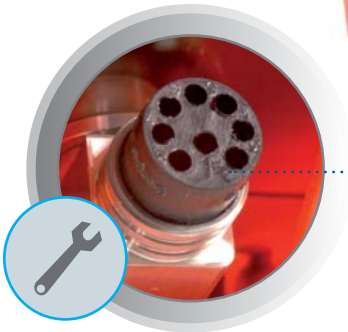
Xenon Flash light
Radio Signal

4-c seismic sensors

3 geophones
+ 1 hydrophone

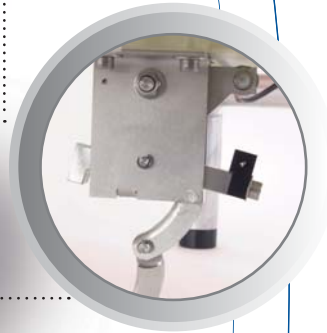
High Autonomy

Rechargeable Li-Ion battery pack



External connectivity

Data retrieval
Battery charge
Settings



High Reliability

Mechanical release by electrolysis



SPECIFICATIONS

Weight	in air	in water	
MicrOBS	36 kg	-12.5 kg	
MicrOBS + Dead Weight	64 kg	11.5 kg	
Sensors	Hydrophone	Geophone	
Configuration	1 channel	3 axis	
Low frequency cut-off	2 Hz (-3dB)		
Natural frequency		4.5 Hz	10 Hz
Sensitivity	-160 dB ref 1V/μPa	32 V/m/s	22.8 V/m/s
Batteries			
Type	Rechargeable Li-Ion 15V/40Ah		
Autonomy	8 days idle + 24 days acquisition		
Memory			
Type	Compact Flash Card - 8 GB (Optional 16 GB)		
Autonomy	24 days (@2 ms SR)		
Operating depth	6000 m maximum		

Dimensions	
base	550 x 550 mm
height	720 mm
dead weight size (cross shape)	800 x 800 mm
Data Logger	
Seismic channel	4
A/D converter (seismic channel)	24 bits
Sampling frequency	25 to 1000 Hz
Bandwidth	DC to 0.40 x sampling frequency
Gain preamplifier	Hydrophone : 0 to 36 dB step 6 dB Geophone : 20 to 56 dB step 6 dB
Dynamic range	120 dB
Synchronization interface	DCF77 (from GPS)
Configuration interface	RS 232 (9600,1,1)
Date & Time stamped data	Yes
Signal	
Localization radio signal	VHF radio beacon (156,625 MHz)

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