

Acoustic Oceanographic Buoy (AOB)

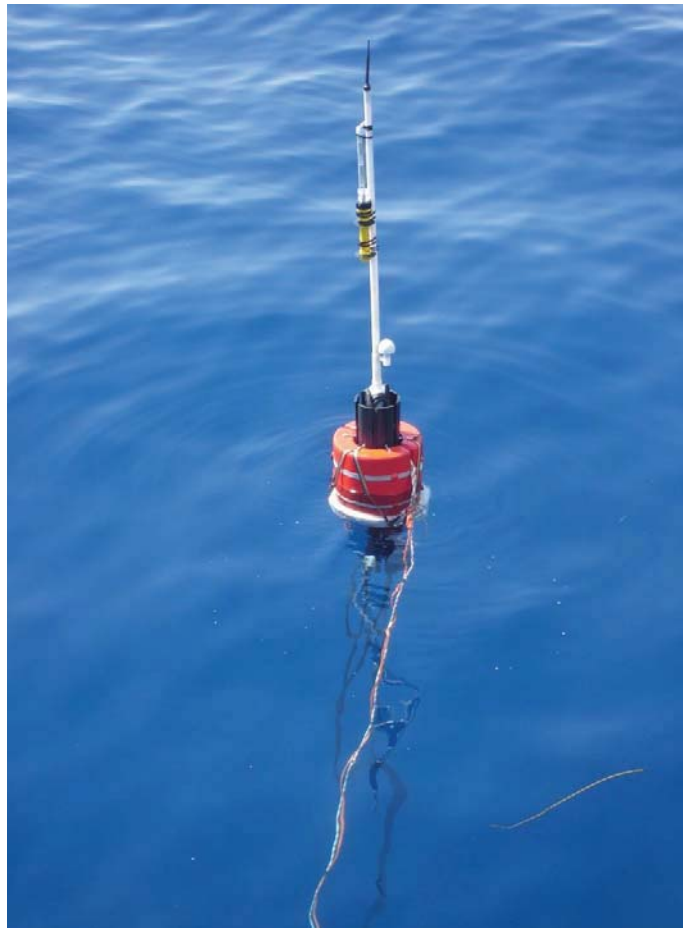
Institution/Company name	CINTAL
Contact details	SiPLAB, FCT - Univ. of Algarve, Campus de Gambelas, 8005-139 Faro, Portugal E-mail: info@siplab.fct.ualg.pt ph: +351-289800951 ;
Website	http://www.siplab.fct.ualg.pt/equipment.shtml

Key words



Description

The AOB addresses the requirements for a drifting acoustic recording platform with surface expression. This surface expression allows for on line data transmission to shore. The acoustic and non-acoustic sensors are vertically positioned in the water column which is a preferred set up for sea bottom (geophysical surveying) and water column (oceanography) observation. This observation may be active using purpose operated sound sources (fixed or mobile) or using ocean noise (surface noise or shipping). This AOB was developed in 2004 and first operated in a 1 month long cruise in Hawaii (USA) in September 2005. Since then it has been used over 10 sea trials, in Portugal, Italy, Norway and Greece, for applications ranging from ocean tomography, bottom estimation, underwater communications, marine mammals monitoring and others.



Technical specifications

Model	AOB (version 2)
Type	Acoustic VLA
Aperture	66 m
No. sections	2
No. channels	16
Hydrophone depths (m)	hyd 1 at 6, spacing 4
Frequency band (kHz)	0-16
Sampling frequency (kHz)	50 (GPS synchro)
AD conversion (bits)	16
Bit rate (Mbit/s)	15.36
No. thermistors	16, @hyd depths, Fs=1 Hz
Battery	48 Ah/15 V
Autonomy (h)	11 to 13
Data storage (GB)	120
Communications	802.11b, 1W, antenna 7 dBi
Weight (air/water Kg)	41 / 10
Height w/mast (m)	3
Width (m)	0.4
Ballast (Kg)	10