



Acoustic Oceanographic Buoy (version 1)

A.J. SILVA, asilva@ualg.pt

C. Martins, cvmartins@ualg.pt

S.M. Jesus, sjesus@ualg.pt

SiPLAB - FCT, University of Algarve
Campus de Gambelas,
PT-8000 Faro, Portugal

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Abstract

One of the known impairments in the application of ocean acoustic tomography in operational scenarios has been the size, weight and difficulty of operation of actual ocean going equipment, such as hydrophone arrays and acoustic sources. The Acoustic Oceanographic Buoy - AOB is meant to be, at its final stage, an easy to deploy and easy to maintain autonomous vertical array that puts together in a single system acoustic and non-acoustic sensors, self-storing of geotime and GPS referred data, on the buoy preprocessing capabilities and network seamless integrability and data online transfer via a wireless lan high speed link. These capabilities make the AOB a versatile system for a variety of applications such as ocean tomography, underwater communications, rapid environmental assessment (REA), passive and multistatic sonar and underwater target tracking. The AOB version 1 described in this report was developed between 2003 and 2004 and tested at sea during the MREATM03 and MREATM04 sea trials.