



Preliminary results of the MEDARGO profiling float program in the Mediterranean

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In the framework of MEDARGO, which is part of the EU-sponsored MFSTEP project, profiling floats have been deployed throughout the Mediterranean to provide temperature and salinity data in near-real time to forecasting models of the Mediterranean. Two types of profiling floats were operated, the APEX and the PROVOR. All floats were equipped with Sea-Bird CTD sensors. They were programmed in the “Park and Profile” configuration with a neutral parking depth of 350 m (near the salinity maximum of the Levantine Intermediate Water - LIW) and a maximum profiling depth of 700 m, with a cycling period of 5 days. Every ten cycles, the floats were programmed to profile between 2000 m and the surface in order to sample deep water mass properties. When at surface, the floats were located by, and transmitted data, to the Argos system onboard the NOAA satellites. The data were processed and archived in near-real time at the CORIOLIS Data Center (Brest, France) and were disseminated on the GTS following the standards of the international ARGO program.

The data collected by 17 MEDARGO floats between June 2004 and April 2005 are described for the various sub-basin of the Mediterranean: The Catalan Sea, the Liguro-Provençal and Algerian basins, the Tyrrhenian and Ionian Seas, and the Levantine basin. The temperature and salinity data of more than 500 CTD casts are presented and compared to the MEDAR MEDATLAS II climatology and to ancillary XBT and ship-based CTD observations. The spatial characteristics and temporal evolution of the water mass properties are described. Sub-surface displacements at the neutral depth (350 m) are used to study the circulation near the LIW core.