

Review of manuscript

Technical note: tidal motions in the deep Mediterranean by Hans van Haren

The author analyses low tidal motions in the Mediterranean Sea. However, the author distinguishes small tides in the temperature records at a depth of 2500-m near the bottom. This happens only when the environmental conditions are near-homogeneous and the buoyancy frequency N is lower than the inertial frequency. The observations were performed with a set of almost 3000 precise temperature sensors. The author performs a transition of pressure to temperature units using the local adiabatic lapse rate like the atmospheric one. The author detects low amplitude semidiurnal barotropic tides.

I generally like the paper and recommend publication.

Two remarks.

(1) It would be helpful to give a figure with a scheme of the experiment.

(2) A question to Fig. 1a. What if uncorrected temperature. Is this in situ temperature. And θ is it potential temperature. Please explain. Low temperature increase with depth can be found at larger depths, say 5000 m. In the case of 2500 m in the Mediterranean this requires explanation.