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Evaluating CMEMS products in the Western Mediterranean using multiplatform in situ data and an eddy tracker

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Assessment of three CMEMS forecast modelling products (MEDSEA, IBI and GLOBAL) available for the Western Mediterranean has been done for the period 2013-2016. The final objective is to contribute to the improvement of these products by providing feedback to the Monitoring and Forecasting Centers (MFCs). To achieve this objective, a multiplatform approach, combining in-situ and satellite data in synergy with numerical simulations is followed. We present new results on the mesoscale content of three operational models operating in the Western Mediterranean, based on standard statistical analysis and an automated eddy tracker (py-eddy-tracker, v2.1.0; Mason et al., 2014). Properties such as eddy radius, amplitude, polarity, eddy center and tracks have been produced for the three products. For each product the eddy tracker is run over the same period, at a sampling frequency of 1 day. The parameters used for the tracking are the same for each product. Eddy tracks reveal clear areas of dominance of either cyclones or anticyclones. These patterns are visible in all three products. In addition, CMEMS products have been evaluated for specific dates, using high-resolution multiplatform observations from different field experiments carried out in the Western Mediterranean. This study is a contribution to the MedSUB project, funded by Copernicus Marine Service within the Service Evolution 21-SE-CALL1.