



The history and transient nature of salinity anomalies in the Mediterranean Sea from advanced reanalysis

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Long term, high resolution re-analyses of the Mediterranean Sea circulation and thermohaline structure are now available from the NextData and MyOcean projects. The first is a 60 years re-analysis (1953-2012) done with atmospheric AMIP forcing and the second is 25 years re-analysis (1987-2012) done with ECMWF atmospheric forcing re-analysis. Both concur to have a representation of the longest time series of salinity anomalies in the Mediterranean Sea, the highest space-time reconstruction ever done for the whole basin.

The salinity anomalies of the Mediterranean Sea below seven hundred meters of the past 60 years are examined in comparison with the Eastern Mediterranean Transient, a phenomenon Dr. A.Hecht contributed to discover during POEM. Deep water salinity changes and Gibraltar Strait anomalies are also examined in the light of possible feedback mechanisms, as well as the structure and correlation of such salinity anomalies with atmospheric forcing.