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MESO-SCALE CIRCULATION STUDIES BASED ON SURVEYS OF 1968 and 1983

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Recent hydrographic coverage of meso-scale sampling resolution in two independent surveys of 1968(NATO) and 1983(METU) in the northeastern Mediterranean, is utilized to give preliminary descriptions of meso-scale features. Objectively analysed stream function maps at different depths indicate a series of gyres (≃ 100 km diameter each) are ordered along the analysis region. In both cases persistent cyclonic and anticyclonic gyres were found to the SE of Rhodes and South of the Gulf of Iskenderun respectively. Hydrographic property distributions conform with the circulation features. A prominent upwelling and radial distribution of LIW is found near the SE Rhodes gyre. Strong downwelling is seen near the edges of the Gulf of Iskenderun eddy.

For both experiments, the available potential energy density for the whole region was about 20 times larger than the baroclinic part of the knetic energy. Vertical modal decompositions show the first few modes to be the most important.

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