O-V1

A Synthesis of the Levantine Basin Circulation and a Retrospective Review of its variability

Emin OZSOY

Institute of Marine Sciences, Middle East Technical University, P.K. 28, Erdemli, Icel, 33731 (Turkey)

A series of recent data sets from the Levantine Basin of the Eastern Mediterranean illustrate the complexity of its dynamics. The region is populated with synoptic and meso-scale dynamic features. Heteregenous water masses are generated as a result of highly variable atmospheric and thermohaline forcings. The sub-basin scale gyres are in close contact with each other, resulting in interacting, basin-wide turbulent features. The pattern of bifurcations of the mid-Levantine jet is variable on an interannual basis, in relation to the the evolution of the general circulation in the multiply connected domain. Secular qualitative variations can be detected in the general circulation patterns derived from the set of recent observations. The flow encircling Cyprus is partially blocked in the first phase of the experiments. In later surveys, the Cilicia and Lattakia basins are flushed with new water masses carried in the cores of incident eddies, and the pattern of basin-wide circulation is modified, with a major part of the mid-basin jet flowing coherently along the mainland coasts and cyclonically around Cyprus. Based on these results, the general circulation of the Levantine Basin appears considerably different and more complex than the traditional descriptions of it.