



Variability of Current Patterns in the Bay of Bengal with special reference on Coastal Currents along Sri Lanka

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Abstract

Circulation in the Bay of Bengal (BOB) is affected by the seasonal variability of current patterns in the Indian Ocean. The status of the water in the Bay of Bengal is determined by the fresh water influx from the large rivers in India and high saline water from Arabian Sea. A thorough understanding on the circulation pattern in the region is important for fishery, tourism, naval industries, environmental protection as well as climate predictions. East Indian Coastal Current (EICC), which flows along the western boundary of the BOB reverses its direction twice a year. Satellite tracked SVP drifter data was used to analyze the general characteristics of surface currents in tropical Indian Ocean. Drifter data derived color maps (both trajectory and SST) and Ocean color images show a flow of low salinity cold water to the Arabian Sea (AS) from BOB along the east coast of India and Sri Lanka during winter monsoon and reversed the current patterns during summer monsoon with high salinity warm water from AS to the BOB.

Keywords: *Bay of Bengal, Winter/Summer monsoon, EICC, SVP drifters*