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Coastal trapped waves along the southern coast of India

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Coastal trapped waves are responsible for most of the observed variability of the currents on the shelf in some regions. The existence of these waves depends entirely on the presence of a region of shallow ocean between the coast and the deep oceans. The aim of this study is to analyse continuous sea level measurements along the Indian coast for the presence of such waves if any, as they can make a significant contribution to the observed variability of sea level and currents. Sea level measurements have been made using Acoustic Tide Gauges of NIOT at different stations along the southern coast of India and these data sets have been analysed using tidal analysis and prediction software. De-tided sea levels have been obtained by removing the tidal frequencies from the measurements and further analysis reveals the presence of coastally trapped waves off the coast of Chennai, Tuticorin and Cochin during the period April-July, 2002.