

## **PERSISTENT HIGH WATER LEVELS AROUND ANDAMAN & NICOBAR ISLANDS FOLLOWING THE 26 DECEMBER 2004 TSUNAMI**

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### **ABSTRACT**

During the tsunami of 26th December 2004 in the Indian Ocean, media reports suggested that high water levels persisted around the Andaman & Nicobar Islands for several days. These persistent high water levels can be explained by invoking the existence of trapped and partially leaky modes on the shelves surrounding these islands. It has been known in the studies of tides in the global oceans, that there are two distinct types of oscillations, separated in their frequencies by the period of the pendulum day. One species are the gravity waves, and the others are the rotational waves, associated with earth's rotation. Both these species can be found in tidal records around islands as well as near coastlines. Essentially these are either trapped or partly leaky modes, partly trapped on the continental shelves. These two types of modes are usually found in the tsunami records on tide gauges. The tide gauge records as well as visual descriptions of the water levels during and after the occurrence of a tsunami clearly show the presence of these oscillations.