

EFFECT OF SEA SURFACE TEMPERATURE (SST) AND OUTGOING  
LONGWAVE RADIATION (OLR) ON CONVECTIVE ACTIVITY  
IN THE INDIAN OCEAN REGION

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## Abstract

Based on the Sea Surface Temperature (SST) and Outgoing Longwave Radiation (OLR) data of seventeen years from 1974 to 1990, relationship between SST and OLR in the Indian Ocean is investigated. A negative correlation between SST and OLR is found between SST range of about 25<sup>0</sup>C to 28.5<sup>0</sup>C. Below and above these limits no correlation exists, while below 25<sup>0</sup>C OLR remains high and above 28.5<sup>0</sup>C OLR remains low. An increasing trend of SST and decreasing trend of OLR are found in the Indian Ocean.

Rainfall data and SST data of the past twenty years (1971 to 1990) show a positive correlation between summer monsoon rainfall of Sri Lanka and SST in the Arabian sea. A negative lag correlation is found between SST in Arabian sea and summer monsoon rainfall of Sri Lanka.