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Influence of easterly waves on January 2001 rainfall in Sri Lanka

It has been noticed that significant rain or thunder showers experiences in any places over the island for consecutive 3-4 days during Northeast monsoon season under the influence of the waves in the easterlies. Analysis of data of a 34-years period has shown that the easterly waves causing widespread rain in Sri Lanka have periodic time about 7 days.

Total rainfall recorded at most of the meteorological stations during January 2001 exceeded the normal and a greater percentage of rainfalls have experienced in a number of 3-4 day spells during 8-12, 17-19, 21-2 and 19-31 in that month. When the local vertical wind profiles were analyzed it was found that a number of easterly waves have passed over Sri Lanka during January 2001.

It was seen that; a. Waves in the easterlies have caused the excess rainfall in January 2001 over many places in Sri Lanka. b. The periodic times of the waves in the asterlies in January 2001 are 3-5 days, 5-7 days, 6-8 days and 3-7 days in altitudes 2.5, 3.0, 4.5, and 6.0 km respectively. C. The periodic times of the easterly waves found in the early study can be confirmed.