

ABSTRACT

The First Garp Global Experiment data collected during 1979 at sea level and 850 mb level have been used to examine the origin and characteristics of the westwards moving disturbances in the western Indian Ocean. From the analyses of the above data the following sequence of events in the westwards moving disturbances has emerged: Increase (decrease) in the pressure of the Mascarene High causes intensification (weakening) of the meridional pressure gradient in the region between 25°S and the equator. This increase in the pressure gradient in the region leads to increase in the zonal wind and convergence in the region. It is noteworthy that the zonal wind responds to the pressure near the Mascarene High at the quasi-biweekly period. The increase in convergence at the surface and at 850 mb level, in the region equator to 5°S and between 60°E and 75°E, gives rise to the genesis of a disturbance in this region. The disturbances are then carried westwards in the low level easterly winds to affect the Seychelles Islands and the eastern African coastal regions