

temperature probes at Nigerian Meteorological Experiment (NIMEX) site located at the station provided a general overview of the energy fluxes, the winds and the cloud situation not only at the short period of the solar eclipse but before and after the event. The observed minimum temperature and wind at the site during the eclipse were comparable to those of the previous days. The corresponding values of radiative energy fluxes measured before the day of the eclipse was as high as 642 Wm⁻². This fell below 30 Wm⁻² during the eclipse period at the site. The mean wind speed which was as low as 0.50 ms⁻¹ established the fact of the calmness in wind speed that characterized the period of solar eclipse. These minimum values were unusual compared with those obtainable during any clear sky conditions. This variation may have induced vertical exchange of air parcels in the atmosphere.

Observations of zonal and meridional winds and diurnal and semidiurnal tides at 7.4°S by a meteor radar

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Mesospheric winds between 82 and 98km were observed between July 2004 and June 2005 with a meteor radar installed at Cariri (7.4°S, 36.5°W), Brazil. The data showed a clear semiannual oscillation known as Mesospheric Semiannual Oscillation (MSAO) with maximum amplitude of 22.6m/s in the zonal wind at 82km decreasing up to 3.3 m/s at 98km of altitude. Maximum westward winds were observed in March and September. On the other hand, the meridional wind, showed a clear annual variation with maximum amplitude of 13.5m/s at 98km. Maximum northward winds were observed practically in December. Additionally to mesospheric wind results, diurnal and semidiurnal parameters were calculated to zonal and meridional components. It is worth to emphasize the semiannual oscillation of diurnal tide observed in the zonal wind at 98km with maxima at the equinoxes. Other results of the analyses of the data and comparisons with models will be present

Role of equatorial anomaly in assertion of low latitude earthquake-perturbations on ionosphere

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The paper implicates a series of observations on ionization density (foF2) & TEC from ionosonde and GPS systems, to address the involution of equatorial anomaly in assertion of earthquake induced perturbations at the ionosphere. Adapting a pool of data acquired in this process around the equatorial anomaly crest stations, we bring in here the act of inducing low latitude seismic-related disturbances to off epicenter position, through anomaly effect when relative position between epicentre and observing station is (i) within the distance (d) dictated by the equation $d = \exp M$ (km), where M is magnitude of earthquake. We also examine (ii) cases when the radial distances exceed this limit.