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On The Relations Between Solar-Magnetospheric Activity, El-Nino Phenomenon And Tropical Cyclones Evolution In The North Western Part Of Pacific Ocean

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We present results of the mutual statistical analysis of time series of Tropical Cyclones (TC) activity in the North-Western part of Pacific Ocean and (i) Solar activity and caused by it disturbances in the Earth's magnetosphere; (ii) Powerful climate forming factor – the El-Nino phenomenon. TC activity was characterized by the maximal and average speed of a wind in TC for a year. Solar activity was characterized by Wolf numbers. Solar-Magnetospheric activity was characterized by geomagnetic indices and . Activity of the El-Nino phenomenon was characterized by SOI-index. It was found that TC genesis in the South China Sea is subjected to the influence of Solar-Magnetospheric events - negative correlation between TC activity and A/Ap geomagnetic indices reaching value -0.6 [U+F0B1] 0.1 for the period 1954-1978 with a zero time lag. Contrary, in the Philippine Sea Solar-Magnetospheric activity is a minor factor, due to compensation of incoming Solar radiation by the heat transfer of Passat current. In this region correlation between TC activity and SOI-index reaches value -0.64 [U+F0B1] 0.1 for the interval 1961-1987 with a 2 year lag, approximately corresponding to the relaxation time of Sea Surface Temperature after El-Nino phenomenon.