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Synoptic-statistical dependence of the midsummer (Canícula) in the Mexican Republic during "El Niño" Years

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The present work analyzes the typical synoptic conditions of the month of August associated whit the spatial fluctuations during the midsummer in Mexico that happens during "El Niño" Years. The index SOI was used for the determination of the El Niño Years (1970 - 2004), with the classification proposed by Redmond, (2002), (NWS-CPC-NOAA, 2004). Daily plot of geopotential height to 500 hPa (12:00Z), (Reanalysis NCEP) was used the High center for the localization of the high pressure in midsummer (Baja California, South of USA-North of Mexico and Florida). The objective of this study was to determine the statistical dependence between localization of High (California (A), Central South of USA-North of Mexico(A^B) and Florida(A^C)) and the type and value of South Oscillation index (SOI) when applying the test x^2, we suppose as null hypothesis that A and B is independent; the comparison statistic used for this case was X^2=35.385 with a significance level of α=0.05,$x^2_{8,095}$=15.51, the null hypothesis is rejected, for what statistical dependence exists between Localization of high and the type and value of South Oscillation index (SOI).