



## Monthly and annual dryness analysis in Mexico City

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Mexico City is located in a hydrological basin with a humid climate and with a mean annual precipitation close to 750mm/year. Its seasonality implies that the occurrence of long dry periods is hence low. Currently, short and long dryness frequency assessments for Mexico City are nonexistent. The objective of this abstract is to provide a point analysis of monthly and annual droughts. For such purpose, rainfall observations at the Meteorological National Service station from the period 1887-2005 were analyzed. For the annual dryness analysis, a third order moving average method was used to determine the sequence of wet and dry periods. For the monthly dryness analysis, the methodology suggested by Clark (1992) for detecting the monthly dryness duration was contemplated. The results for the annual scale found the existence of a wet period since 1958 to date. The analysis at the monthly scale shows that the longest drought does not exceed 36 months. Both analyses suggest that the incidence of drought in Mexico City is not important unlike in other regions of Mexico, where droughts can persist over several years. A future analysis focused on the rainfall events of large duration would complement the current drought footprint-scale analysis for Mexico City.