IONOSPHERIC BEHAVIOR DURING ASCENDANT PHASE OF SOLAR CYCLE 21 *by*

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This study describes the behavior of the peak value of the ionospheric concentration (foF2) during the ascending phase of Solar Cycle 21. In order to understand the ionospheric dependency with the solar activity during the ascending phase of solar cycle 21 (1976 to 1981), peak ionospheric values for multiple ionospheric stations have been downloaded from the National Oceanic and atmospheric Administration (NOAA)'s National Geophysics Data Center (NGDC) database and analyzed using a new approach: The study of daily maximum and minimum values. Many interesting characteristics of the ionospheric behavior were detected, while the trend of the maxima closely follows the trend of the solar activity (as captured by the different indexes), the trend of the minima is 2 – 4 times less pronounced. The variability of both values seems to be consistently linked with the solar activity trend, but the clear picture does not emerge from this analysis. In order to clarify these trends, we plan to continue the exploration of the multiple dependencies of the ionospheric behavior with the solar activity.