



Tropical cyclone influence on the higher ionosphere from tomography sounding data over Sakhalin island

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In this paper the tomography sounding data (measured in 2007) are considered for the following 3 points: Uzhnosahalinsk ($46^{\circ}57'N$, $142^{\circ}44' E$), Poronajsk ($49^{\circ}13' N$, $143^{\circ} 6' E$) and Nogliki ($51^{\circ}49' N$, $143^{\circ}7'E$). The aim of this research is to find the possible influence of a tropical cyclone (TC) on the higher ionosphere. The results demonstrate that values for critical frequency in the F2- layer (as measured at approximately 3000 km from the TC centre in a horizontal plane along the longitudinal direction) fall after several days. Also the foF2 values increased over a 1 or 2 day period near the TC active zone (in the longitudinal direction). Complexities of the morphological analysis of the given phenomenon arise because the TC is wide-spread (in a longitudinal direction, and to a much smaller degree in a horizontal direction) and a long-term source of disturbance. A major difficulty posed to our study is that the TC is wide-spread and long-lived.