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Interactions between tropical cyclones, earthquakes and the ionosphere in the South East sector of the Earth

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In the last decades, much attention has been paid to the problem of the lithosphere–atmosphere–ionosphere interaction, and it has been proved that processes in the lithosphere have an electrodynamic influence on the ionosphere. From other side, the problem of the interaction of such layers as troposphere, stratosphere, mesosphere, and ionosphere was considered in many publications (including the tropical cyclone (TC) influence).

A few papers demonstrate the results of the possible interection between the tropical cyclogenesis and seismic activity. We can do conclusion, that both hazards (TC and earthquakes) must affect the ionosphere. In this presentation authors research the interactions between tropical cyclones, earthquakes and the ionosphere. For this purpose we took hazards (Tcs and earthquakes) data in the South Pacific region for the last years. The ionospheric parameter used in this paper is TEC (total electron content of the ionosphere in a column with a cross section of 1 cm2) above the Australian continent.