

Ionospheric anomalies detected by means of ionosonde related to the 24 August 2016 M6 Amatrice earthquake

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The ionospheric behavior detected by means a ionosonde in the period of few months preceding the crustal M6 earthquake occurred on 24 August 2016 in Central Italy, near Amatrice village, is here considered. The earlier obtained relationships for ionospheric anomalies before strong Japanese earthquakes are studied in order to check their validation for the Italian moderate earthquakes. In the present case, the considered ionospheric anomalies are based on the observed variations of the sporadic E-layer parameters (h'Es, fbEs) and of critical frequency foF2 of the F2 layer, over the Rome ionospheric ionosonde. Empirical relations for the seismo-ionospheric disturbances relating the earthquake magnitude and the epicenter distance, are obtained and presented. The observed dependences of the studied process are showed in the results.