Influence of very-long-distance earthquakes on the ionosphere?

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In the present work, variations of the critical frequency foF2 obtained every hour by the ionospheric sounding station Tashkent (41.3^oN, 69.6^oE) in the years 1964-1996 are considered. Mean values of data found at daytime between 11 LT and 16 LT are investigated. Disturbances of foF2 related to earthquakes are studied on the background of seasonal, geomagnetic, 11-years and 27-days solar variations. Normalized values F are used in the analysis, which are obtained excluding the seasonal run by subtracting the mean value of foF2 during the time interval of 14 days, from 7 days before the earthquake until seven days after the event, and dividing the result on its standard deviation. Days with high solar (Wolf number > 200) and geomagnetic ($\Sigma Kp > 25$) disturbances are excluded from the analysis. Using the method of superposition of epoches it is concluded, that at the day of the earthquake the foF2 value decreases a) in case of earthquakes with magnitudes $M > 6.5$ at any place on the Earth, if the depth h of the epicentre satisfies $h < 200$ km, b) in connection with earthquakes with magnitudes $6.5 > M > 6.0$ occurring in the Middle Asia region, if $h < 70$ km is satisfied, and c) in connection with earthquakes with magnitudes $6.0 > M > 5.5$ appearing at a distance from Tashkent smaller than 1000 km if one has $h < 70$ km. In all investigated cases the reliability of the effect is larger than 95 %. The ratio of the number of earthquakes with a decrease of the foF2-value to the number of earthquakes where foF2 grows is about 2. The decrease of the foF2-value is also obtained some hours before and some hours - a day - after the event. Thus, one may assume that before an earthquake happening at a long distance, in the vicinity of the sounding station seismo-gravity waves with periods between half an hour and a few hours propagate through the earth's core. After long-distance earthquakes, seismic waves propagate in the vicinity of the sounding station. But in both cases, the radon emanation is activated. As a result of the increase of the radon concentration in the atmosphere, the value of foF2 decreases.