NEW ULF-INDEX AS A PROXY OF MAGNETIC STORM WAVE SIGNATURE

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The ULF-index has been calculated separately for polar, auroral and subauroral latitudes and applied to an analysis of the wave signature of magnetic storms. We have carried out the statistic study of the wave geomagnetic activity level in the morning, afternoon and night sectors during the strong magnetic storms (-150 nT < Dst_{min} < -100 nT). It was found, that during the initial phase of the magnetic storm the greatest intensity of the geomagnetic pulsations in the frequency range of 2-7 mHz was observed at the polar latitudes in the morning sector and at the auroral latitudes in the night. The greatest ULF wave activity of a storm main phase was found in the morning sector of auroral zone, not in the night as one can it exact. The intensity of pulsations in the night sector was two times lower than in the morning. We demonstrated that the geomagnetic pulsations of the recovery phase of substorms developing in the storm main phase represent the basic contribution to the morning ULF activity. The storm recovery phase was characterizing by auroral zone ULF activity decreasing. So, the level of the morning and night pulsations became compared. Sometimes the night ULF activity could be noted at subauroral latitudes too.

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