Analysis of the LF data collected by the European radio network during one year

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During 2008 a radio receiver was developed by the Italian factory Elettronika. The receiver is an equipment working in VLF (15-60 kHz) and LF (150-300 kHz) bands. It can monitor 10 frequencies distributed in these bands and, for each of them, saves the electric field intensity. During 2009 six receivers were installed for the realization of the "European VLF/LF network". Actually, two of them are into operation in Italy and one in Greece, Turkey, Portugal and Romania, respectively; a sampling rate of 1 minute is used. The LF radio data collected from July 2009 to December 2010 have been analysed. At first, for each radio signal, the day time data and the night time ones were separated. Taking into account that the LF signals are characterized by the ground wave and the sky wave propagation modes, the day data are related to the ground wave and the night data to the sky wave. In a first analysis the effect of the solar activity and of the thunderstorm activity was pointed out in the different trends. Then the wavelet analysis was applied on the same trends. Some anomalies probably related to earthquakes occurred nearby some transmitter-receiver path with M>5 were revealed.