



Variations of VLF/LF signals observed on ground and satellite during seismic activity in Japan region in May-June, 2008

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Signals of two Japanese transmitters (22.2 kHz and 40 kHz) recorded on ground VLF/LF station in Petropavlovsk-Kamchatsky and on board of the DEMETER French satellites have been analyzed during seismic activity in Japan in May-June, 2008. The period of analysis was from April 18 till June 27. During this time two rather large earthquakes occurred in north part of Honshu Island – May 7 (M=6.8) and June 13 (M=6.9). The ground and satellite data were processed by a method based on the difference between the real signal in nighttime and the model one (Rozhnoi et al., 2007). For ground observations clear decrease in signals has been found several days before earthquakes. The epicenters of earthquakes were in reliable reception zone of 40 kHz signal on board of the DEMETER. Some signal enhancement above the seismic active region and significant signal intensity depletion in the magnetically conjugated area has been found for satellite observation. Anomalies in satellite data coincide on time with those in the ground-based observation.