

THE PROPERTIES OF FIELDS OF LOW FREQUENCY NOISE FROM THE NETWORK OF BROADBAND SEISMIC STATIONS IN KAMCHATKA

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The article presents the results of the development of new technology for seismic hazard estimate in Kamchatka using prognostic properties of the low-frequency noise recorded at the broadband network stations. The article shows the description of the algorithms for obtaining of 8 statistical parameters, which characterize the spatial and temporal variability of the noise field and provides the discussion of their application to the prediction of strong earthquakes with magnitudes $M \geq 7.5$. Two methods of data presentation are described: 1 – in the form of maps with the spatial and temporal distribution of noise statistics; 2 – a new method of dynamic estimate of seismic hazard in Kamchatka by plotting monthly minimum, average and maximum values of the noise statistics. According to the observations over the period 2011-2014, the central part of the Kamchatka seismic focal zone in the latitude range $55-58^\circ$ is revealed to be the most potential for one or more earthquakes with $M \geq 7.5-8.0$.

Keywords: earthquake forecast, low-frequency noise, time series, earthquakes, Kamchatka.