

## Seismic - Seiche generated at Lake Ashinoko

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The water level at Lake Ashinoko vibrated for some hours after the 2011 Off the Pacific Coast of Tohoku Earthquake (March 11, 2011, Mw9.0). We calculated the running spectrum for time series data of water level, and estimated natural periods (seiche) at Lake Ashinoko. We observed the seiche periods of 15.16 (T1), 6.58 (T2), 4.48 (T3), 3.88 (T4), 3.13 (T5), and 2.19 minutes (T6). T1, T2, T3, and T5 vibrated under a steady state, even before the earthquake. The amplitudes of T3, and T5 were activated after the earthquake. In addition to these periods, T4 and T6 were generated only after the earthquake. The seismic seiche excited by the earthquake continued at the maximum for about 20 hours. We discuss about the seismic seiche generated according to other earthquakes, and its mechanism.

Keywords: Seismic-Seiche, Lake Ashinoko, Spectrum Analysis, Natural Periods