

The first-time looking at the birth of tsunami generated by the 2003 Tokachi-oki earthquake

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We saw the birth of tsunami generated by the 2003 Tokachi-oki earthquake by analyzing observed data from ocean-bottom pressure gauges, PG1 and PG2, which are set in the tsunami source region. The key to retrieve the tsunami at birth is temperature correction, since crystal oscillators within the pressure gauges are strongly influenced by pressure and temperature. Tsunamis observed along the coasts in Hokkaido and Tohoku regions were characterized by up- and down-going wave-train which continued at some points more than several hours or a day. However, the original tsunami waveform in the tsunami source region was very simple. It consisted of only a large and sharp upward motion followed by small but broad downward motion. We will present its observation, data processing including temperature correction, and then talk about the birth of the tsunami.