

**The 2003 Fukushima-Oki, 2005 Miyagi-Oki Tsunamis and Tsunami Sources in the Miyagi Region.**

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[1] None

Two small tsunamis generated off Fukushima to Miyagi prefectures, the north-eastern Japan, on October 31,2003 and August 16,2005 are investigated by using tide-gauge records(JMA). Judging from the attenuation of tsunami height with distance, tsunami magnitudes are  $m=0.5$  and  $m=1$ , respectively. The length of tsunami sources is 60km and 45km, extending E-W direction. The two source areas cover the aftershock areas. The source area and magnitude scale for the 2005 Miyagi-Oki tsunami are remarkably small for earthquake magnitude (M7.2).

In the Miyagi region, 14 tsunamis have been generated during 109-year (1897-2005)

The generating percentage of small tsunamis (tsunami heights: 50cm or less) accompanied with earthquake magnitude of M 7.0 class was 86%. However, large tsunamis having  $m=2-3$  were generated near the trench in 1793 and 1897. According to the tsunami source distribution since 1897, a remarkable gap exists along the trench.