

The 22nd December 2018 Anak Krakatau Tsunami in Sunda Straits, Indonesia What we know and don't know

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The eruption of Anak Krakatau on Saturday night of December 22nd, 2018 at 09.30 pm local time produced a tsunami that attacked most of the west coast of West Java and some of the east coast of Lampung - Sumatera island. Five tide gauges in Sunda Straits recorded the tsunami wave; two tide gauges at the west coast of Java Island and three at the east coast of Sumatera Island. Total death toll of 437 people around the Sunda Straits was documented due to tsunami from this event. A rapid field survey was conducted along the coast of West Java and east coast of Sumatera in Sunda Straits, and to the Anak Krakatau volcano and its surrounding island. Interviewed with the witnesses of fishermen who survived during the eruption of volcano and saw how tsunami was formed provide a useful information on the tsunami generation. A high-resolution of multibeam bathymetry survey is carried out by the Indonesian Navy Hydrographic office shortly after the event that showed a scattered of potentially material from Anak Krakatau Volcano as far as 1.5-2 km away to the south-south east of Anak Krakatau. Based on those evidence gathered and the on-going physical modelling/laboratory experiment, a mechanism on how tsunami was formed during the 22nd December 2018 Anak Krakatau eruption generated tsunami will be presented and discussed.