Geophysical Research Abstracts
Vol. 17, EGU2015-5611, 2015
EGU General Assembly 2015


# Seismic source models for very-long period seismic signals on White Island, New Zealand

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Very-long-period seismic signals (VLP) from White Island have a duration of only a few tens of seconds and a waveform that indicates an elastic (or viscoelastic) interaction of a source region with the surrounding medium; unlike VLP signals on some other volcanoes that indicate a step function recorded in the near field of the seismic source, White Island VLPs exhibit a Ricker waveform. We explore a set of isotropic, seismic source models based on the interaction between magma and water/brine in direct contact. Seismic amplitude measurements are taken into account to estimate the volume changes at depth that can produce the observed displacement at the surface. Furthermore, the influence of different fluid types are explored.