

The Geodetic Team's response to the Kaikoura 2016 earthquake

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In conjunction with:

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and

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Abstract: The 14 November 2016 Mw 7.8 Kaikoura Earthquake resulted in a response from many earth scientists from New Zealand and overseas. In addition to the geological investigation of the surface rupture and geomorphology, there was significant input from seismic and ground motion analysis and the measurement of ground deformation using InSAR and geodetic techniques.

The geodetic contribution was to deploy field teams from both GNS Science (including LINZ and Victoria University) and Otago University. This combined effort enabled us to measure the immediate co-seismic displacement and ongoing post-seismic deformation. The geodetic data, combined with InSAR enabled the determination of realistic rupture models of the event and the publication of a paper in Science on the 23rd March 2017 (Hamling et al. Complex multifault rupture during the 2016 Mw 7.8 Kaikoura earthquake, New Zealand, doi 10.1126/science.aamm7194).

School of
Surveying
Te Kura Kairūri

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**L1 Lecture Theatre
School of Surveying
310 Castle Street**

