OpenTopography

Metadata Report

Mt Bove Fault, Italy: Differential TLS from M_w6.6 2016 Norcia Earthquake

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Summary

These datasets were collected in central Italy in October/November 2016 and captured the movement of the Mt Bove fault during the Mw6.6 Norcia earthquake on 30th October 2016. The pre-earthquake dataset was collected on 29th October 2016. The post-earthquake dataset was collected on 5th November 2016. Scans were geo-referenced using three Leica 6" targets, which were located using differential GPS. The post-earthquake scan was geo-referenced using the same pre-earthquake targets and GPS coordinates.

For more details please refer to Wedmore et al (in review with GRL).

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Personnel

- PI(s)

Luke Wedmore (University of Leeds/University of Bristol, UK): luke.wedmore@bristol.ac.uk

Laura Gregory (University of Leeds),

Huw Goodall (University of Leeds)

Ken McCaffrey (University of Durham, UK)

Site Information

- Site description

  Mt Bove fault, central Italy. A normal fault that crosses colluvium and has a limestone bedrock footwall exposure. Hangingwall is cemented colluvial material derived from the footwall.

- Site objective

  Initially to record post-seismic movement of the Mt Bove fault following the Mw6.1 Visso Earthquake on 26th October 2016. The Mt Bove fault moved in the Norcia earthquake on 30th October 2016. Following this, our aim was to document the co-seismic deformation in the earthquake.

- Site location (GPS cords)

  Scan Position 1: 351022, 4752698
  Scan Position 2 (post-earthquake scan only): 0351059, 4752642
  (UTM Zone 33N)

- Site conditions
- Date/time spent at each site

Survey Results

- Equipment used

  Riegl VZ-1000 scanner at 350 MHz

- GPS solutions

  TBC
- Errors

  TBC
- Alignments

  TBC
- Collection methods

  Differential GNSS: Ashtech ???

Products

- Date of dataset collection:

  Pre-earthquake: 2016-10-29
  Post-earthquake: 2016-11-05
- Coordinate system of datasets

  UTM zone 33N, vertical reference frame is ellipsoid
- Spatial resolution

  Variable
- Horizontal Accuracy
- Vertical Accuracy
- Data formats

  LAZ exported from Cloud Compare Software

- Data processing notes

Misc Notes