

Metadata Report

Project Name: Photogrammetric point cloud of La Rouviere fault, France

Summary

Point cloud extracted from stereo aerial imagery (IGN) covers the area of La Rouviere fault, near Montelimar, SE France. La Rouviere fault, an old tectonic feature with an approximate strike of NE-SW, was re-activated and ruptured during the November 11 2019 Mw 4.9 shallow earthquake. First results from SAR Interferometry and field surveys confirm surface ruptures that follow La Rouviere fault trace as mapped in BRGM geological maps.

Personnel

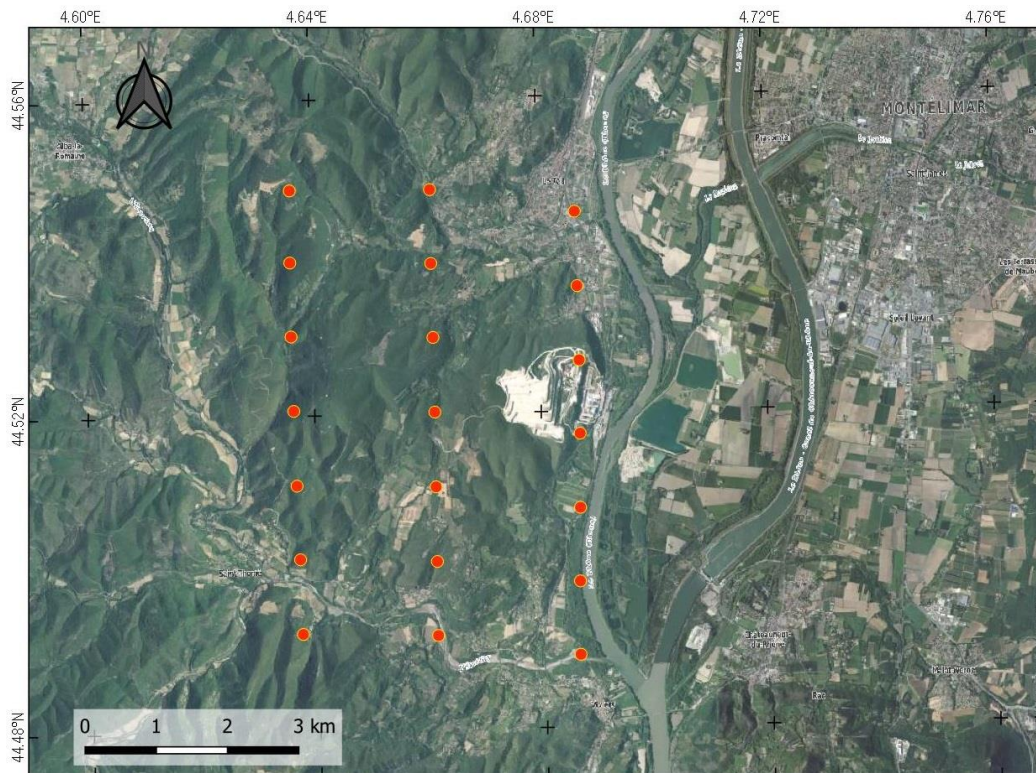
- Dr. Sotiris N. Valkaniotis, PhD Geologist
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Site Information

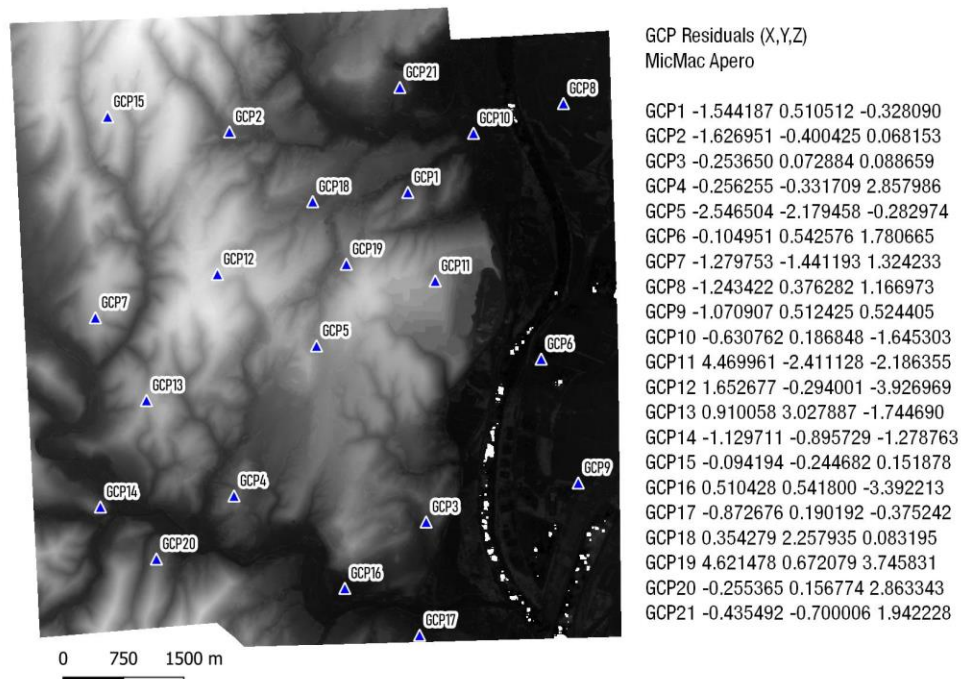
- Survey covers an area of 56 sq.km between Le Teil and Viviers, west of Rhone river, Ardèche Department, Region of Auvergne-Rhône-Alpes.
- Site surveyed boundaries:
E 4.615, N 44.483
E 4.708, N 44.553

Survey Results

- Stereo digital aerial images provided by IGN France, under an open licence (<http://remonterletemps.ign.fr/>)
- Images acquired in June 26 2007 with a resolution of 76-80 cm
- Original images contain no info about camera sensor parameters. They were calculated using StructureFromMotion in the open-source MicMac photogrammetry software (<https://micmac.engg.eu>)
- Ground control points were selected from IGN Orthomap and elevation values extracted from ALOS GDSM.



Position of aerial images center points for the Rouviere survey.



Ground Control Point (GCP) distribution and residuals.

Products

- Digital Surface Model as a point cloud reflects existing surface conditions during image acquisition (7-2007). Elevation includes dense vegetation canopy in forested areas and man-made structures
- UTM Zone 31, WGS84
- Spatial resolution 1m
- Image matching, GCP calibration and dense cloud extraction was performed using the open-source MicMac photogrammetry software (<https://micmac.ensg.eu>)