OpenTopography

Metadata Report

Survey of the Incapuquio Fault (Chintari Zone), South Peru (April 2018)

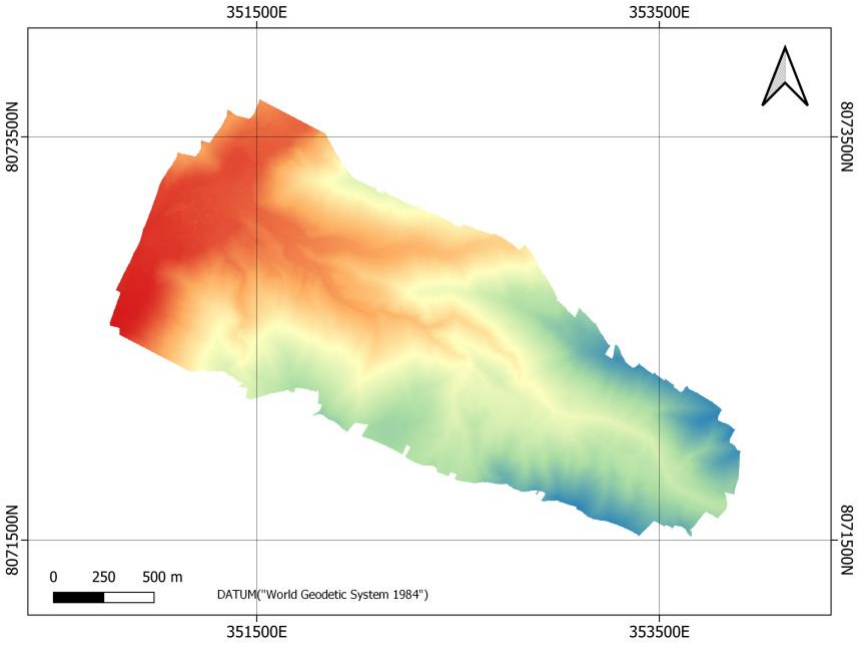
Summary: Photogrammetric survey of fault scarps on the Incapuquio Fault near Chintari. These data form part of the study by *Benevente et al., 2021* published in *Tectonics*.

Personnel:

- PI(s) : Carlos Benavente Escobar
- Field staff : Lorena Rosell, Enoch Aguirre, Briant García, Anderson Palomino
- Additional team members: Xavier Robert, Sam Wimpenny

Site Information

- Site description: Fault scarps in the Chintari River valley, Tacna, South Peru
- Site objective: Create a high-resolution DEM of the Chintari Sector of the Incapuquio Fault to measure the heights and morphology of the scarps.
- Site location (GPS cords and/or map):



- Site conditions: E-W trending river valley in the Peruvian forearc. Steep hillsides but dry, un-vegetated ground conditions formed mainly of alluvial gravels and sands.
- Date/time spent at each site: 04 April 2018, ~8 hours at site.

Survey Results

- Equipment used: UAS- eBee senseFly drone, Trimble R10 GNSS receiver, Agisoft Photoscan.
- Collection methods: The drone was flown at low altitude (a few tens of metres) over the study area collecting photos. The collection of ground control points was performed using the Real Time Kinematic (RTK) technique. Ground control points were used to guide image matching through Agisoft Photoscan.

Products

- Date of dataset collection: 04 April 2018
- Coordinate system of datasets: WGS84/UTM zone 19S (EPSG: 32719)
- DEMs resolution:
    - Chintari Zone: 14.40 cm/px
- RMS Reprojection errors:
    - Chintari Zone: 0.22m
- Data formats: Point Cloud (.laz), Raster (.tif)
- Data processing methods: Structure from Motion / Photogrammetry in Agisoft Photoscan.

Misc Notes: