Metadata Report

Project Name
Survey of Pamir Frontal Thrust fault, trench site T1, Alai Valley, Kyrgyzstan, July 2017.

Summary
UAV survey of trenching site to measure the vertical and horizontal offsets across a fault scarp.

This dataset is part of extended trenching study along the central segment of the Pamir Frontal Trust fault.

Data Collectors
Magda Patyniak, Roland Freisleben, Sultan Buikalov, Angela Landgraf, J Ramon Arrowsmith

Processing and upload:
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Site Information
The Achyk-Suu trenching site T1 is situated on alluvial-fan deposits at the westernmost end of the cPFT. Trench T1 is part of an abandoned gravel pit that was excavated in the faulted alluvial-fan deposits close to the village of Achyk-Suu. The trench consisted of a 7-m-long and up to 3-m-deep east wall across the 14-m-high fault scarp in the eastern part of the pit.

Survey objective: Paleoseismology
Survey date: 2017-07-25
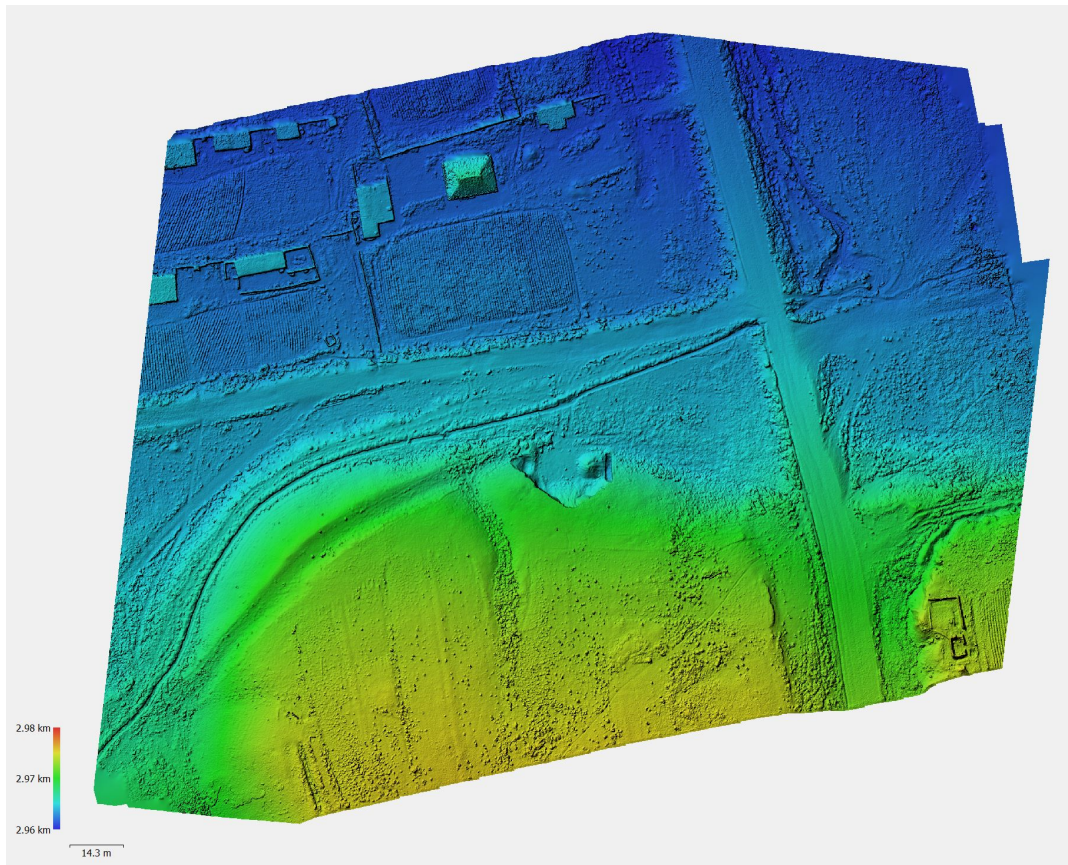Site location: 39.475834°N 72.498149°E

Survey Info
UAV: DJI Phantom 2
Flight altitude: 60-80 m
Camera photo resolution: 4000 x 3000 px
Positioning: global navigation satellite system (GNSS) with a 10 m accuracy; ground control points measured with RTK DGPS
Survey method: Structure-from-Motion from UAV aerial images
SfM software: AgiSoft Photoscan Professional

Product info

Number of photos: 180
Number of ground control points: 10
Number of tie points: 63,496
Dense cloud: 111,077,002
DEM size:2589 x 2479
DEM resolution: 0.1 m/px
Coordinate system of dataset: WGS 84 UTM Zone 43N (ESPG:32643)
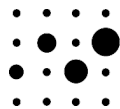Orthophoto resolution: 0.05 m/px

OpenTopography

Misc Notes

Related work: this dataset is included in a doctoral thesis of Magda Patyniak