Metadata Report

Project Name
Survey of Pamir Frontal Thrust fault, trench site T3, Alai Valley, Kyrgyzstan, July 2018.

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
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Processing and upload:
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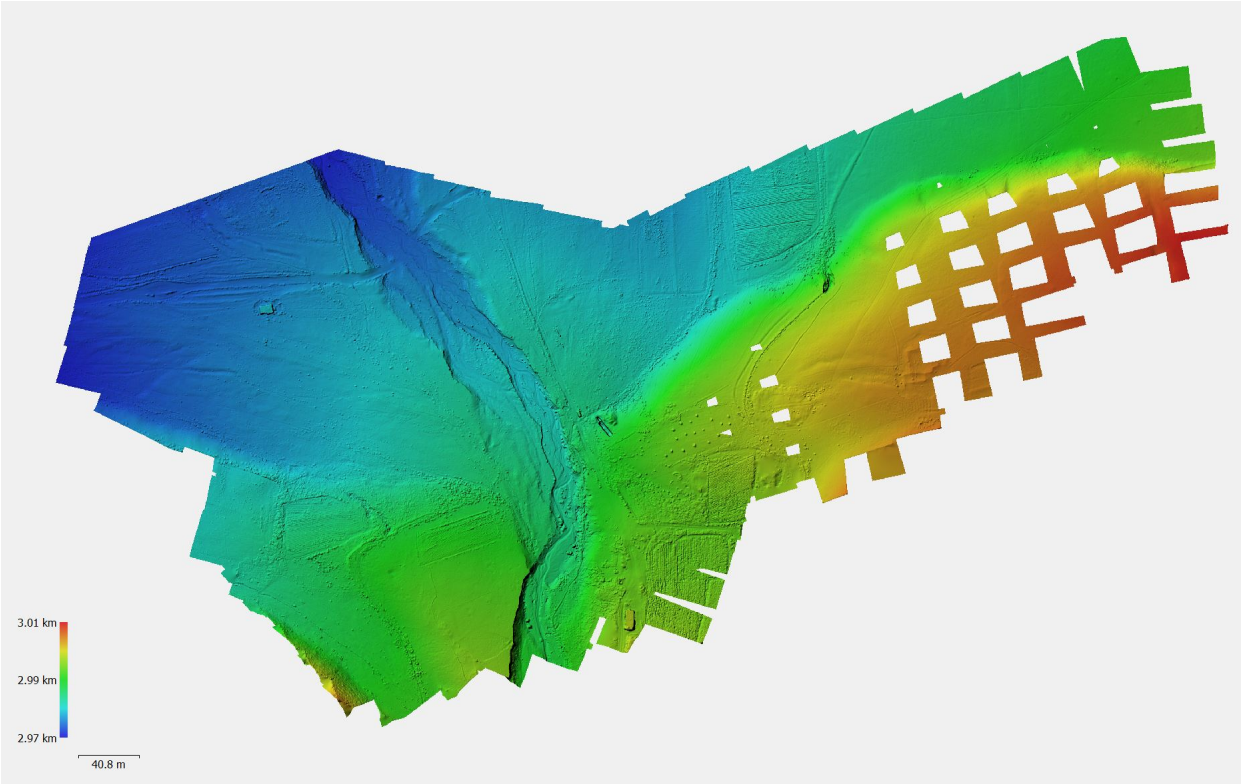
Site Information
During our preliminary geomorphic assessment of potential trenching locations, we discovered a trench into the fault scarp at the Ylaisu site that had been excavated for agricultural purposes. The scarp height at this location is 8.5 m. The trench position was perpendicular to the fault scarp, and the exposed walls were straight and undamaged when we decided to log this site. The 11-m-long, 3.5-m-wide and up to 3-m-deep trench is located on a terrace of an alluvial-fan east of a ~5-m-deep river channel.

Survey objective: Paleoseismology
Survey date: 2018-07-30
Site location: 39.479893°N 72.526640°E

Survey Info
UAV: DJI Phantom 4 Pro and Mavic Pro
Flight altitude: 60-80 m
Camera photo resolution: 4000 x 3000 px and 5472 x 3648 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: 301
Number of ground control points: 5
Number of tie points: 346,600
Dense cloud: 226,125,012
DEM size:9412 x 6783
DEM resolution: 0.1 m/px
Coordinate system of dataset: WGS 84 UTM Zone 43N (ESPG:32643)
Orthophoto resolution: 0.05 m/px

Misc Notes

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