

Almaty range front fault, Koram site

Target: Fault scarp of the E-W striking, S-dipping, reverse Almaty range front fault, Kazakhstan

Purpose: Measuring the offset of river terraces for slip-rate determination

Uploader:

Dr Christoph Grützner
Friedrich Schiller University Jena
Institute of Geological Sciences
Burgweg 11
07749 Jena
Germany
christoph.gruetzner@uni-jena.de

Survey date: 2016-06-24

Survey method: Structure-from-Motion from UAV aerial images

UAV: DJI Phantom 2

Flight altitude: 60-80 m

Camera: Canon PowerShot SX230 HS

Positioning: built-in camera GPS, eight ground control points measured with RTK DGPS

SfM software: AgiSoft Photoscan Professional

of photos: 1,527

of tie points: 17,826

Dense cloud: 26,330,626 points

DEM size: 9255x8021 pixels

DEM extent: 527,105 m²

DEM elevation: 712-795 m asl

DEM Resolution: 0.132 m/pixel

EPSG: 4326 (WGS84 cartographic)

DEM filetype: GeoTIFF

Source files: The original source images are available upon request from Christoph Grützner

Ground Control Points:

I3ZD	ili-rover	78.13909246	43.49141699	726.6956
I3ZE	ili-rover	78.14021018	43.49119032	722.3135
I3ZF	ili-rover	78.14382274	43.48971949	721.3028
I3ZG	ili-rover	78.14140221	43.4883868	784.0495
L3ZH	ili-rover	78.14073473	43.48937081	779.8332
I3ZI	ili-rover	78.13911381	43.4898578	767.6664
I3ZJ	ili-rover	78.13757993	43.49143782	720.7829
I3ZK	ili-rover	78.13605625	43.49051013	750.019

Funding: This research was run under the Earthquakes without Frontiers project, funded by NERC and ESRC (grant code: EwF_NE/J02001X/1_1), and within the Centre for Observation and Modelling of Earthquakes and Tectonics (COMET).

Reference: Grützner, C., Walker, R. T., Abdrakhmatov, K. E., Mukambaev, A., Elliott, A. J., & Elliott, J. R. (2017). Active tectonics around Almaty and along the Zailisky Alatau range front, Tectonics, doi:10.1002/2017TC004657.

<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2017TC004657>

