OpenTopography

Metadata Report

Project Name

Survey of South Song Kul Fault, Kyrgyzstan, August 30, 2021

Summary

These data show an active strike slip fault along the south edge of the Song Kul basin in the Kyrgyz Tien Shan. These data were collected using a Phantom 4 Pro v2.0 with Teokit dGPS system. All heights are ellipsoidal.

Personnel

- PI(s) *Ian Pierce, Ben Johnson, Kanatabek Abdrakhmatov, Sultan Baikulov, Erkin Rakhmedinov, Gulkaiyr Tilek Kyzy, Richard Walker, Ramon Arrowsmith, Magali Rizza,*
- Field staff
- Additional team members

Site Information

- Site description *This site is at 3300 m elevation, showing an active left-lateral strike slip fault cutting through post-glacial slope deposits.*
- Site objective *The objective was to show the faults activity and character.*
- Site location (GPS cords and/or map) *41.7306, 75.4133*
- Site conditions *Partly cloudy, fair weather*
- Date/time spent at each site *2 hours spent on one day.*

Survey Results

- Equipment used *Emlid Reach RS2 as base station & single GCP. Phantom Pro v2.0 UAS with Teokit dGPS*
- GPS solutions *1 base station/GCP used*
- Errors *0.2 m accuracy in PPP of base station, 5 cm accuracy of photo locations*
- Alignments *Spare & Dense clouds aligned using high setting.*
- Collection methods *Litchi autopilot at ~250 m above ground surface, 7.5 m/s UAS velocity, and 2s photo intervals. 1356 total photos collected*

Products

- Date of dataset collection *August 30, 2021*
- Coordinate system of datasets *WGS84*
- Spatial resolution *6 cm/pix ortho, 12 cm/pix DEM*.
- Horizontal Accuracy *0.85 m*
- Vertical Accuracy *0.85 m*
- Data formats *TIF, LAZ*
- Data processing methods *CSRS PPP processing of base location, TeoBox PPK processing of UAS locations, Agisoft Metashape processing of imagery & DEMs.*

Misc Notes

Elevations are Ellipsoidal