Metadata Report

<u>Project Name</u>   *"Survey of Northern Warm Springs Valley Fault, Doyle, CA, November 2020"*

<u>Summary</u> This is a 2.9 km long x 1.5 km wide SfM data acquisition along the northern part of the Warm Springs Valley fault in the Honey Lake basin.

Personnel

- PI(s): Ian Pierce, Colin Chupik
- Field staff: Ian Pierce, Colin Chupik

Site Information

- Site description: The site is generally flat, covered with sandy shorelines & dune features, cut by the Warm Springs Valley fault.
- Site objective: To document fine scale detail of this site and show shoreline features cut by the fault.
- Site location (GPS cords and/or map): 40.129698, -120.07163
- Site conditions: Dry/ early winter
- Date/time spent at each site: 4 hours afternoon of Nov 27 2020.

Survey Results

- Equipment used: DJI Phantom 4 Pro v2.0 with Teokit AGNSS PPK modification.
- GPS solutions: PPK corrected of camera positions to an Emlid Reach RS2. GCP and checkpoints collected with Emlid Reach RS2.
- Errors: 1 m
- Alignments
- Collection methods: 1 GCP was used with 2 check points and PPK corrections of camera positions.
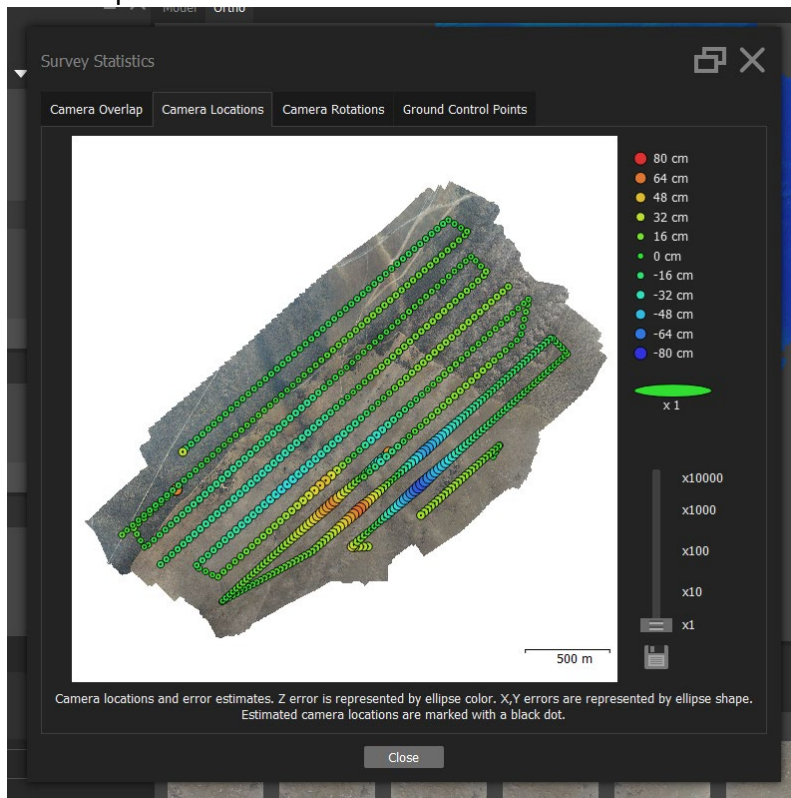
Products

- Date of dataset collection: Nov 27, 2020
- Coordinate system of datasets: NAD83(2011) UTM Zone 11N
- Spatial resolution: 8.0 cm orthoimagery & 16.0 cm DEM.
- Horizontal Accuracy: 1 m
- Vertical Accuracy:
- Data formats: TIF, LAZ
- Data processing methods: Agisoft Metashape Pro

Misc Notes

Elevations are ellipsoidal, a geoid model should be applied to determine absolute elevations.

Camera location uncertainties are < 75 cm.

Camera positions

Control Points

Control Points are orange 5 gallon bucket lids placed in the scene. Point 3 was used as a GCP to constrain the model. Points 2 and 4 are used as check points. Point 5 could not be located in the photos. Elevations are ellipsoidal.

Point Name	Longitude	Latitude	Elevation (m)	Error (m)
Point 2	-120.07637162984037	40.124492256894577	1246.7517626506024	0.65163170097841105
Point 3	-120.07960874046019	40.126849695654492	1241.5756335548176	0.51498023763979028
Point 4	-120.07329568021707	40.133131949268098	1219.4290574013157	0.96401059253667665
Point 5	-120.07228049767579	40.129356046124187	1213.4405460344819	