



Prepared data context sheet: 2010 El-Mayor Cucapah Earthquake Fault Scarp, Baja California

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In 2010, a M7.2 earthquake occurred in Southern California and Northern Mexico (epicenter approximately 40 miles south of the US-Mexico border). The surface rupture of the earthquake has been surveyed multiple times using terrestrial laser scanning (TLS) and Structure from Motion photogrammetry. This dataset is a small subsection of photos of the fault scarp. These are intended as an easy exercise for students starting out with SfM processing. The 30 images process fairly quickly to yield a point cloud. There are no ground control points (GCP) provided with the data set so the final product is not georeferenced beyond the general locations from the camera GPS.

Location: About 15 km southwest of Mexicali, Mexico (N32.484, W115.622)

Dataset Details: Data set collection by Kendra Johnson and Edwin Nissen (Colorado School of Mines)

Appropriate for exercises: Unit 1-SfM

Date collected: November 2nd 2013

Instrument: Canon PowerShot SX230 HS, flown from an Allsopp Helikite

Processing information: Images only

Complete archived dataset: Please contact kejohnso@mymail.mines.edu

Related and/or complementary datasets: OpenTopography has airborne lidar for this fault rupture (<http://opentopo.sdsc.edu/datasets?search=el%20mayor>)

References:

<http://www.opentopography.org/workshops/boulder-workshop-april-2016> (this is one of several OpenTopography and UNAVCO short courses at which this photo set was used in an introductory SfM exercise)