

2013 Balochistan earthquake, Pakistan point cloud dataset

This point cloud dataset covers a 5 km wide swath along an approximately 240 km long section of the 2013 Balochistan earthquake rupture in Pakistan. Point cloud data produced from 13 stereo data sets of 0.5 m resolution, panchromatic Pleiades images acquired by Airbus (funded by NERC, UK). The images were processed using the LPS module of the ERDAS Imagine 2013 software (version 13.00.00, Build 281). A pixel-by-pixel matching procedure was implemented with a window size of 5-by-5 pixels and a correlation coefficient of 0.3 to 0.7

Details of Pleiades images:

id	date	orientation	incidence		point density (pts/m ²)
			across track	along track	
1	15/03/2014	180.04	-0.7	-13.0	0.93
		180.04	-5.6	8.6	
2	21/03/2014	180.03	-11.6	-8.6	1.20
		180.03	-14.1	2.6	
3	21/03/2014	180.03	-12.0	-13.0	1.09
		180.03	-14.5	-2.0	
4	28/03/2014	180.02	-10.9	11.7	0.99
		180.00	-6.4	-7.8	
5	05/04/2014	179.98	17.1	-4.1	0.99
		179.95	14.6	8.8	
6	28/03/2014	180.03	-6.7	-12.0	0.74
		180.03	-11.2	7.3	
7	05/04/2014	180.00	16.8	-8.7	1.00
		180.00	14.2	4.2	
8	28/03/2014	180.01	-8.5	-15.5	0.79
		180.03	-12.9	3.8	
9	29/03/2014	179.98	6.9	-7.8	0.62
		180.01	1.5	16.7	
10	29/03/2014	180.01	6.9	-12.6	0.79
		180.03	1.4	12.1	
11	15/03/2014	179.99	-10.5	-10.7	1.75
		180.07	-15.5	11.0	
12	15/03/2014	180.00	-10.1	-15.2	1.51
		180.05	-15.0	6.3	
13	29/03/2014	180.00	5.2	-13.2	0.67
		180.04	-0.3	11.4	

For further details see:

Zhou, Y., J. R. Elliott, B. Parsons, and R. T. Walker (2015), The 2013 Balochistan earthquake: An extraordinary or completely ordinary event?, *Geophysical Research Letters*, 43(7), 3134-3142, doi:10.1002/2015GL065096