

Agisoft PhotoScan

Processing Report

25 September 2015



Survey Data

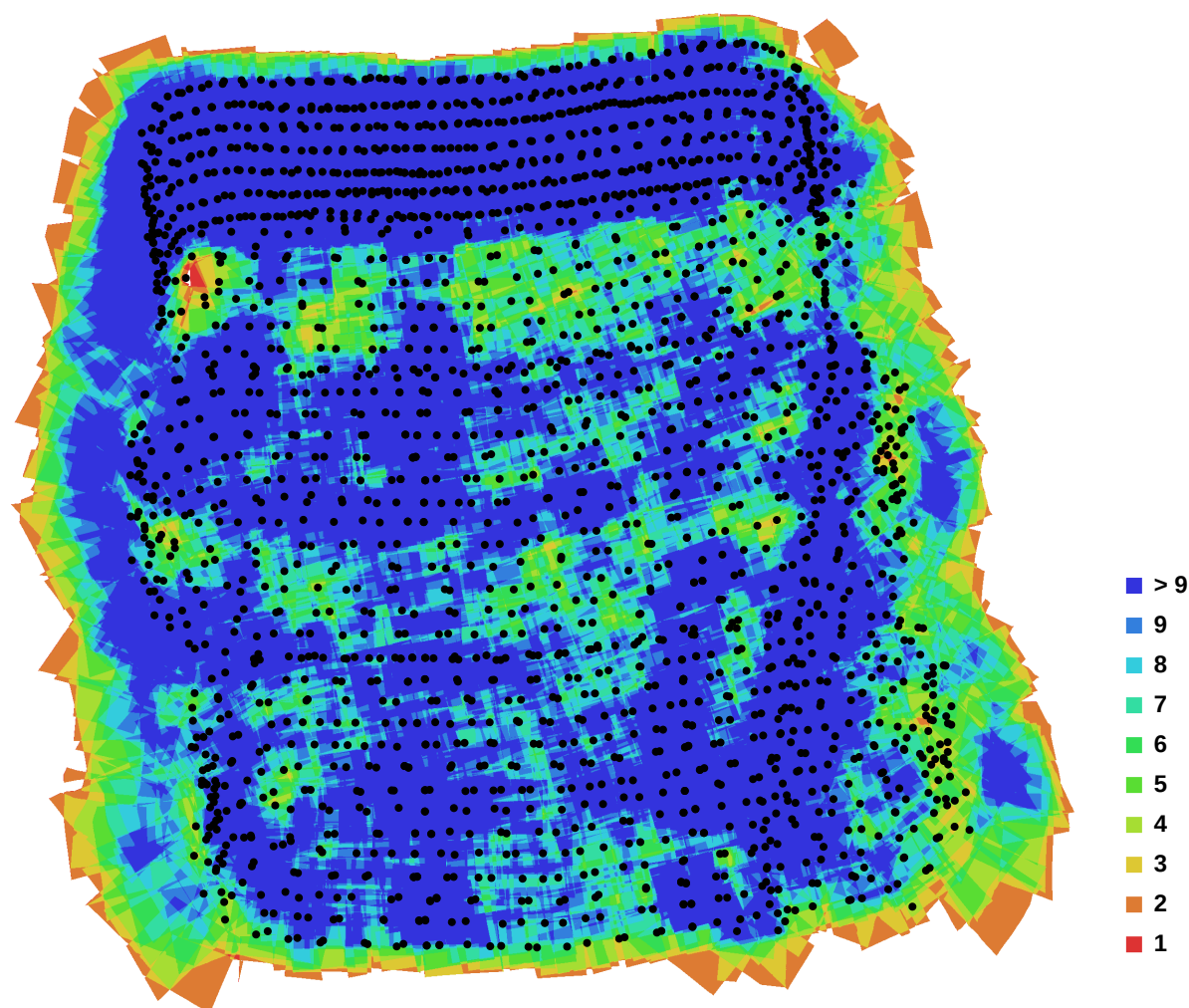


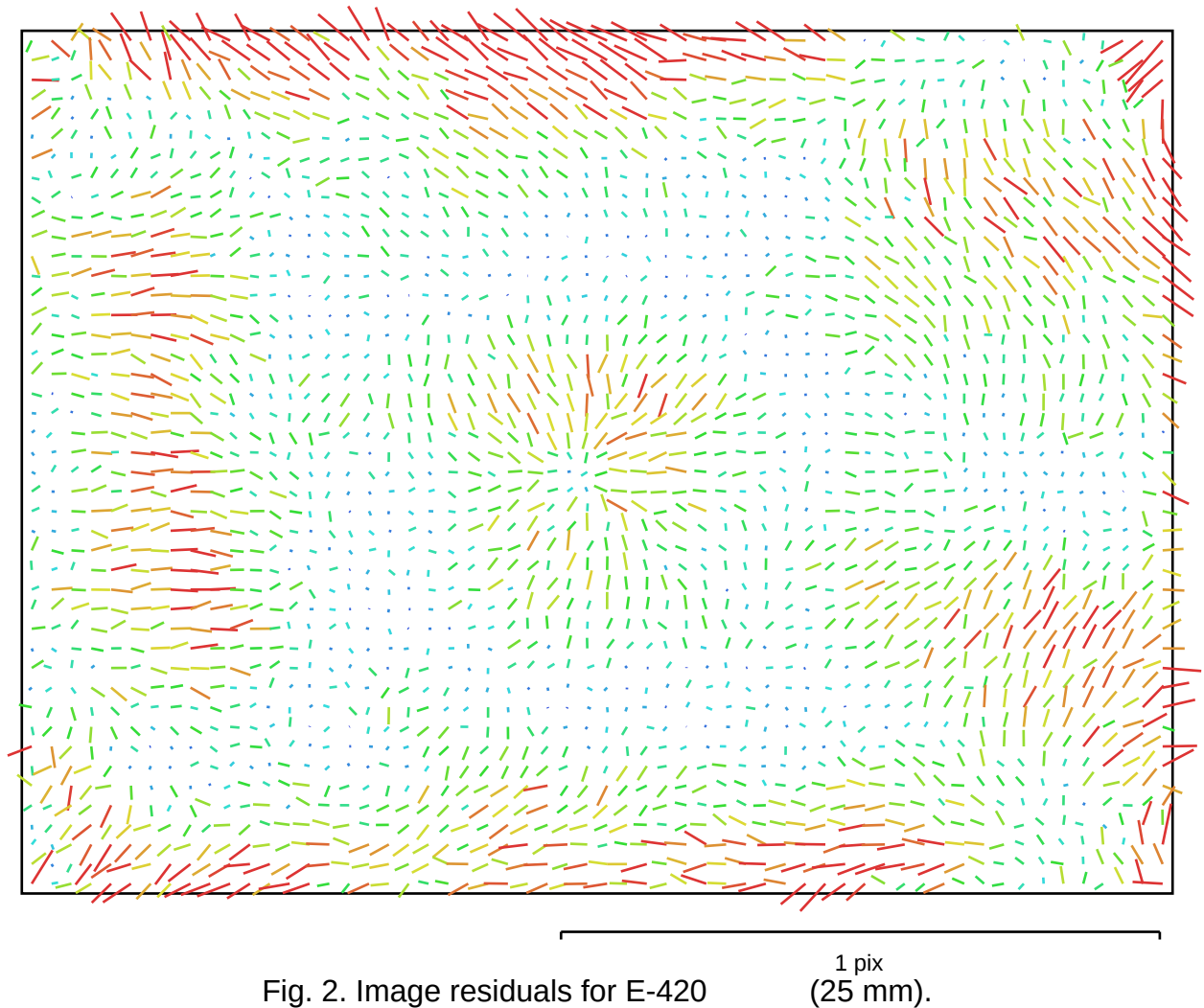
Fig. 1. Camera locations and image overlap.

Number of images:	2288	Camera stations:	2288
Flying altitude:	155.262 m	Tie-points:	10689768
Ground resolution:	0.0287961 m/pix	Projections:	45761493
Coverage area:	2.04617 sq km	Error:	0.729299 pix

Camera Model		Resolution	Focal Length	Pixel Size	Precalibrated
E-420	(25 mm)	3648 x 2736	25 mm	unknown	No
E-420	(25 mm)	3648 x 2736	25 mm	unknown	No
E-420	(25 mm)	3648 x 2736	25 mm	unknown	No

Table. 1. Cameras.

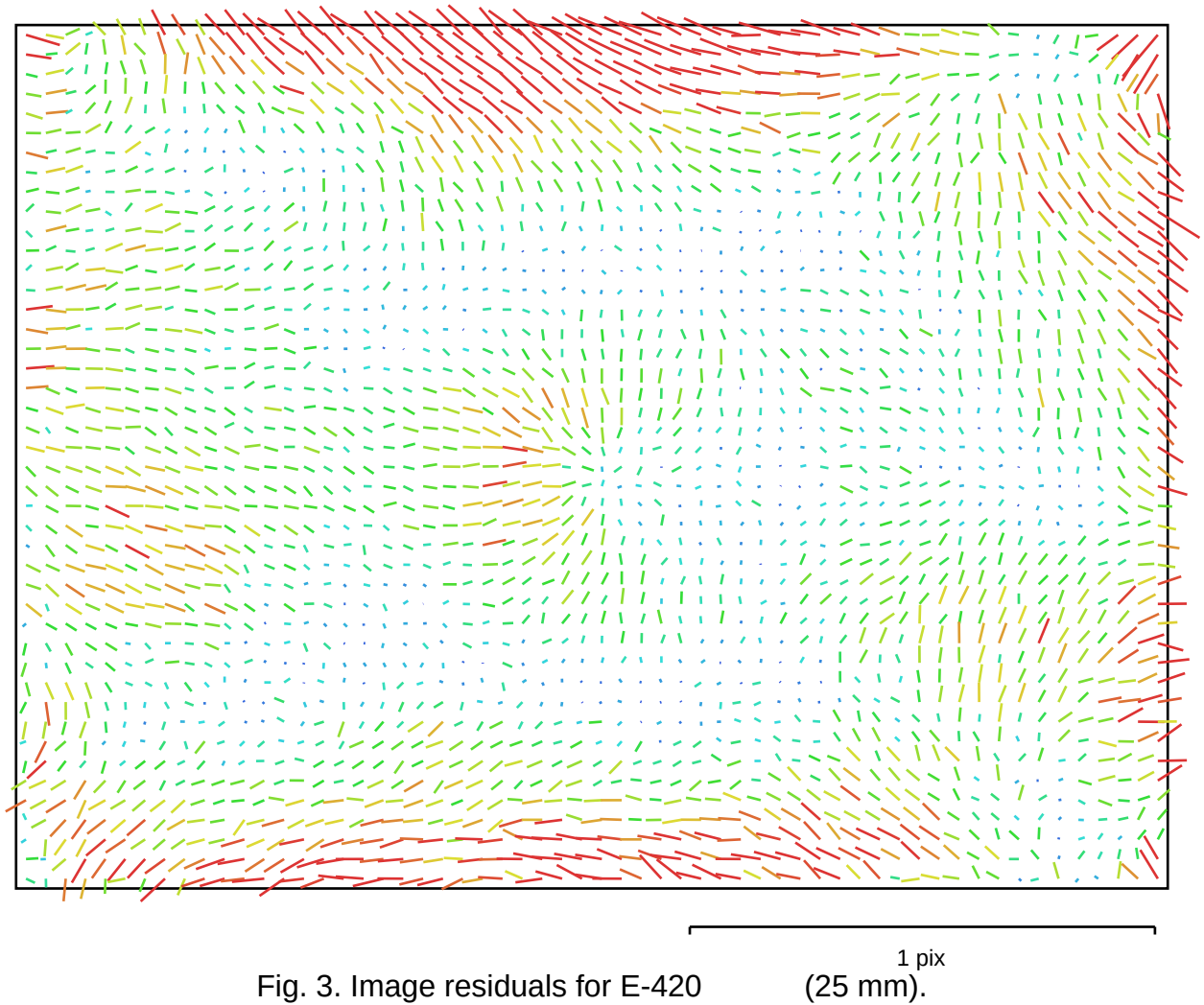
Camera Calibration



E-420 **(25 mm)**

Type:	Frame	K1:	-0.181146
Fx:	5287.34	K2:	0.213969
Fy:	5289.08	K3:	-0.355536
Cx:	1826.39	K4:	0
Cy:	1390.29	P1:	2.02891e-005
Skew:	3.50148	P2:	-4.27304e-005

Camera Calibration



E-420 **(25 mm)**

Type:	Frame	K1:	-0.181453
Fx:	5291.76	K2:	0.215388
Fy:	5292.46	K3:	-0.360383
Cx:	1816.79	K4:	0
Cy:	1389.34	P1:	8.46809e-005
Skew:	3.17295	P2:	1.82192e-005

Camera Calibration

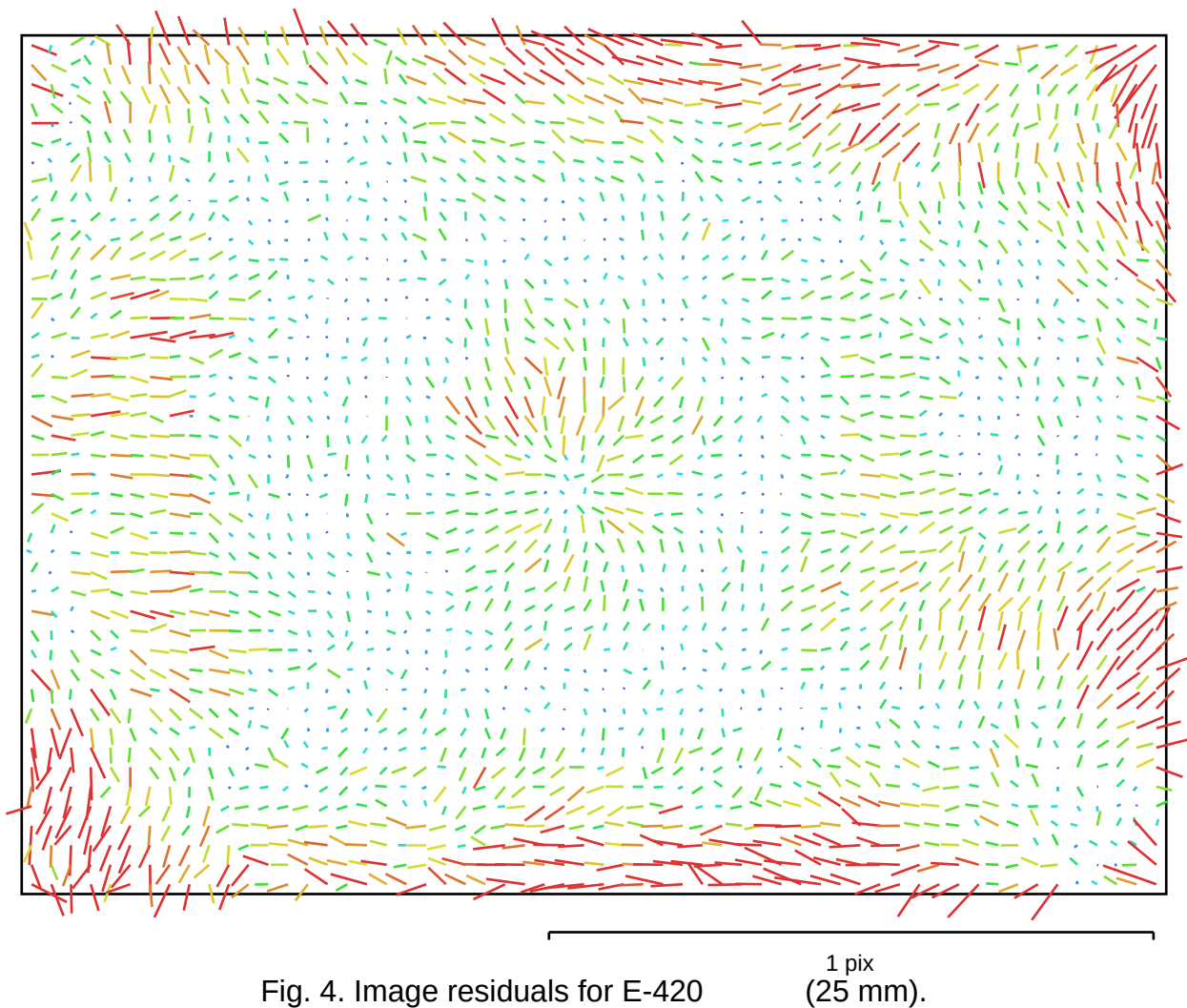


Fig. 4. Image residuals for E-420 (25 mm).

E-420 (25 mm)

Type:	Frame	K1:	-0.181338
Fx:	5286.37	K2:	0.219302
Fy:	5287.61	K3:	-0.374134
Cx:	1829.48	K4:	0
Cy:	1385.98	P1:	0.000140711
Skew:	3.49873	P2:	-4.89421e-005

Ground Control Points

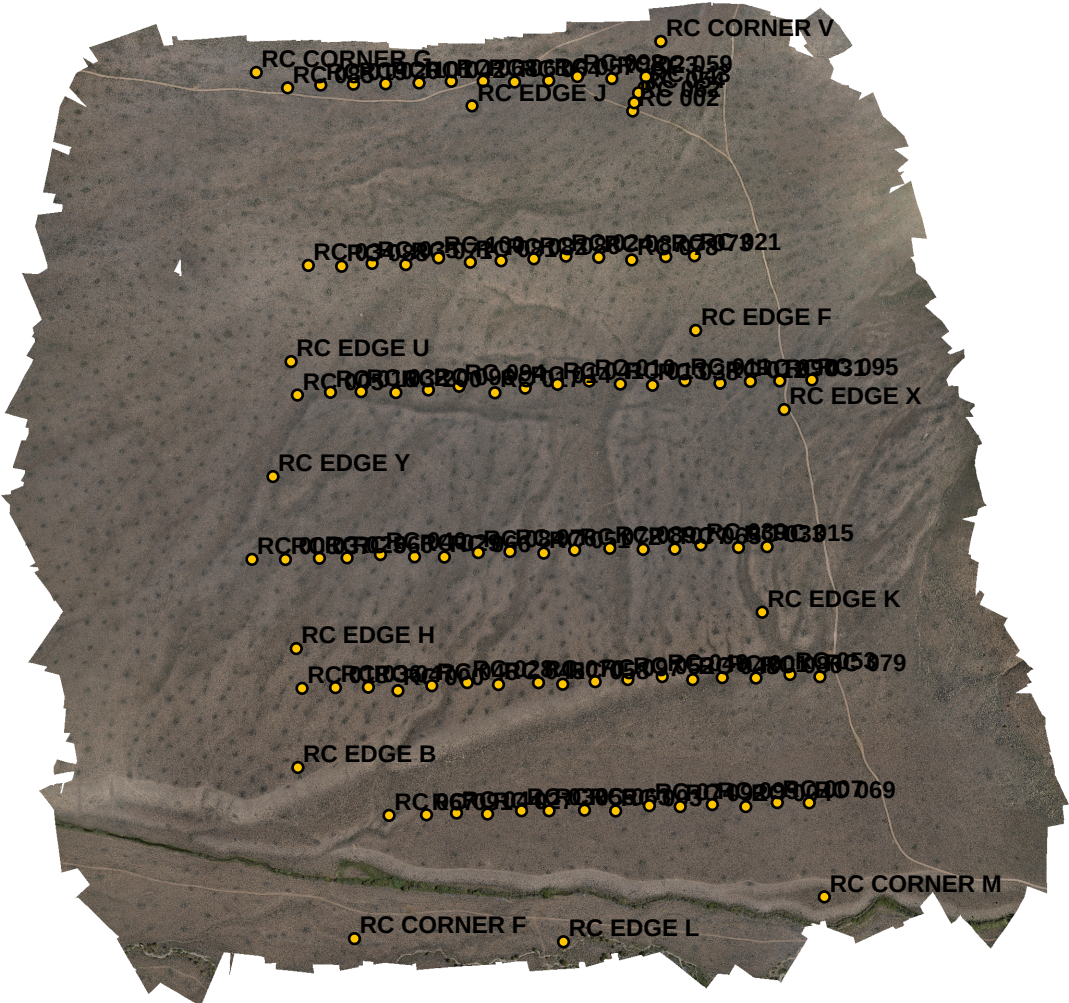


Fig. 5. GCP locations.

Label	X error (m)	Y error (m)	Z error (m)	Error (m)	Projections	Error (pix)
RC 000	-0.110733	-0.061998	0.005541	0.127028	9	1.521651
RC 001	0.040955	-0.052678	-0.056065	0.087153	7	1.221926
RC 002	0.022955	0.053320	-0.008573	0.058681	18	0.470023
RC 003	0.052023	-0.046760	-0.014093	0.071354	7	0.515911
RC 004	-0.092440	0.094582	0.140591	0.193020	7	1.150363
RC 005	-0.039044	0.050841	-0.004676	0.064274	9	0.469380
RC 006	-0.039994	-0.051720	0.035546	0.074418	8	0.506411
RC 007	0.070002	-0.068938	-0.067055	0.118950	11	0.672890
RC 010	0.020129	-0.068468	0.025390	0.075748	9	0.470381
RC 011	-0.034371	-0.031186	-0.030159	0.055349	11	0.678416

Label	X error (m)	Y error (m)	Z error (m)	Error (m)	Projections	Error (pix)
RC 012	-0.011176	-0.022007	-0.013487	0.028127	10	0.530904
RC 013	0.012320	-0.053751	-0.042446	0.069589	8	0.390196
RC 014	0.063218	0.020505	-0.003919	0.066576	12	0.303793
RC 015	0.039215	0.010239	0.002985	0.040639	8	0.243190
RC 016	0.044974	-0.027378	-0.015842	0.054984	11	0.411929
RC 017	0.048148	0.017200	0.005858	0.051462	10	0.415368
RC 018	-0.042069	0.034847	0.078373	0.095532	8	0.989371
RC 019	0.004210	-0.010421	-0.000641	0.011257	20	0.557941
RC 020	0.077885	-0.007136	0.009881	0.078832	18	0.426102
RC 021	0.024232	-0.013833	0.049957	0.057221	10	1.503484
RC 023	-0.028619	-0.021547	-0.006753	0.036454	19	0.488562
RC 024	-0.010328	0.022116	-0.013641	0.027961	7	0.287212
RC 025	-0.025095	-0.045825	0.032468	0.061513	8	0.422165
RC 027	-0.026472	-0.072242	-0.016788	0.078750	11	0.582202
RC 028	0.009475	0.060718	0.025179	0.066411	10	0.853790
RC 029	0.032840	0.034319	0.095267	0.106452	9	0.868146
RC 030	0.087549	0.046399	0.089272	0.133369	8	0.681815
RC 031	-0.014679	0.024668	0.027945	0.040061	5	0.402827
RC 032	0.016161	0.072884	0.023958	0.078405	14	0.680350
RC 033	-0.027176	0.083575	0.012446	0.088759	8	0.408674
RC 034	0.038145	-0.102305	0.039523	0.116118	10	0.515283
RC 035	0.044985	-0.061114	0.009530	0.076481	6	0.334266
RC 036	-0.056937	0.097952	-0.018968	0.114875	7	0.353594
RC 037	-0.023138	0.039205	-0.007668	0.046165	7	0.285877
RC 038	0.096345	-0.002665	-0.027555	0.100244	8	1.295345
RC 039	-0.042064	0.011635	0.066913	0.079888	12	0.822489
RC 040	0.087771	-0.000998	0.023541	0.090879	10	0.547869
RC 041	0.047741	0.070289	-0.001248	0.084978	8	0.279481
RC 042	-0.108430	-0.040178	-0.006252	0.115804	19	0.765895
RC 043	0.004064	0.109334	-0.034262	0.114649	19	1.353595
RC 044	0.043614	0.001905	-0.044362	0.062240	12	0.680726
RC 045	-0.115098	0.051353	0.037330	0.131446	9	0.859297
RC 046	0.082683	0.029478	-0.054332	0.103235	9	0.564514

Label	X error (m)	Y error (m)	Z error (m)	Error (m)	Projections	Error (pix)
RC 047	0.016470	-0.043922	-0.048601	0.067545	10	0.593081
RC 048	-0.016177	-0.032540	-0.036307	0.051369	11	0.936163
RC 049	0.083801	0.167340	0.102619	0.213438	15	1.754048
RC 051	0.032413	-0.022311	-0.070506	0.080744	4	0.810582
RC 052	-0.079034	-0.021686	-0.043079	0.092587	7	0.692484
RC 053	-0.011651	-0.037565	-0.018781	0.043585	11	1.292115
RC 054	0.017860	-0.076361	0.018281	0.080525	21	0.767927
RC 055	0.063534	0.063604	-0.033303	0.095870	9	0.625443
RC 057	0.013789	0.004359	0.009469	0.017286	16	0.440201
RC 058	-0.026830	-0.115731	0.010650	0.119277	7	0.448251
RC 059	-0.026597	0.035079	0.025470	0.050859	20	0.561520
RC 060	0.004364	0.015556	-0.002388	0.016333	8	0.408929
RC 061	-0.019584	0.012685	-0.032466	0.039981	16	0.534430
RC 062	-0.023790	0.028434	0.005637	0.037500	18	0.458690
RC 063	-0.040601	0.050048	0.016387	0.066497	9	0.455434
RC 064	0.101769	-0.012129	0.056951	0.117249	16	0.594439
RC 065	0.015020	-0.013226	0.017818	0.026795	11	0.712054
RC 066	0.016227	-0.040446	-0.049397	0.065873	6	0.291928
RC 067	0.055964	0.023591	0.038425	0.071868	15	1.466899
RC 068	0.062638	-0.110876	0.025527	0.129879	17	0.330149
RC 069	-0.001730	-0.051081	0.006501	0.051522	11	0.741764
RC 070	-0.043737	-0.084367	-0.062076	0.113508	9	0.843767
RC 071	-0.058475	0.020119	-0.026515	0.067284	9	0.498101
RC 072	0.001767	0.000274	0.017664	0.017754	9	0.293099
RC 073	-0.050706	-0.102792	-0.022439	0.116794	5	1.630722
RC 074	0.044395	-0.074712	-0.004724	0.087035	12	0.765251
RC 076	-0.068986	-0.011879	-0.007230	0.070374	7	0.220831
RC 077	0.027193	0.003606	0.013971	0.030784	6	0.384759
RC 078	-0.047139	-0.015804	-0.084038	0.097644	6	0.409841
RC 079	0.063834	0.045172	0.028857	0.083355	11	0.509206
RC 080	-0.058401	-0.086756	0.004180	0.104665	10	0.473721
RC 081	-0.025972	0.006781	0.048370	0.055319	5	0.560012
RC 082	0.018221	0.066264	0.000497	0.068725	6	0.342483

Label	X error (m)	Y error (m)	Z error (m)	Error (m)	Projections	Error (pix)
RC 084	-0.007365	0.103735	0.066528	0.123455	8	0.322176
RC 085	0.034329	0.039491	-0.014117	0.054197	18	0.562242
RC 086	-0.033347	0.109253	-0.061980	0.129961	7	0.416127
RC 087	-0.015701	-0.005030	0.145528	0.146459	7	0.548373
RC 088	-0.068616	0.005352	-0.037392	0.078326	5	0.307087
RC 089	-0.006277	-0.028491	0.015040	0.032823	7	0.438076
RC 090	-0.022999	-0.025901	-0.009643	0.035956	8	0.277040
RC 091	5.468173	-0.031314	7.687401	9.433876	11	480.751546
RC 092	0.038335	0.042631	-0.027963	0.063788	13	0.823871
RC 094	-0.004395	0.053669	-0.004353	0.054024	13	0.848900
RC 095	0.022762	-0.051369	0.002475	0.056240	13	0.744101
RC 096	-0.015551	0.014519	0.041725	0.046836	11	0.608201
RC 097	0.013057	-0.047783	-0.025583	0.055751	7	0.530276
RC 098	0.057162	-0.063000	-0.005939	0.085275	12	0.789315
RC 099	-0.063888	-0.019892	-0.040281	0.078102	12	1.335783
RC 100	0.022448	0.000331	0.042415	0.047990	9	1.153928
RC 101	-0.001542	0.094592	0.016510	0.096035	19	0.747836
RC 200	0.008523	-0.092801	0.014675	0.094340	13	0.788433
RC CORNER F	-0.003441	0.029218	0.008925	0.030744	9	0.894788
RC CORNER G	0.007059	-0.008784	-0.005588	0.012578	13	0.457348
RC CORNER M	0.001282	0.033088	-0.004230	0.033382	6	0.423120
RC CORNER V	0.003623	-0.041383	-0.025642	0.048818	16	0.527237
RC EDGE B	0.038993	-0.071941	-0.010856	0.082546	7	0.643584
RC EDGE F	-0.021403	0.039462	-0.033170	0.055817	10	0.738187
RC EDGE H	0.006377	0.073031	-0.046209	0.086657	12	0.469285
RC EDGE J	-0.034010	-0.040228	-0.027798	0.059563	16	0.295350
RC EDGE K	-0.024836	-0.031342	-0.042561	0.058400	10	0.915231
RC EDGE L	-0.027043	-0.007153	0.004834	0.028388	6	0.585170
RC EDGE U	-0.029401	-0.032717	-0.012511	0.045731	7	0.628828
RC EDGE X	0.047729	0.005837	-0.030698	0.057049	4	0.225227
RC EDGE Y	-0.011906	0.012354	-0.029168	0.033840	12	0.712272
Total	0.530587	0.054155	0.744263	0.915632	1120	47.649629

Table. 2. Control points.

Digital Elevation Model

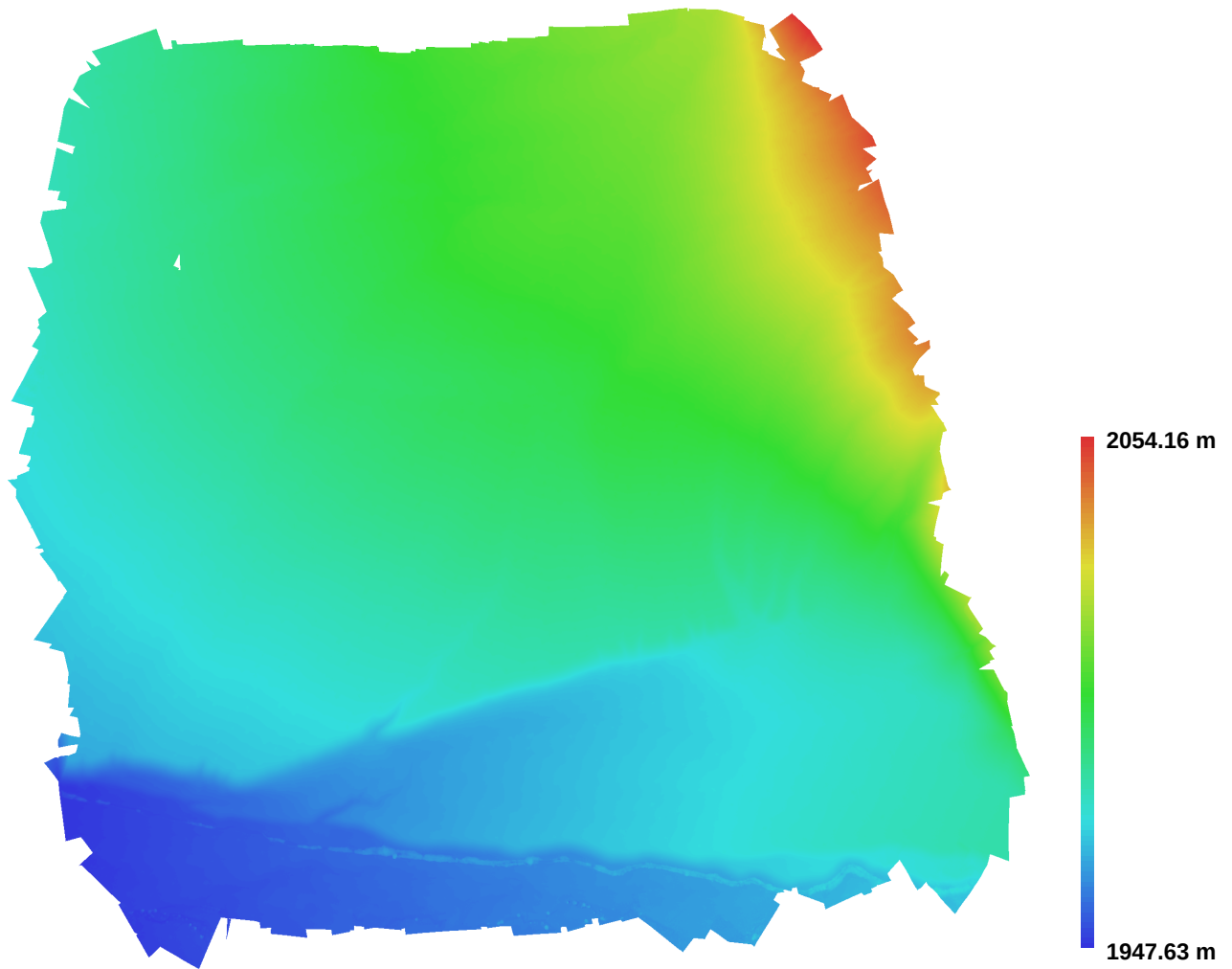


Fig. 6. Reconstructed digital elevation model.

Resolution: 0.115185 m/pix
Point density: 75.3722 points per sq m