

Supplementary Materials

Table S1. Metrics and values used for statistical analysis of RGB imagery.

Keypoint Scale	Image Scale for Point Cloud Densification	Ground Sample Distance	<u>Absolute Geolocation Error %</u>			Calibrated Images %	Median Matches/ Calibrated Image	Number 2D Keypoints Observed for Bundle Block	Number of 3D Points for Bundle Block	Mean Reprojection Error	Number of 3D Densified Points (Point Cloud Densification)	Average Density per pixel (Point Cloud Densification)
			X error	Y error	Z error							
0.125	0.125	2.62	0.001659	0.0014	0.0096	0.67	192.892	92672	31751	0.067	2428081	15.74
0.125	0.25	2.62	0.001658	0.001399	0.009567	0.67	192.055	92685	31754	0.067	9769915	47.02
0.125	0.5	2.62	0.001659	0.001399	0.009566	0.67	192.892	92688	31754	0.067	38948829	108.43
0.125	1	2.62	0.001658	0.001398	0.009557	0.67	192.055	92692	31755	0.067	153741726	542.6
0.25	0.125	2.61	0.005641	0.004292	0.021589	0.90	1261.24	650205	198963	0.107	2978517	15.87
0.25	0.25	2.61	0.005641	0.004292	0.021598	0.90	1261.24	650205	198963	0.107	12019989	47.56
0.25	0.5	2.61	0.005641	0.004292	0.021589	0.90	1261.24	650205	198963	0.107	48393916	103.92
0.25	1	2.61	0.005641	0.004292	0.021589	0.90	1261.24	650205	198963	0.107	203437805	536.93
0.5	0.125	2.61	0.015259	0.013197	0.045039	0.96	4524.08	2508446	759027	0.156	3112403	16.01
0.5	0.25	2.61	0.015261	0.013197	0.045039	0.96	4524.08	2508446	759027	0.156	12544757	47.1
0.5	0.5	2.61	0.015261	0.013197	0.045039	0.96	4524.08	2508446	759027	0.156	50313680	103.61
0.5	1	2.61	0.015261	0.013197	0.045039	0.96	4524.08	2508446	759027	0.156	211460294	490.84
1	0.125	2.61	0.028358	0.024908	0.063229	0.93	16857	8885699	2886589	0.25	3140256	16.43
1	0.25	2.61	0.0288342	0.024915	0.063215	0.93	16857.5	8885707	2886599	0.25	12494206	47.86
1	0.5	2.61	0.028422	0.024921	0.063253	0.93	16871.1	8885842	2886685	0.25	49862123	105.32
1	1	2.61	0.028374	0.02491	0.063199	0.93	16870.9	8885933	2886678	0.25	203864768	513.7
2	0.125	2.6	0.032985	0.03065	0.062543	0.89	19852	9530631	3351959	0.286	2953684	16.34
2	0.25	2.6	0.033106	0.029663	0.063623	0.90	20653.6	9780337	3429682	0.289	11965292	45.29
2	0.5	2.6	0.030329	0.030826	0.059621	0.91	18140.8	9280906	3295844	0.285	47137979	103.35
2	1	2.6	0.033411	0.029289	0.056003	0.90	19793	9587585	3365478	0.289	199839073	496.5

Table S2. Metrics and values used for statistical analysis of multispectral imagery.

Keypoint Scale	Image Scale for Point Cloud Densification	Ground Sample Distance	Absolute Geolocation Error %			Calibrated Images %	Median Matches/ Calibrated Image	Number 2D Keypoints Observed for Bundle Block	Number of 3D Points for Bundle Block	Mean Reprojection Error	Number of 3D Densified Points (Point Cloud Densification)	Average Density per pixel (Point Cloud Densification)
			X error	Y error	Z error							
0.125	0.125	NA	NA	NA	NA	NA	3.21776	NA	NA	NA	NA	NA
0.125	0.25	NA	NA	NA	NA	NA	3.21444	NA	NA	NA	NA	NA
0.125	0.5	NA	NA	NA	NA	NA	3.21444	NA	NA	NA	NA	NA
0.125	1	NA	NA	NA	NA	NA	3.21444	NA	NA	NA	NA	NA
0.25	0.125	8.36	1.102952	1.132032	1.737408	50	106.94	78053	21922	0.12	216272	0.5
0.25	0.25	8.36	1.102292	1.132846	1.736881	50	106.741	78027	21921	0.12	793605	1.57
0.25	0.5	8.37	1.103006	1.131635	1.740186	50	106.94	78063	21922	0.12	3282812	4.79
0.25	1	8.37	1.102904	1.36190	1.740873	50	106.924	78044	21921	0.12	12902560	17.96
0.5	0.125	8.51	1.213248	1.338146	1.847495	80	349.429	419496	107584	0.184	304710	0.5
0.5	0.25	8.51	1.213248	1.338146	1.847495	80	349.429	419496	107584	0.184	1117272	1.5
0.5	0.5	8.51	1.212888	1.338466	1.846932	80	349.247	419524	107586	0.184	4666308	5.29
0.5	1	8.51	1.212888	1.338466	1.846932	80	349.247	419524	107586	0.184	18501910	21.07
1	0.125	8.52	1.439839	1.513186	1.937688	89	1333.0	1656753	439448	0.258	336061	0.51
1	0.25	8.51	1.444215	1.514283	1.939290	89	1333.2	1656759	439458	0.258	1202580	1.6
1	0.5	8.51	1.445316	1.513708	1.939141	89	1333.2	1656806	439462	0.258	5007152	5.67
1	1	8.51	1.44725	1.511287	1.939723	89	1333.28	1658750	439458	0.258	19778641	20
2	0.125	8.55	1.931042	2.097072	2.607874	86	2579.6	3222340	1061041	0.333	3140109	0.51
2	0.25	8.55	1.935223	2.099627	2.609044	86	2579.96	3222559	1061125	0.333	1126872	1.53
2	0.5	8.55	1.935223	2.099627	2.609044	86	2579.96	3222559	1061125	0.333	4616559	5.6
2	1	8.54	1.932778	2.099244	2.609041	86	2580.29	3222513	1061125	0.333	18208697	19.85