Agisoft Metashape

Processing Report
03 July 2024

Survey Data

	> 9
	9
	8
	7
	6
	5
	4
	3
	2
	1

20 cm
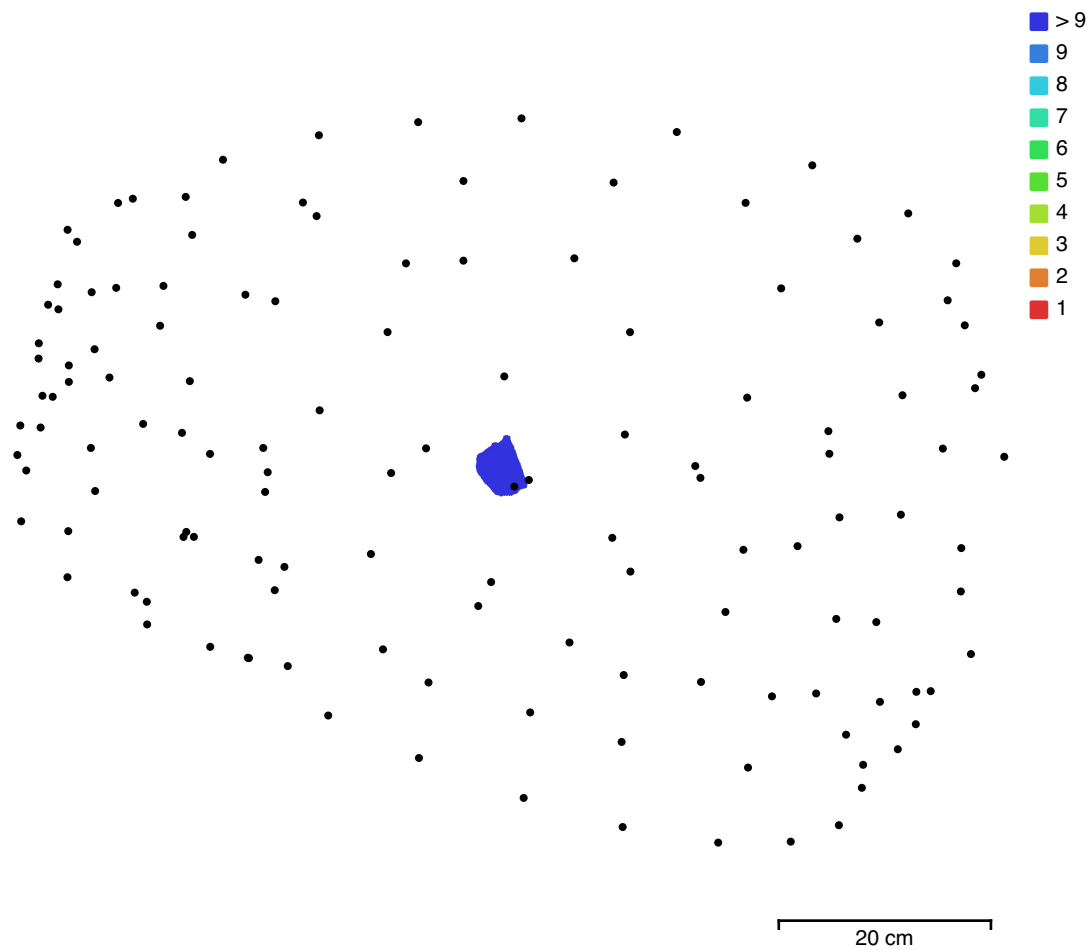
Fig. 1. Camera locations and image overlap.

Number of images:	132	Camera stations:	132
Flying altitude:	44.2 cm	Tie points:	113,352
Ground resolution:	0.0279 mm/pix	Projections:	335,497
Coverage area:	18.2 cm²	Reprojection error:	0.569 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
DMC-G7 (60mm)	4592 x 2584	60 mm	3.79 x 3.79 μm	No
DMC-G7 (60mm)	4592 x 2584	60 mm	3.79 x 3.79 μm	No

Table 1. Cameras.

Camera Calibration
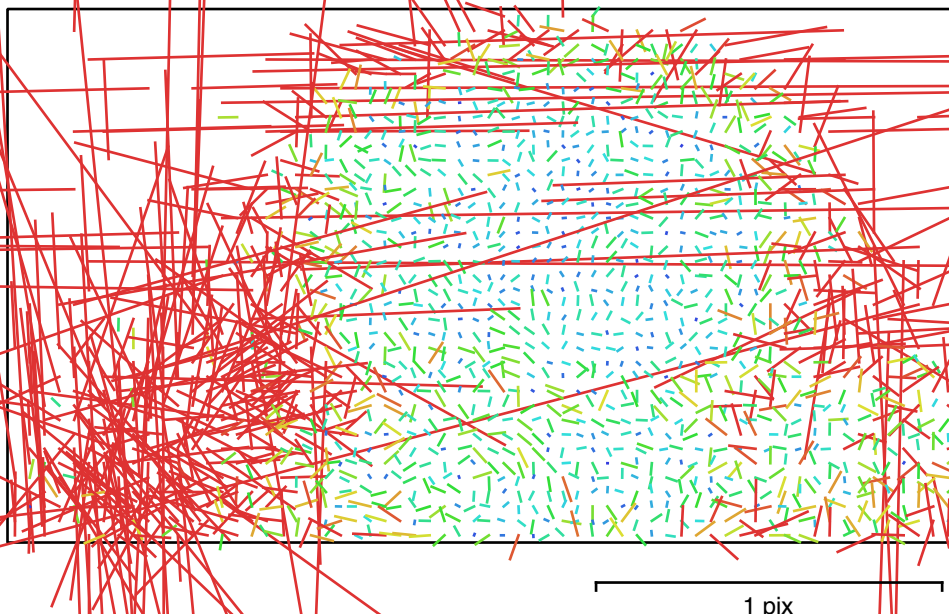
Fig. 2. Image residuals for DMC-G7 (60mm).

1 pix

DMC-G7 (60mm)

71 images

Type	Resolution	Focal Length	Pixel Size
Frame	**4592 x 2584**	**60 mm**	**3.79 x 3.79 µm**

	Value	Error	K1	P1	P2
F	**15831.7**				
K1	**0.084866**	0.0011	1.00	-0.30	-0.05
P1	**0.00367041**	7.6e-05		1.00	-0.02
P2	**-0.0053754**	7.7e-05			1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Calibration
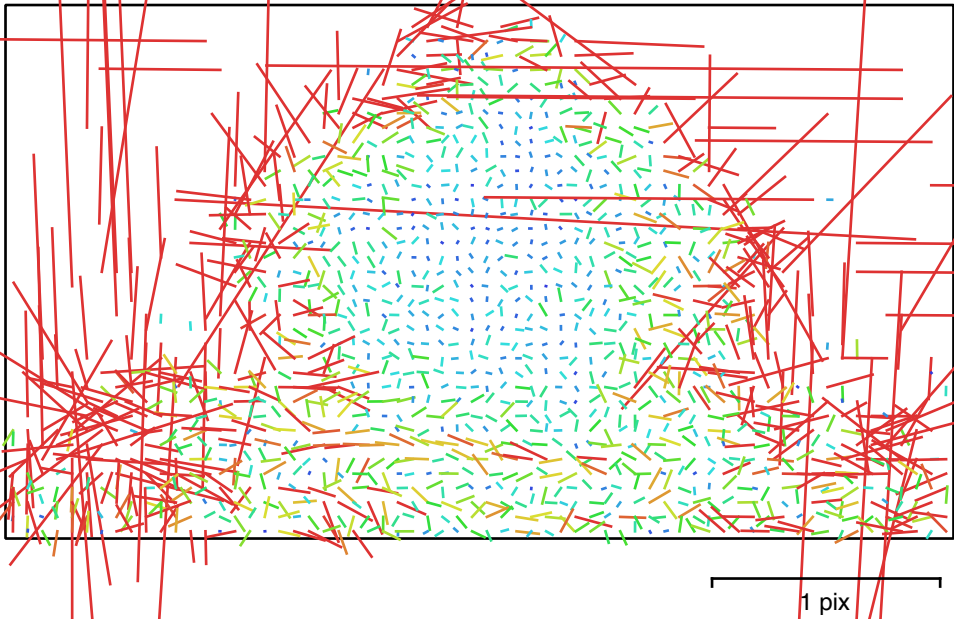
Fig. 3. Image residuals for DMC-G7 (60mm).

DMC-G7 (60mm)

61 images

Type	Resolution	Focal Length	Pixel Size
Frame	**4592 x 2584**	**60 mm**	**3.79 x 3.79 µm**

	Value	Error	K1	P1	P2
F	**15831.7**				
K1	**0.0122011**	0.0026	1.00	-0.18	-0.35
P1	**-0.00264598**	0.00022		1.00	0.10
P2	**-0.0031516**	0.00025			1.00

Table 3. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
point 1_point 2	0.05	-1.65395e-13
Total		**1.65395e-13**

Table 4. Control scale bars.

Digital Elevation Model
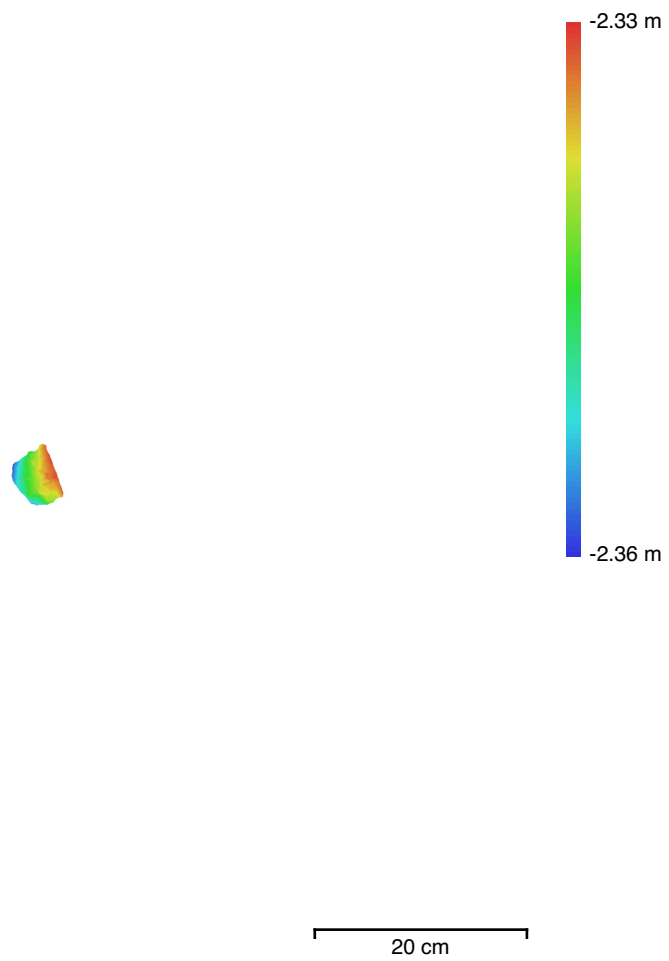

Fig. 4. Reconstructed digital elevation model.

Resolution: 0.0743 mm/pix

Point density: 181 points/mm²

Processing Parameters

General

Images	132
Aligned images	132
Markers	2
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	113,352 of 157,809
RMS reprojection error	0.170881 (0.568696 pix)
Max reprojection error	0.770319 (18.0944 pix)
Mean key point size	2.49998 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	3.31758
File size	11.05 MB

Depth Maps

Count	132

Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	5 minutes 52 seconds
Memory usage	1.81 GB
Date created	2024:06:30 18:48:04
Software version	2.1.1.17821
File size	72.43 MB

Model

Faces	1,479,690
Vertices	739,857
Vertex colors	3 bands, uint8
Texture	8,192 x 8,192 x 2, 4 bands, uint8

Texturing parameters

Mapping mode	Generic
Blending mode	Mosaic
Texture size	8,192
Enable hole filling	Yes
Enable ghosting filter	Yes
UV mapping time	1 minutes 17 seconds
UV mapping memory usage	2.68 GB
Blending time	9 minutes 44 seconds
Blending memory usage	9.27 GB
File size	146.38 MB

System

Software name	Agisoft Metashape Professional
Software version	2.1.2 build 18358
OS	Mac OS 64 bit
RAM	8.00 GB
CPU	
GPU(s)	Apple M1