

Agisoft Metashape

Processing Report

27 June 2024



Survey Data

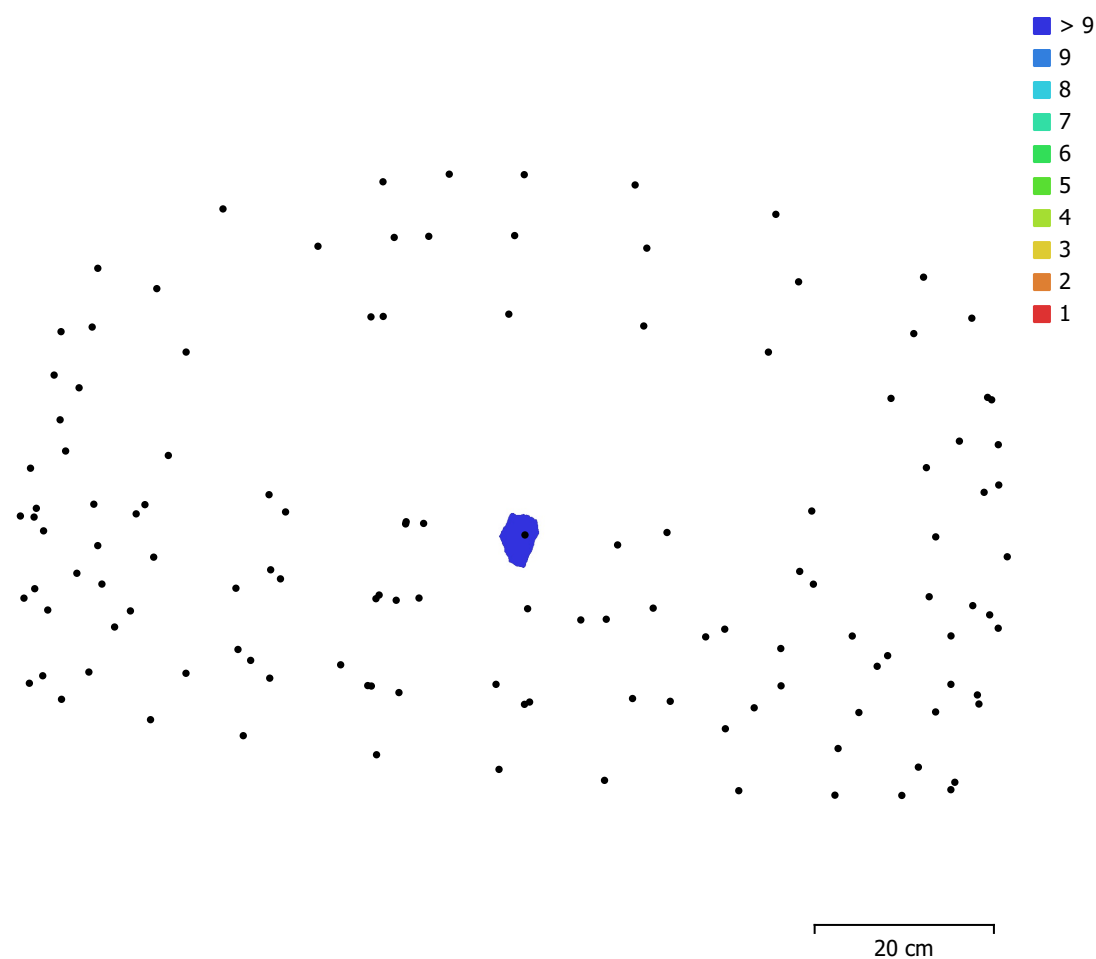


Fig. 1. Camera locations and image overlap.

Number of images:	127	Camera stations:	127
Flying altitude:	53.5 cm	Tie points:	328,355
Ground resolution:	0.0338 mm/pix	Projections:	994,537
Coverage area:	18.4 cm ²	Reprojection error:	0.505 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

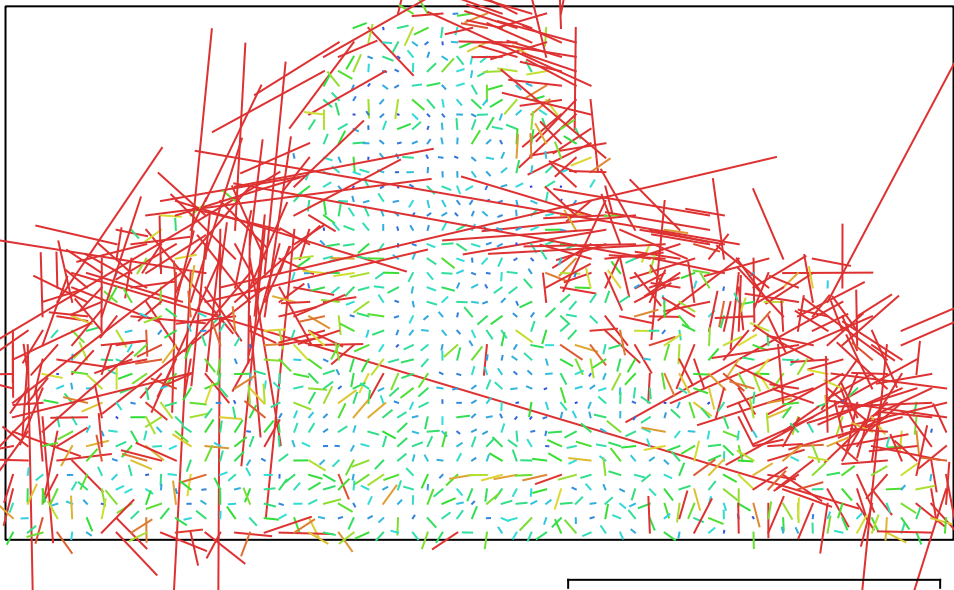


Fig. 2. Image residuals for DMC-G7 (60mm).

DMC-G7 (60mm)

65 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	0.0946224	0.0011	1.00	0.35	0.02
P1	0.00235135	4.4e-05		1.00	0.03
P2	-0.00265409	7.5e-05			1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Calibration

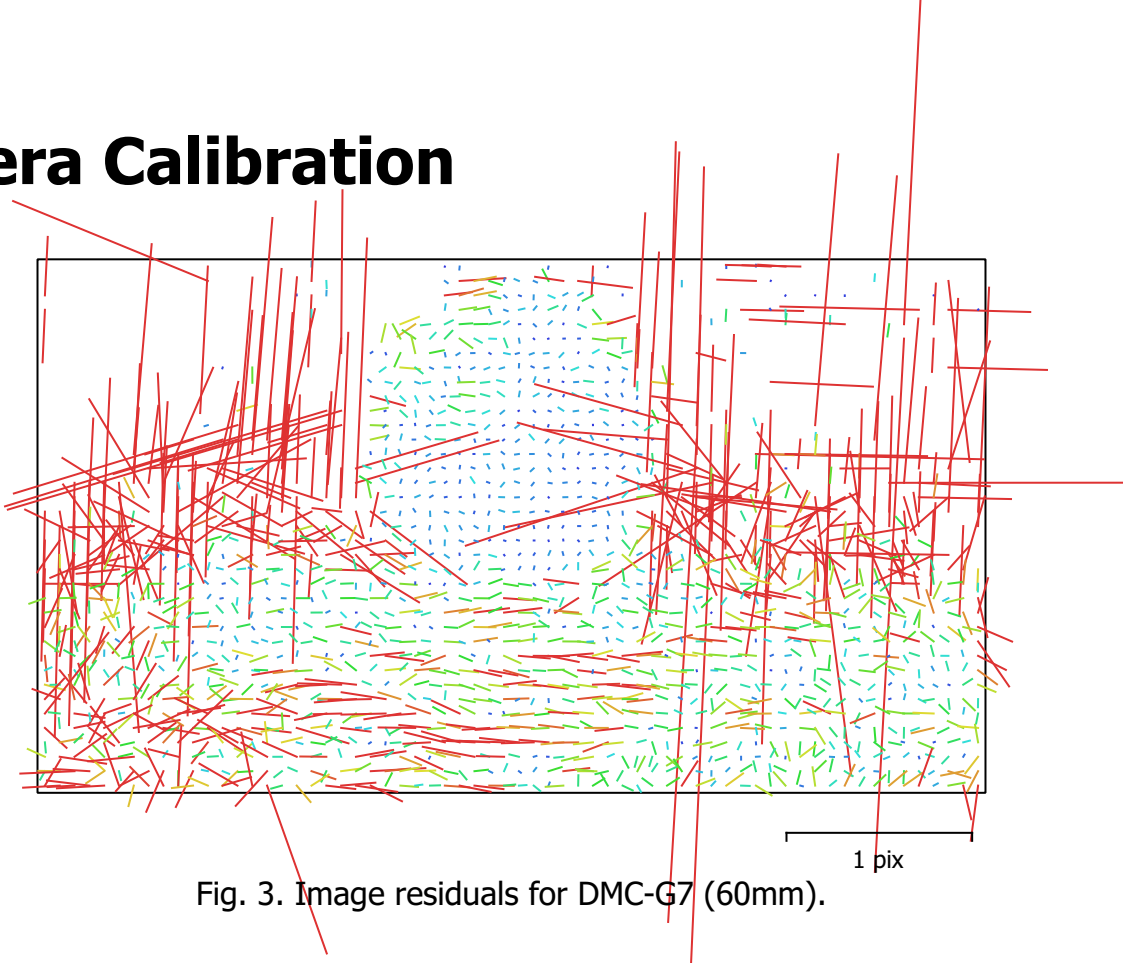


Fig. 3. Image residuals for DMC-G7 (60mm).

DMC-G7 (60mm)

62 images

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

	Value	Error	P1	P2
F	15831.7			
P1	0.0124406	0.00024	1.00	0.10
P2	0.00568811	0.00023		1.00

Table 3. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
point 1_point 2	0.05	5.34295e-16
Total		5.34295e-16

Table 4. Control scale bars.

Digital Elevation Model

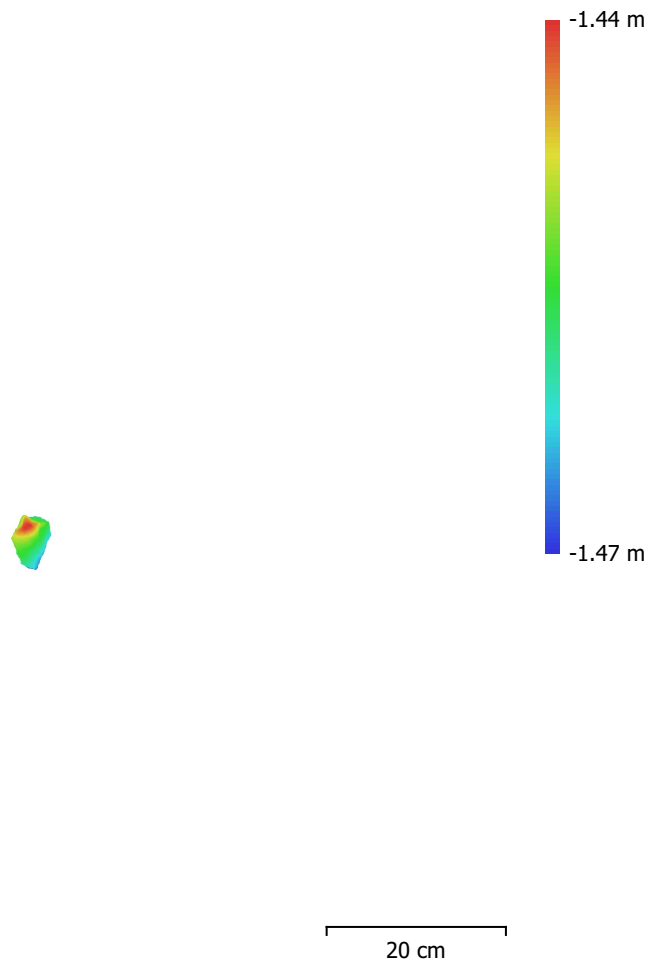


Fig. 4. Reconstructed digital elevation model.

Resolution: 0.583 mm/pix
Point density: 2.94 points/mm²

Processing Parameters

General

Cameras	127
Aligned cameras	127
Markers	4
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	328,355 of 426,686
RMS reprojection error	0.221759 (0.505472 pix)
Max reprojection error	1.23019 (17.8173 pix)
Mean key point size	2.12619 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	3.14711
File size	39.47 MB

Depth Maps

Count	127
Depth maps generation parameters	
Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	53 seconds
Memory usage	1.07 GB
Date created	2024:06:27 13:59:17
Software version	1.8.4.14671
File size	10.25 MB

Model

Faces	12,140
Vertices	6,074
Vertex colors	3 bands, uint8
Texture	16,000 x 16,000 x 2, 4 bands, uint8

Depth maps generation parameters

Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	53 seconds
Memory usage	1.07 GB

Reconstruction parameters

Surface type	Arbitrary
Source data	Depth maps
Interpolation	Enabled
Strict volumetric masks	No
Processing time	9 seconds
Memory usage	746.62 MB

Texturing parameters

Mapping mode	Generic
Blending mode	Mosaic
Texture size	16,000
Enable hole filling	Yes

Enable ghosting filter	Yes
UV mapping time	11 seconds
UV mapping memory usage	629.19 MB
Blending time	1 minutes 19 seconds
Blending memory usage	12.35 GB
Blending GPU memory usage	11.89 GB
Date created	2024:06:27 13:59:27
Software version	1.8.4.14671
File size	186.58 MB

System

Software name	Agisoft Metashape Professional
Software version	1.8.4 build 14671
OS	Windows 64 bit
RAM	127.71 GB
CPU	Intel(R) Core(TM) i9-10940X CPU @ 3.30GHz
GPU(s)	Quadro RTX 5000