

Agisoft Metashape

Processing Report

03 July 2024



Survey Data

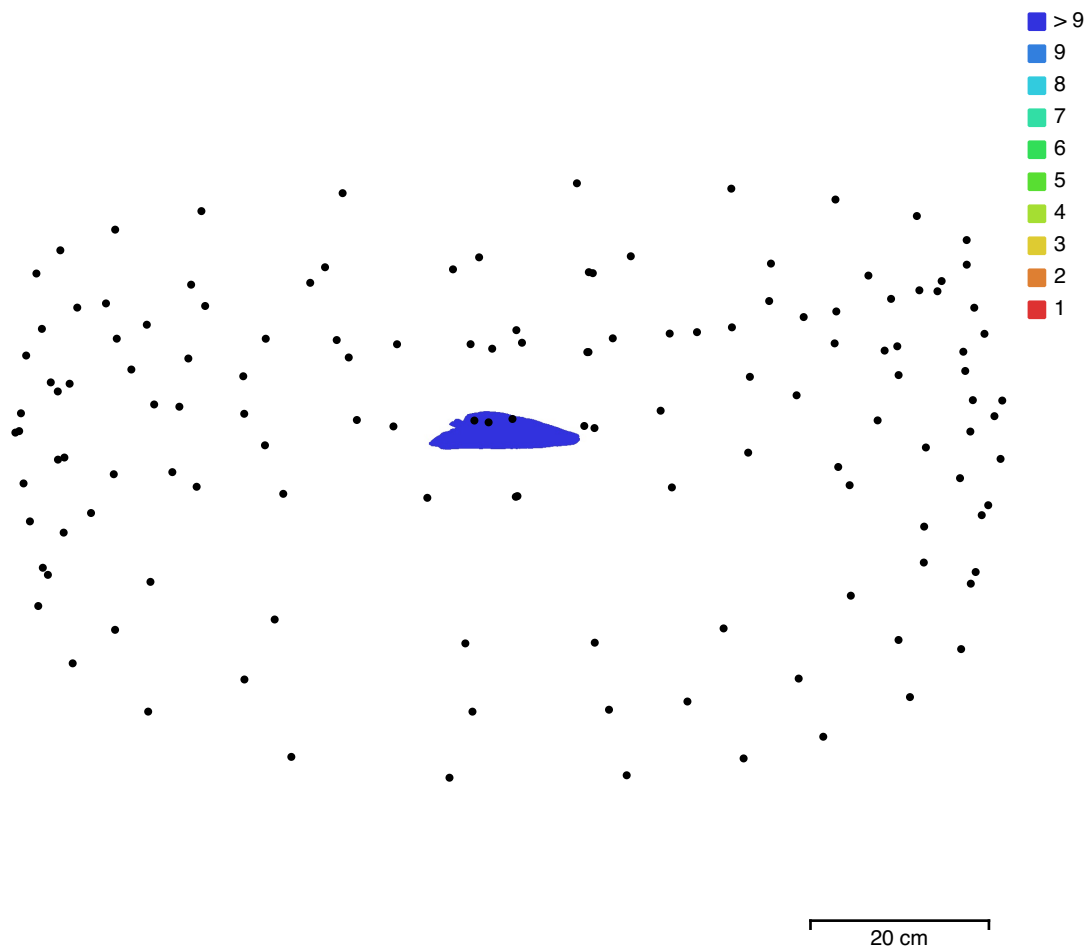


Fig. 1. Camera locations and image overlap.

Number of images:	136	Camera stations:	136
Flying altitude:	49.6 cm	Tie points:	62,715
Ground resolution:	0.0457 mm/pix	Projections:	278,077
Coverage area:	49.7 cm ²	Reprojection error:	0.373 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
DMC-G7 (40mm)	4592 x 2584	40 mm	3.78 x 3.78 μ m	No
DMC-G7 (40mm)	4592 x 2584	40 mm	3.78 x 3.78 μ m	No

Table 1. Cameras.

Camera Calibration

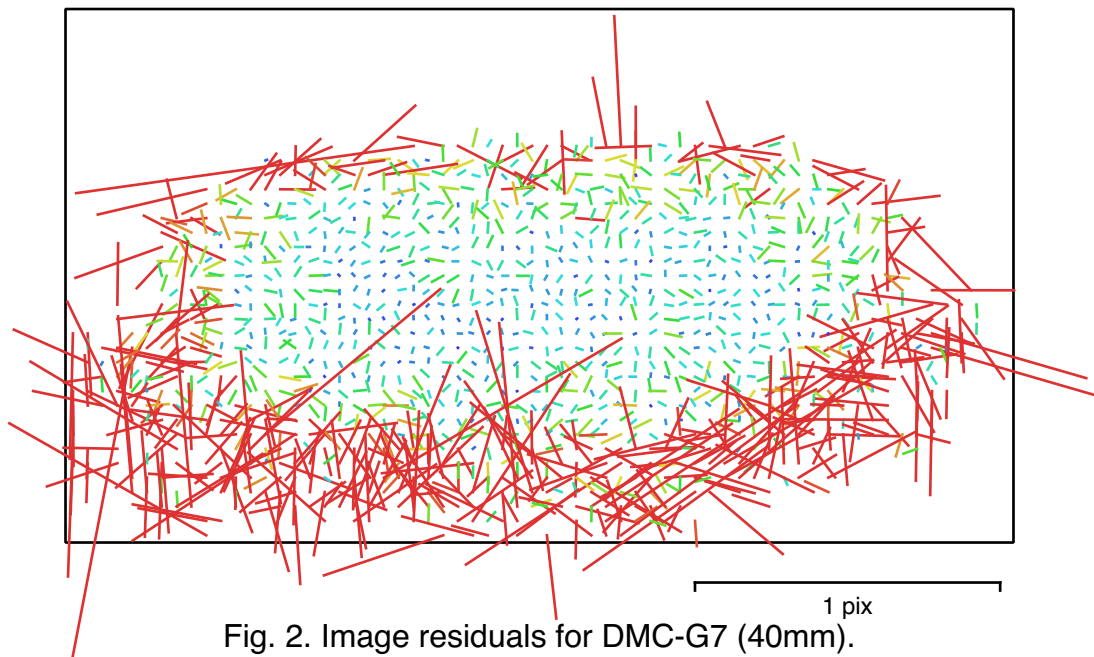


Fig. 2. Image residuals for DMC-G7 (40mm).

DMC-G7 (40mm)

65 images

Type	Resolution	Focal Length	Pixel Size
Frame	4592 x 2584	40 mm	3.78 x 3.78 μm

	Value	Error	F	K1	P1	P2
F	10848.2	1.2	1.00	-0.64	-0.14	0.22
K1	0.0489007	0.00071		1.00	0.21	-0.18
P1	0.00159403	3.3e-05			1.00	0.03
P2	-0.00331581	5.8e-05				1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Calibration

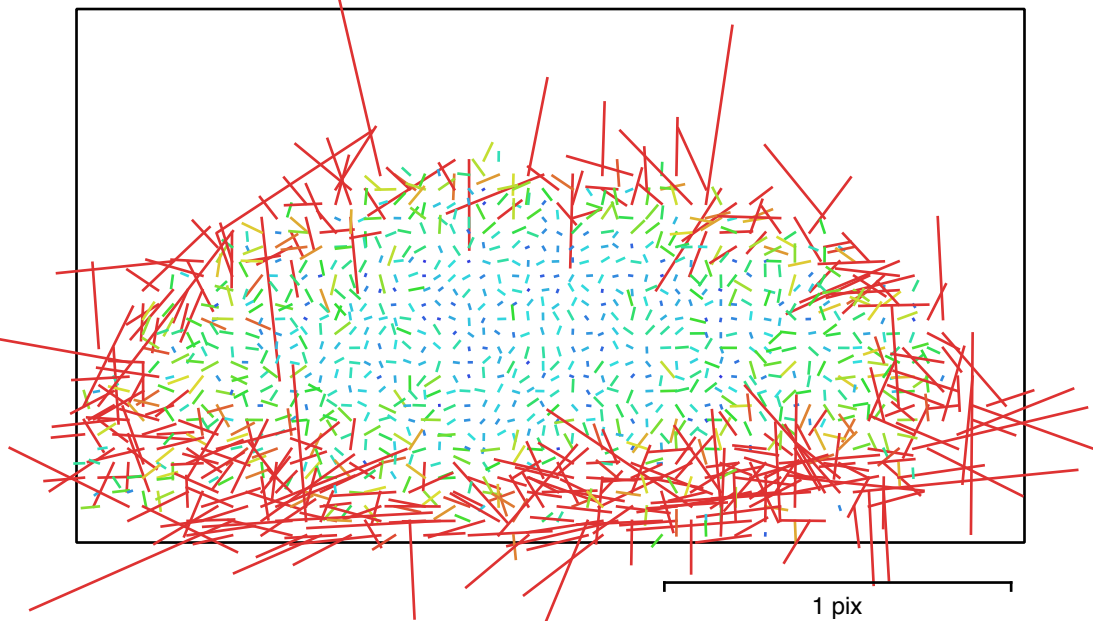


Fig. 3. Image residuals for DMC-G7 (40mm).

DMC-G7 (40mm)

71 images

Type	Resolution	Focal Length	Pixel Size
Frame	4592 x 2584	40 mm	3.78 x 3.78 μm

	Value	Error	F	K1	P1	P2
F	10850.9	1.2	1.00	-0.70	-0.22	0.26
K1	0.0388447	0.00072		1.00	0.39	-0.28
P1	0.00151457	2.4e-05			1.00	-0.03
P2	-0.00403489	5.7e-05				1.00

Table 3. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
point 1_point 2	0.05	-4.58757e-12
Total		4.58757e-12

Table 4. Control scale bars.

Digital Elevation Model

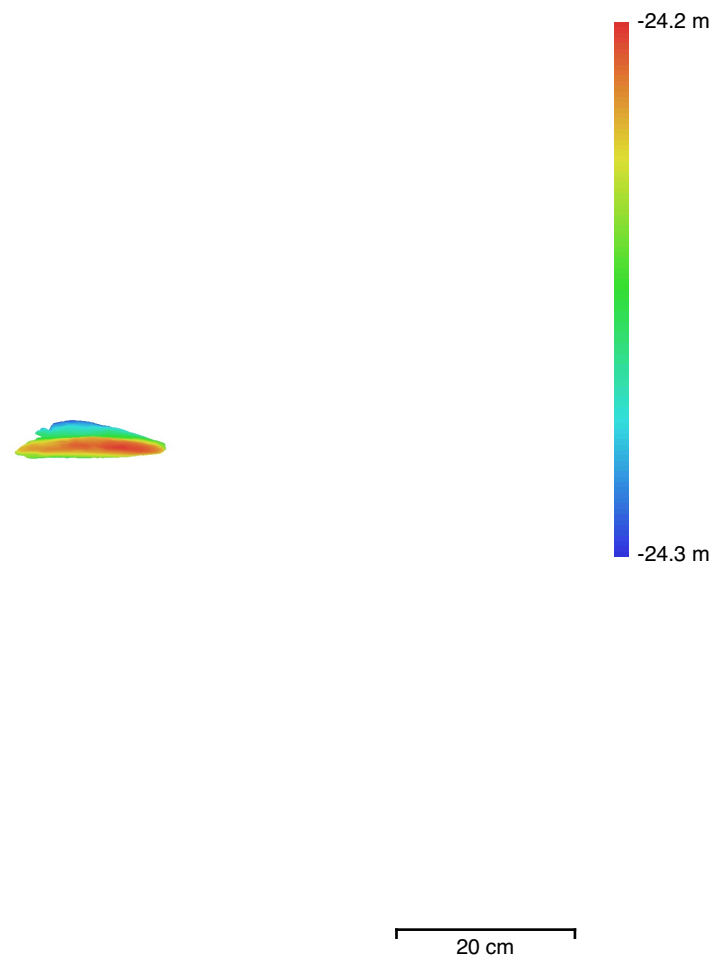


Fig. 4. Reconstructed digital elevation model.

Resolution: 0.243 mm/pix
Point density: 17 points/mm²

Processing Parameters

General

Images	136
Aligned images	136
Markers	2
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	62,715 of 100,740
RMS reprojection error	0.142082 (0.372734 pix)
Max reprojection error	0.367676 (15.2246 pix)
Mean key point size	2.27101 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	5.74848
File size	10.58 MB

Depth Maps

Count	136
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	7 minutes 54 seconds
Memory usage	2.03 GB
Date created	2024:06:29 17:29:28
Software version	2.1.1.17821
File size	60.40 MB

Model

Faces	424,632
Vertices	212,322
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	38 seconds
UV mapping memory usage	347.38 MB
Blending time	7 minutes 6 seconds
Blending memory usage	8.78 GB
File size	108.86 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