

# **Agisoft Metashape**

**Processing Report**

**24 June 2024**



# Survey Data

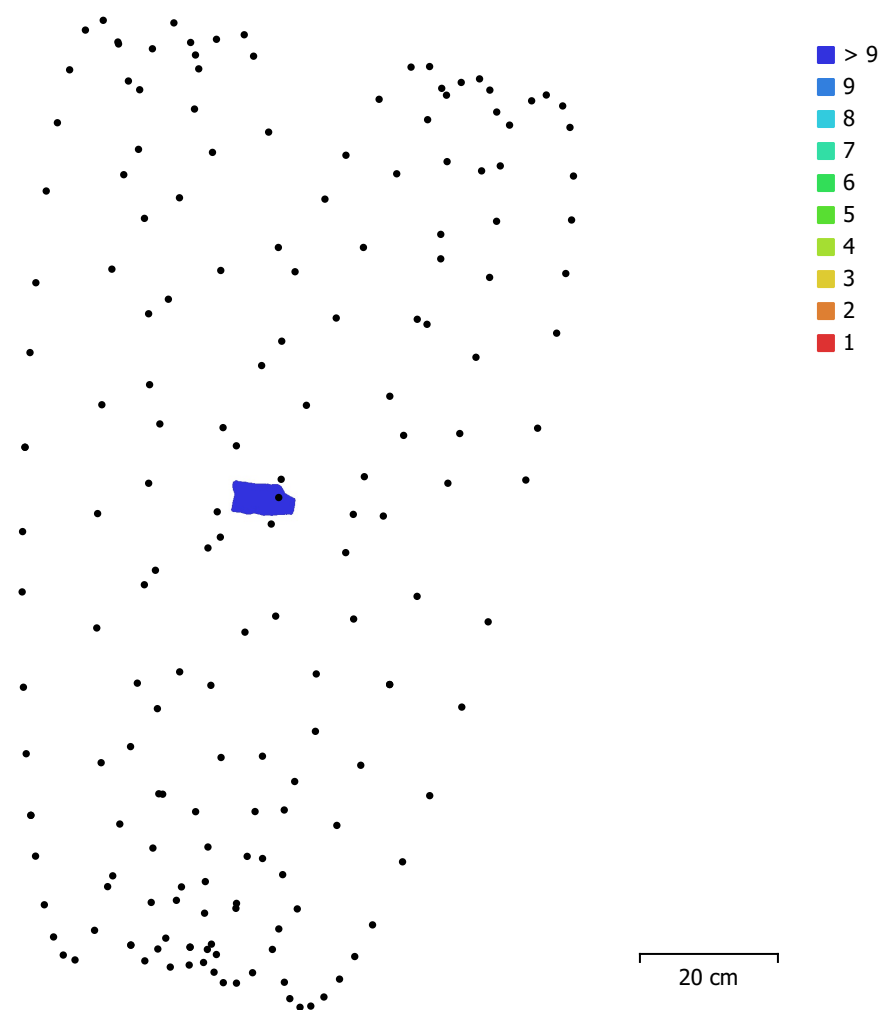


Fig. 1. Camera locations and image overlap.

Number of images:	180	Camera stations:	180
Flying altitude:	67.6 cm	Tie points:	376,811
Ground resolution:	0.0427 mm/pix	Projections:	1,234,896
Coverage area:	37.6 cm <sup>2</sup>	Reprojection error:	0.948 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

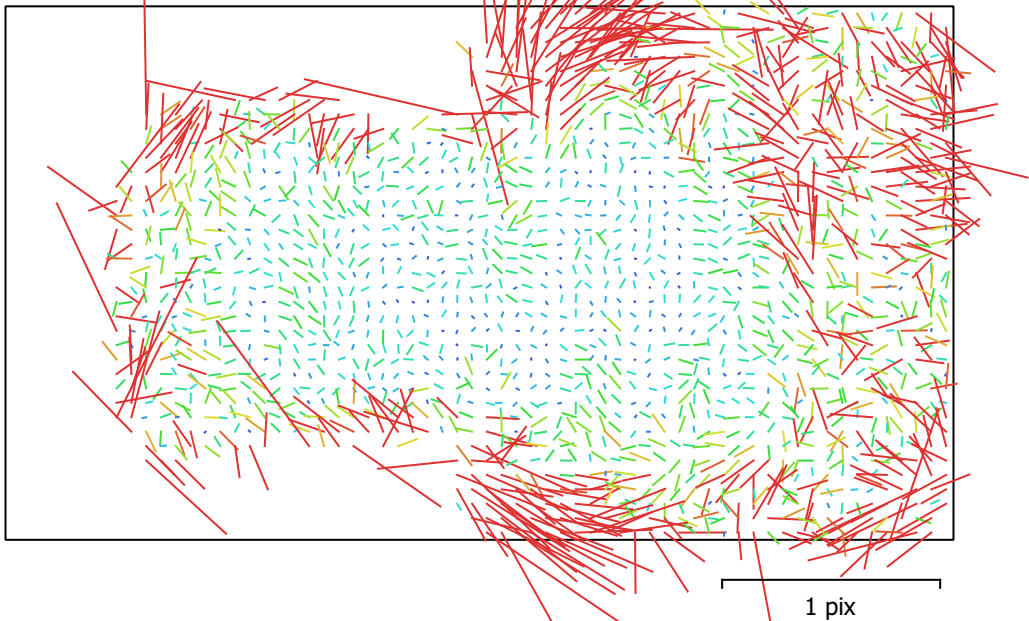


Fig. 2. Image residuals for DMC-G7 (60mm).

## DMC-G7 (60mm)

82 images

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

	Value	Error	K1	K2	P1	P2
F	15831.7					
K1	0.193976	0.0016	1.00	-0.88	0.23	-0.00
K2	-5.45777	0.086		1.00	-0.15	-0.03
P1	0.0040297	5.6e-05			1.00	0.00
P2	-0.00257327	4.5e-05				1.00

Table 2. Calibration coefficients and correlation matrix.

# Camera Calibration

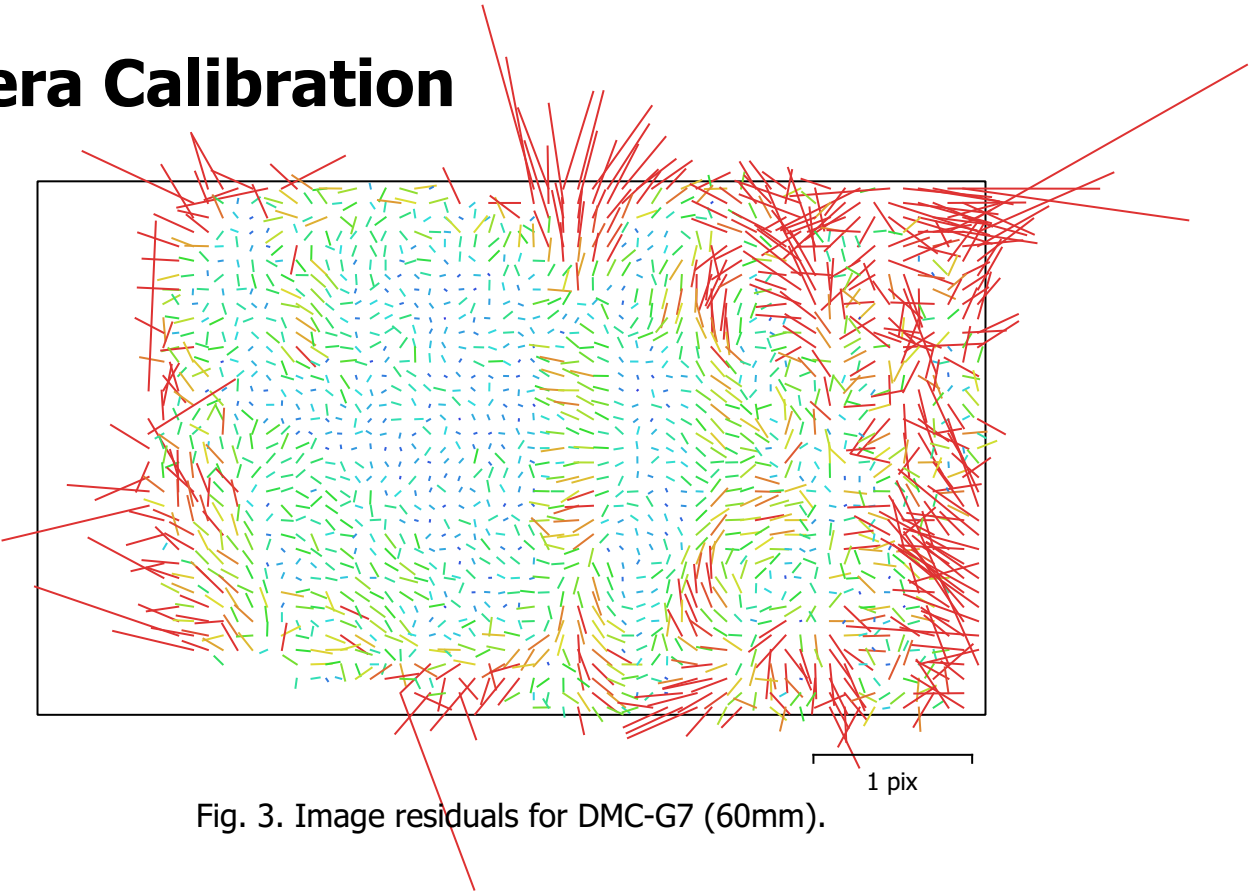


Fig. 3. Image residuals for DMC-G7 (60mm).

## DMC-G7 (60mm)

98 images

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

	Value	Error	K1	K2	P1	P2
F	15831.7					
K1	-0.107659	0.002	1.00	-0.89	0.11	-0.05
K2	10.0761	0.1		1.00	-0.04	0.02
P1	-0.008189	7.4e-05			1.00	0.06
P2	0.000925205	6.3e-05				1.00

Table 3. Calibration coefficients and correlation matrix.

# Scale Bars

Label	Distance (m)	Error (m)
target 19_target 20	0.05	-1.38778e-17
Total		<b>1.38778e-17</b>

Table 4. Control scale bars.

# Digital Elevation Model

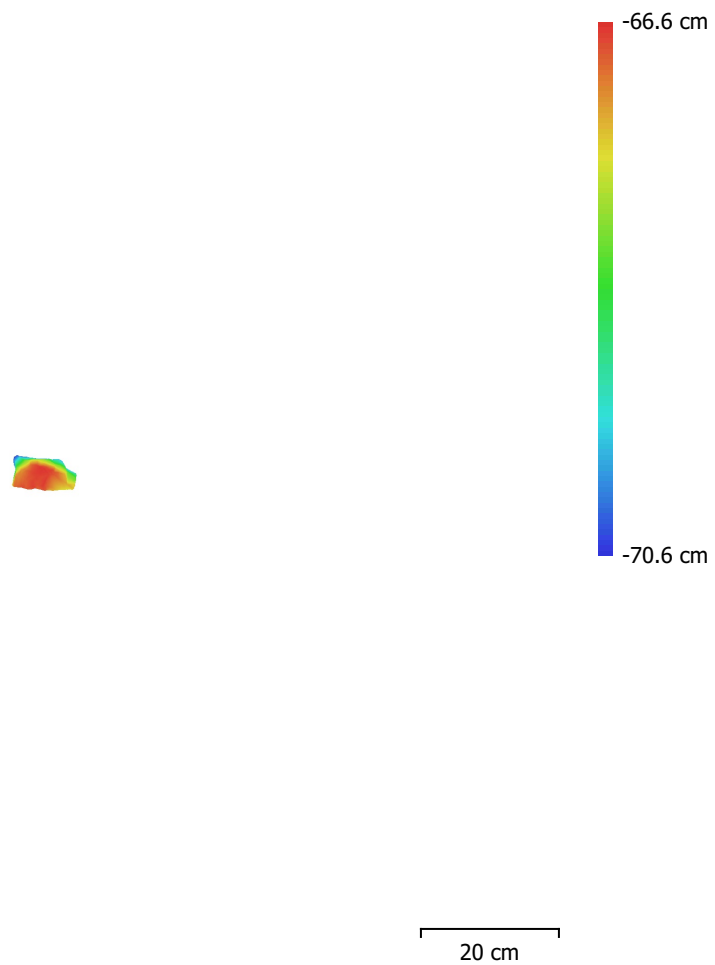


Fig. 4. Reconstructed digital elevation model.

Resolution: 0.156 mm/pix  
Point density: 41 points/mm<sup>2</sup>

# Processing Parameters

## General

Cameras	180
Aligned cameras	180
Markers	4
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

## Point Cloud

Points	376,811 of 426,749
RMS reprojection error	0.250986 (0.947591 pix)
Max reprojection error	0.825912 (54.256 pix)
Mean key point size	3.27611 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	3.72943
File size	34.15 MB

## Depth Maps

Count	180
<b>Depth maps generation parameters</b>	
Quality	Ultra High
Filtering mode	Mild
Max neighbors	16
Processing time	11 minutes 31 seconds
Memory usage	6.23 GB
Date created	2024:06:14 14:59:24
Software version	1.8.4.14671
File size	375.70 MB

## Model

Faces	422,408
Vertices	211,208
Vertex colors	3 bands, uint8
Texture	16,000 x 16,000 x 2, 4 bands, uint8

## Depth maps generation parameters

Quality	Ultra High
Filtering mode	Mild
Max neighbors	16
Processing time	11 minutes 31 seconds
Memory usage	6.23 GB

## Reconstruction parameters

Surface type	Arbitrary
Source data	Depth maps
Interpolation	Enabled
Strict volumetric masks	No
Processing time	2 minutes 5 seconds
Memory usage	8.59 GB

## Texturing parameters

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

Enable ghosting filter	Yes
UV mapping time	33 seconds
UV mapping memory usage	597.82 MB
Blending time	1 minutes 30 seconds
Blending memory usage	12.94 GB
Blending GPU memory usage	11.91 GB
Date created	2024:06:14 15:01:29
Software version	1.8.4.14671
File size	196.01 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