

Agisoft Metashape

Processing Report

24 November 2025



Survey Data

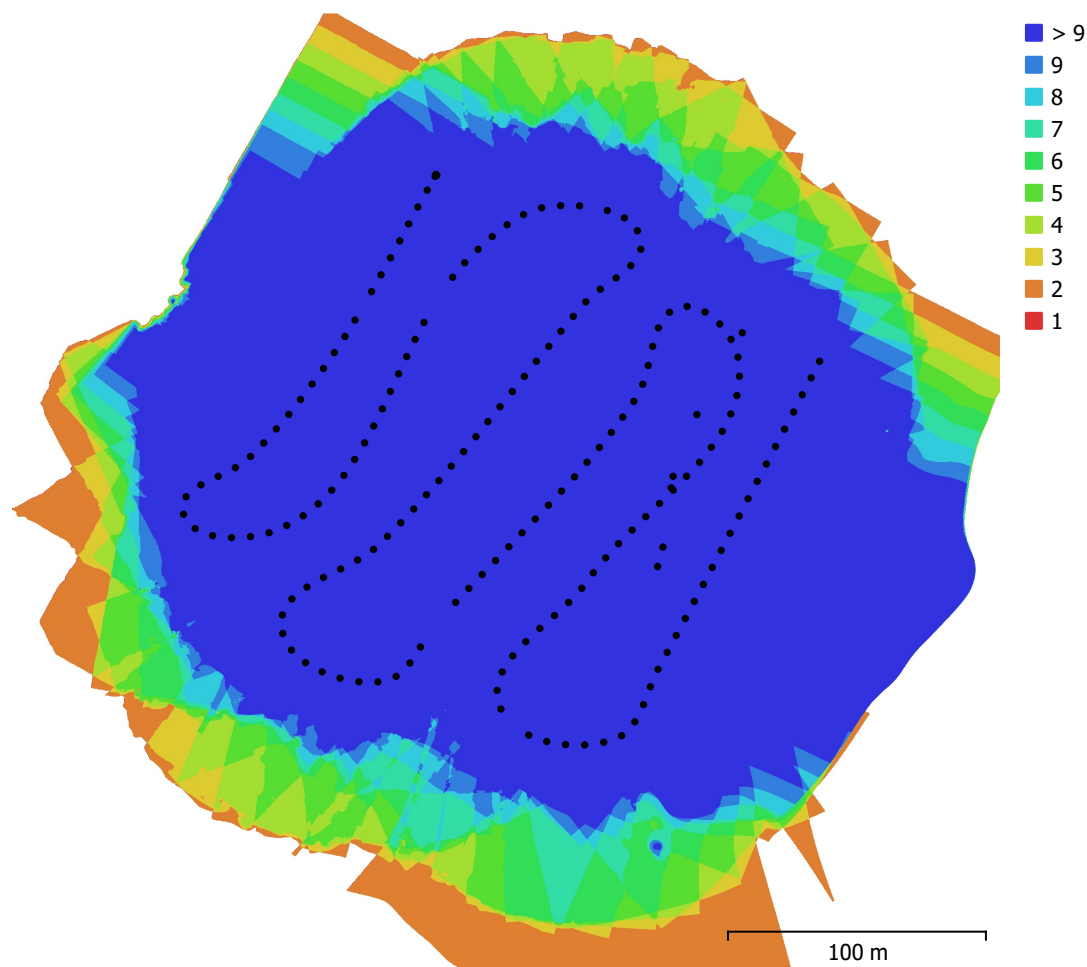


Fig. 1. Camera locations and image overlap.

Number of images:	176	Camera stations:	176
Flying altitude:	100 m	Tie points:	69,963
Ground resolution:	3.28 cm/pix	Projections:	722,723
Coverage area:	0.0980 km ²	Reprojection error:	0.879 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
FC8282 (6.72mm)	4032 x 2268	6.72 mm	2.62 x 2.62 μm	No
FC8282 (6.72mm)	4032 x 2268	6.72 mm	2.49 x 2.49 μm	No

Table 1. Cameras.

Camera Calibration

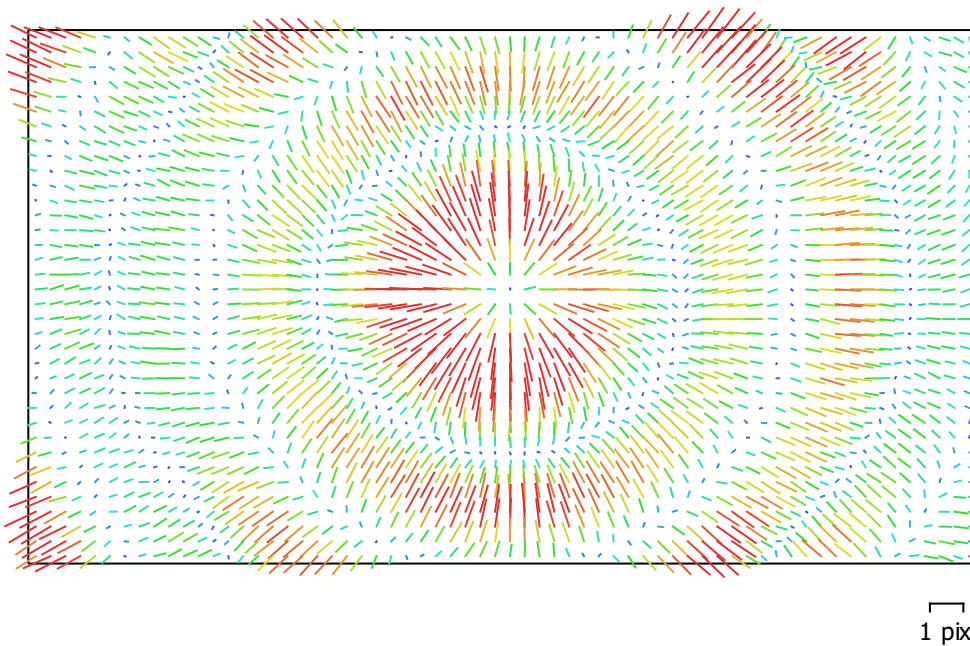


Fig. 2. Image residuals for FC8282 (6.72mm).

FC8282 (6.72mm)

174 images

Type	Resolution	Focal Length	Pixel Size
Frame	4032 x 2268	6.72 mm	2.62 x 2.62 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	2955.88	0.42	1.00	-0.09	0.28	0.57	-0.35	0.32	-0.04	0.22
Cx	6.3491	0.049		1.00	-0.04	-0.01	0.02	-0.03	0.62	-0.01
Cy	-9.26463	0.04			1.00	0.16	-0.09	0.08	-0.03	0.48
K1	0.102326	0.0001				1.00	-0.74	0.71	-0.05	0.30
K2	-0.169228	0.00027					1.00	-0.99	-0.01	-0.08
K3	0.122264	0.00032						1.00	0.01	0.07
P1	0.000353968	4.2e-06							1.00	-0.04
P2	-1.64998e-05	3e-06								1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Calibration

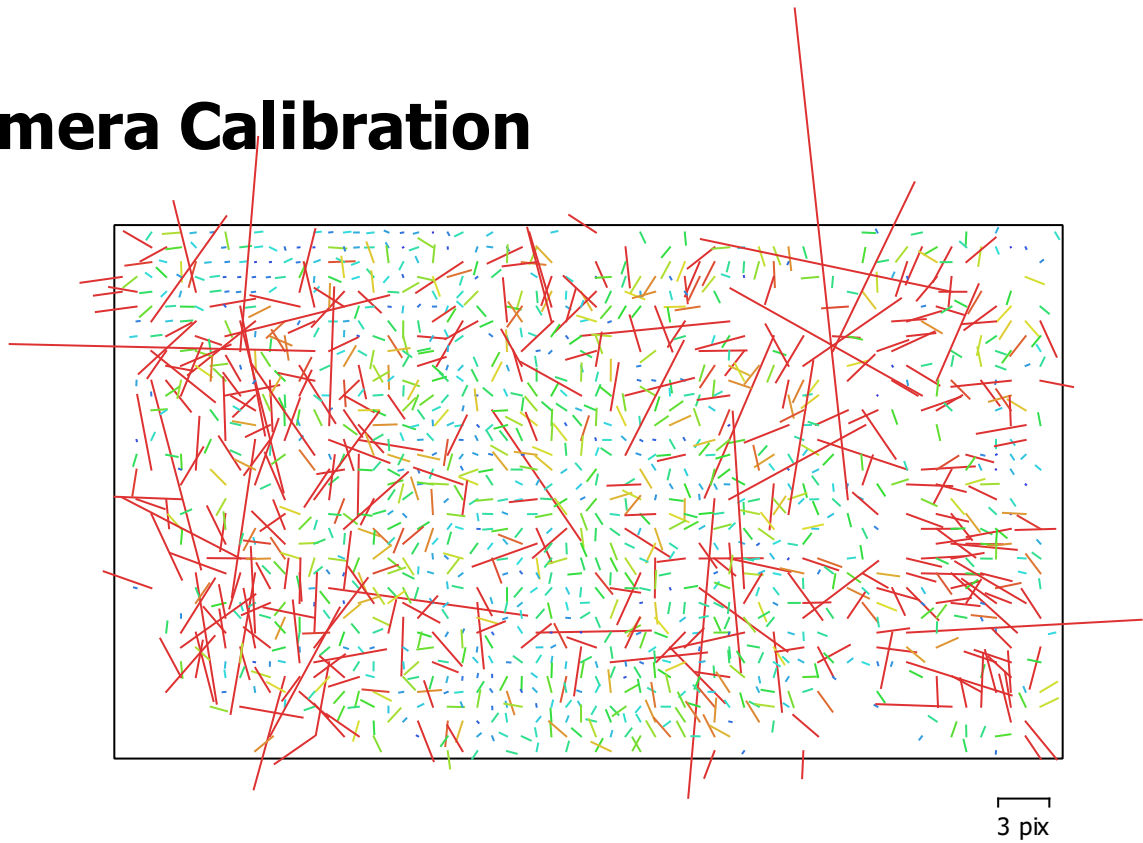


Fig. 3. Image residuals for FC8282 (6.72mm).

FC8282 (6.72mm)

2 images

Type	Resolution	Focal Length	Pixel Size
Frame	4032 x 2268	6.72 mm	2.49 x 2.49 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	3089.83	2.6	1.00	-0.46	0.02	-0.07	0.04	-0.01	-0.14	-0.08
Cx	15.7963	1.4		1.00	0.03	-0.05	0.08	-0.11	0.77	0.16
Cy	-5.27985	0.89			1.00	0.02	-0.04	0.04	0.04	0.58
K1	0.134075	0.0021				1.00	-0.97	0.92	0.01	0.00
K2	-0.351534	0.01					1.00	-0.99	-0.00	-0.01
K3	0.396547	0.015						1.00	-0.01	0.02
P1	0.000174006	0.00014							1.00	0.14
P2	0.000240891	8.7e-05								1.00

Table 3. Calibration coefficients and correlation matrix.

Camera Locations



Fig. 4. Camera locations and error estimates.

Z error is represented by ellipse color. X,Y errors are represented by ellipse shape.

Estimated camera locations are marked with a black dot.

X error (cm)	Y error (cm)	Z error (cm)	XY error (cm)	Total error (cm)
27.4228	22.8644	75.1893	35.7042	83.236

Table 4. Average camera location error.

X - Longitude, Y - Latitude, Z - Altitude.

Digital Elevation Model

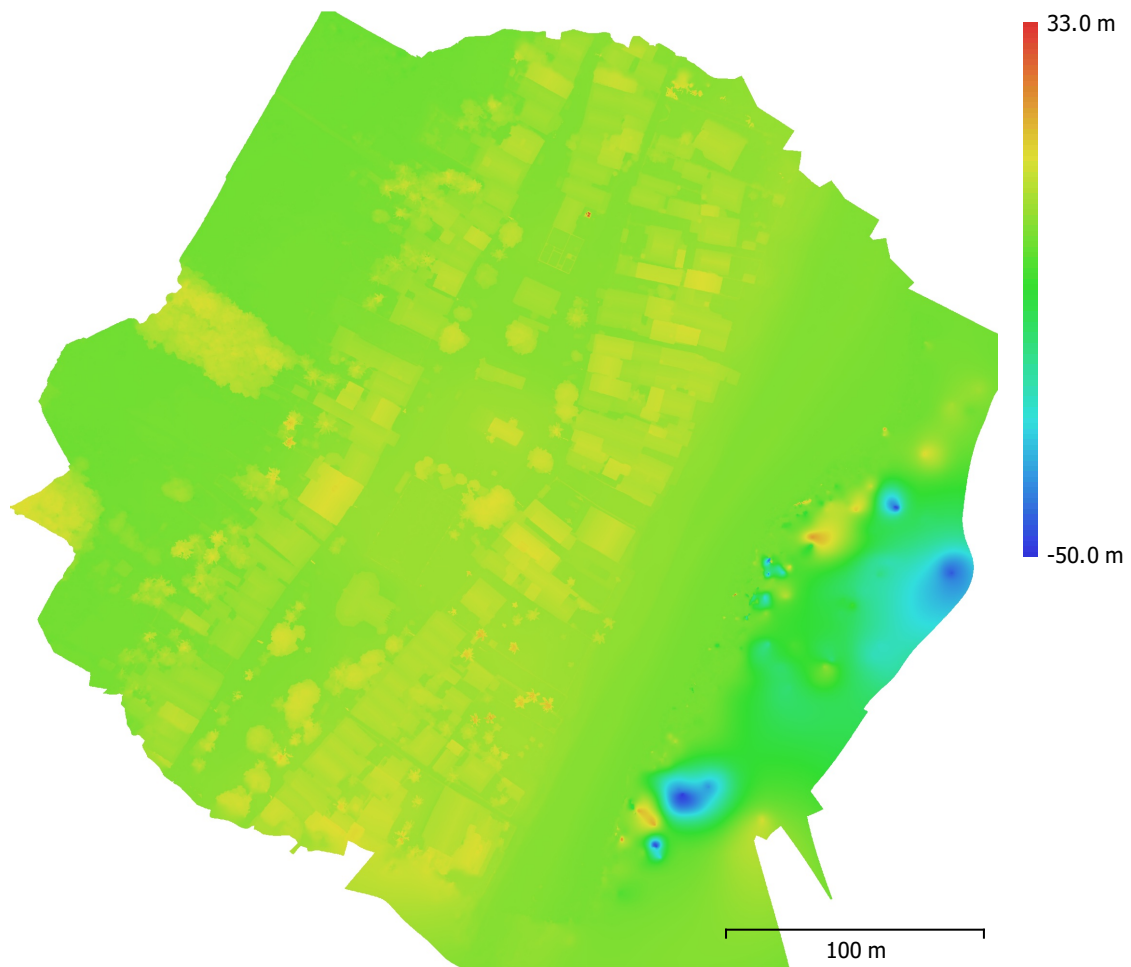


Fig. 5. Reconstructed digital elevation model.

Resolution: 6.56 cm/pix
Point density: 233 points/m²

Processing Parameters

General

Images	176
Aligned images	176
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	69,963 of 77,970
RMS reprojection error	0.28924 (0.879029 pix)
Max reprojection error	0.868127 (28.9378 pix)
Mean key point size	3.17103 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	10.3695

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	Source
Key point limit	40,000
Key point limit per Mpx	1,000
Tie point limit	4,000
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	1 minutes 25 seconds
Matching memory usage	478.55 MB
Alignment time	1 minutes 26 seconds
Alignment memory usage	330.37 MB
Date created	2025:11:23 11:49:31
Software version	2.2.1.20149
File size	14.18 MB

Depth Maps

Count	176
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	6 minutes 30 seconds
Memory usage	2.22 GB
Date created	2025:11:23 12:15:24
Software version	2.2.1.20149
File size	597.59 MB

Point Cloud

Points	26,854,457
Coordinate precision	1.64 cm

Point attributes

Color	3 bands, uint8
Normal	

Point classes

Created (never classified)	17,603,166
Ground	9,178,834

Low Point (noise)	72,457
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	6 minutes 30 seconds
Memory usage	2.22 GB
Point cloud generation parameters	
Source data	Depth maps
Processing time	16 minutes 33 seconds
Memory usage	4.03 GB
Ground points classification parameters	
Max angle (°)	10
Max terrain slope (deg)	10
Max distance (m)	1
Cell size (m)	50
Classification time	1 minutes 45 seconds
Classification memory usage	1.30 GB
Date created	2025:11:23 12:32:00
Software version	2.2.1.20149
File size	352.33 MB
DEM	
Size	5,836 x 5,649
Resolution	6.56 cm/pix
Coordinate system	WGS 84 (EPSG::4326)
Reconstruction parameters	
Source data	Point cloud
Interpolation	Enabled
Processing time	11 seconds
Memory usage	308.72 MB
Date created	2025:11:23 12:47:43
Software version	2.2.1.20149
File size	117.55 MB
Orthomosaic	
Size	11,672 x 11,298
Resolution	3.28 cm/pix
Coordinate system	WGS 84 (EPSG::4326)
Colors	3 bands, uint8
Orthophotos	688.53 MB
Reconstruction parameters	
Blending mode	Mosaic
Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	1 minutes 48 seconds
Memory usage	1.34 GB
Date created	2025:11:23 12:48:59
Software version	2.2.1.20149
File size	797.94 MB
System	
Software name	Agisoft Metashape Professional
Software version	2.2.1 build 20149
OS	Windows 64 bit
RAM	63.46 GB
CPU	Intel(R) Core(TM) Ultra 9 185H
GPU(s)	NVIDIA RTX 2000 Ada Generation Laptop GPU