Agisoft Metashape

Processing Report
24 November 2025

# Survey Data
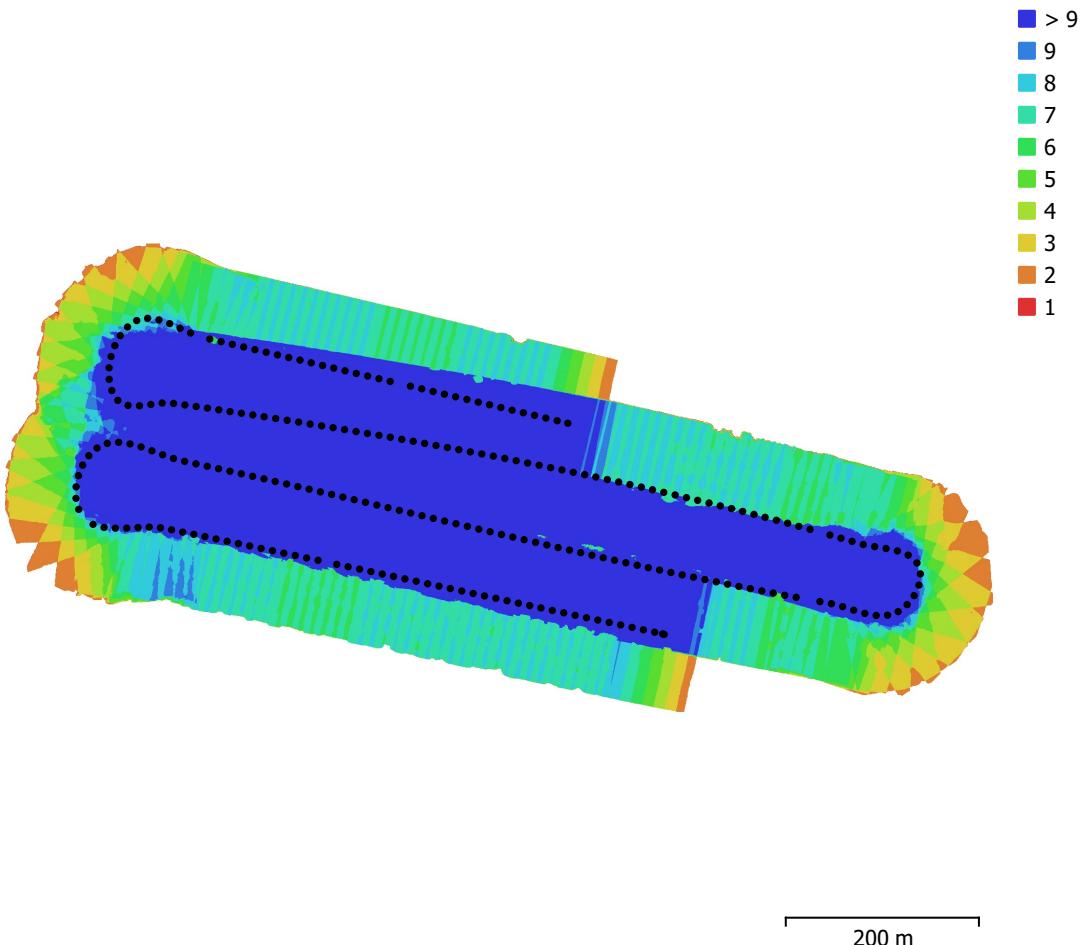
Fig. 1. Camera locations and image overlap.

Number of images:	249	Camera stations:	249
Flying altitude:	114 m	Tie points:	206,308
Ground resolution:	3.95 cm/pix	Projections:	1,015,568
Coverage area:	0.305 km²	Reprojection error:	0.751 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

Table 1. Cameras.

Camera Calibration

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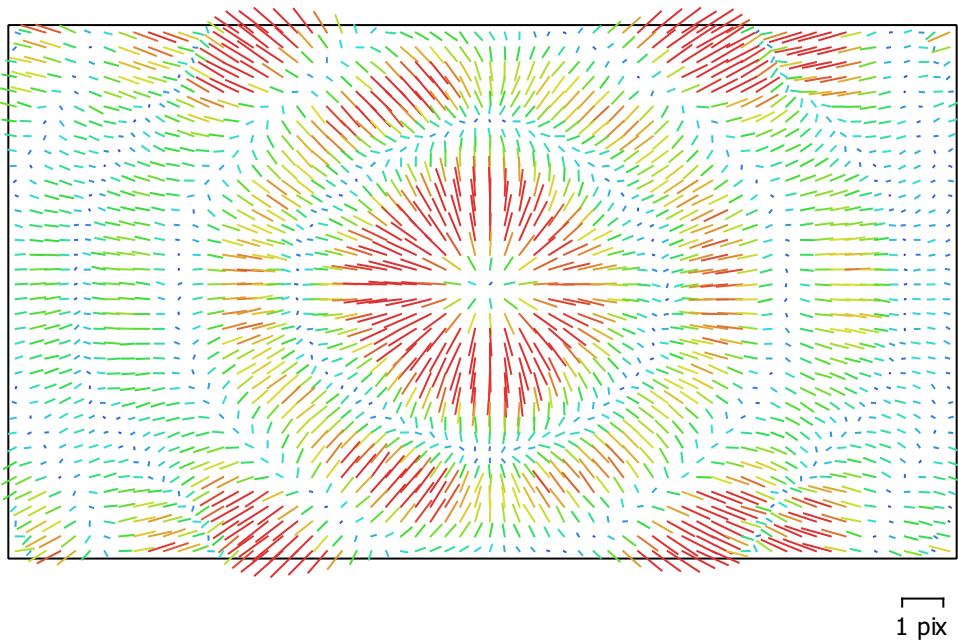
Fig. 2. Image residuals for FC8282 (6.72mm).

FC8282 (6.72mm)

249 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	**2784.54**	4.7	1.00	-0.31	0.92	0.90	-0.97	0.96	0.09	0.43
Cx	**8.09876**	0.11		1.00	-0.30	-0.34	0.30	-0.29	0.37	-0.19
Cy	**-15.5603**	0.16			1.00	0.82	-0.89	0.88	0.06	0.59
K1	**0.0945068**	0.00037				1.00	-0.90	0.90	-0.01	0.56
K2	**-0.120823**	0.00084					1.00	-1.00	-0.08	-0.41
K3	**0.0678429**	0.00071						1.00	0.08	0.41
P1	**0.000511209**	5e-06							1.00	-0.06
P2	**1.00696e-05**	6.5e-06								1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Locations
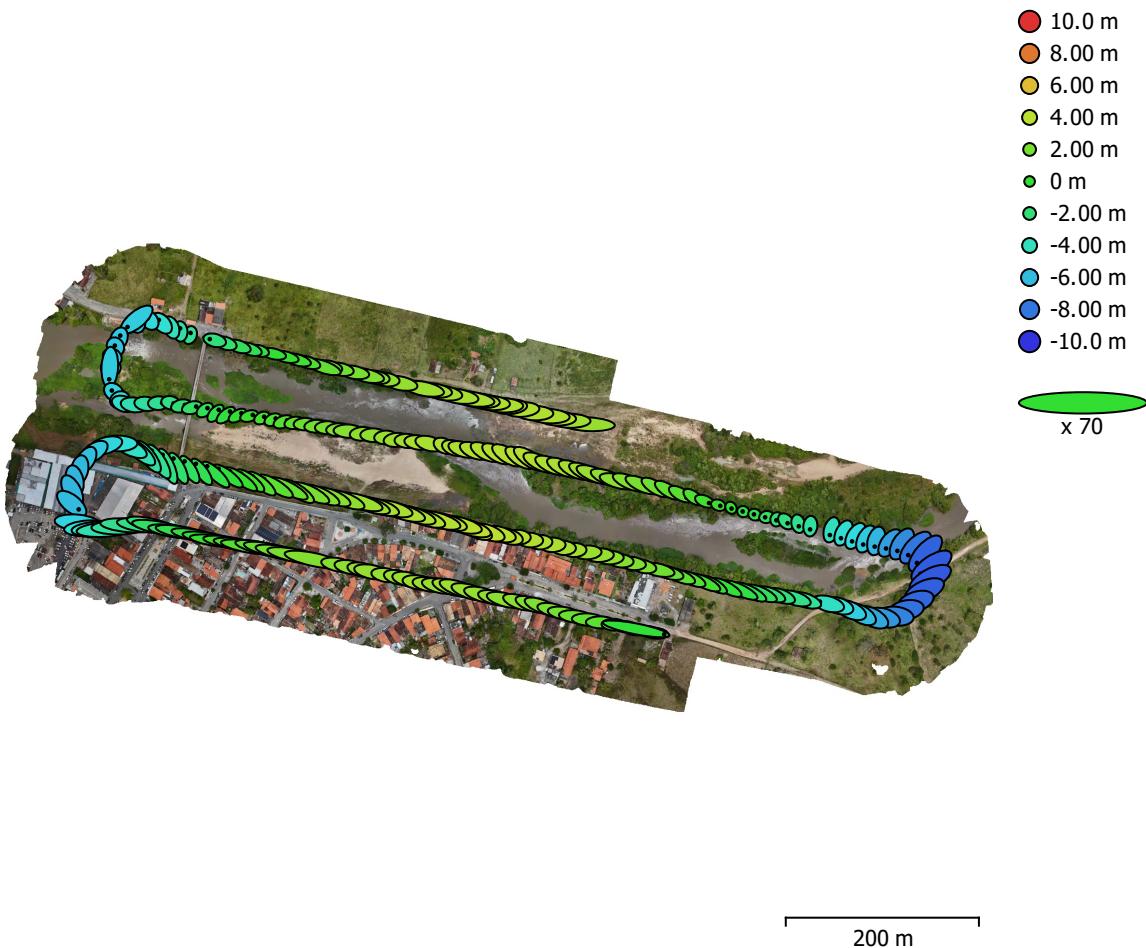
Fig. 3. Camera locations and error estimates.

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 (m)	Y error (m)	Z error (m)	XY error (m)	Total error (m)
0.306437	0.115618	3.46932	0.327523	3.48475

Table 3. Average camera location error.

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

Digital Elevation Model

37.0 m

-23.0 m

200 m
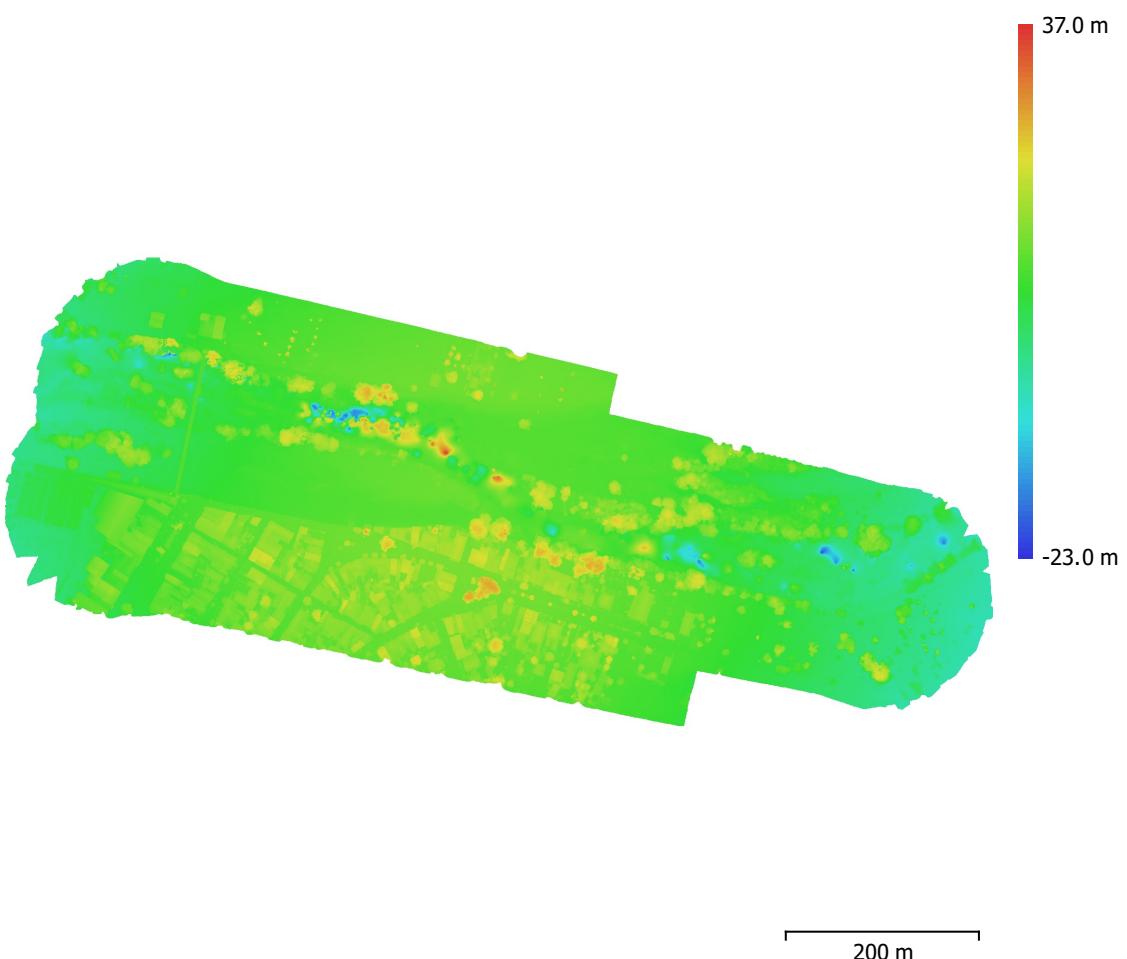
Fig. 4. Reconstructed digital elevation model.

Resolution: 7.90 cm/pix
Point density: 160 points/m²

Processing Parameters

General

Images	249
Aligned images	249
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	206,308 of 216,907
RMS reprojection error	0.272307 (0.751175 pix)
Max reprojection error	0.817208 (33.6203 pix)
Mean key point size	2.73119 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	4.96004

  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 47 seconds
Matching memory usage	573.64 MB
Alignment time	2 minutes 16 seconds
Alignment memory usage	422.53 MB
Date created	2025:11:23 08:45:18
Software version	2.2.1.20149
File size	21.79 MB

Depth Maps

Count	249

  Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	8 minutes 33 seconds
Memory usage	2.15 GB
Date created	2025:11:23 08:59:47
Software version	2.2.1.20149
File size	792.45 MB

Point Cloud

Points	64,990,770
Coordinate precision	1.98 cm

  Point attributes

Color	3 bands, uint8
Normal	

  Point classes

Created (never classified)	64,990,770

  Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	8 minutes 33 seconds
Memory usage	2.15 GB

Point cloud generation parameters

Source data	Depth maps
Processing time	12 minutes 6 seconds
Memory usage	3.13 GB
Date created	2025:11:23 09:11:57
Software version	2.2.1.20149
File size	854.15 MB

DEM

Size	12,931 x 6,128
Resolution	7.90 cm/pix
Coordinate system	WGS 84 (EPSG::4326)

Reconstruction parameters

Source data	Point cloud
Interpolation	Enabled
Processing time	35 seconds
Memory usage	311.35 MB
Date created	2025:11:23 09:12:34
Software version	2.2.1.20149
File size	237.30 MB

Orthomosaic

Size	25,861 x 12,255
Resolution	3.95 cm/pix
Coordinate system	WGS 84 (EPSG::4326)
Colors	3 bands, uint8
Orthophotos	911.32 MB

Reconstruction parameters

Blending mode	Mosaic
Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	3 minutes 2 seconds
Memory usage	1.49 GB
Date created	2025:11:23 09:14:03
Software version	2.2.1.20149
File size	1.13 GB

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