Agisoft Metashape

Processing Report
24 November 2025

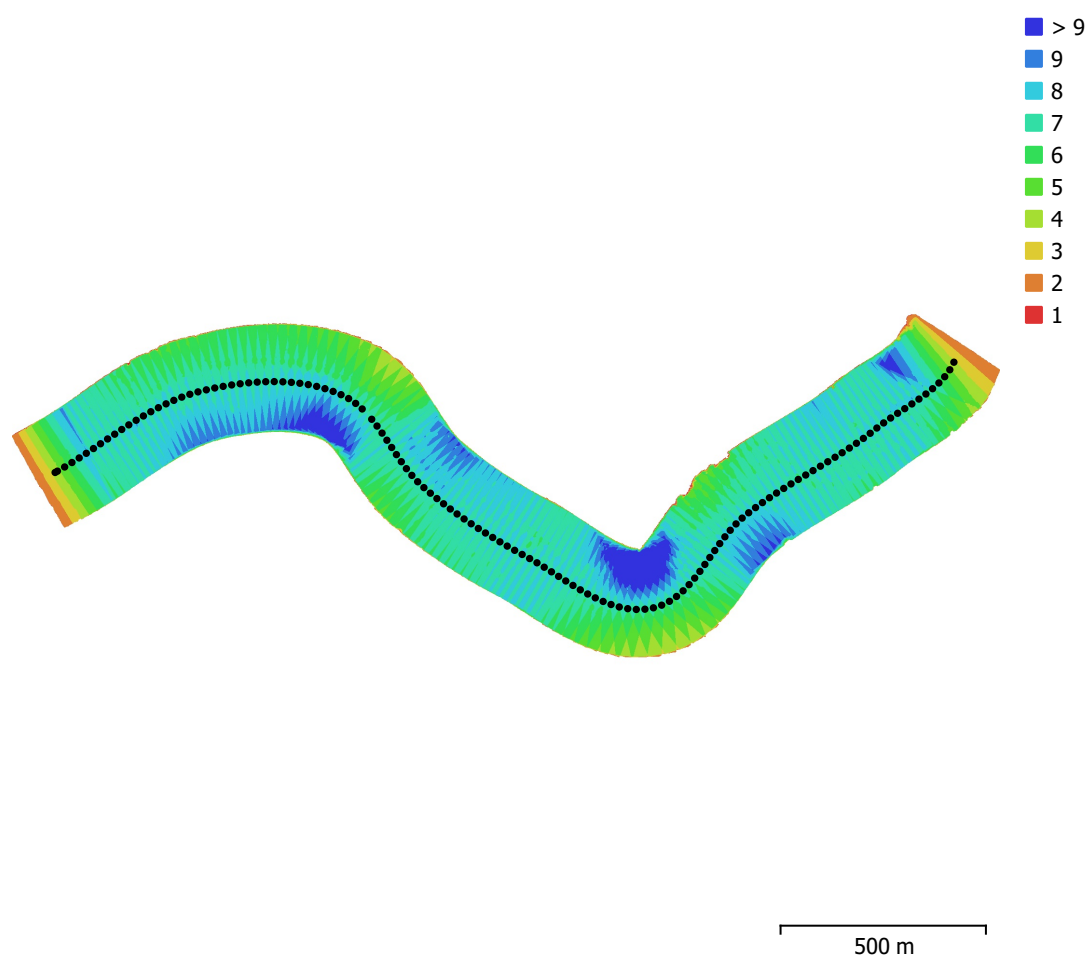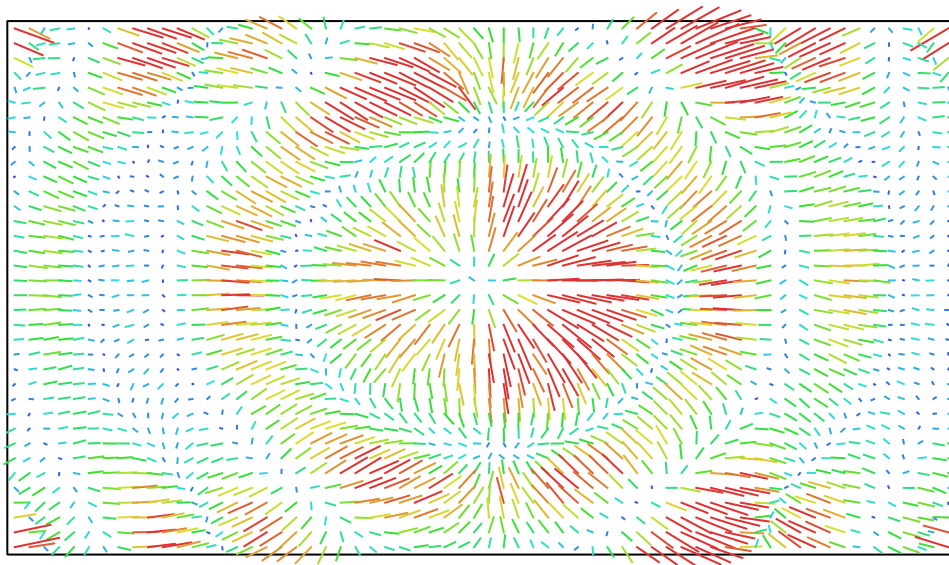# Survey Data

Fig. 1. Camera locations and image overlap.

Number of images:	129	Camera stations:	129
Flying altitude:	169 m	Tie points:	128,291
Ground resolution:	6.69 cm/pix	Projections:	536,291
Coverage area:	0.724 km²	Reprojection error:	0.718 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)

129 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	**2394**	32	1.00	-0.05	0.06	1.00	-1.00	0.99	0.12	-0.20
Cx	**21.6755**	0.47		1.00	0.05	-0.04	0.04	-0.03	0.19	0.06
Cy	**-13.9173**	0.37			1.00	0.07	-0.06	0.06	0.02	0.52
K1	**0.0640053**	0.0016				1.00	-1.00	0.99	0.12	-0.20
K2	**-0.0407501**	0.0022					1.00	-1.00	-0.12	0.20
K3	**0.00973506**	0.0008						1.00	0.13	-0.20
P1	**0.000811081**	5.2e-05							1.00	-0.05
P2	**-0.000104352**	6.2e-05								1.00

Table 2. Calibration coefficients and correlation matrix.
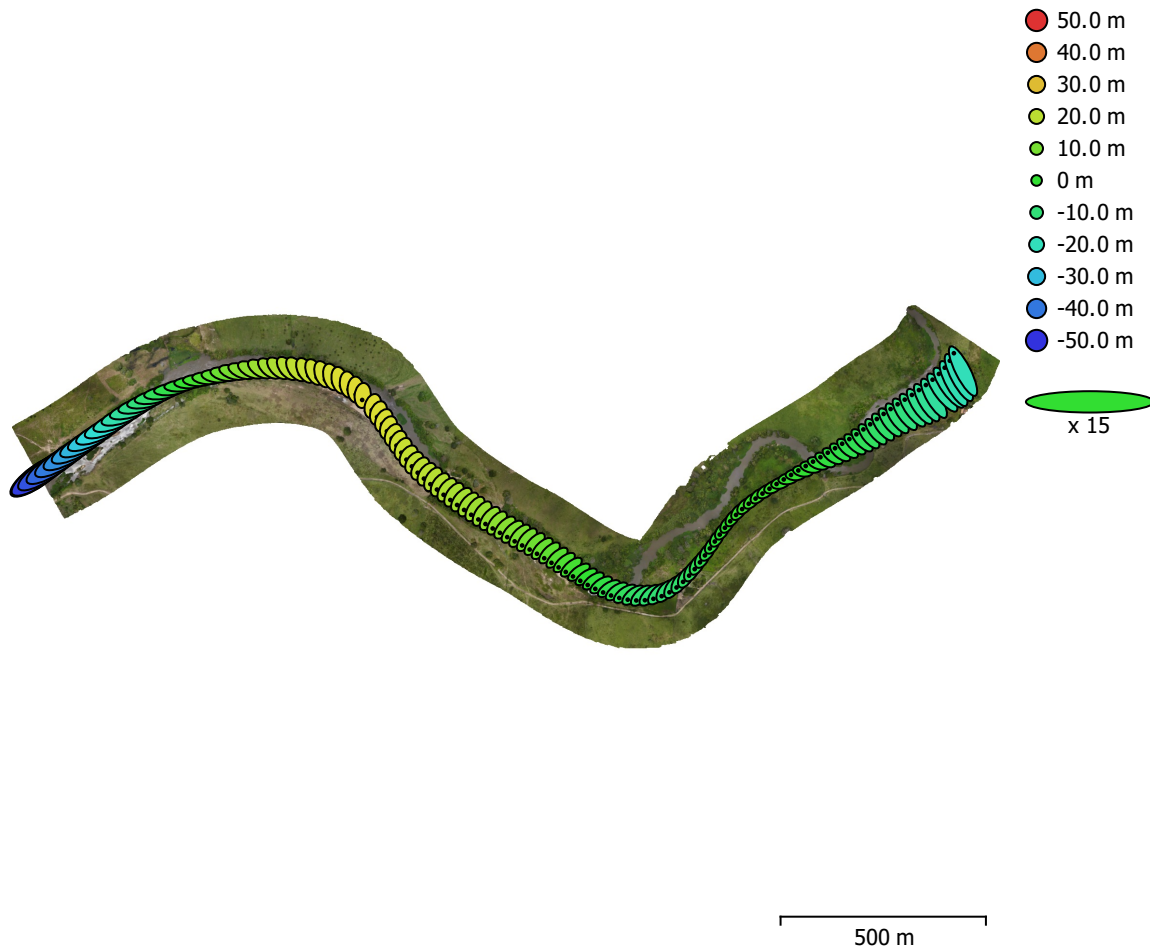
Camera Locations

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)
2.45343	2.03293	16.8409	3.18624	17.1397

Table 3. Average camera location error.
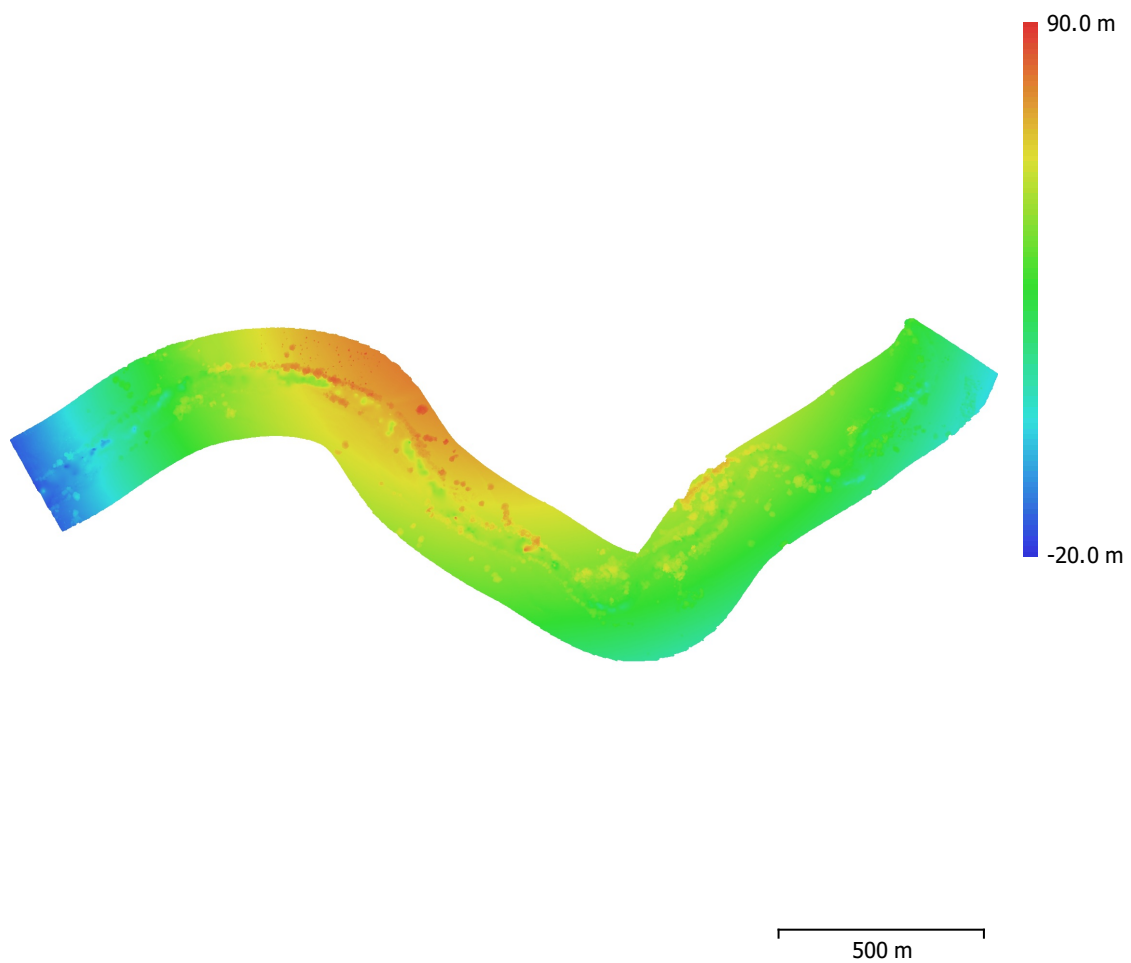X - Longitude, Y - Latitude, Z - Altitude.

Digital Elevation Model

Fig. 4. Reconstructed digital elevation model.

Resolution: 13.4 cm/pix
Point density: 55.8 points/m²

Processing Parameters

General

Images	129
Aligned images	129
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	128,291 of 132,035
RMS reprojection error	0.258433 (0.717727 pix)
Max reprojection error	0.775061 (27.7695 pix)
Mean key point size	2.76693 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	4.18706

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	46 seconds
Matching memory usage	452.44 MB
Alignment time	2 minutes 32 seconds
Alignment memory usage	553.58 MB
Date created	2025:11:23 08:18:47
Software version	2.2.1.20149
File size	11.77 MB

Depth Maps

Count	129

Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	4 minutes 8 seconds
Memory usage	1.50 GB
Date created	2025:11:23 08:26:38
Software version	2.2.1.20149
File size	454.01 MB

Point Cloud

Points	45,830,351
Coordinate precision	3.35 cm

Point attributes

Color	3 bands, uint8
Normal	

Point classes

Created (never classified)	45,830,351

Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	4 minutes 8 seconds
Memory usage	1.50 GB

Point cloud generation parameters

Source data	Depth maps
Processing time	4 minutes 7 seconds
Memory usage	2.07 GB
Date created	2025:11:23 08:30:46
Software version	2.2.1.20149
File size	613.48 MB

DEM

Size	17,955 x 6,231
Resolution	13.4 cm/pix
Coordinate system	WGS 84 (EPSG::4326)

Reconstruction parameters

Source data	Point cloud
Interpolation	Enabled
Processing time	33 seconds
Memory usage	315.96 MB
Date created	2025:11:23 08:31:53
Software version	2.2.1.20149
File size	186.60 MB

Orthomosaic

Size	35,912 x 12,462
Resolution	6.69 cm/pix
Coordinate system	WGS 84 (EPSG::4326)
Colors	3 bands, uint8
Orthophotos	436.77 MB

Reconstruction parameters

Blending mode	Mosaic
Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	2 minutes 7 seconds
Memory usage	1.91 GB
Date created	2025:11:23 08:32:44
Software version	2.2.1.20149
File size	628.58 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