Agisoft Metashape

正在处理报告

24 February 2025

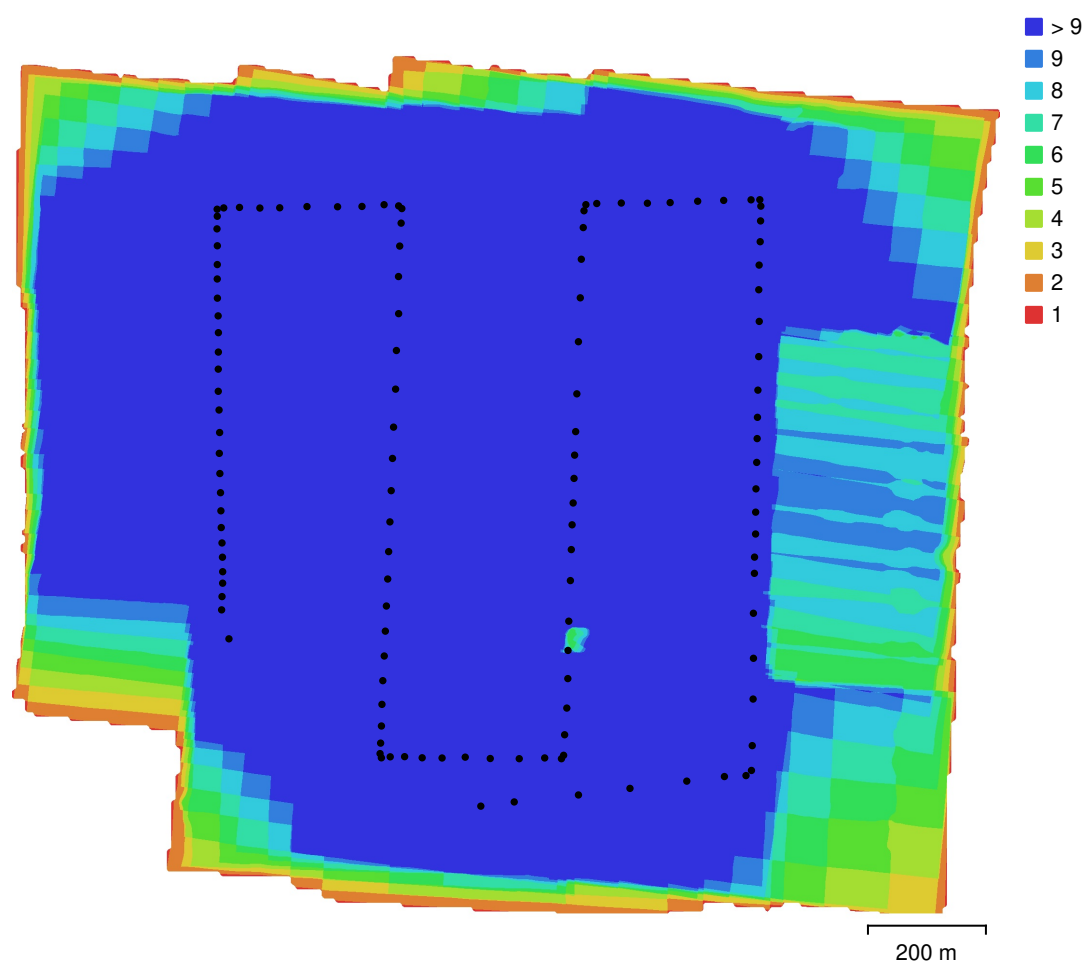# Survey Data

Fig. 1. Camera locations and image overlap.

Number of images:	122	Camera stations:	122
Flying altitude:	394 m	Tie points:	29,557
Ground resolution:	35.6 cm/pix	Projections:	118,200
Coverage area:	2.15 km²	Reprojection error:	0.893 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
NPU	1920 x 1080	unknown	unknown	No

Table 1. Cameras.

Camera Calibration
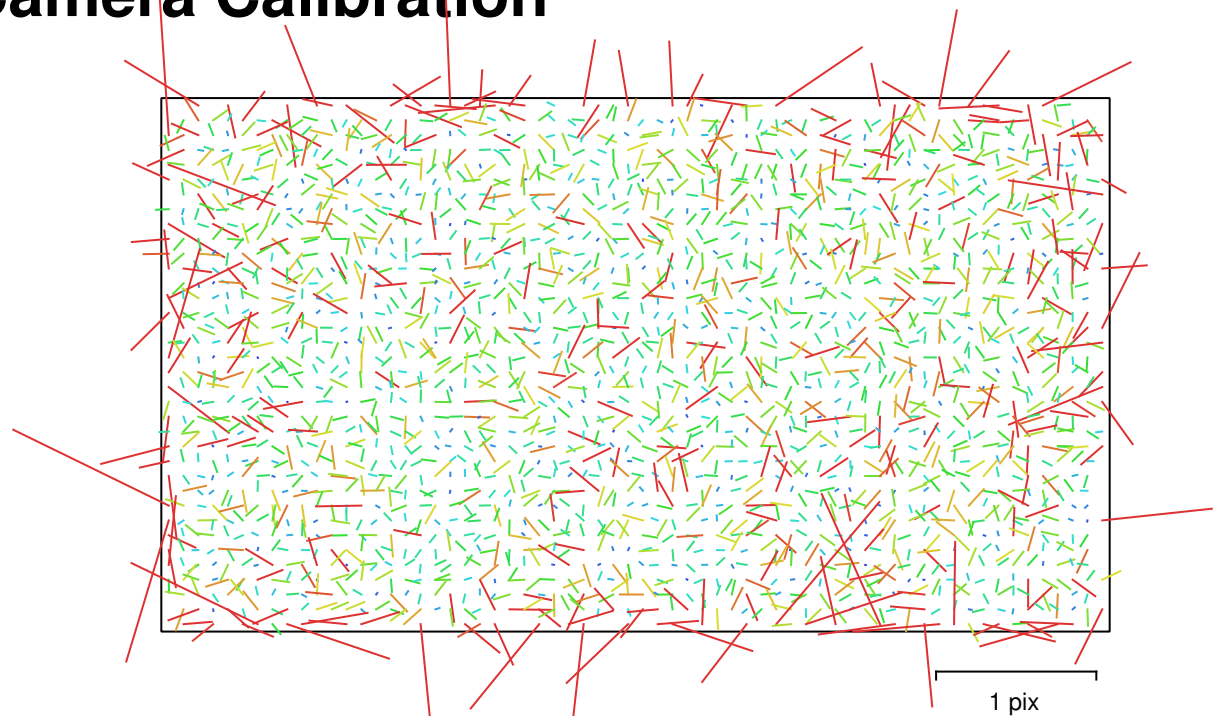
Fig. 2. Image residuals for NPU.

NPU

122 images

Type	Resolution	Focal Length	Pixel Size
Frame	**1920 x 1080**	**unknown**	**unknown**

	Value	Error	F	K1	K2
F	**1107.25**	2.2	1.00	0.08	0.40
K1	**-0.00599379**	0.00029		1.00	-0.33
K2	**0.00649306**	0.00013			1.00

Table 2. Calibration coefficients and correlation matrix.
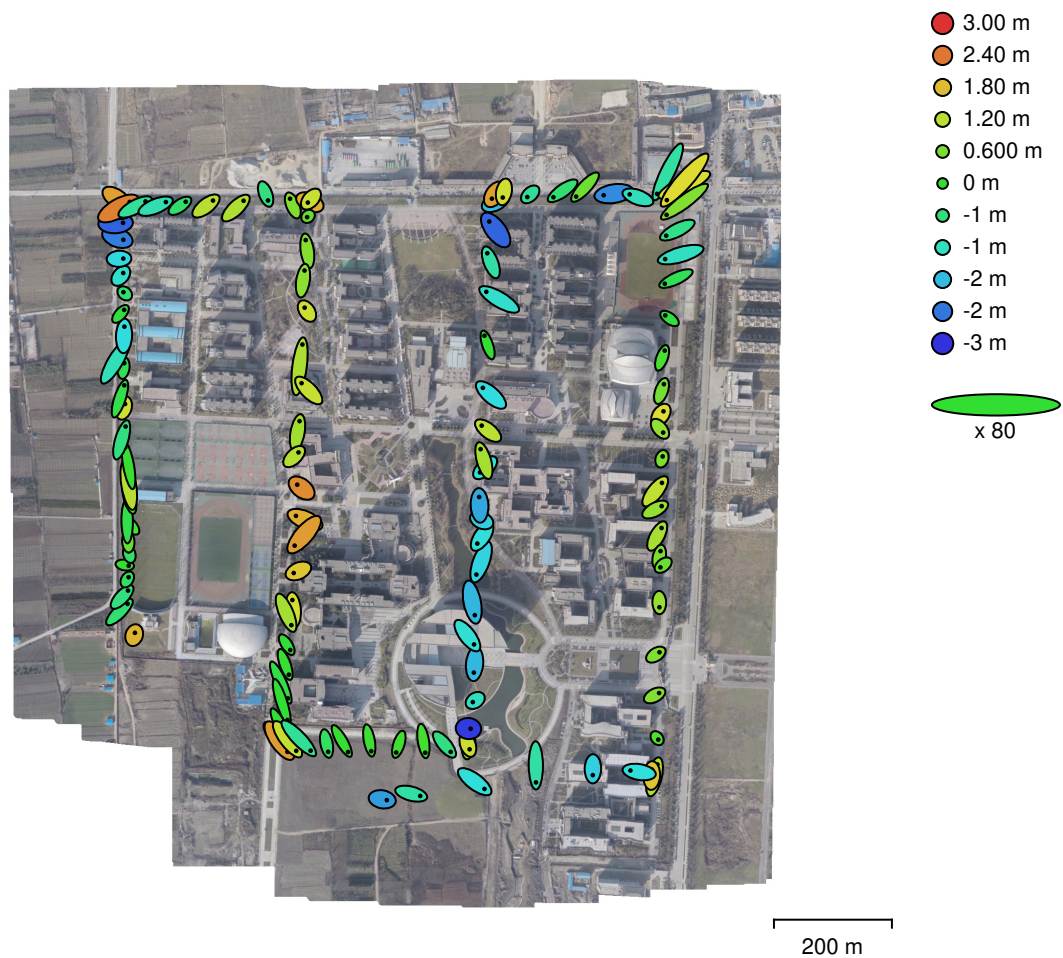
Camera Locations

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)
0.267499	0.365748	1.24777	0.453131	1.3275

Table 3. Average camera location error.

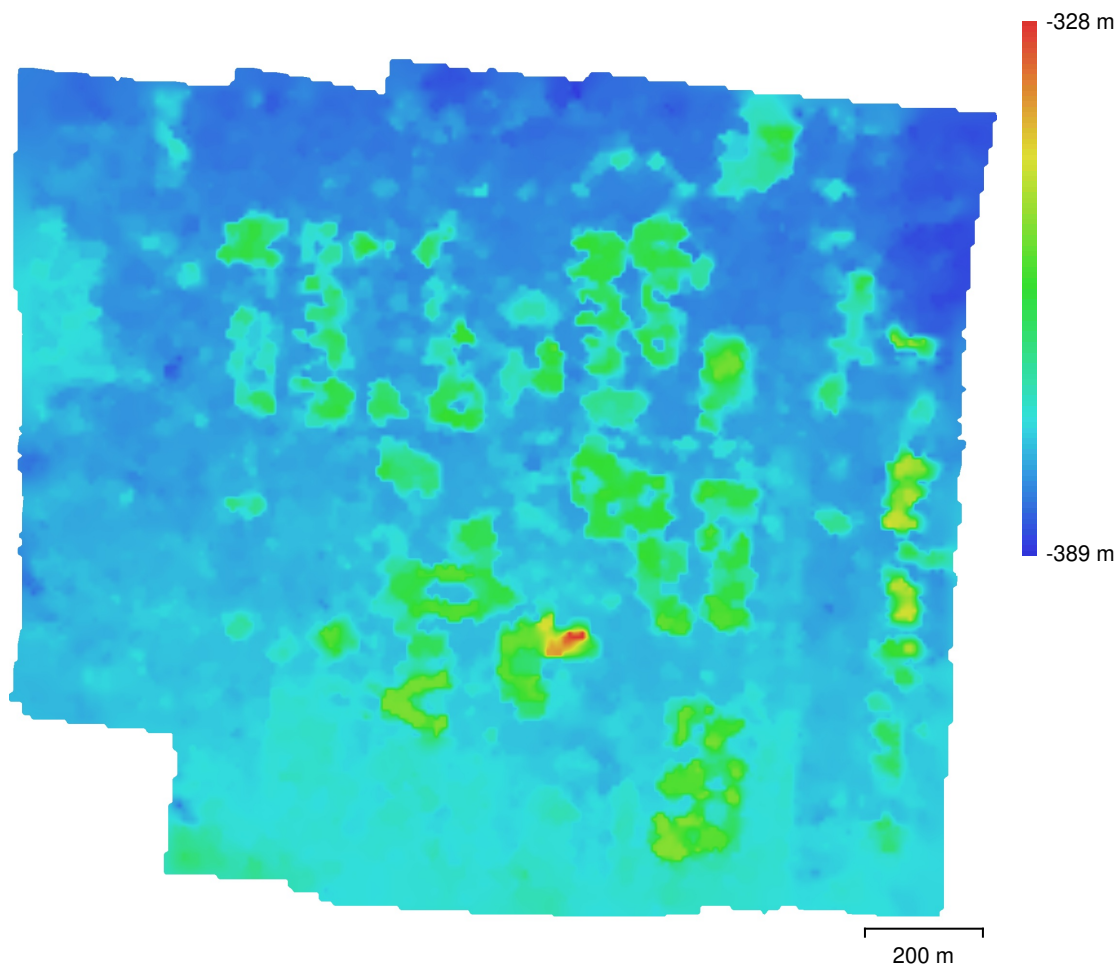X - Longitude, Y - Latitude, Z - Altitude.

Digital Elevation Model

Fig. 4. Reconstructed digital elevation model.

Resolution:	7.50 m/pix
Point density:	0.0178 points/m²

Processing Parameters

General

Images	122
Aligned images	122
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	29,557 of 35,528
RMS reprojection error	0.117708 (0.892572 pix)
Max reprojection error	0.357504 (13.404 pix)
Mean key point size	7.36302 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	4.34151
Alignment parameters	
Accuracy	Medium
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	Yes
Adaptive camera model fitting	Yes
Matching time	6 seconds
Matching memory usage	419.49 MB
Alignment time	27 seconds
Alignment memory usage	148.64 MB
Date created	2025:02:24 11:28:14
Software version	2.1.3.18946
File size	3.15 MB

DEM

Size	287 x 227
Resolution	7.50 m/pix
Coordinate system	WGS 84 (EPSG::4326)
Reconstruction parameters	
Source data	Tie points
Interpolation	Enabled
Processing time	0 seconds
Memory usage	0 B
Date created	2025:02:24 11:29:27
Software version	2.1.3.18946
File size	185.60 KB

Orthomosaic

Size	16,731 x 14,554
Resolution	10.0 cm/pix
Coordinate system	WGS 84 (EPSG::4326)
Colors	3 bands, uint8
Orthophotos	294.76 MB
Reconstruction parameters	
Blending mode	Mosaic

Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	54 seconds
Memory usage	1.40 GB
Date created	2025:02:24 11:30:03
Software version	2.1.3.18946
File size	390.70 MB

System

Software name	Agisoft Metashape Professional
Software version	2.1.3 build 18946
OS	Linux 64 bit
RAM	62.51 GB
CPU	Intel(R) Core(TM) i7-8700 CPU @ 3.20GHz
GPU(s)	NVIDIA GeForce GTX 1070