Agisoft Metashape

正在处理报告

24 February 2025
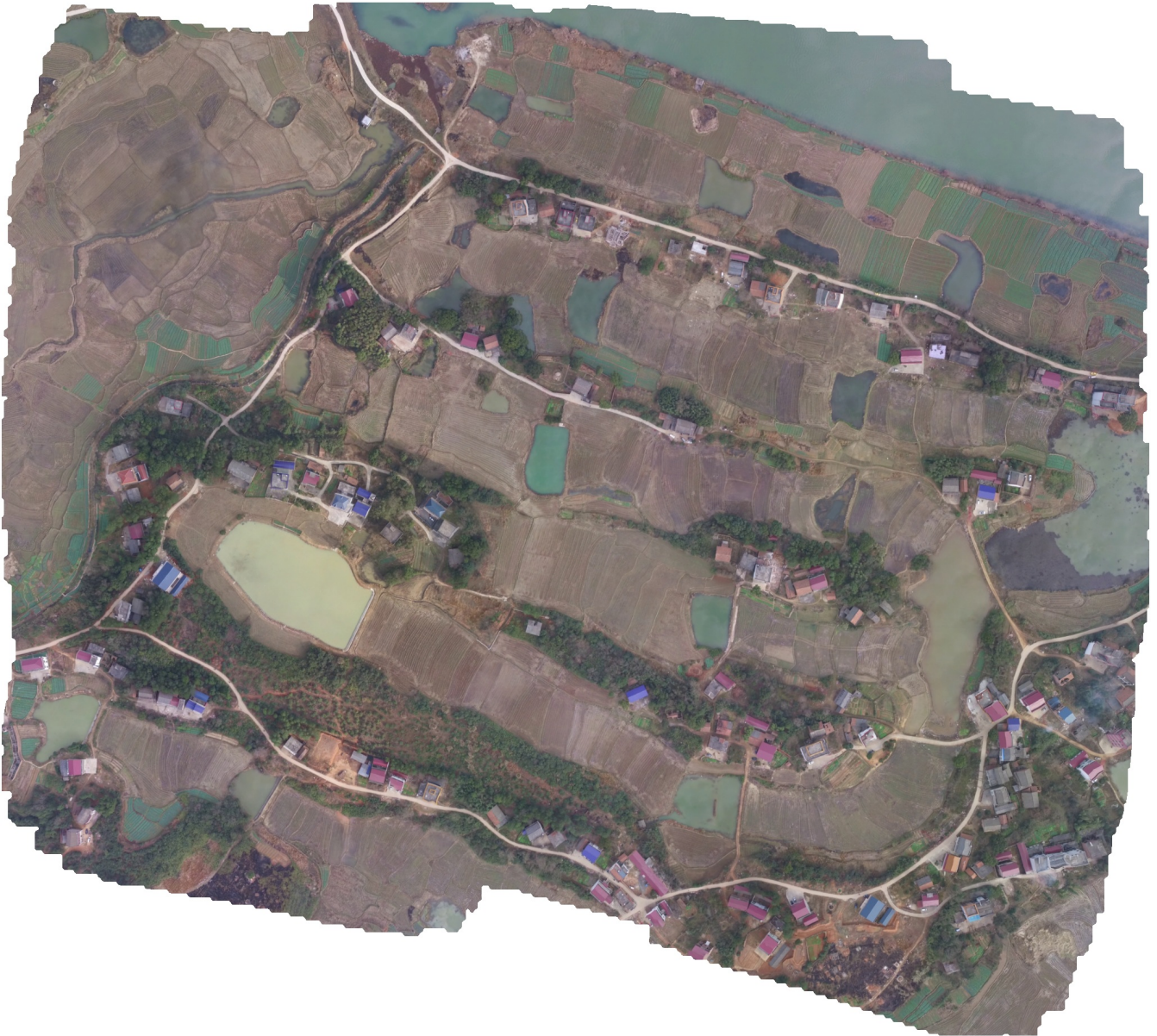
Survey Data
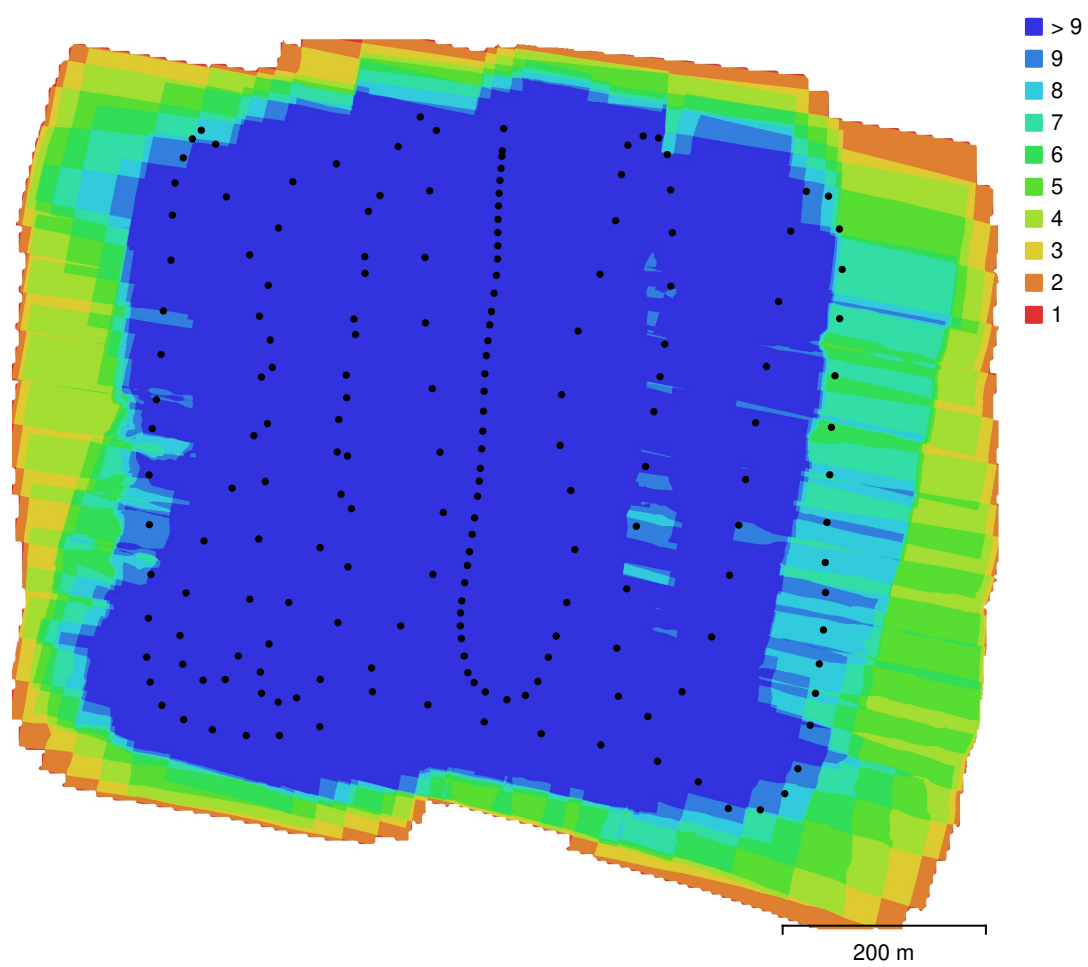
Fig. 1. Camera locations and image overlap.

Number of images:	184	Camera stations:	184
Flying altitude:	205 m	Tie points:	45,115
Ground resolution:	15.9 cm/pix	Projections:	160,799
Coverage area:	0.728 km²	Reprojection error:	1.19 pix

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

Table 1. Cameras.

Camera Calibration
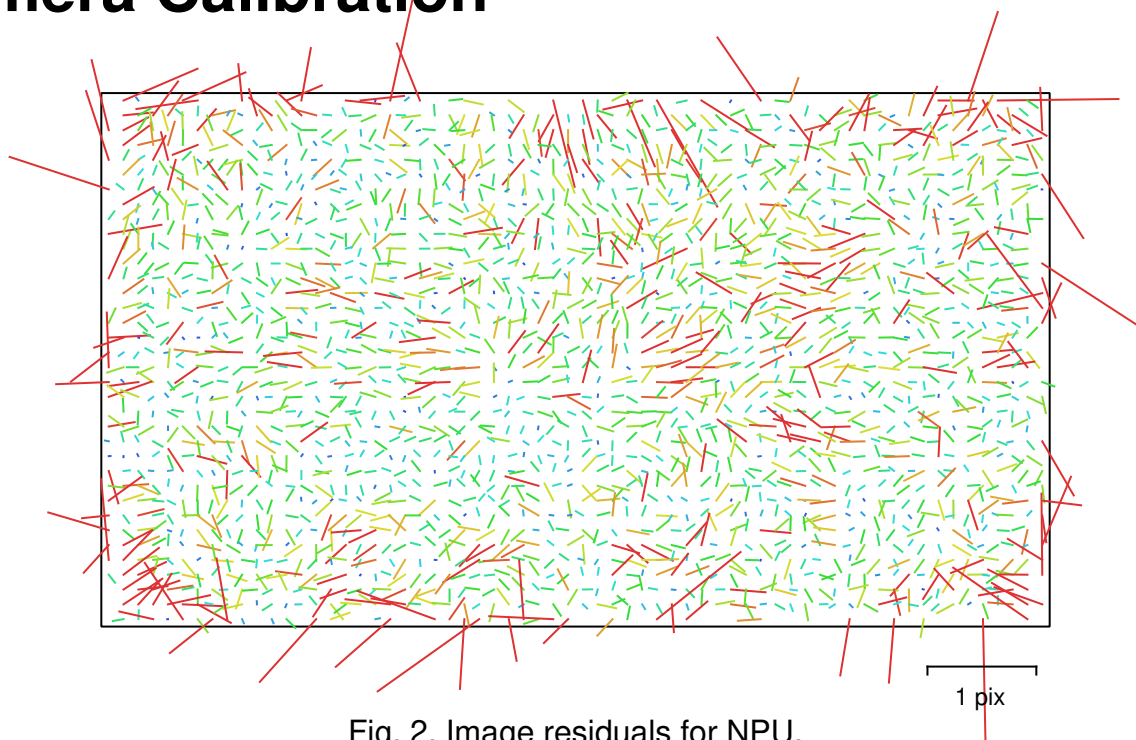
Fig. 2. Image residuals for NPU.

NPU

184 images

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

	Value	Error	F	K1	P1	P2
F	**1286.45**	4.4	1.00	0.26	0.06	-0.23
K1	**0.00964669**	0.00038		1.00	0.14	-0.11
P1	**0.0102084**	0.00014			1.00	-0.00
P2	**-0.00869869**	0.00014				1.00

Table 2. Calibration coefficients and correlation matrix.
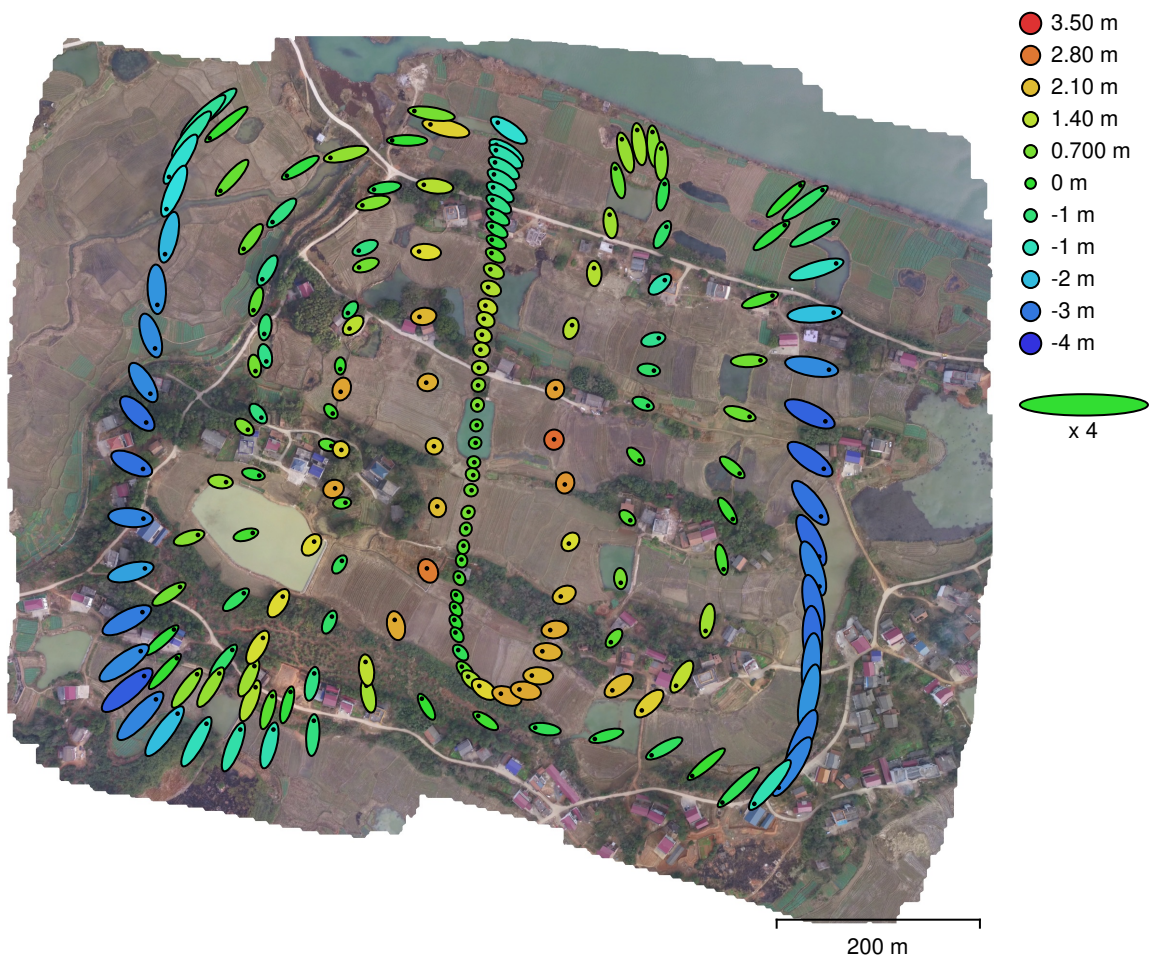
Camera Locations

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)
4.03419	4.40923	1.47557	5.97629	6.15576

Table 3. Average camera location error.

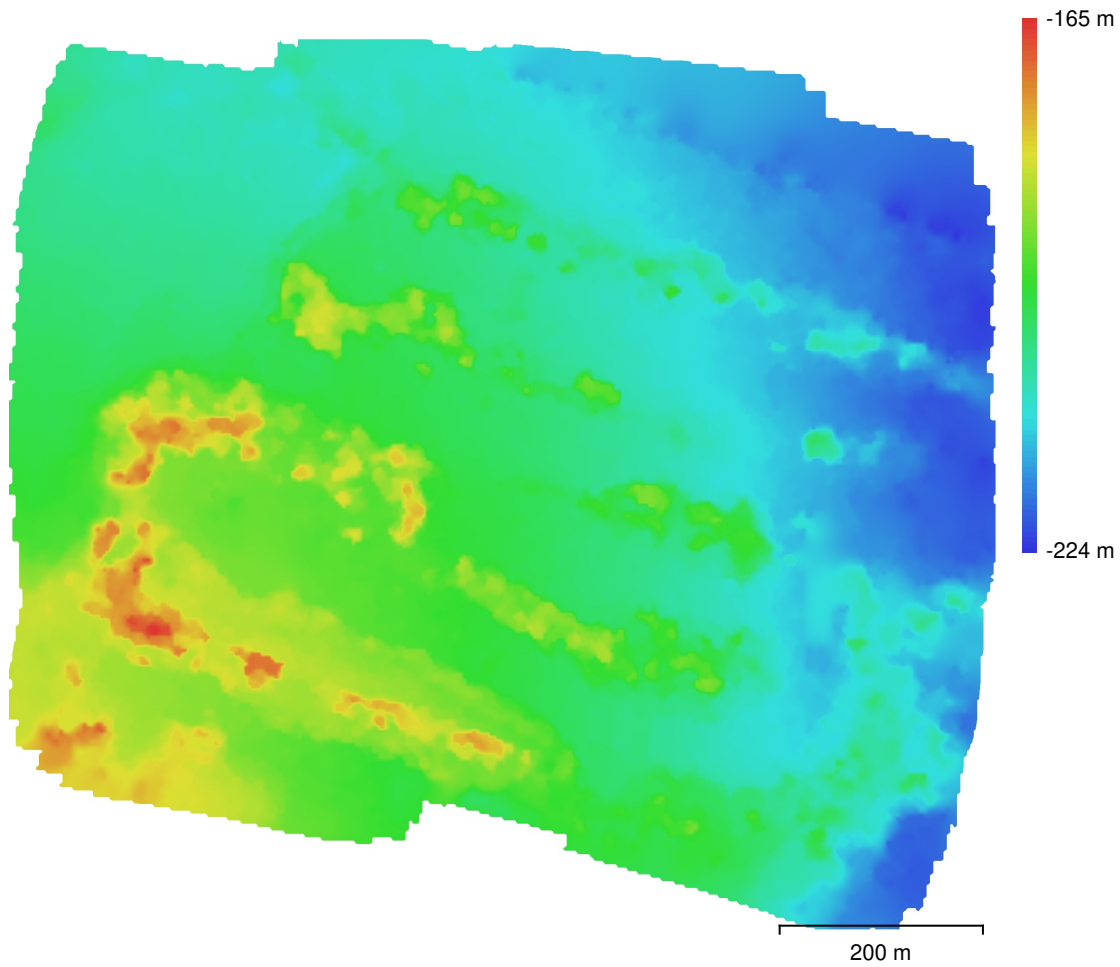X - Longitude, Y - Latitude, Z - Altitude.

Digital Elevation Model

Fig. 4. Reconstructed digital elevation model.

Resolution: 3.30 m/pix

Point density: 0.0917 points/m²

Processing Parameters

General

Images	184
Aligned images	184
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	45,115 of 51,853
RMS reprojection error	0.150108 (1.19186 pix)
Max reprojection error	0.454581 (18.2415 pix)
Mean key point size	7.11123 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	3.90969

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	8 seconds
Matching memory usage	468.66 MB
Alignment time	48 seconds
Alignment memory usage	232.88 MB
Date created	2025:02:24 13:24:26
Software version	2.1.3.18946
File size	4.30 MB

DEM

Size	294 x 265
Resolution	3.30 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 13:25:50
Software version	2.1.3.18946
File size	341.43 KB

Orthomosaic

Size	9,710 x 8,752
Resolution	10.0 cm/pix
Coordinate system	WGS 84 (EPSG::4326)
Colors	3 bands, uint8
Orthophotos	235.07 MB

Reconstruction parameters

Blending mode	Mosaic

Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	41 seconds
Memory usage	1.28 GB
Date created	2025:02:24 13:26:25
Software version	2.1.3.18946
File size	284.98 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