Agisoft Metashape

Processing Report

29 April 2025
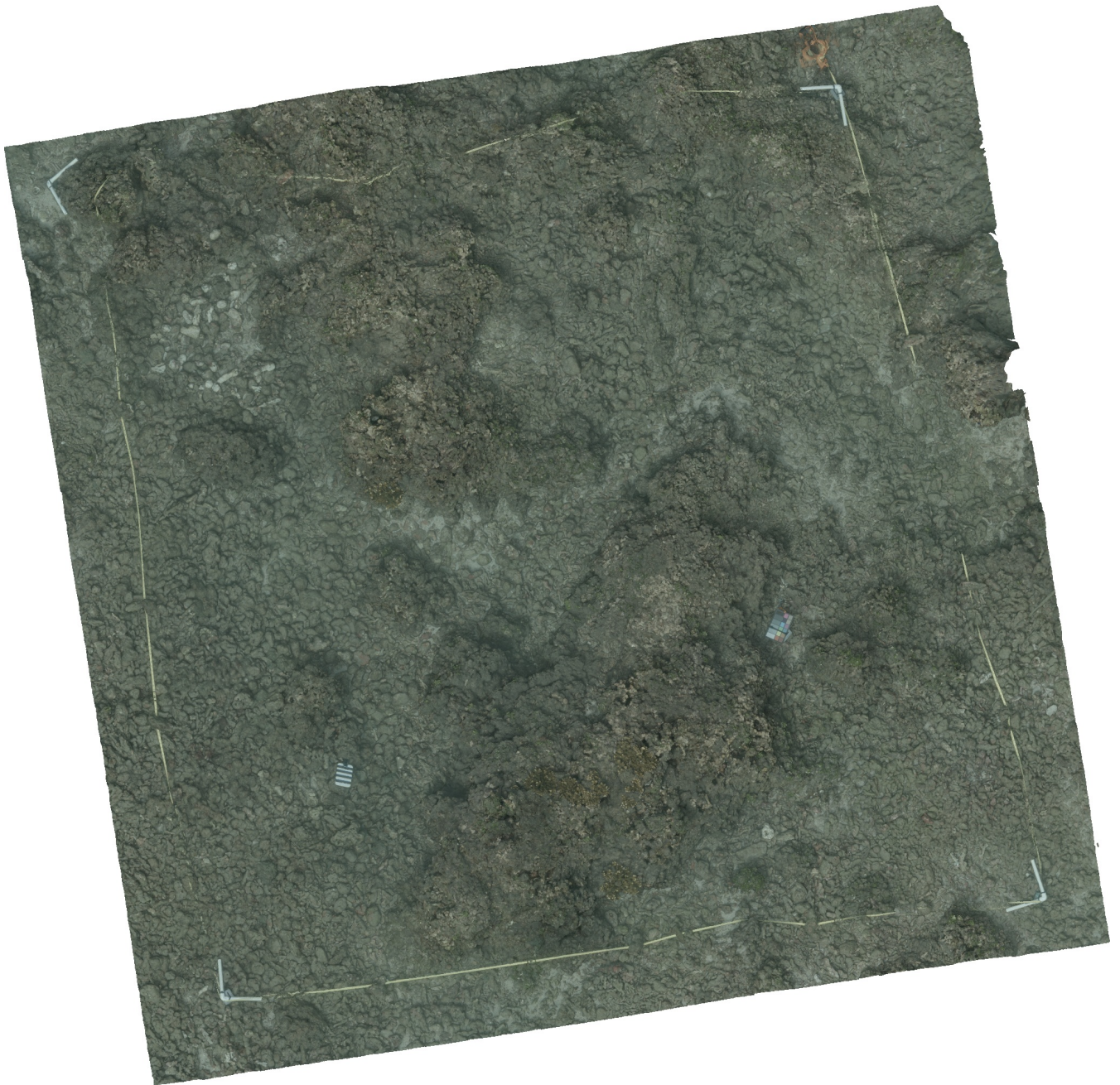
Survey Data
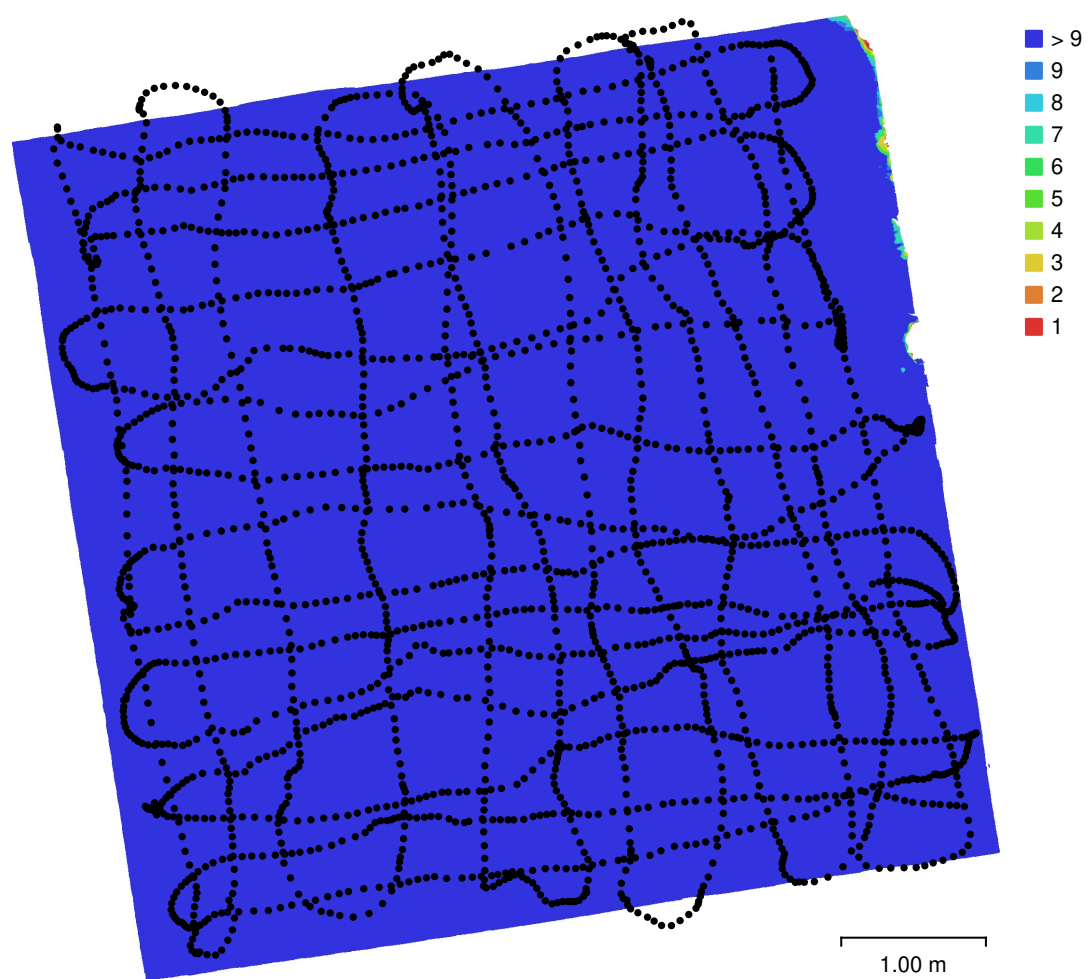
Fig. 1. Camera locations and image overlap.

Number of images:	2,523		Camera stations:	2,523
Flying altitude:	65.5 cm		Tie points:	934,037
Ground resolution:	0.211 mm/pix		Projections:	6,148,356
Coverage area:	35.0 m²		Reprojection error:	4.71 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
unknown	5312 x 4648	unknown	unknown	No

Table 1. Cameras.

Camera Calibration

4 pix
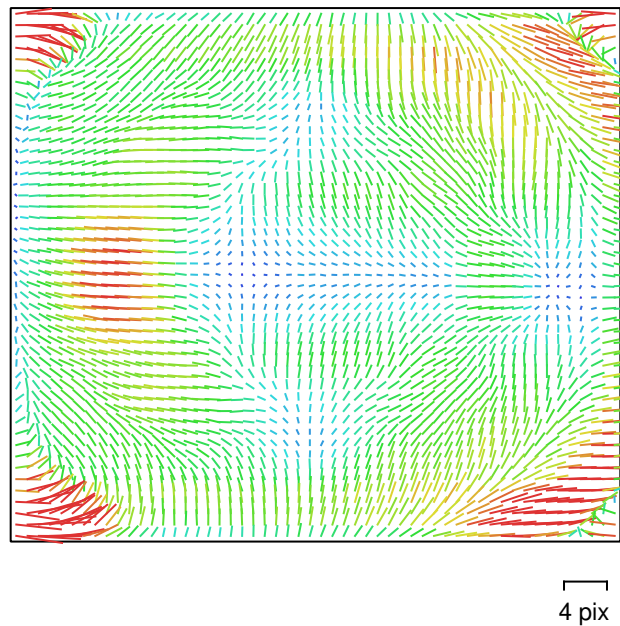
Fig. 2. Image residuals for unknown.

unknown

2523 images

Type	Resolution	Focal Length	Pixel Size
Frame	**5312 x 4648**	**unknown**	**unknown**

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	**3109.38**	0.12	1.00	-0.14	-0.09	-0.12	0.29	0.01	-0.12	-0.02
Cx	**-16.0708**	0.021		1.00	0.01	0.04	-0.07	0.06	0.65	0.00
Cy	**-6.1193**	0.02			1.00	0.01	-0.02	-0.01	-0.01	0.65
K1	**-0.0997844**	3e-05				1.00	-0.90	0.86	-0.03	-0.02
K2	**0.091547**	5.9e-05					1.00	-0.93	-0.05	-0.00
K3	**0.0023129**	3.6e-05						1.00	0.02	-0.01
P1	**-0.00390457**	2.1e-06							1.00	0.00
P2	**8.177e-05**	2.1e-06								1.00

Table 2. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
point 1_point 2	5.10574	0.105745
point 2_point 3	5.1761	0.176098
point 3_point 4	4.60698	-0.393019
point 1_point 4	5.07299	0.0729887
point 5_point 6	0.191466	-0.00853427
point 7_point 8	0.130096	-0.0699043
Total		**0.185716**

Table 3. Control scale bars.

Digital Elevation Model
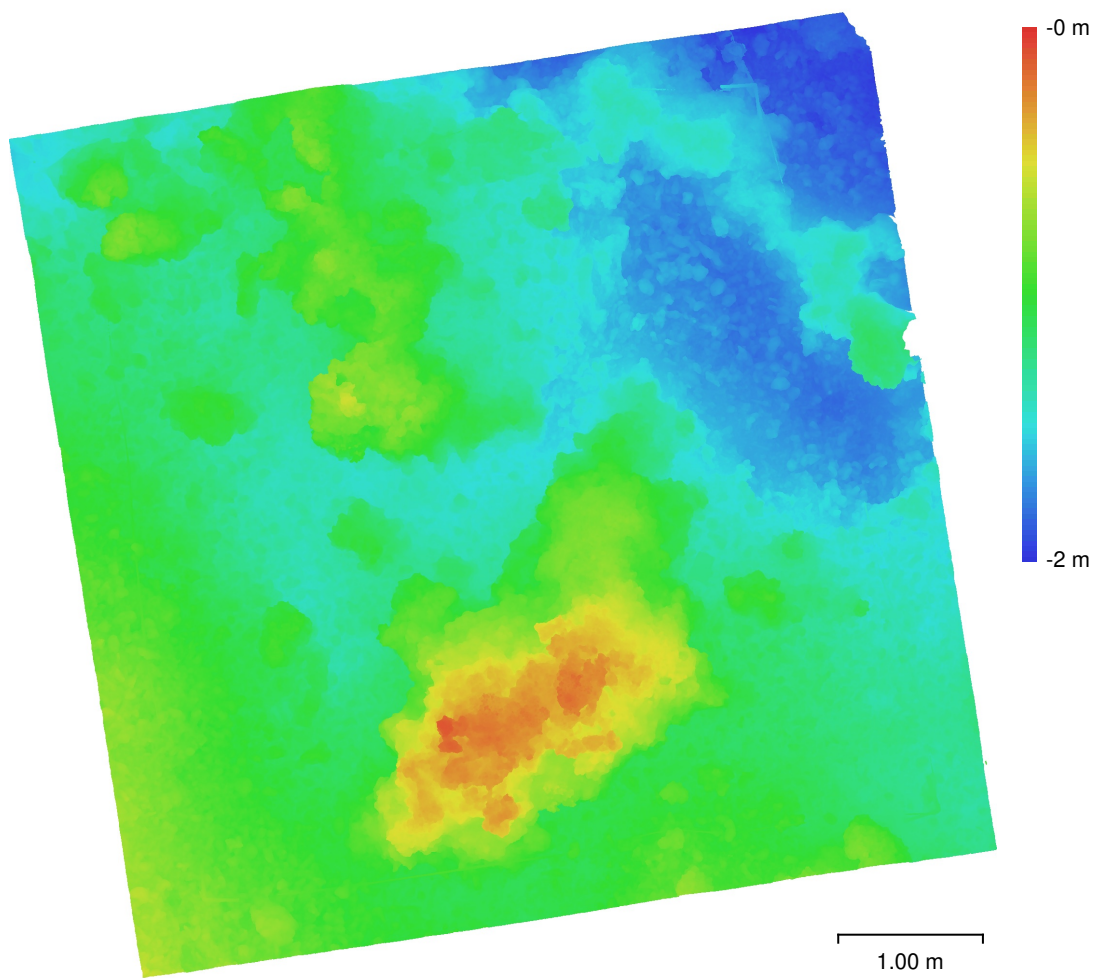

Fig. 3. Reconstructed digital elevation model.

Resolution: unknown
Point density: unknown

Processing Parameters

General

Images	2523
Aligned images	2523
Markers	8
Scale bars	6
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	934,037 of 1,509,085
RMS reprojection error	0.63542 (4.70545 pix)
Max reprojection error	1.95351 (86.9128 pix)
Mean key point size	7.58302 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	7.47971

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	No
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 hours 1 minutes
Matching memory usage	3.29 GB
Alignment time	1 hours 9 minutes
Alignment memory usage	1.89 GB
Date created	2025:04:03 12:42:00
Software version	2.2.0.19890
File size	198.26 MB

Depth Maps

Count	2517

Depth maps generation parameters

Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	5 hours 6 minutes
Memory usage	2.57 GB
Date created	2025:04:03 19:31:35
Software version	2.2.0.19890
File size	6.60 GB

Point Cloud

Points	150,530,340
Coordinate precision	0.212 mm

Point attributes

Color	3 bands, uint8
Normal	
Confidence	1 - 82

Point classes

Created (never classified)	150,530,340

Depth maps generation parameters

Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	5 hours 6 minutes
Memory usage	2.57 GB

Point cloud generation parameters

Source data	Depth maps
Processing time	9 hours 34 minutes
Memory usage	12.20 GB
Date created	2025:04:04 05:06:56
Software version	2.2.0.19890
File size	2.10 GB

Model

Faces	8,795,722
Vertices	4,407,541
Vertex colors	3 bands, uint8
Texture	8,192 x 8,192, 3 bands, uint8

Depth maps generation parameters

Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	5 hours 6 minutes
Memory usage	2.57 GB

Reconstruction parameters

Surface type	Arbitrary
Source data	Depth maps
Interpolation	Enabled
Strict volumetric masks	No
Processing time	51 minutes 25 seconds
Memory usage	10.05 GB

Texturing parameters

Mapping mode	Generic
Blending mode	Mosaic
Texture size	8,192
Page count	1
Enable hole filling	Yes
Enable ghosting filter	Yes
UV mapping time	10 minutes 28 seconds
UV mapping memory usage	2.41 GB
Blending time	27 minutes 24 seconds
Blending memory usage	8.72 GB
Blending GPU memory usage	2.55 GB
Date created	2025:04:29 13:16:55
Software version	2.2.0.19890
File size	486.73 MB

DEM

Size	8,041 x 7,855
Resolution	0.849 mm/pix
Coordinate system	Local Coordinates (m)

Reconstruction parameters

Source data	Point cloud
Interpolation	Enabled
Processing time	45 seconds

Memory usage	323.84 MB
Date created	2025:04:23 08:49:06
Software version	2.2.0.19890
File size	151.95 MB

Orthomosaic

Size	13,649 x 13,333
Resolution	0.500 mm/pix
Coordinate system	Local Coordinates (m)
Colors	3 bands, uint8
Orthophotos	2.79 GB

Reconstruction parameters

Blending mode	Mosaic
Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	25 minutes 40 seconds
Memory usage	1.01 GB
Date created	2025:04:23 09:11:50
Software version	2.2.0.19890
File size	2.92 GB

System

Software name	Agisoft Metashape Professional
Software version	2.2.0 build 19890
OS	Linux 64 bit
RAM	251.28 GB
CPU	Intel(R) Xeon(R) W-2223 CPU @ 3.60GHz
GPU(s)	NVIDIA RTX A5000