

Teatro de Verano 27/09/2024

Reporte de procesamiento
30 September 2024



Survey Data

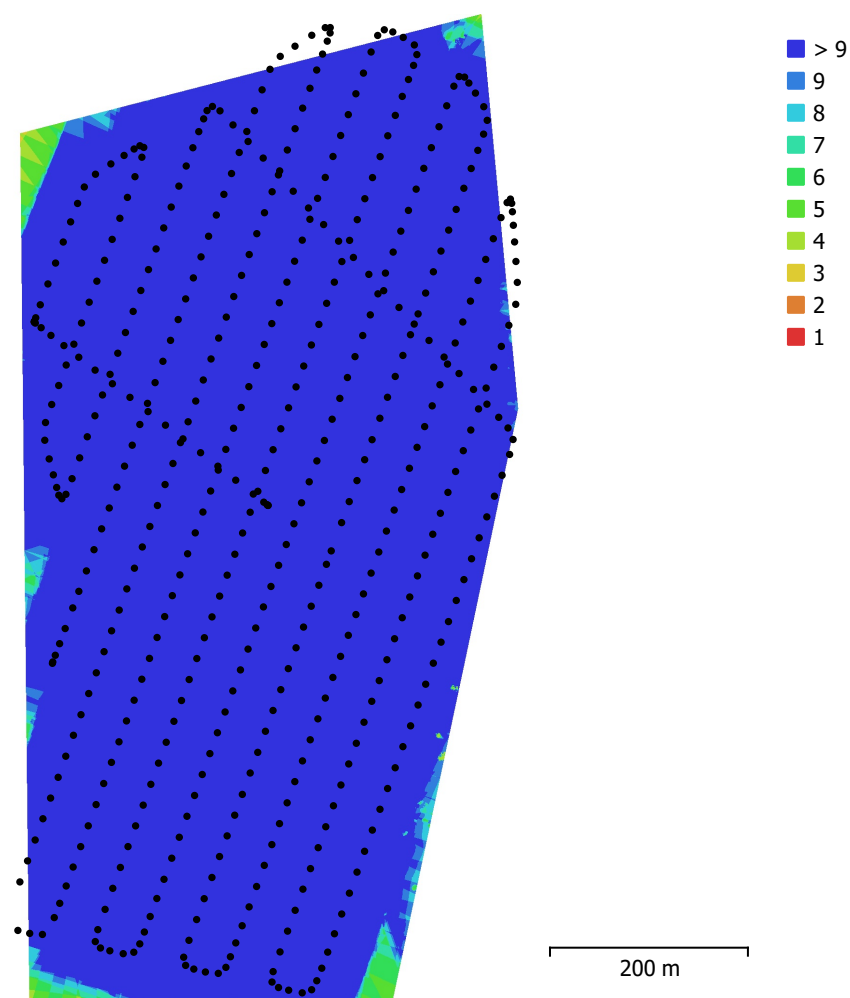


Fig. 1. Camera locations and image overlap.

Number of images:	489	Camera stations:	485
Flying altitude:	112 m	Tie points:	234,990
Ground resolution:	2.86 cm/pix	Projections:	1,718,831
Coverage area:	0.423 km ²	Reprojection error:	1 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
M3E (12.29mm)	5280 x 3956	12.29 mm	3.36 x 3.36 μm	Yes

Table 1. Cameras.

Camera Calibration

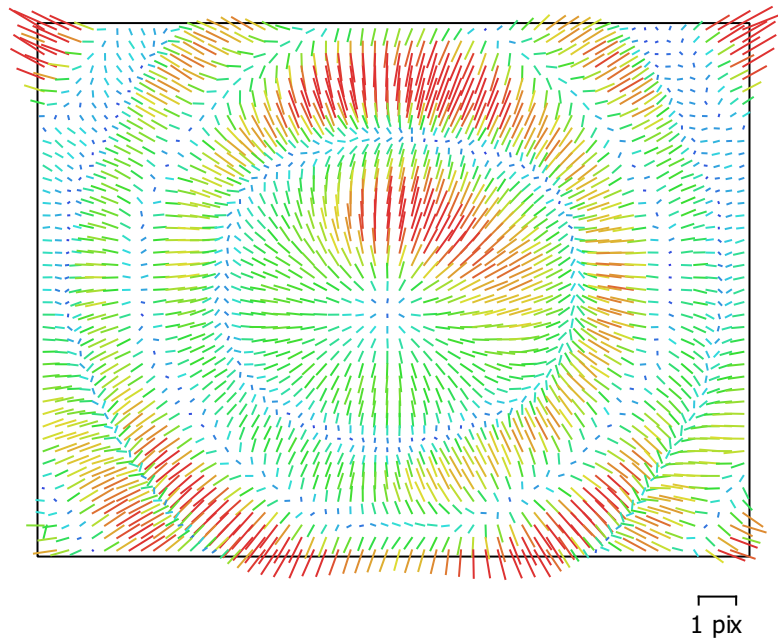


Fig. 2. Image residuals for M3E (12.29mm).

M3E (12.29mm)

489 images, precalibrated

Type	Resolution	Focal Length	Pixel Size
Frame	5280 x 3956	12.29 mm	3.36 x 3.36 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	3701.83	0.029	1.00	-0.02	0.04	-0.28	0.16	-0.18	-0.00	-0.04
Cx	23.3621	0.011		1.00	0.01	0.01	-0.02	0.03	0.48	-0.00
Cy	-63.3235	0.01			1.00	-0.02	0.02	-0.03	0.00	0.41
K1	-0.105375	1.3e-05				1.00	-0.97	0.92	-0.01	-0.04
K2	0.00162462	3.4e-05					1.00	-0.98	0.00	0.05
K3	-0.0191427	2.5e-05						1.00	0.01	-0.06
P1	-9.86076e-06	5.6e-07							1.00	0.01
P2	-0.000246848	5.3e-07								1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Locations

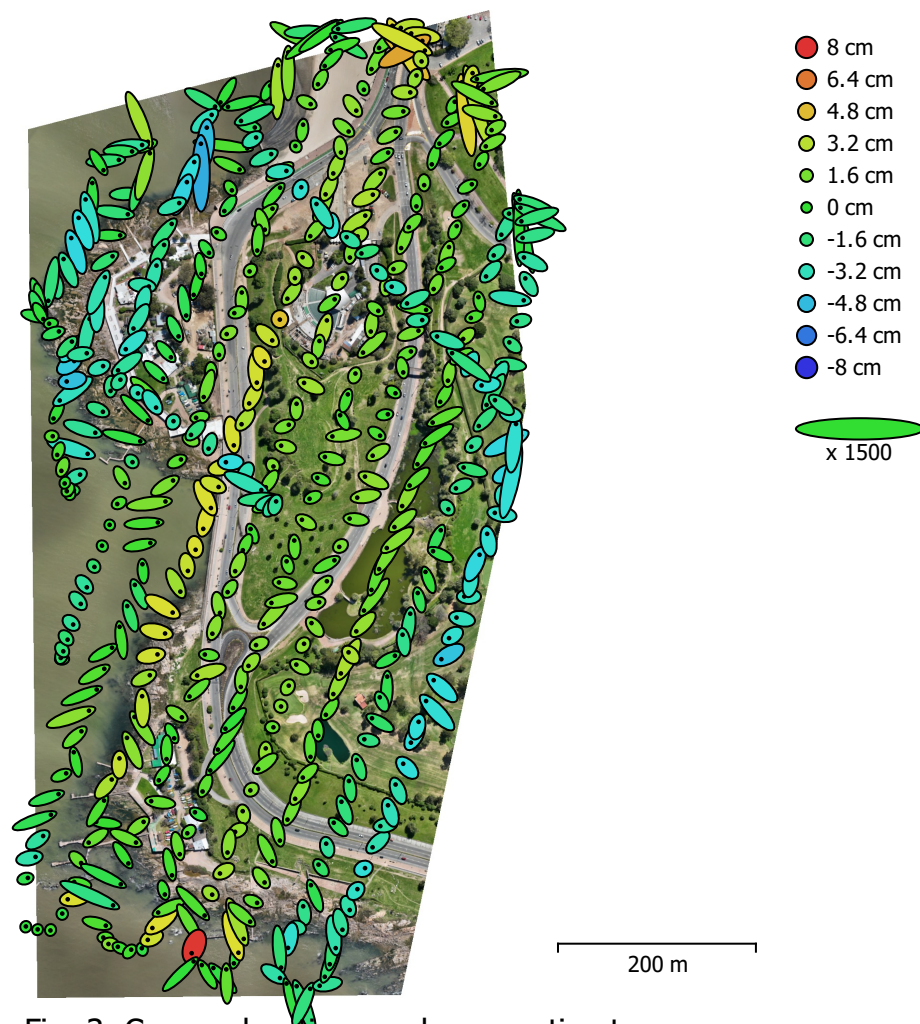


Fig. 3. Camera locations and error estimates.

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 (cm)	Y error (cm)	Z error (cm)	XY error (cm)	Total error (cm)
0.923068	1.07177	2.15104	1.41448	2.57444

Table 3. Average camera location error.

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

Digital Elevation Model

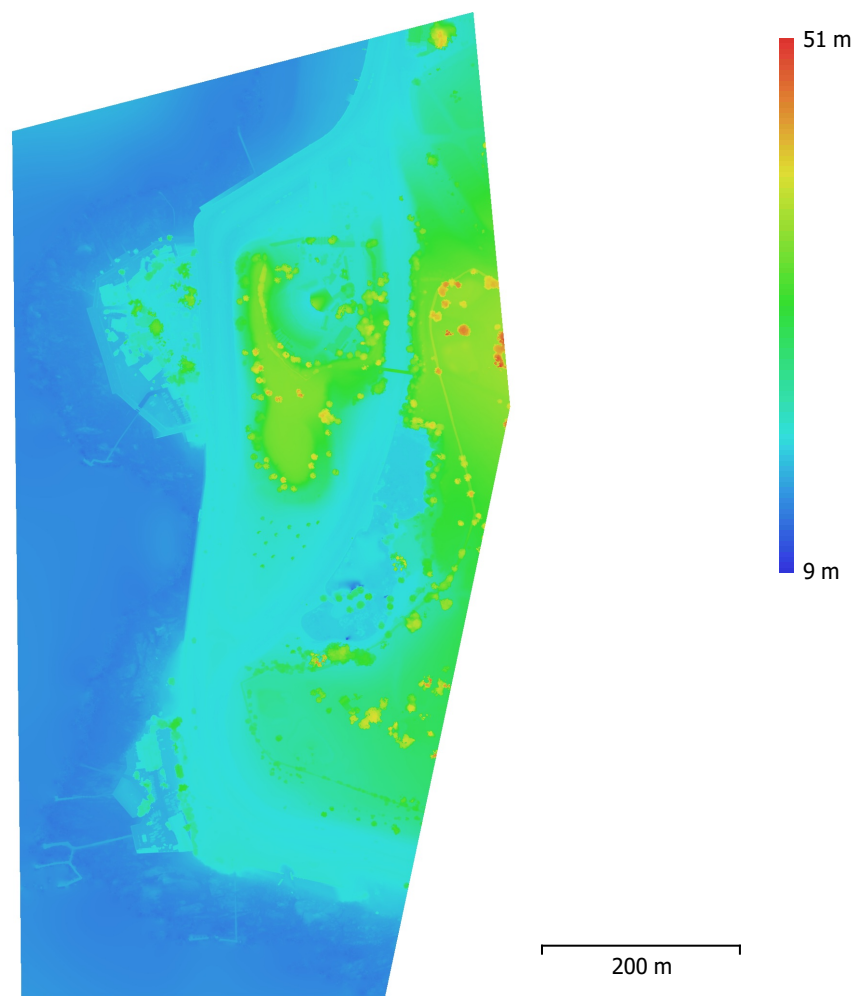


Fig. 4. Reconstructed digital elevation model.

Resolution: 5.72 cm/pix
Point density: 306 points/m²

Processing Parameters

General

Cameras 489

Aligned cameras 485

Shapes

Polygon 1

Coordinate system WGS 84 / UTM zone 21S (EPSG::32721)

Coordinate system WGS 84 (EPSG::4326)

Rotation angles Yaw, Pitch, Roll

Tie Points

Points 234,990 of 261,876

RMS reprojection error 0.25288 (1.00416 pix)

Max reprojection error 0.759774 (69.6081 pix)

Mean key point size 3.4814 pix

Point colors 3 bands, uint8

Key points No

Average tie point multiplicity 7.57387

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 Yes

Matching time 21 minutes 46 seconds

Matching memory usage 3.73 GB

Alignment time 3 minutes 32 seconds

Alignment memory usage 497.26 MB

Date created 2024:09:27 13:17:49

Software version 2.1.0.17532

File size 36.46 MB

Depth Maps

Count 482

Depth maps generation parameters

Quality High

Filtering mode Aggressive

Max neighbors 16

Processing time 4 hours 0 minutes

Memory usage 6.28 GB

Date created 2024:09:27 18:43:22

Software version 2.1.0.17532

File size 2.73 GB

Point Cloud

Points 145,462,047

Point attributes

Color 3 bands, uint8

Normal

Confidence 1 - 35

Point classes	
Created (never classified)	145,462,047
Depth maps generation parameters	
Quality	High
Filtering mode	Aggressive
Max neighbors	16
Processing time	4 hours 0 minutes
Memory usage	6.28 GB
Point cloud generation parameters	
Processing time	1 hours 10 minutes
Memory usage	10.86 GB
Date created	2024:09:27 19:53:56
Software version	2.1.0.17532
File size	2.05 GB
DEM	
Size	9,938 x 18,738
Coordinate system	WGS 84 / UTM zone 21S (EPSG::32721)
Reconstruction parameters	
Source data	Point cloud
Interpolation	Enabled
Processing time	1 minutes 50 seconds
Memory usage	317.14 MB
Date created	2024:09:30 11:47:05
Software version	2.1.0.17532
File size	681.53 MB
Orthomosaic	
Size	19,876 x 37,476
Coordinate system	WGS 84 / UTM zone 21S (EPSG::32721)
Colors	3 bands, uint8
Reconstruction parameters	
Blending mode	Mosaic
Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	13 minutes 38 seconds
Memory usage	2.00 GB
Date created	2024:09:30 11:59:31
Software version	2.1.0.17532
File size	10.73 GB
System	
Software name	Agisoft Metashape Professional
Software version	2.1.0 build 17532
OS	Windows 64 bit
RAM	63.93 GB
CPU	Intel(R) Core(TM) i7-9700F CPU @ 3.00GHz
GPU(s)	Intel(R) FPGA Emulation Device Radeon(TM) RX 460 Graphics (Baffin) Radeon(TM) RX 460 Graphics (Baffin)