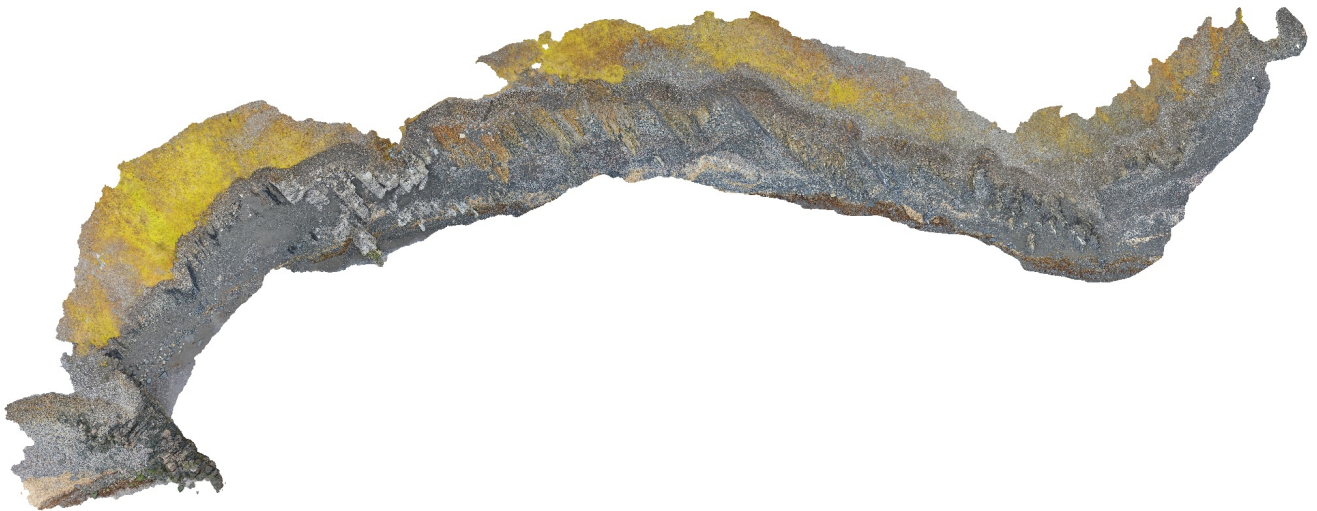


Diabasbukta processing report

Processing Report
10 September 2022



Survey Data

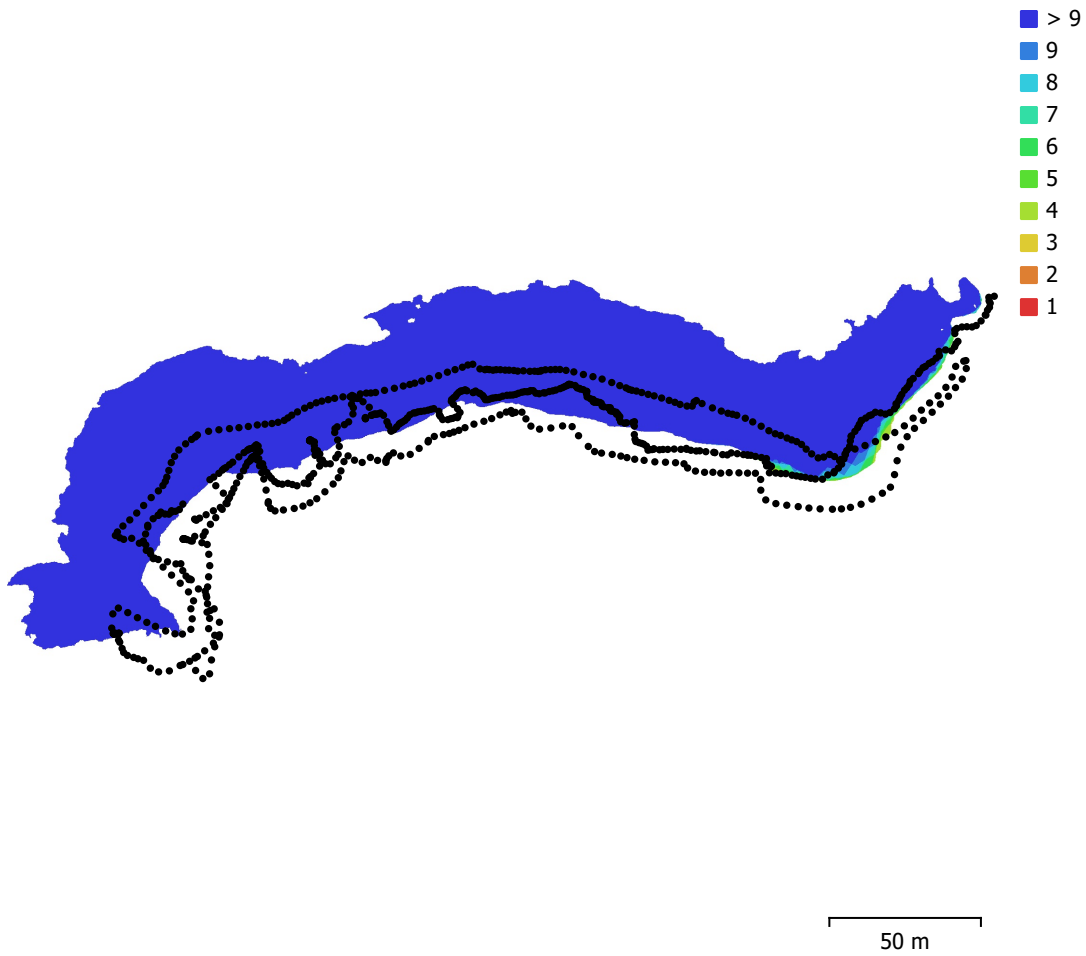


Fig. 1. Camera locations and image overlap.

Number of images:	744	Camera stations:	744
Flying altitude:	12.2 m	Tie points:	754,174
Ground resolution:	3.8 mm/pix	Projections:	2,679,943
Coverage area:	0.0131 km ²	Reprojection error:	0.313 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
Test_Pro (10.26mm)	5472 x 3648	10.26 mm	2.41 x 2.41 μ m	No

Table 1. Cameras.

Camera Calibration

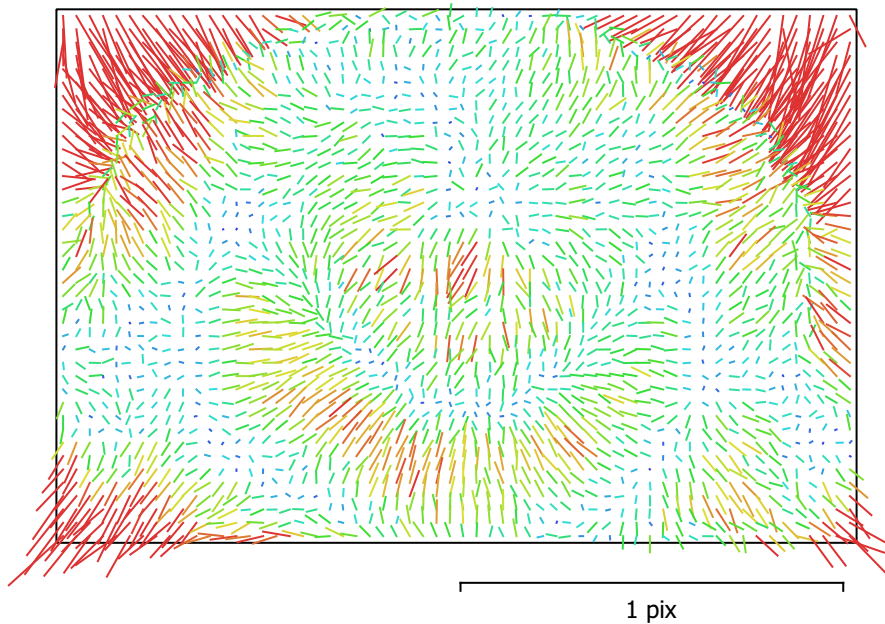


Fig. 2. Image residuals for Test_Pro (10.26mm).

Test_Pro (10.26mm)

744 images

Type	Resolution	Focal Length	Pixel Size
Frame	5472 x 3648	10.26 mm	2.41 x 2.41 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	4347.51	0.046	1.00	-0.12	-0.66	0.01	0.07	-0.07	-0.06	-0.26
Cx	7.26003	0.052		1.00	0.02	-0.09	-0.01	0.02	0.88	0.08
Cy	-53.8524	0.069			1.00	-0.09	0.05	-0.04	-0.06	0.48
K1	0.00309235	1.6e-05				1.00	-0.94	0.87	-0.10	-0.22
K2	0.0178954	6.5e-05					1.00	-0.98	-0.02	0.07
K3	-0.0209519	8.5e-05						1.00	0.02	-0.05
P1	0.000125947	3.5e-06							1.00	0.08
P2	-0.00317275	2.3e-06								1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Locations

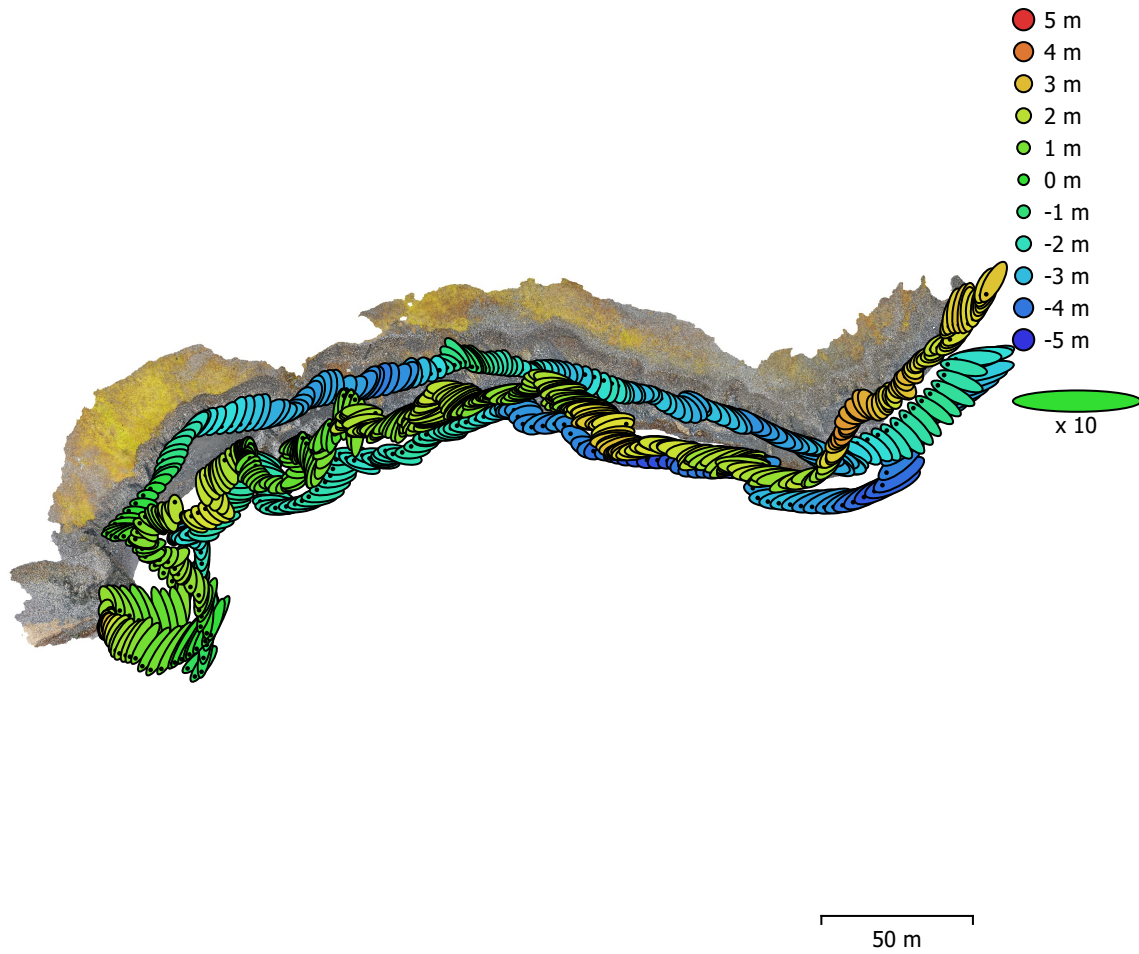


Fig. 3. Camera locations and error estimates.
 Z error is represented by ellipse color. X,Y errors are represented by ellipse shape.
 Estimated camera locations are marked with a black dot.

X error (m)	Y error (m)	Z error (m)	XY error (m)	Total error (m)
0.652976	0.454751	2.18503	0.795724	2.32541

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

Digital Elevation Model

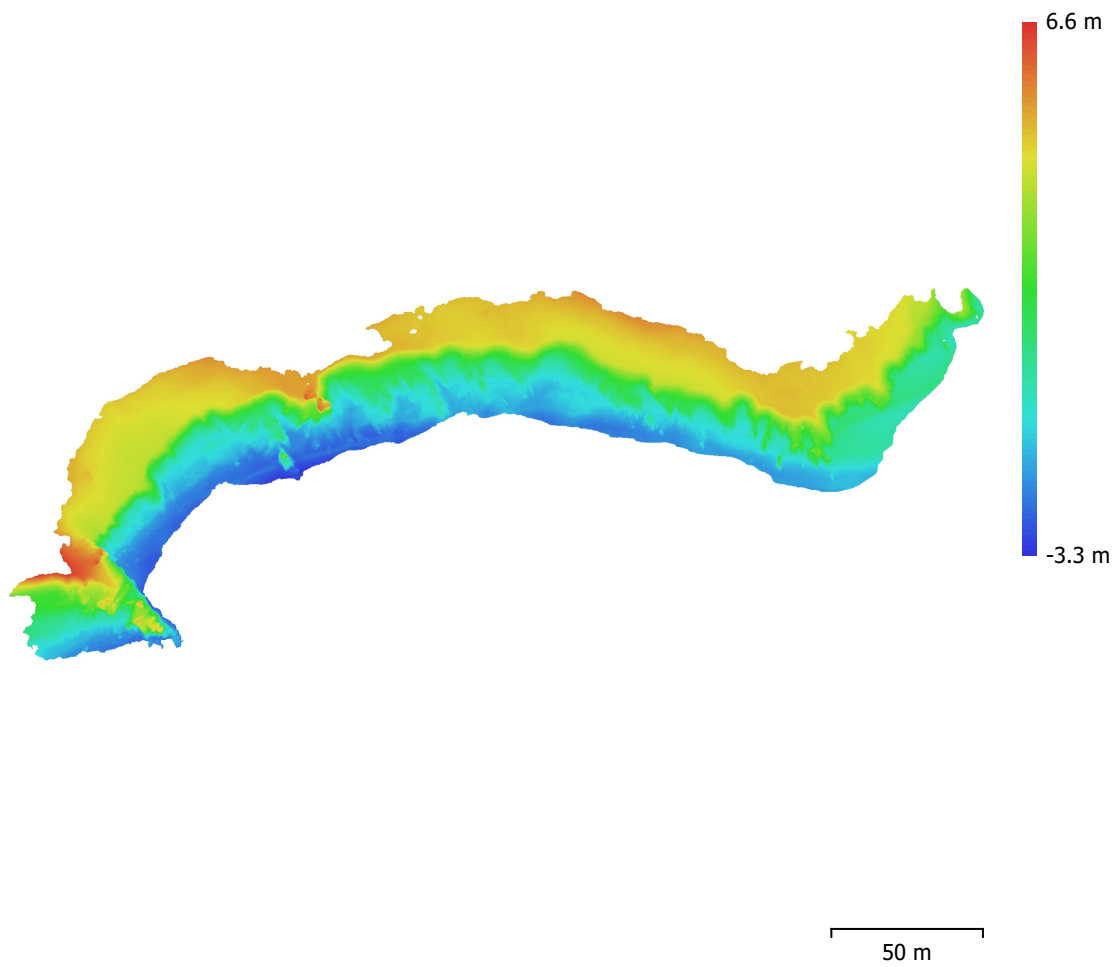


Fig. 4. Reconstructed digital elevation model.

Resolution: 7.59 mm/pix
Point density: 1.74 points/cm²

Processing Parameters

General

Cameras	744
Aligned cameras	744
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	754,174 of 5,436,161
RMS reprojection error	0.131084 (0.312838 pix)
Max reprojection error	1.43483 (4.82716 pix)
Mean key point size	2.34279 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	3.51223

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	No
Key point limit	60,000
Key point limit per Mpx	1,000
Tie point limit	0
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	33 minutes 45 seconds
Matching memory usage	1.63 GB
Alignment time	37 minutes 57 seconds
Alignment memory usage	1.91 GB

Optimization parameters

Parameters	f, cx, cy, k1-k3, p1, p2
Adaptive camera model fitting	No
Optimization time	20 seconds
Date created	2022:09:07 11:56:53
Software version	1.8.4.14856
File size	324.25 MB

Depth Maps

Count	744
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	40 minutes 3 seconds
Memory usage	4.22 GB
Date created	2022:09:08 08:36:18
Software version	1.8.4.14856
File size	5.54 GB

Dense Point Cloud

Points	214,429,824
Point colors	3 bands, uint8
Depth maps generation parameters	
Quality	High

Filtering mode	Mild
Max neighbors	16
Processing time	40 minutes 3 seconds
Memory usage	4.22 GB
Dense cloud generation parameters	
Processing time	4 hours 38 minutes
Memory usage	15.75 GB
Date created	2022:09:08 13:15:15
Software version	1.8.4.14856
File size	5.11 GB
Model	
Faces	52,023,863
Vertices	26,014,482
Vertex colors	3 bands, uint8
Texture	8,192 x 8,192 x 10, 4 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	40 minutes 3 seconds
Memory usage	4.22 GB
Reconstruction parameters	
Surface type	Arbitrary
Source data	Dense cloud
Interpolation	Enabled
Strict volumetric masks	No
Processing time	41 minutes 33 seconds
Memory usage	14.23 GB
Texturing parameters	
Mapping mode	Generic
Blending mode	Mosaic
Texture size	8,192
Enable hole filling	Yes
Enable ghosting filter	Yes
UV mapping time	3 minutes 12 seconds
UV mapping memory usage	7.05 GB
Blending time	59 minutes 54 seconds
Blending memory usage	50.48 GB
Date created	2022:09:08 14:22:09
Software version	1.8.4.14856
File size	3.17 GB
Tiled Model	
Texture	3 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	40 minutes 3 seconds
Memory usage	4.22 GB
Reconstruction parameters	
Source data	Dense cloud
Tile size	256
Face count	High
Enable ghosting filter	No
Processing time	1 hours 53 minutes
Memory usage	9.99 GB

Date created	2022:09:10 13:45:58
Software version	1.8.4.14856
File size	1.85 GB

System

Software name	Agisoft Metashape Professional
Software version	1.8.4 build 14856
OS	Windows 64 bit
RAM	127.78 GB
CPU	Intel(R) Core(TM) i9-9900K CPU @ 3.60GHz
GPU(s)	GeForce RTX 2080