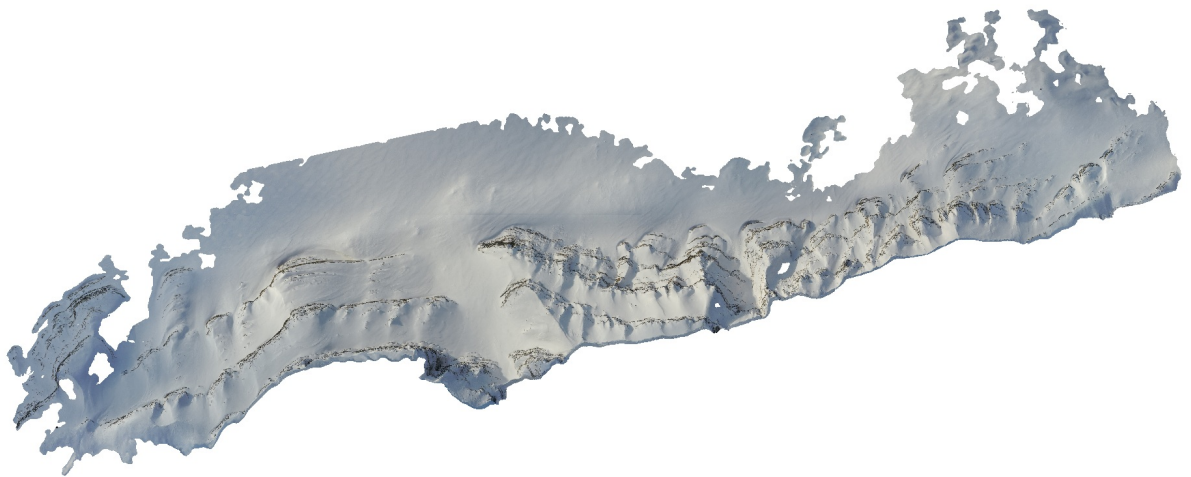


Productustoppen North Face

Dense Cloud Confidence 4-255
Connected component size 99%

15 March 2022



Survey Data

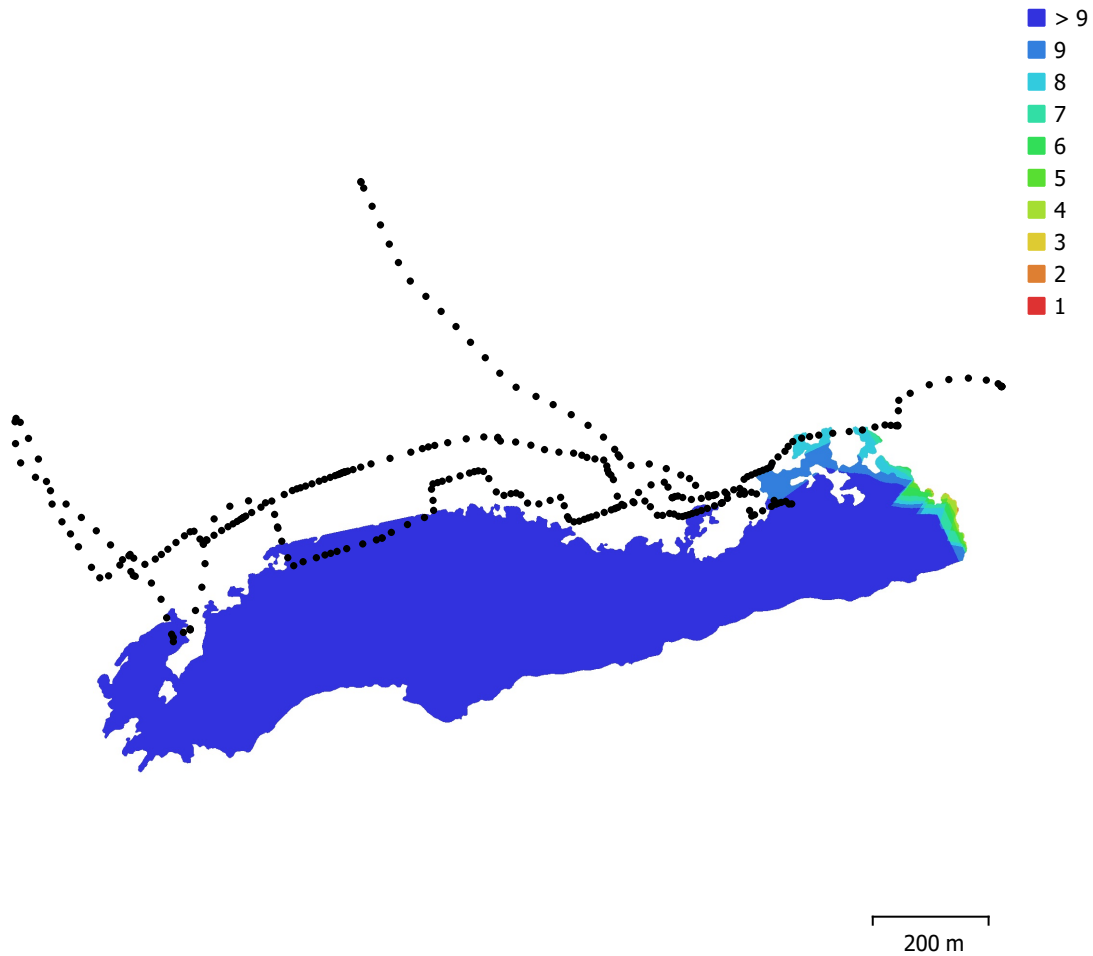


Fig. 1. Camera locations and image overlap.

Number of images:	309	Camera stations:	309
Flying altitude:	295 m	Tie points:	79,936
Ground resolution:	6.03 cm/pix	Projections:	678,565
Coverage area:	0.347 km ²	Reprojection error:	0.94 pix

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

Table 1. Cameras.

Camera Calibration

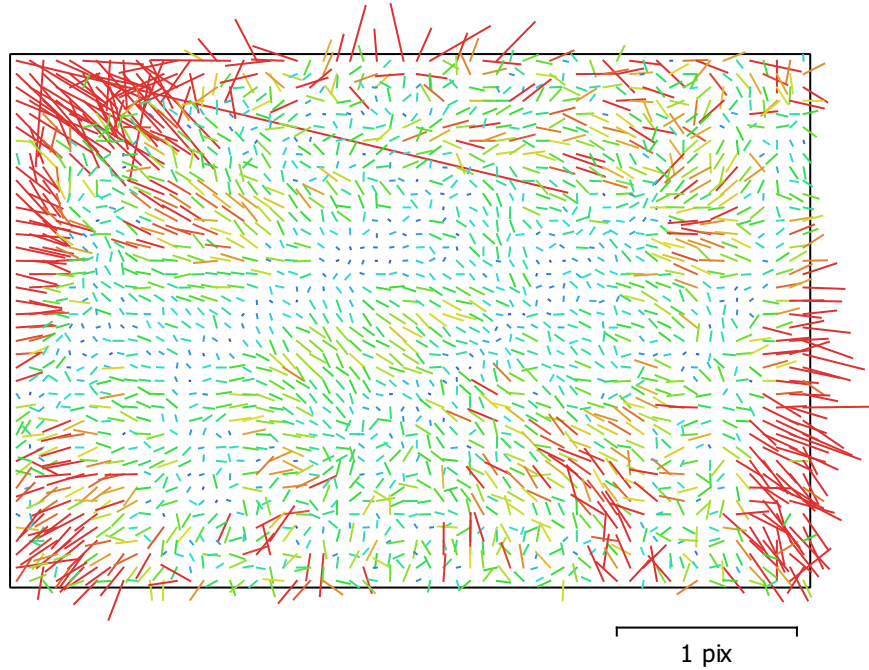


Fig. 2. Image residuals for Test_Pro (10.26mm).

Test_Pro (10.26mm)

309 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	B1	B2	K1	K2	K3	P1	P2
F	4338.75	0.091	1.00	0.00	-0.16	-0.66	0.02	-0.04	0.06	-0.05	0.00	-0.11
Cx	18.8774	0.11		1.00	0.05	-0.05	-0.01	-0.02	0.00	0.00	0.91	-0.07
Cy	-50.4984	0.11			1.00	-0.32	0.13	-0.05	0.01	-0.01	-0.04	0.62
B1	6.38264	0.096				1.00	-0.13	0.02	0.02	-0.02	0.04	-0.07
B2	12.3721	0.081					1.00	-0.02	0.00	-0.00	-0.10	0.10
K1	0.00444572	3.7e-05						1.00	-0.95	0.89	0.00	-0.07
K2	0.0438538	0.00016							1.00	-0.98	-0.00	0.03
K3	-0.046812	0.00023								1.00	0.01	-0.03
P1	0.000319911	8.1e-06									1.00	-0.11
P2	-0.00381562	4.1e-06										1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Locations

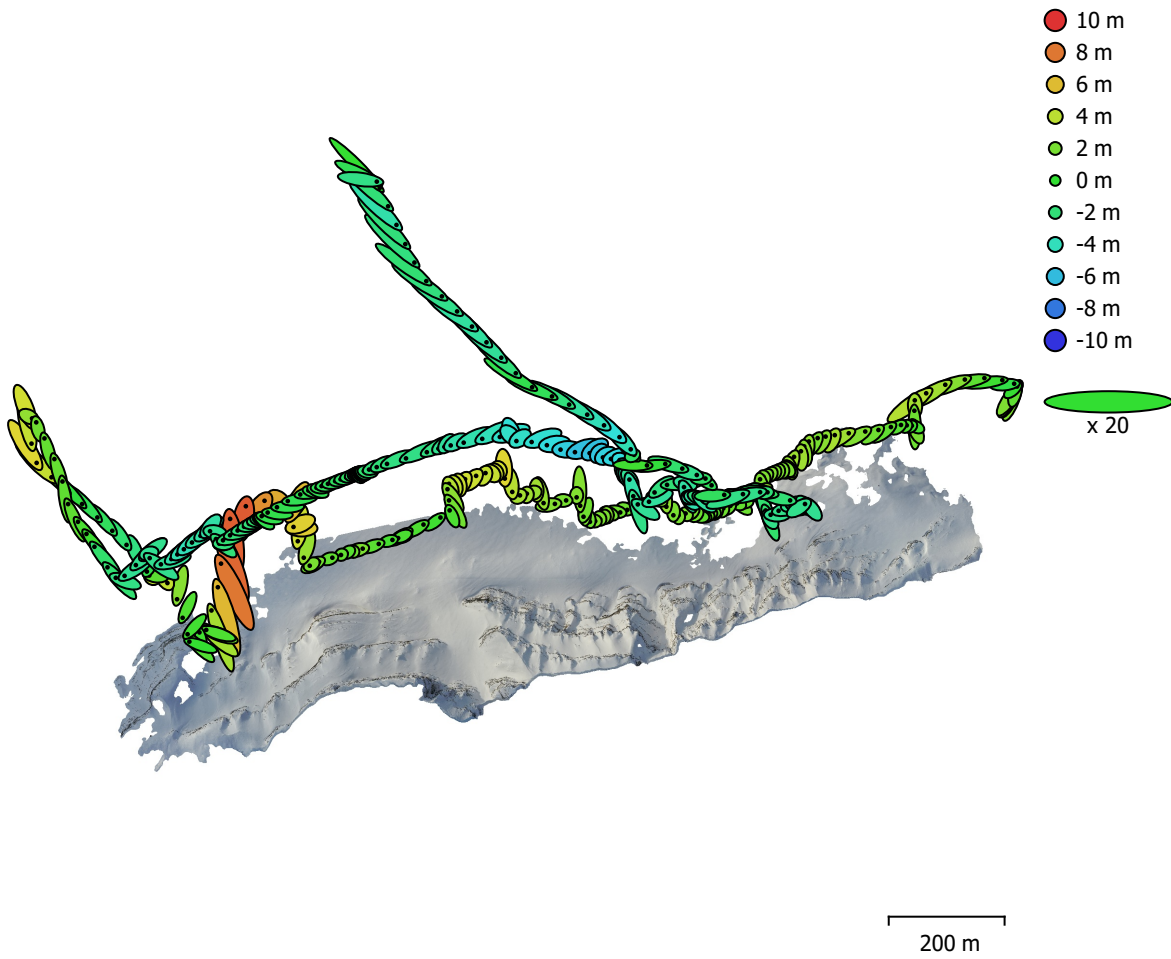


Fig. 3. Camera locations and error estimates.

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)
1.41769	1.35587	2.85836	1.96169	3.46676

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

Digital Elevation Model

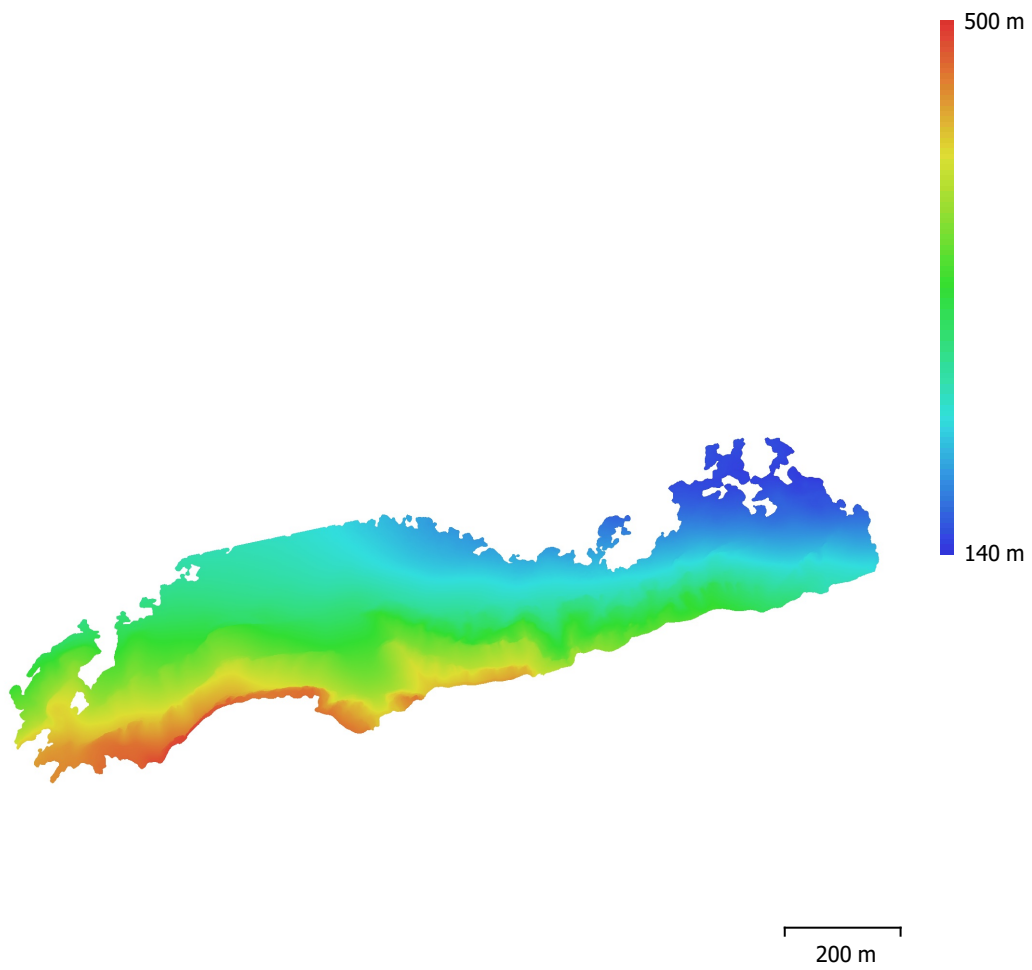


Fig. 4. Reconstructed digital elevation model.

Resolution: 12.1 cm/pix
Point density: 68.7 points/m²

Processing Parameters

General

Cameras	309
Aligned cameras	309
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	79,936 of 122,199
RMS reprojection error	0.269308 (0.940471 pix)
Max reprojection error	1.13046 (35.7452 pix)
Mean key point size	3.41838 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	12.6872

Alignment parameters

Accuracy	Highest
Generic preselection	Yes
Reference preselection	Source
Key point limit	40,000
Tie point limit	4,000
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	Yes
Matching time	6 minutes 49 seconds
Matching memory usage	508.85 MB
Alignment time	4 minutes 48 seconds
Alignment memory usage	347.86 MB

Optimization parameters

Parameters	f, cx, cy, k1-k3, p1, p2
Adaptive camera model fitting	Yes
Optimization time	5 seconds
Software version	1.7.3.12473
File size	25.88 MB

Depth Maps

Count	309
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Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	100
Processing time	34 minutes 14 seconds
Memory usage	9.48 GB
Software version	1.7.3.12473
File size	1.70 GB

Dense Point Cloud

Points	32,139,480
Point colors	3 bands, uint8

Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	100
Processing time	34 minutes 14 seconds

Memory usage	9.48 GB
Dense cloud generation parameters	
Processing time	1 hours 48 minutes
Memory usage	12.77 GB
Software version	1.7.3.12473
File size	827.95 MB
Model	
Faces	2,100,216
Vertices	1,058,855
Vertex colors	3 bands, uint8
Texture	4,096 x 4,096 x 10, 4 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	100
Processing time	34 minutes 14 seconds
Memory usage	9.48 GB
Reconstruction parameters	
Surface type	Arbitrary
Source data	Dense cloud
Interpolation	Enabled
Strict volumetric masks	No
Processing time	12 minutes 1 seconds
Memory usage	16.52 GB
Texturing parameters	
Mapping mode	Generic
Blending mode	Mosaic
Texture size	4,096
Enable hole filling	Yes
Enable ghosting filter	Yes
UV mapping time	3 minutes 31 seconds
UV mapping memory usage	3.68 GB
Blending time	15 minutes 52 seconds
Blending memory usage	5.40 GB
Software version	1.7.2.12040
File size	282.05 MB
Tiled Model	
Texture	3 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	100
Processing time	34 minutes 14 seconds
Memory usage	9.48 GB
Reconstruction parameters	
Source data	Dense cloud
Tile size	256
Face count	Medium
Enable ghosting filter	No
Processing time	1 hours 8 minutes
Memory usage	1.49 GB
Software version	1.7.2.12040
File size	185.20 MB
System	
Software name	Agisoft Metashape Professional
Software version	1.7.2 build 12040

OS
RAM
CPU
GPU(s)

Windows 64 bit
127.78 GB
Intel(R) Core(TM) i9-9900K CPU @ 3.60GHz
GeForce RTX 2080