

Agisoft Metashape

Processing Report

11 December 2023



Survey Data

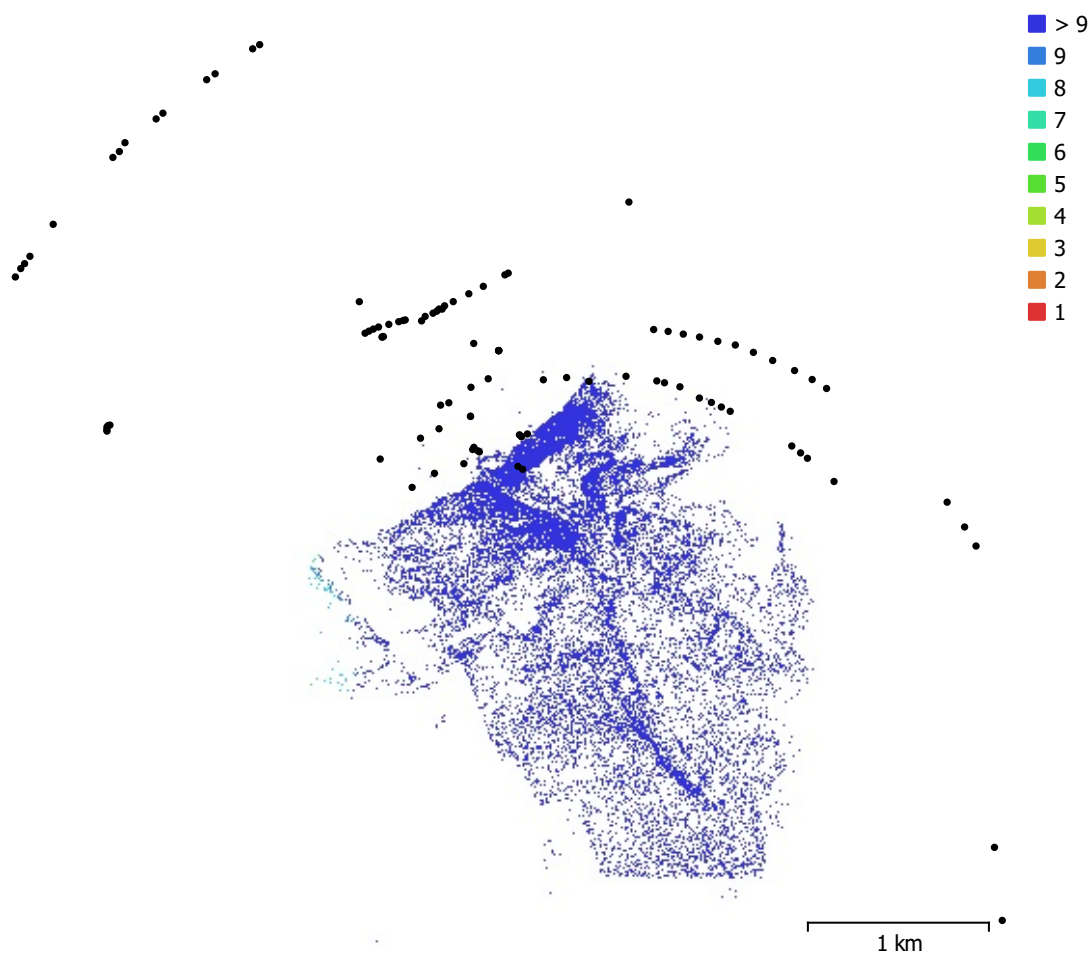


Fig. 1. Camera locations and image overlap.

Number of images:	107	Camera stations:	102
Flying altitude:	2.49 km	Tie points:	28,403
Ground resolution:	19.2 cm/pix	Projections:	120,041
Coverage area:	1.46 km ²	Reprojection error:	1.39 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
Canon EOS 5D Mark IV, ...	6720 x 4480	105 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	70 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	65 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	40 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	75 mm	4.44 x 4.44 μm	No

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
Canon EOS 5D Mark IV, ...	6720 x 4480	35 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	58 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	47 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	55 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	67 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	95 mm	4.44 x 4.44 μm	No
Canon EOS 5D Mark IV, ...	6720 x 4480	88 mm	4.44 x 4.44 μm	No
FC3582 (6.72mm)	4032 x 3024	6.72 mm	2.4 x 2.4 μm	No
LEICA SL2, Summicron-...	4182 x 2791	50 mm	8.61 x 8.61 μm	No
DC-TZ202 (8.8mm)	5472 x 3648	8.8 mm	2.41 x 2.41 μm	No
DC-TZ202 (9.1mm)	5472 x 3648	9.1 mm	2.39 x 2.39 μm	No
LEICA SL2, Summicron-...	4184 x 2792	50 mm	8.6 x 8.6 μm	No
NIKON Z 8, 0.0 mm f/0.0	8256 x 5504	unknown	4.35 x 4.35 μm	No
NIKON D850, 24.0-70.0 ...	8256 x 5504	32 mm	4.35 x 4.35 μm	No
NIKON D850, 24.0-70.0 ...	8256 x 5504	48 mm	4.35 x 4.35 μm	No
NIKON D850, 24.0-70.0 ...	8256 x 5504	42 mm	4.35 x 4.35 μm	No
NIKON D850, 24.0-70.0 ...	8256 x 5504	44 mm	4.35 x 4.35 μm	No
NIKON D850, 24.0-70.0 ...	8256 x 5504	50 mm	4.35 x 4.35 μm	No
NIKON D850, 24.0-70.0 ...	8256 x 5504	38 mm	4.35 x 4.35 μm	No
NIKON D850, 24.0-70.0 ...	8256 x 5504	31 mm	4.35 x 4.35 μm	No

Table 1. Cameras.

Camera Locations

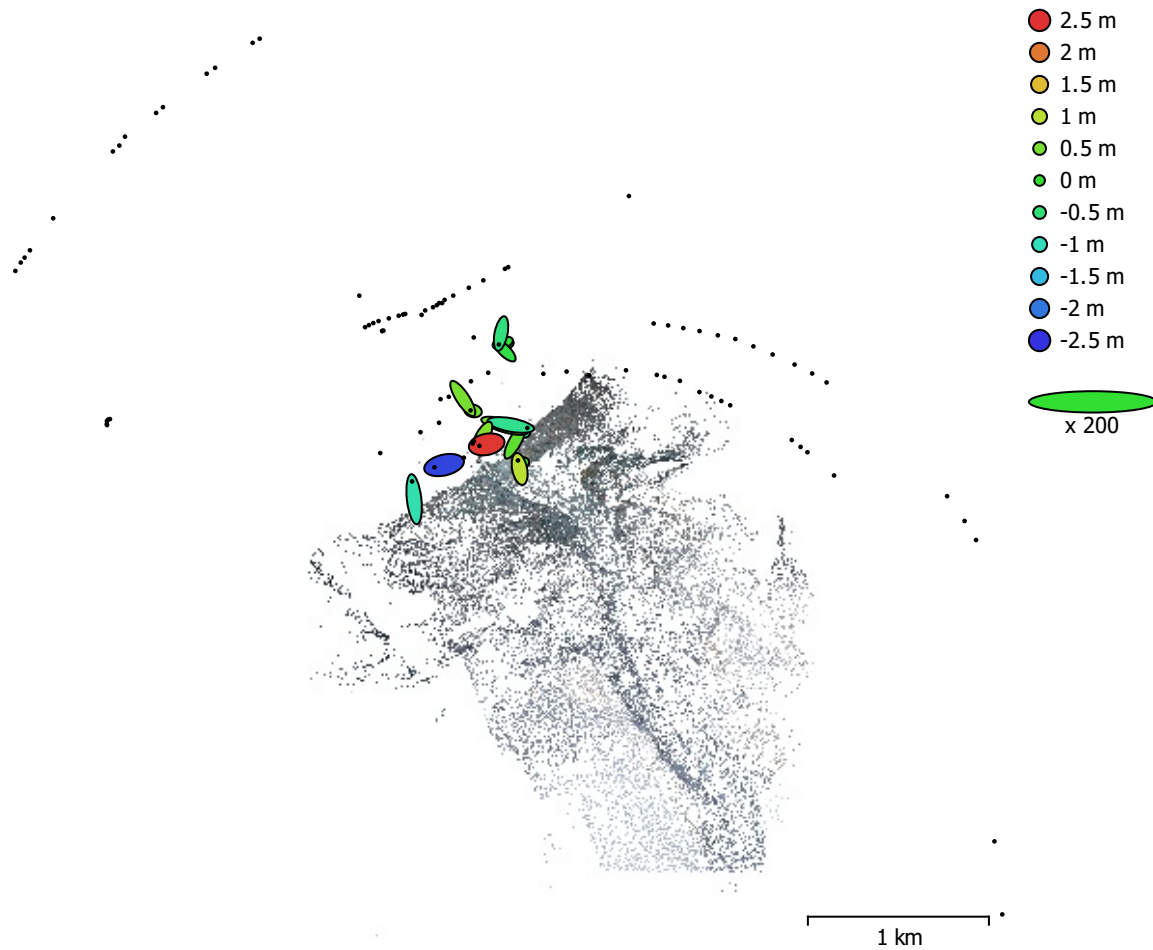


Fig. 27. Camera locations and error estimates.

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)
0.421344	0.422315	1.00842	0.596557	1.17166

Table 26. Average camera location error.

X - Easting, Y - Northing, Z - Altitude.

Processing Parameters

General

Cameras	107
Aligned cameras	102
Coordinate system	WGS 84 / NSIDC Sea Ice Polar Stereographic North (EPSG::3413)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	28,403 of 79,652
RMS reprojection error	0.202484 (1.38785 pix)
Max reprojection error	0.853006 (37.4757 pix)
Mean key point size	6.10844 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	5.52007

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	No
Guided image matching	Yes
Adaptive camera model fitting	Yes
Matching time	40 seconds
Matching memory usage	567.95 MB
Alignment time	33 seconds
Alignment memory usage	396.56 MB

Optimization parameters

Parameters	f, cx, cy, k1, k2, p1, p2
Adaptive camera model fitting	Yes
Optimization time	1 seconds
Date created	2023:09:27 16:32:05
Software version	2.0.1.15986
File size	7.60 MB

System

Software name	Agisoft Metashape Professional
Software version	2.0.1 build 15986
OS	Windows 64 bit
RAM	63.70 GB
CPU	12th Gen Intel(R) Core(TM) i9-12900K
GPU(s)	NVIDIA GeForce RTX 3080