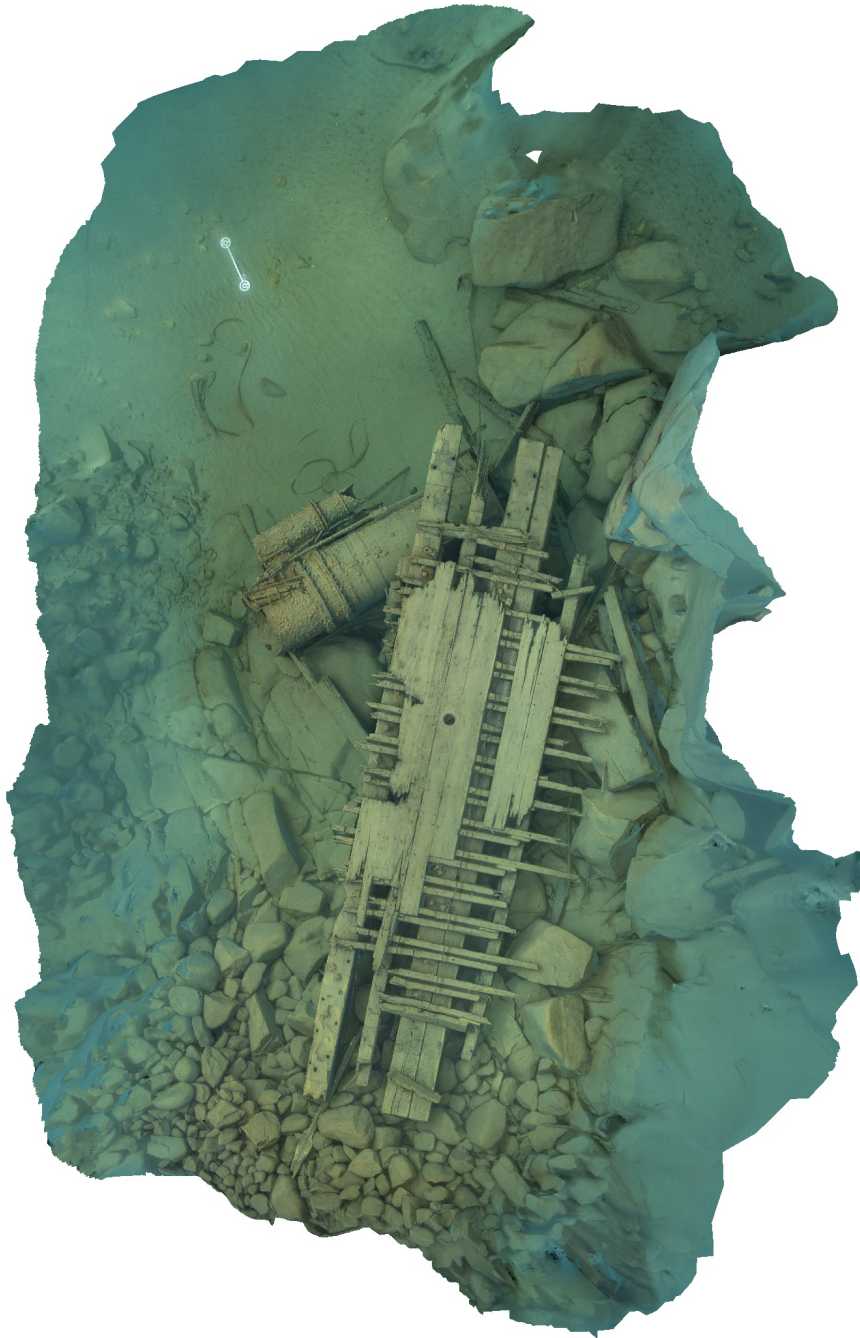


Agisoft Metashape

Processing Report
06 September 2023



Survey Data

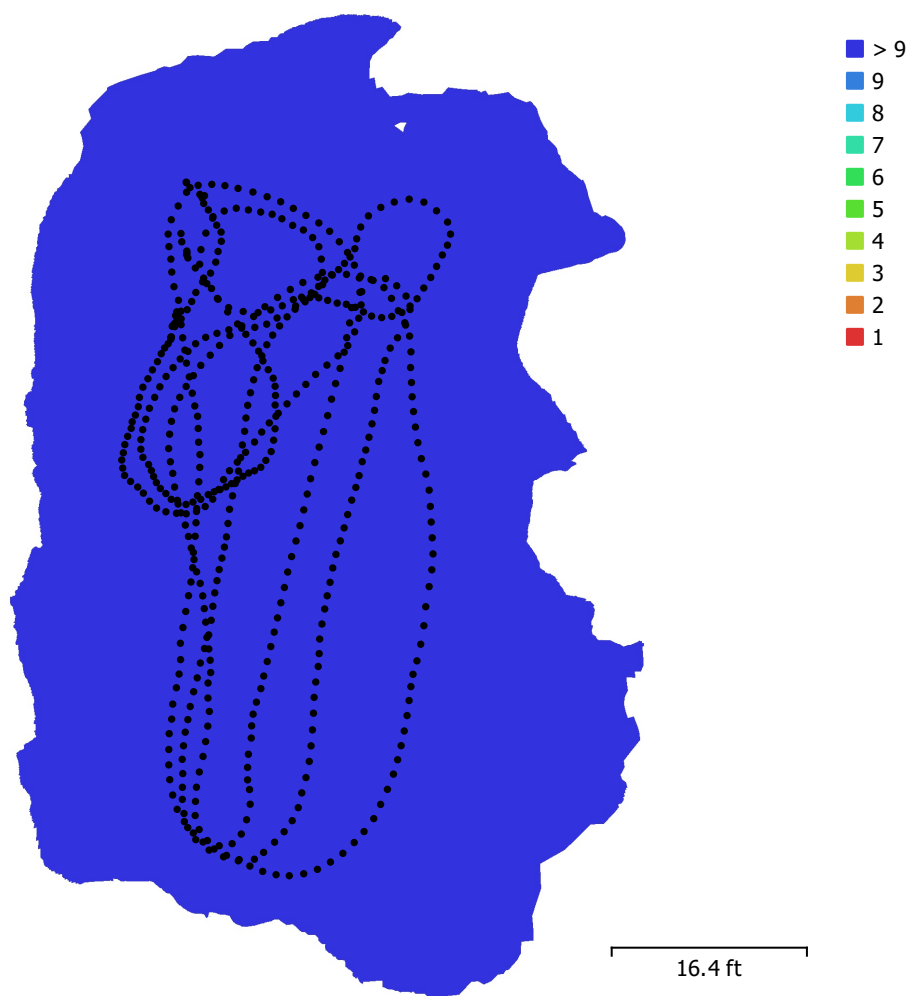


Fig. 1. Camera locations and image overlap.

Number of images:	513	Camera stations:	513
Flying altitude:	6.55 ft	Tie points:	181,114
Ground resolution:	0.00213 ft/pix	Projections:	986,135
Coverage area:	3.26e+03 ft ²	Reprojection error:	1.61 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
Canon EOS 5D Mark IV, ...	6720 x 4480	15 mm	5.36 x 5.36 μm	No

Table 1. Cameras.

Camera Calibration

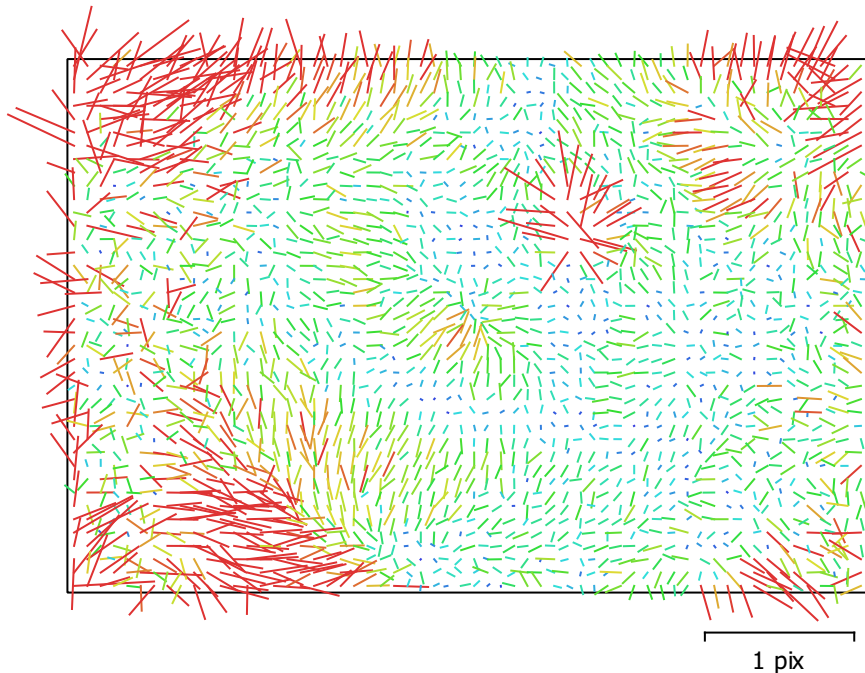


Fig. 2. Image residuals for Canon EOS 5D Mark IV, EF8-15mm f/4L FISHEYE USM (15mm).

Canon EOS 5D Mark IV, EF8-15mm f/4L FISHEYE USM (15mm)

513 images

Type	Resolution	Focal Length	Pixel Size
Fisheye	6720 x 4480	15 mm	5.36 x 5.36 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	3083.62	0.021	1.00	-0.39	0.09	-0.58	0.42	-0.36	0.39	-0.15
Cx	-4.89696	0.021		1.00	-0.01	0.05	-0.01	0.01	-0.65	0.04
Cy	-30.5909	0.018			1.00	-0.02	0.01	-0.01	0.05	-0.61
K1	-0.0464692	1.3e-05				1.00	-0.95	0.88	-0.08	0.06
K2	0.00579752	1.7e-05					1.00	-0.98	-0.02	-0.05
K3	-0.00147486	6.7e-06						1.00	0.01	0.04
P1	-0.000272083	9.8e-07							1.00	-0.06
P2	8.50656e-06	8.6e-07								1.00

Table 2. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
point 1_point 2	0.9144	-1.96287e-13
Total		1.96287e-13

Table 3. Control scale bars.

Digital Elevation Model

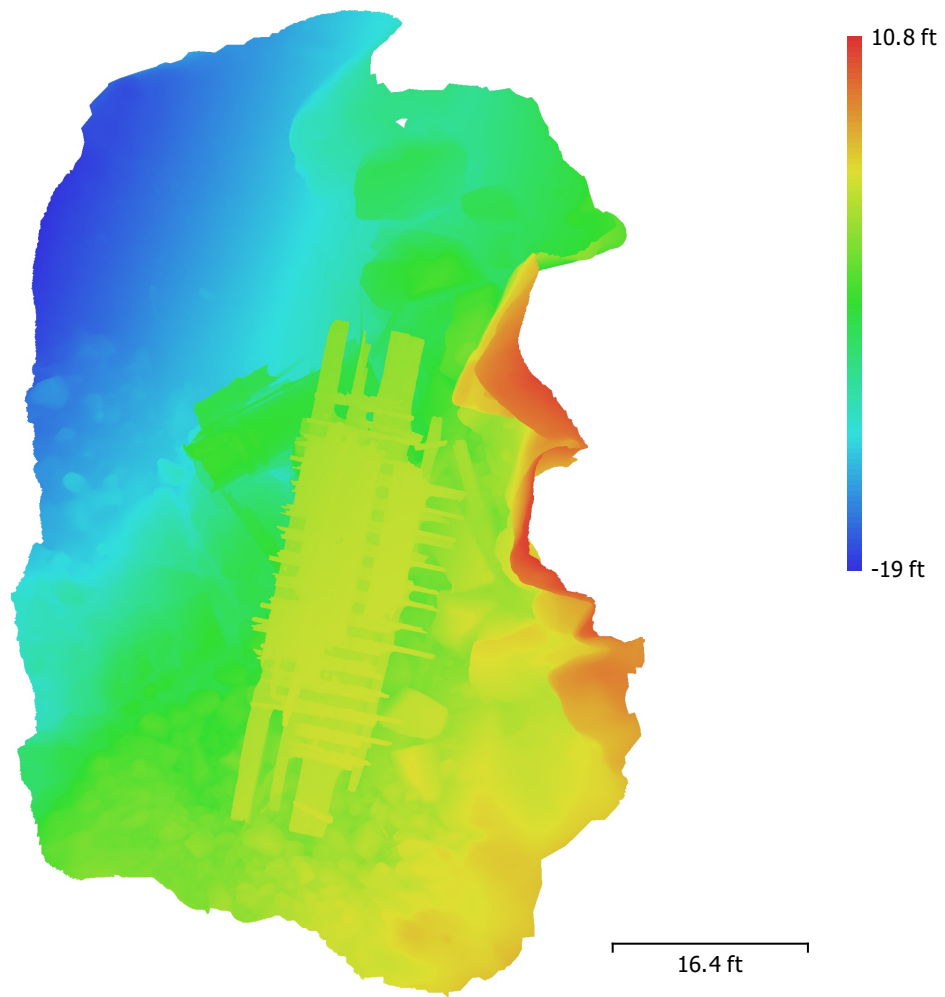


Fig. 3. Reconstructed digital elevation model.

Resolution: unknown
Point density: unknown

Processing Parameters

General

Cameras	513
Aligned cameras	513
Markers	2
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	181,114 of 222,457
RMS reprojection error	0.243898 (1.61022 pix)
Max reprojection error	0.936132 (73.8832 pix)
Mean key point size	5.02146 pix
Point colors	3 bands, uint8
Key points	1.26 GB
Average tie point multiplicity	6.38588

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	No
Key point limit	30,000
Key point limit per Mpx	1,000
Tie point limit	2,500
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	8 minutes 3 seconds
Matching memory usage	667.36 MB
Alignment time	2 minutes 43 seconds
Alignment memory usage	388.98 MB

Optimization parameters

Parameters	f, cx, cy, k1-k3, p1, p2
Adaptive camera model fitting	No
Optimization time	4 seconds
Date created	2023:09:06 16:43:05
Software version	1.8.0.13794
File size	37.30 MB

Depth Maps

Count	513
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Depth maps generation parameters

Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	14 minutes 37 seconds
Memory usage	2.30 GB
Date created	2023:09:06 17:20:50
Software version	1.8.0.13794
File size	1.30 GB

Dense Point Cloud

Points	60,682,240
Point colors	3 bands, uint8

Depth maps generation parameters	
Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	14 minutes 37 seconds
Memory usage	2.30 GB
Dense cloud generation parameters	
Processing time	2 hours 6 minutes
Memory usage	10.37 GB
Date created	2023:09:06 21:11:58
Software version	1.8.0.13794
File size	976.90 MB
Model	
Faces	8,000,000
Vertices	4,001,192
Vertex colors	3 bands, uint8
Texture	8,192 x 8,192, 4 bands, uint8
Depth maps generation parameters	
Quality	Medium
Filtering mode	Moderate
Max neighbors	16
Processing time	14 minutes 37 seconds
Memory usage	2.30 GB
Reconstruction parameters	
Surface type	Arbitrary
Source data	Depth maps
Interpolation	Enabled
Strict volumetric masks	No
Processing time	5 minutes 8 seconds
Memory usage	4.75 GB
Texturing parameters	
Mapping mode	Generic
Blending mode	Mosaic
Texture size	8,192
Enable hole filling	Yes
Enable ghosting filter	No
UV mapping time	1 minutes 55 seconds
UV mapping memory usage	2.29 GB
Blending time	2 minutes 11 seconds
Blending memory usage	4.73 GB
Blending GPU memory usage	2.43 GB
Date created	2023:09:06 17:25:24
Software version	1.8.0.13794
File size	416.82 MB
System	
Software name	Agisoft Metashape Professional
Software version	1.8.0 build 13794
OS	Windows 64 bit
RAM	63.92 GB
CPU	Intel(R) Core(TM) i9-9900K CPU @ 3.60GHz
GPU(s)	NVIDIA GeForce RTX 2060 SUPER