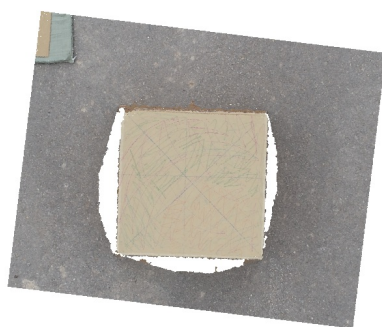


# Agisoft Metashape

Processing Report

05 August 2020



# Survey Data

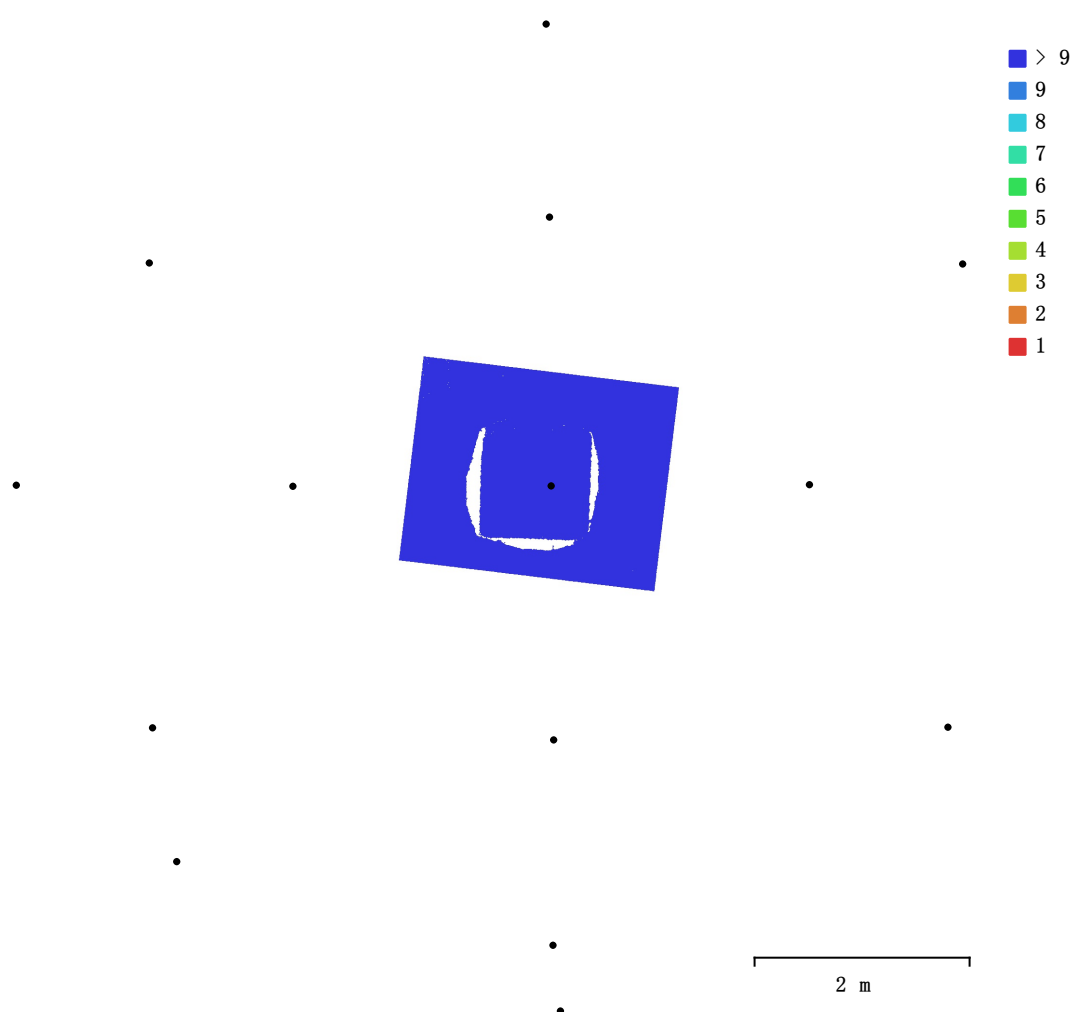


Fig. 1. Camera locations and image overlap.

Number of images:	19	Camera stations:	14
Flying altitude:	27.2 m	Tie points:	6,540
Ground resolution:	1.5 mm/pix	Projections:	15,671
Coverage area:	4.37 m <sup>2</sup>	Reprojection error:	0.463 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
FC6310R (8.8mm)	5472 x 3648	8.8 mm	2.41 x 2.41 μm	No

Table 1. Cameras.

# Camera Calibration

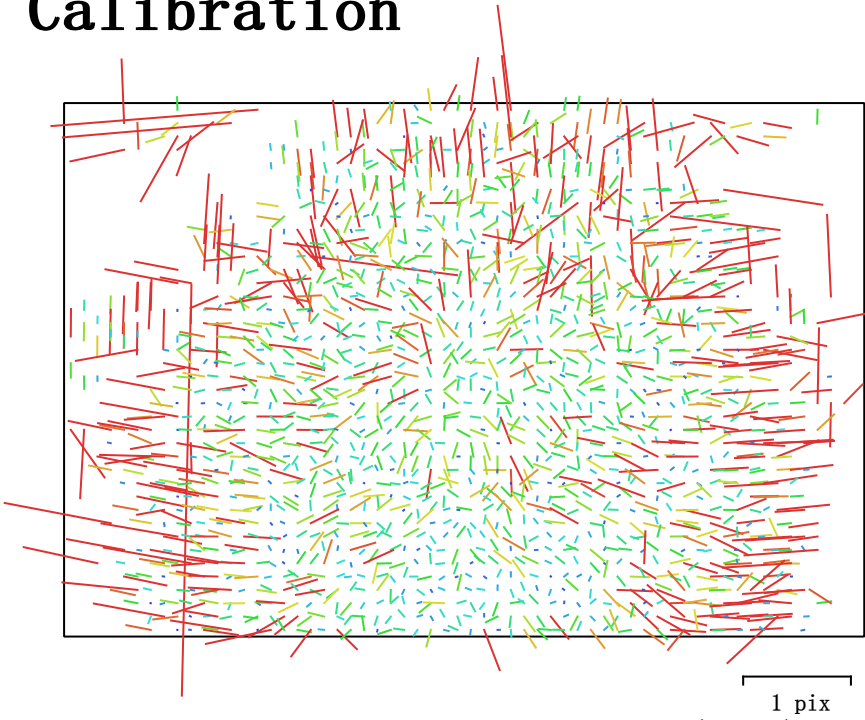


Fig. 2. Image residuals for FC6310R (8.8mm).

FC6310R (8.8mm)

19 images

Type	Resolution	Focal Length	Pixel Size
Frame	5472 x 3648	8.8 mm	2.41 x 2.41 μm

	Value	Error	Cx	Cy	B1	P1	P2
F	3648						
Cx	3.15112	0.33	1.00	-0.02	-0.02	0.96	-0.03
Cy	30.6314	0.43		1.00	-0.13	-0.08	0.92
B1	0.575923	0.064			1.00	-0.03	0.08
P1	0.000301047	3e-05				1.00	-0.09
P2	0.000821644	4.8e-05					1.00

Table 2. Calibration coefficients and correlation matrix.

# Camera Locations

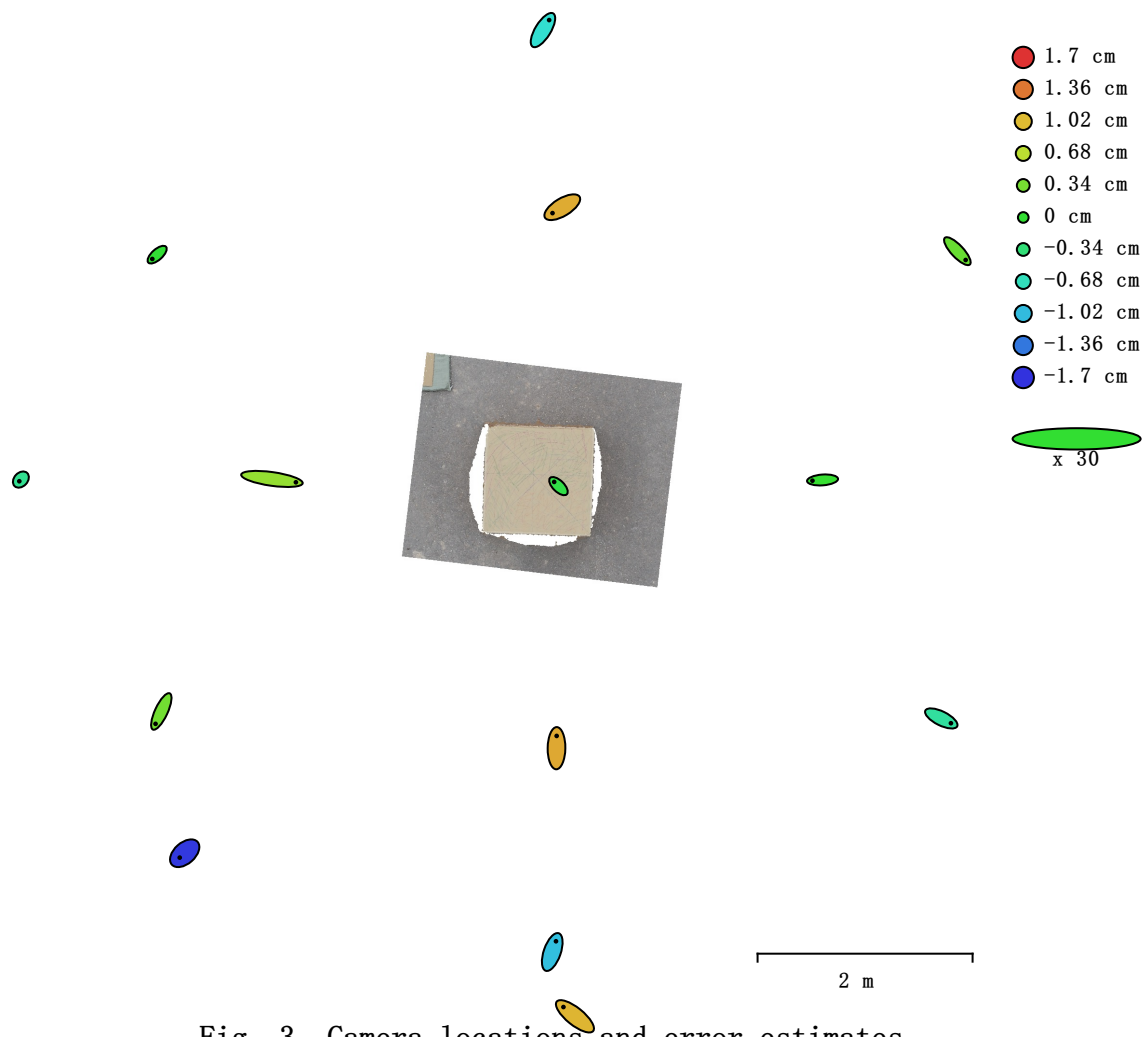


Fig. 3. Camera locations and error estimates.  
Z error is represented by ellipse color. X,Y errors are represented by ellipse shape.  
Estimated camera locations are marked with a black dot.

X error (cm)	Y error (cm)	Z error (cm)	XY error (cm)	Total error (cm)
0.579175	0.47188	0.795925	0.74707	1.09161

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

# Digital Elevation Model

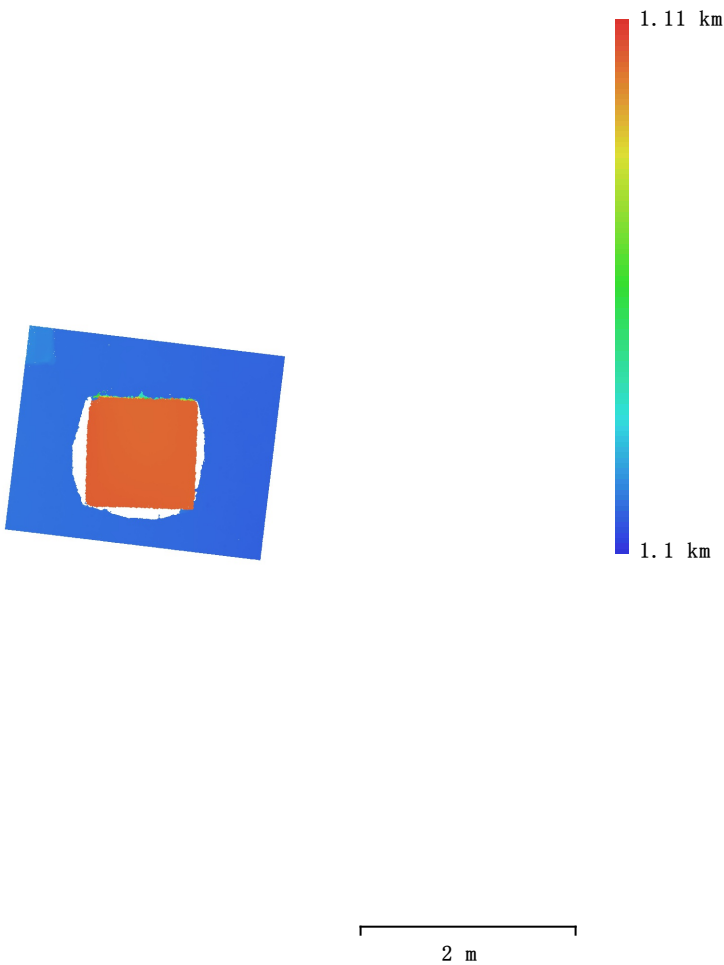


Fig. 4. Reconstructed digital elevation model.

Resolution: unknown  
Point density: unknown

# Processing Parameters

## General

Cameras	19
Aligned cameras	14
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

## Point Cloud

Points	6,540 of 9,761
RMS reprojection error	0.128109 (0.463257 pix)
Max reprojection error	0.384136 (12.8421 pix)
Mean key point size	3.34571 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	2.29638

### Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	Source
Key point limit	40,000
Tie point limit	4,000
Guided image matching	No
Adaptive camera model fitting	Yes
Matching time	20 seconds
Matching memory usage	106.61 MB
Alignment time	1 seconds
Alignment memory usage	16.00 KB
Software version	1.6.3.10732

## Depth Maps

Count	6
<b>Depth maps generation parameters</b>	
Quality	High
Filtering mode	Mild
Processing time	9 seconds

## Dense Point Cloud

Points	510,352
Point colors	3 bands, uint8

### Depth maps generation parameters

Quality	High
Filtering mode	Mild
Processing time	9 seconds

### Dense cloud generation parameters

Processing time	5 seconds
Software version	1.6.3.10732

## System

Software name	Agisoft Metashape Professional
Software version	1.6.3 build 10732
OS	Windows 64 bit
RAM	7.86 GB
CPU	Intel(R) Core(TM) i7-8750H CPU @ 2.20GHz
GPU(s)	GeForce GTX 1050