

Predio_03

Processing Report
31 October 2016



SAVANNAH
GESTIÓN & DESARROLLO

Survey Data

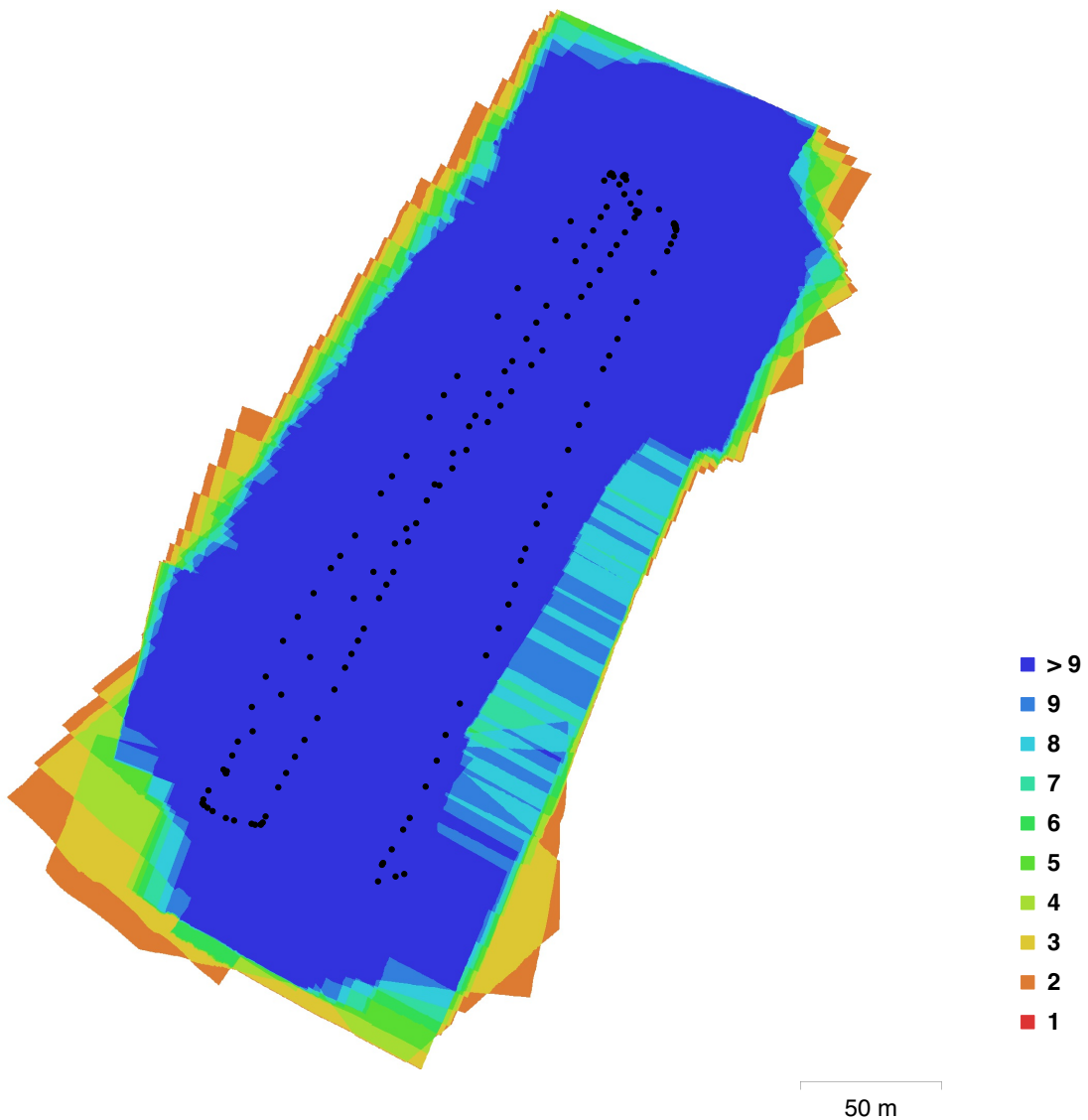


Fig. 1. Camera locations and image overlap.

Number of images:	157	Camera stations:	157
Flying altitude:	90.6 m	Tie points:	49,907
Ground resolution:	1.99 cm/pix	Projections:	319,012
Coverage area:	5.55e+04 sq m	Reprojection error:	1.47 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
FC550 (15 mm)	4608 x 3456	15 mm	3.76 x 3.76 um	Yes

Table 1. Cameras.

Camera Calibration

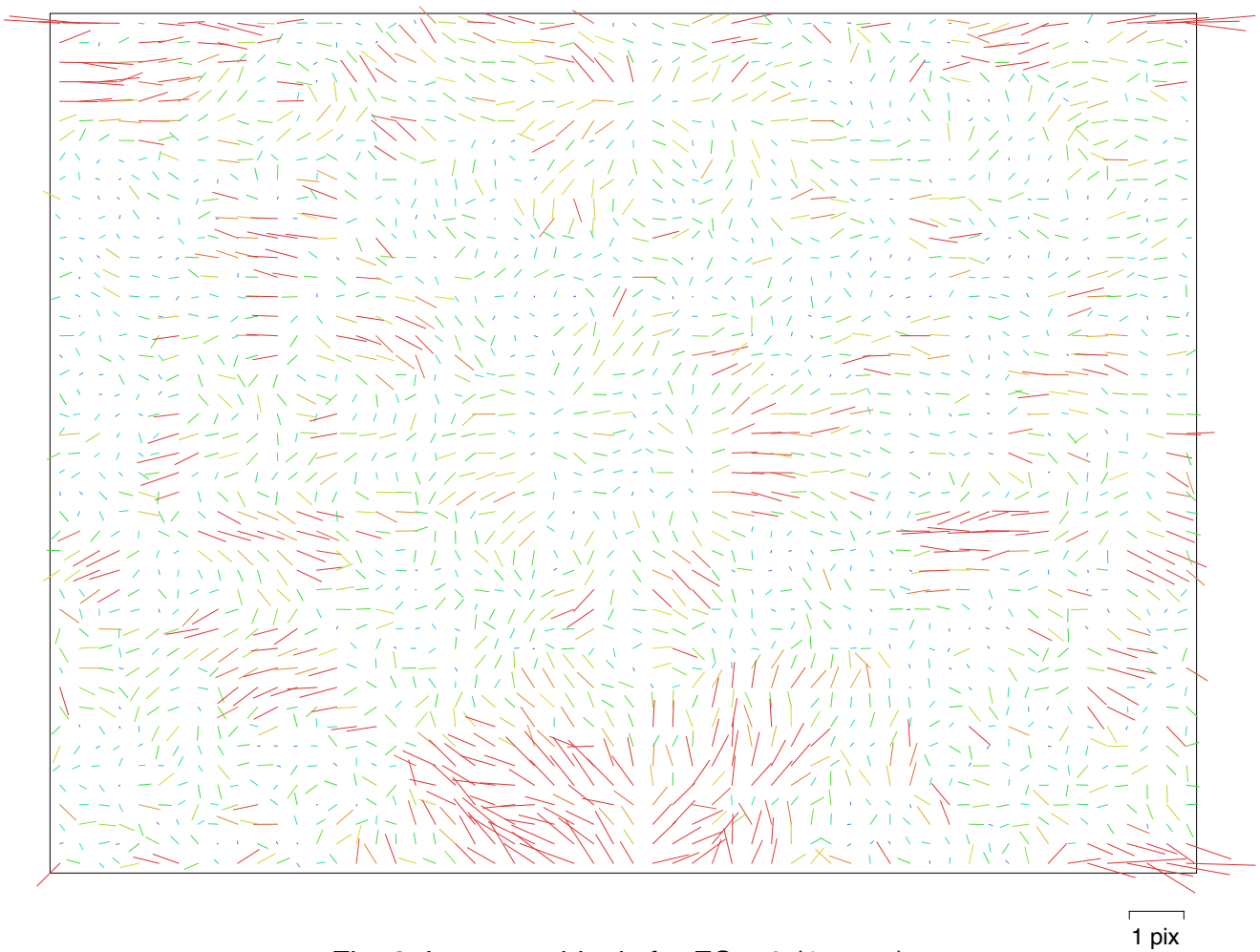


Fig. 2. Image residuals for FC550 (15 mm).

FC550 (15 mm)

157 images

Resolution	Focal Length	Pixel Size	Precalibrated
4608 x 3456	15 mm	3.76 x 3.76 um	Yes
Type:	Frame	Skew:	0
Fx:	4273.24	Cx:	2358.76
Fy:	4273.24	Cy:	1615.26
K1:	0.00972539	P1:	-0.00149769
K2:	-0.0100584	P2:	0.00302346
K3:	0.0136344	P3:	0
K4:	0	P4:	0

Camera Locations

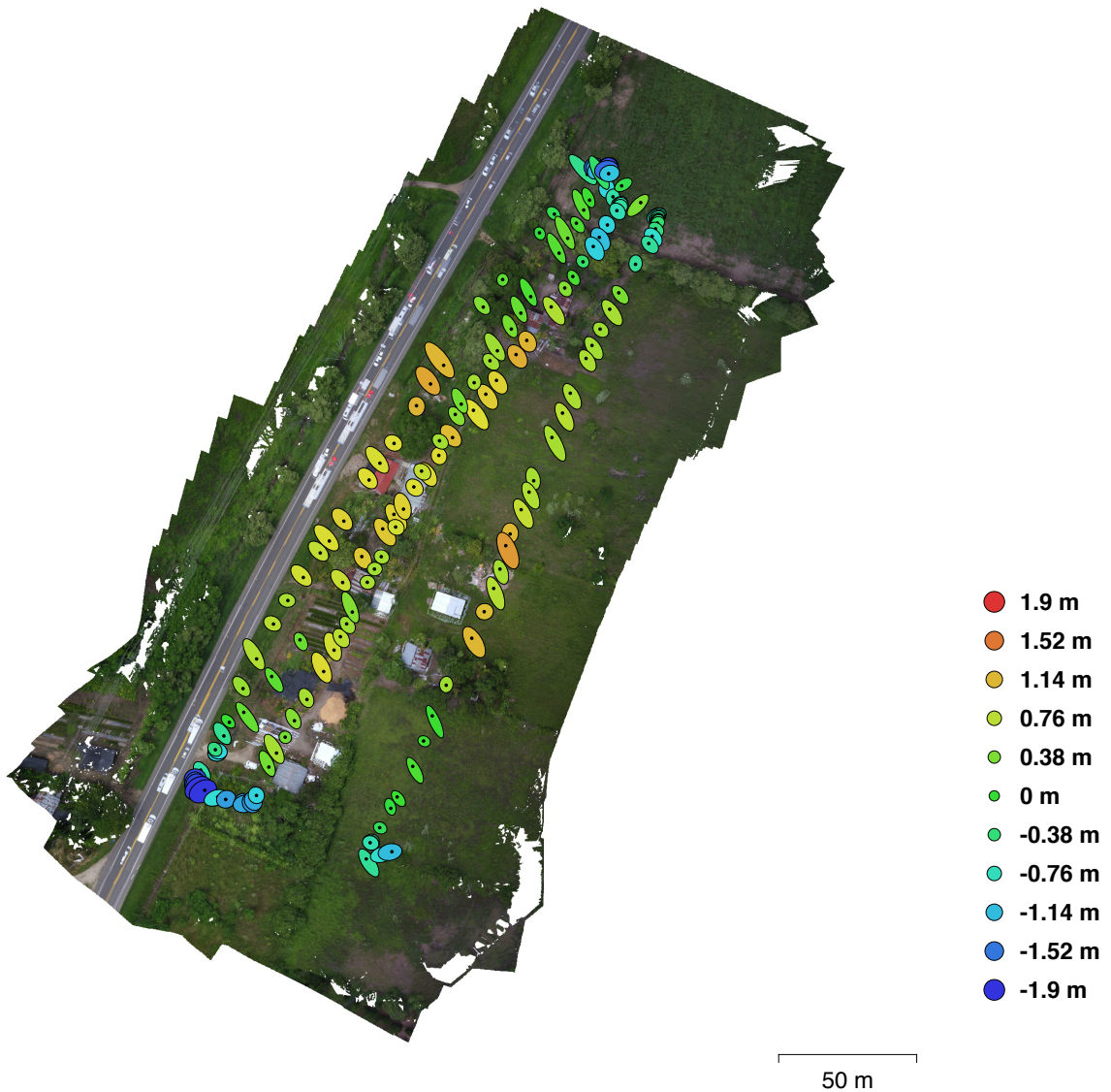


Fig. 3. Camera locations and error estimates.

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)	XY error (m)	Z error (m)	Total error (m)
0.09087	0.68591	0.00806	0.846865	0.17933

Table 2. Average camera location error.

Digital Elevation Model

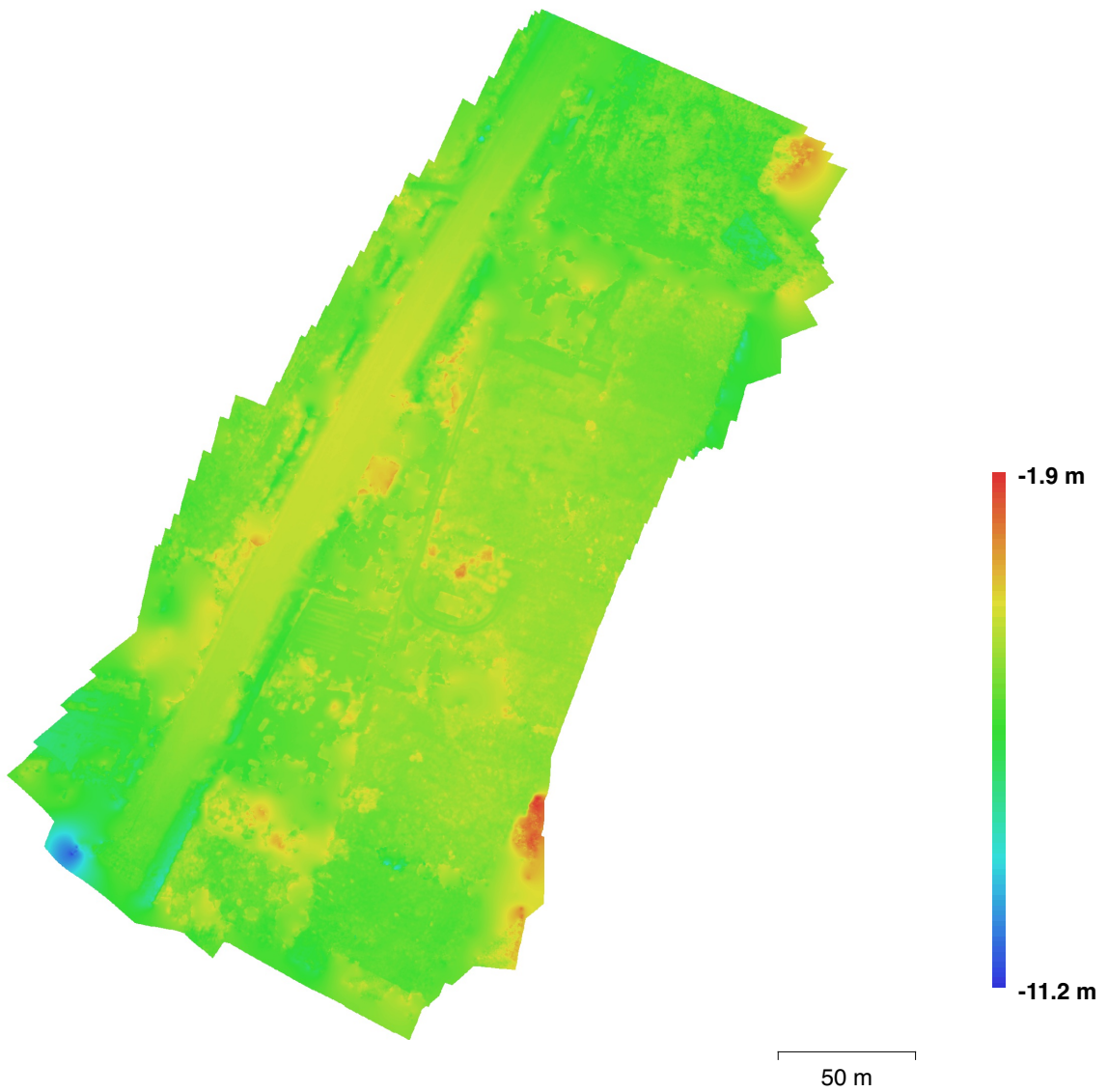


Fig. 4. Reconstructed digital elevation model.

Resolution: 7.95 cm/pix
Point density: 158.334 points per sq m

Processing Parameters

General

Cameras	157
Aligned cameras	157
Coordinate system	WGS 84 (EPSG::4326)

Point Cloud

Points	49,907 of 75,413
RMS reprojection error	0.216914 (1.47045 pix)
Max reprojection error	0.666979 (30.0995 pix)
Mean key point size	6.18017 pix
Effective overlap	8.93488

Alignment parameters

Accuracy	Medium
Pair preselection	Reference
Key point limit	40,000
Tie point limit	4,000
Constrain features by mask	No
Matching time	17 minutes 19 seconds
Alignment time	2 minutes 27 seconds

Dense Point Cloud

Points	10,776,602
--------	------------

Reconstruction parameters

Quality	Medium
Depth filtering	Aggressive
Processing time	8 minutes 0 seconds

Model

Faces	2,127,786
Vertices	1,066,168
Texture	4,096 x 4,096, uint8

Reconstruction parameters

Surface type	Height field
Source data	Dense
Interpolation	Enabled
Quality	Medium
Depth filtering	Aggressive
Face count	2,155,315
Processing time	31 seconds

Texturing parameters

Mapping mode	Orthophoto
Blending mode	Max intensity
Texture size	4,096 x 4,096
UV mapping time	16 seconds
Blending time	9 minutes 52 seconds

DEM

Size	4,389 x 5,454
Coordinate system	WGS 84 (EPSG::4326)

Reconstruction parameters

Source data	Dense cloud
Interpolation	Enabled