

Predio_01

Processing Report
31 October 2016



SAVANNAH
GESTIÓN & DESAROLLO

Survey Data

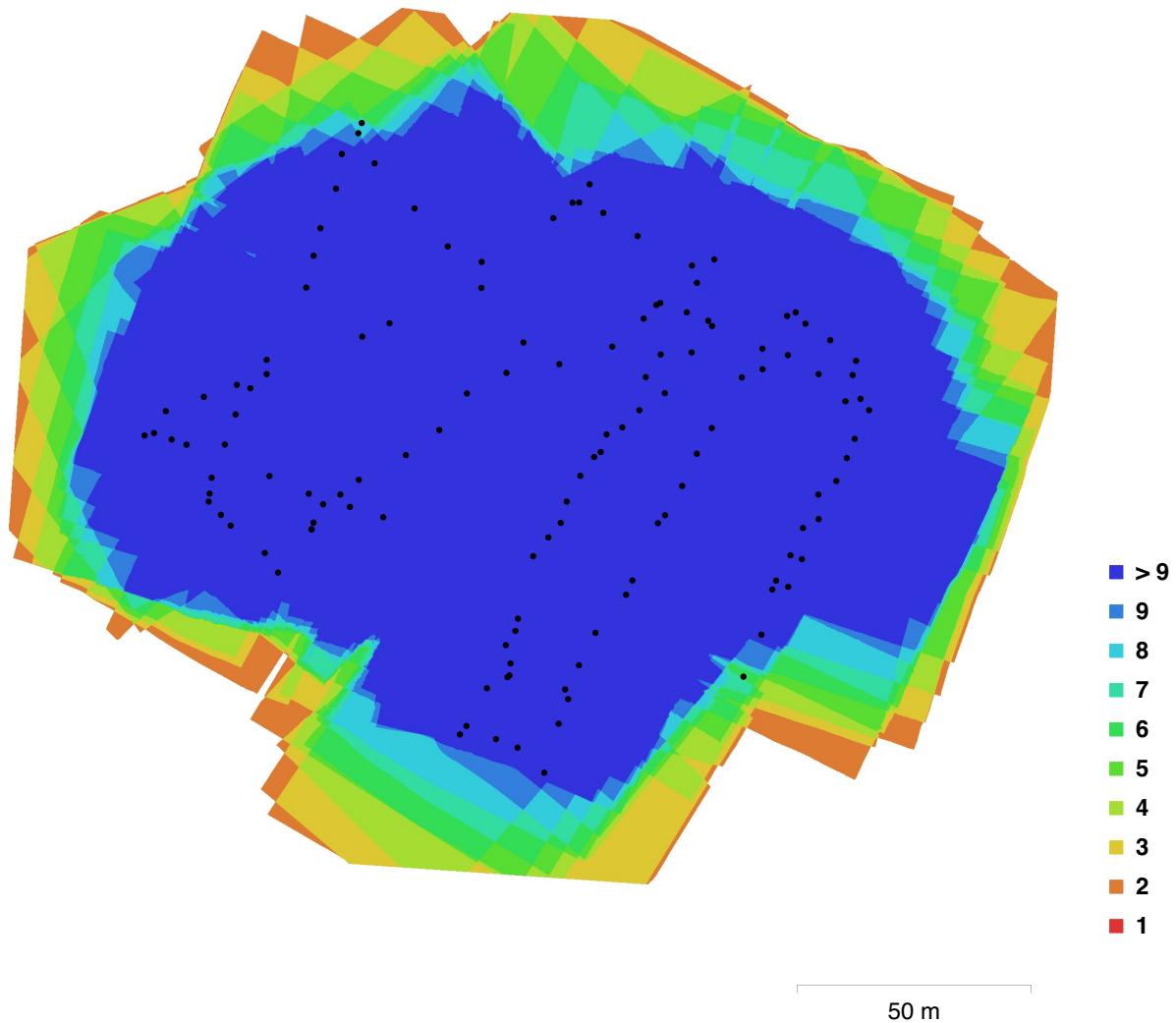


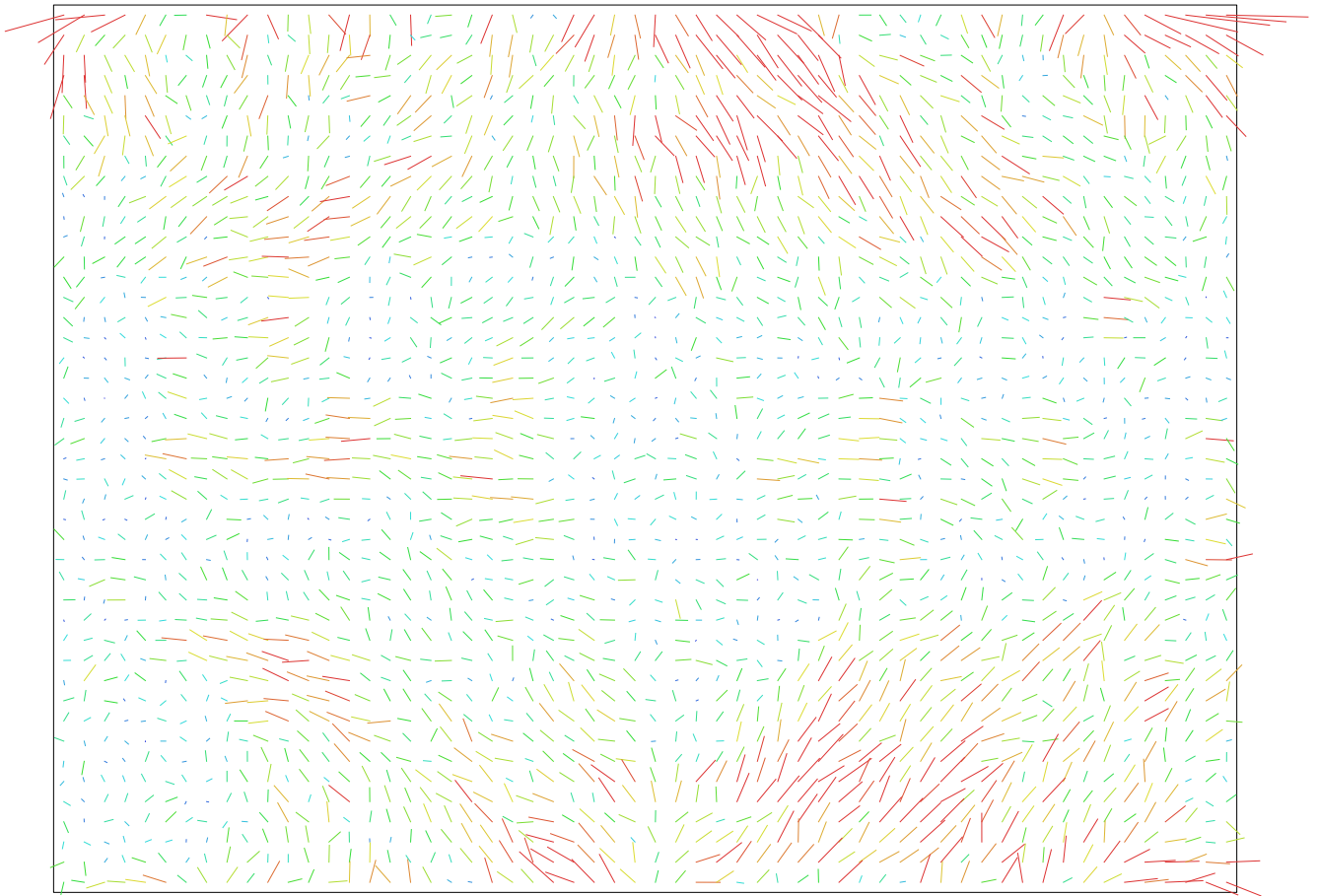
Fig. 1. Camera locations and image overlap.

Number of images:	131	Camera stations:	130
Flying altitude:	69.6 m	Tie points:	83,678
Ground resolution:	1.38 cm/pix	Projections:	368,340
Coverage area:	2.99e+04 sq m	Reprojection error:	2.51 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
FC550 (15 mm)	4608 x 3456	15 mm	3.76 x 3.76 um	No

Table 1. Cameras.

Camera Calibration



1 pix

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

FC550 (15 mm)

131 images

Resolution	Focal Length	Pixel Size	Precalibrated
4608 x 3456	15 mm	3.76 x 3.76 um	No
Type:	Frame	Skew:	0
Fx:	4781.41	Cx:	2396.6
Fy:	4781.41	Cy:	1654.48
K1:	0.00506423	P1:	0.000671374
K2:	-0.0291858	P2:	0.00420409
K3:	0.0612984	P3:	0
K4:	0	P4:	0

Camera Locations

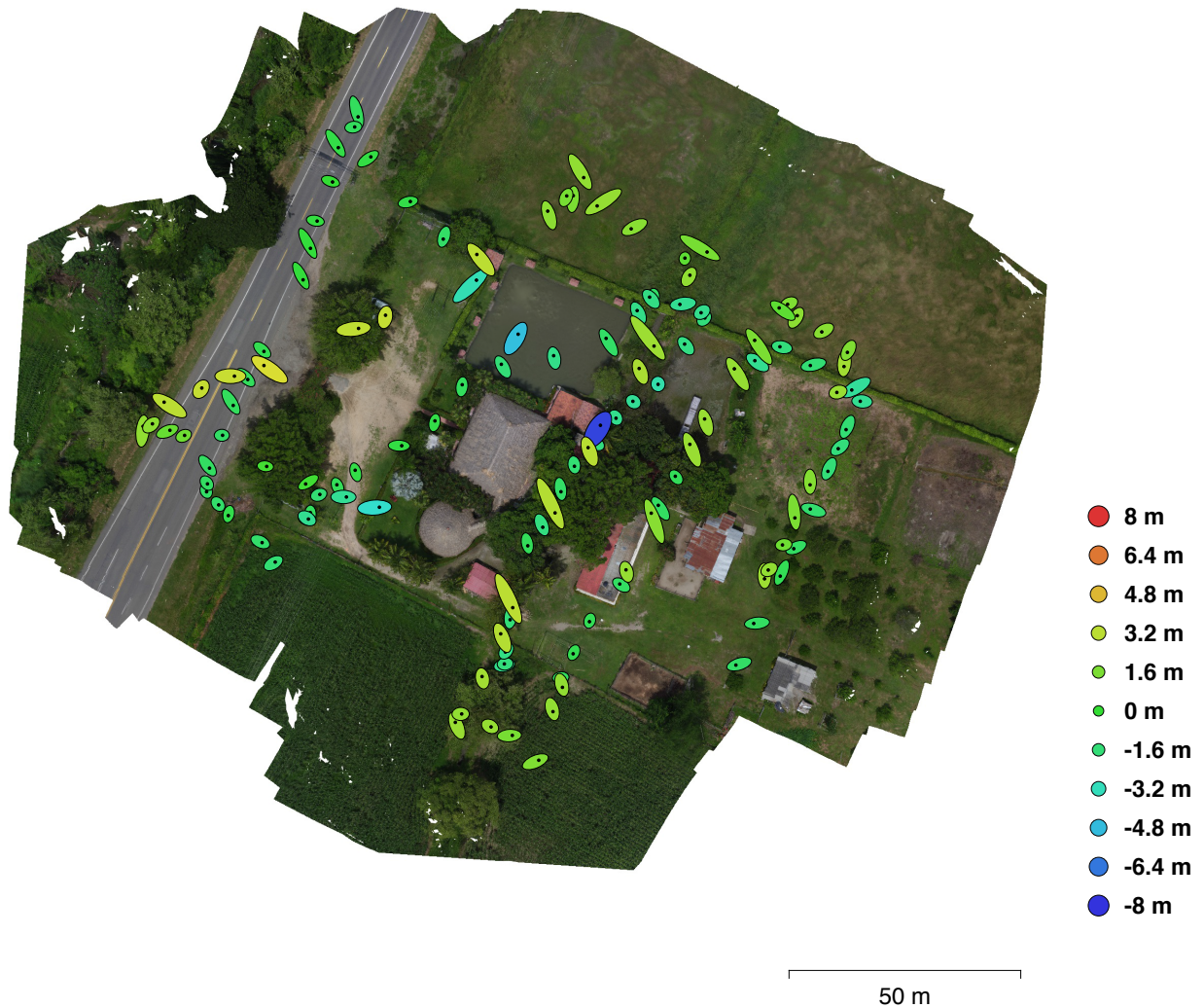


Fig. 3. Camera locations and error estimates.

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)
0.023	0.26059	0.62346	0.0491	0.61427

Table 2. Average camera location error.

Digital Elevation Model

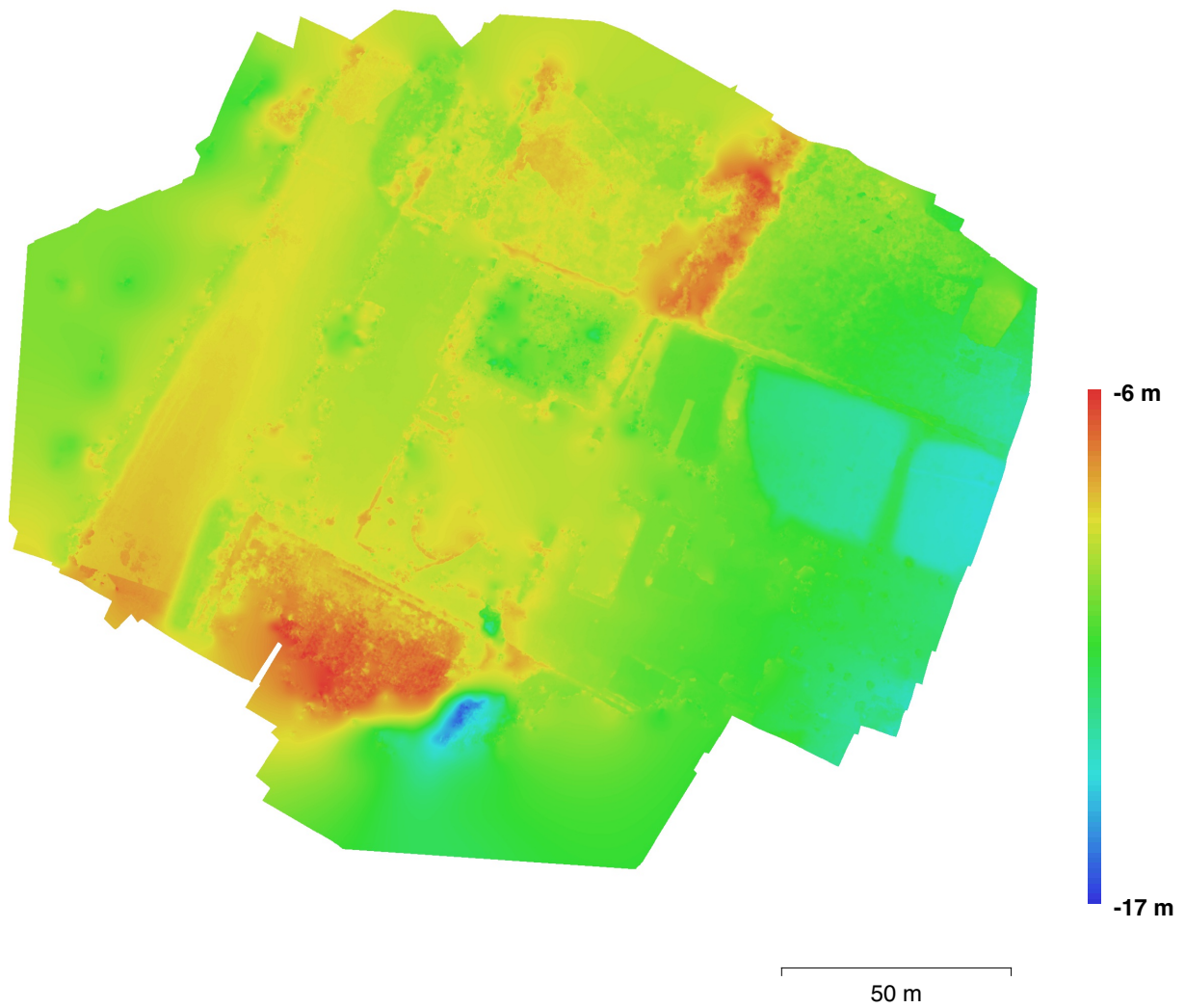


Fig. 4. Reconstructed digital elevation model.

Resolution: 5.5 cm/pix
Point density: 330.564 points per sq m

Processing Parameters

General

Cameras	131
Aligned cameras	130
Coordinate system	WGS 84 (EPSG::4326)

Point Cloud

Points	83,678 of 106,427
RMS reprojection error	0.34591 (2.50895 pix)
Max reprojection error	1.07731 (62.8229 pix)
Mean key point size	7.11397 pix
Effective overlap	5.22196

Alignment parameters

Accuracy	Medium
Pair preselection	Reference
Key point limit	40,000
Tie point limit	4,000
Constrain features by mask	No
Matching time	12 minutes 15 seconds
Alignment time	3 minutes 32 seconds

Dense Point Cloud

Points	11,030,366
--------	------------

Reconstruction parameters

Quality	Medium
Depth filtering	Aggressive
Processing time	3 minutes 57 seconds

Model

Faces	2,186,753
Vertices	1,095,207
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	2,206,068
Processing time	25 seconds

Texturing parameters

Mapping mode	Orthophoto
Blending mode	Mosaic
Texture size	4,096 x 4,096
UV mapping time	17 seconds
Blending time	6 minutes 15 seconds

DEM

Size	4,221 x 3,606
Coordinate system	WGS 84 (EPSG::4326)

Reconstruction parameters

Source data	Dense cloud
Interpolation	Enabled