

Survey Accuracy Report

A defensible accuracy statement is what separates a professional deliverable from a pretty picture. Fill one out for every project. It documents what you flew, how you controlled it, and the checkpoint residuals that prove the result — the record a client, reviewer, or court will ask for.

SECTION 1

Project & Client Information

01

Project name	_____	Project no.	_____
Client	_____	Report date	_____
Site / location	_____	Survey date(s)	_____
Prepared by	_____	Contact	_____

SECTION 2

Spatial Reference

02

Horizontal CRS / EPSG	_____	Vertical datum	_____
Units (m / US ft)	_____	Geoid model	_____

Record the exact EPSG code (e.g. EPSG:6340 — NAD83(2011) UTM 14N) and the geoid model used for orthometric heights (e.g. GEOID18). A correct number in the wrong CRS is still wrong.

SECTION 3

Equipment & Acquisition

03

Aircraft	_____	Sensor / camera	_____
Positioning (None / RTK / PPK)	_____	Correction source / base	_____
Flight altitude (AGL)	_____	Ground sample distance (GSD)	_____
Overlap (front / side)	_____	Image count	_____
Processing software	_____	Processing date	_____

SECTION 4

Ground Control & Checkpoints

04

List every measured point. Mark each as Control (fed into the adjustment) or Check (withheld, used to validate). Only checkpoints provide an independent accuracy measure. Residual = surveyed – photogrammetric.

Point ID	Type (GCP / CP)	Used as (Control / Check)	Horiz. residual (cm)	Vert. residual (cm)	Notes

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SECTION 5

Computed Accuracy

05

Checkpoints used (n)		Control points used (n)	
Horizontal RMSE (cm)		Vertical RMSE (cm)	
Horizontal accuracy at 95% (CE95, cm)		Vertical accuracy at 95% (LE95, cm)	
ASPRS 2014 horizontal class		Reporting standard	

Reference formulas — $RMSEr = \sqrt{(RMSE^2x + RMSE^2y)}$; $CE95 = 2.4477 \times RMSEr / \sqrt{2} = 1.7308 \times RMSEr$; $LE95 = 1.9600 \times RMSEz$ (NSSDA / ASPRS 2014, checkpoints normally distributed). Legacy $CE90 = 1.5175 \times RMSEr$; $LE90 = 1.6449 \times RMSEz$.

SECTION 6

Methodology & Certification

06

This survey was processed using the software and control listed above. Checkpoints were measured independently with survey-grade GNSS/total station and withheld from the photogrammetric adjustment. The accuracy figures reported in Section 5 are computed from those checkpoint residuals and describe this dataset only. Accuracy outside the controlled area, or beyond the checkpoint distribution, is not guaranteed.

Notes / deviations from standard procedure:

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Prepared by (name)

Title / License No.

Signature

Date

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