Imagery Product Portfolio Accuracies for 2025

Eagleview's Orthoimagery production utilizes a proprietary image processing workflow to deliver individual frames and a complete raster dataset over an entire project area. Eagleview's Orthoimagery offers the following resolutions and accuracies as reported in **Table 1.1** below:

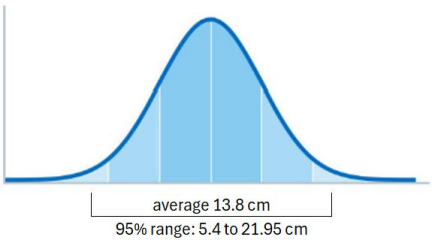
Table 1.1 Positional Accuracy for Eagleview's Orthoimagery*

Positional Accuracy (cm)	Positional Accuracy (cm)	Source Ground Sample Distance (cm)
$RMSE_H$ (ASPRS 2023, 2024)	**$RMSE_{X,Y}$** (ASPRS 2014)	
≤20	≤15	2.5 (1in)
≤45	≤30	5.0 (2in)

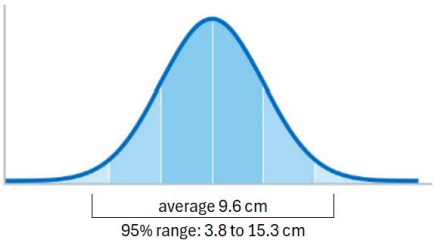
**Please note that Eagleview relies on Airborne GPS and IMU data for direct georeferencing. No ground control is used in this option.*

Figure 1.1 Tested results of 2.5cm (1") GSD Orthoimagery

$RMSE_H$ (ASPRS 2023, 2024)



$RMSE_{X,Y}$ (ASPRS 2014)



EagleView Certified Orthomosaics include the use of surveyed ground control points, augmentation of the elevation model by photogrammetric methods where needed, and an intensive manual review with editing as required to ensure optimal representation of features. These additional production efforts provide higher accuracy as indicated in **Table 1.2** below. Certified Orthomosaics are accompanied by the following statement: "This data set was produced to meet ASPRS Positional Accuracy Standards for Digital Geospatial Data, Edition 2, Version 2 (2024) for a __(cm) RMSEH Horizontal Positional Accuracy Class.":

Table 1.2 Horizontal Accuracy Classes for Eagleview's Certified Orthomosaic

Horizontal Accuracy Class	Absolute Accuracy (cm)	Orthoimagery Mosaic Seamline Mismatch (cm)	Ground Sample Distance (cm)
	$RMSE_H$		
20 cm	≤20	≤40	7.5 (3in)
30 cm	≤30	≤ 60	10.0 (4in)
45 cm	≤45	≤ 90	15.0 (6in)

Table 1.3 compares accuracy statements referenced within the various editions of the ASPRS Positional Accuracy Standards:

Table 1.3 Comparing Accuracy Statements by ASPRS Edition for Eagleview's Certified Orthomosaic:

Absolute Accuracy (cm)	Absolute Accuracy (cm)	95% Confidence (cm) (ASPRS 2014)	Ground Sample Distance (cm)
$RMSE_H$ (ASPRS 2023, 2024)	**$RMSE_{X,Y}$** (ASPRS 2014)		
≤20	≤15	36.75 cm	7.5 (3in)
≤30	≤20	50.00 cm	10.0 (4in)
≤45	≤30	73.50 cm	15.0 (6in)

Table 1.4 summarizes Eagleview's orthogonal imagery in terms of horizontal accuracy class for digital planimetric data and equivalent map scales per legacy National Map Accuracy Standards and ASPRS 1990 Accuracy Standards.

Table 1.4 Adapted from ASPRS (2024) Table B.4 - Horizontal Accuracy/Quality Examples for High Accuracy Digital Planimetric Data

ASPRS Edition 2 (2023, 2024)			Approximate Map Scale in:		Approximate Map Scale in NMAS
Horizontal Accuracy Class	RMSEH (cm)	GSD of Source Imagery (cm)	ASPRS 1990 Class 1	ASPRS 1990 Class 2	
N/A	20.0	2.5 (1in)	1:600 (1"=50')	1:300 (1"=25')	1:380 (1"=30')
N/A	45.0	5.0 (2in)	1:1200 (1"=100')	1:600 (1"=50')	1:760 (1"=60')
20.0	20.0	7.5 (3in)	1:800 (1"=70')	1:400 (1"=35')	1:507 (1"=40')
30.0	30.0	10.0 (4in)	1:1200 (1"=100')	1:600 (1"=50')	1:760 (1"=60')
45.0	45.0	15.0 (6in)	1:1800 (1"=150')	1:900 (1"=75')	1:1141 (1"=100')

Derivative Products & Accuracies: Planimetric data accuracies can be determined by knowing the source imagery product accuracy and including minor errors resulting from heads-up digitization procedure used to create digital features from the raster imagery.3D textured mesh data accuracies are generally twice the accuracy of the airborne GPS, which is represented in Table 1.1 above.

Measurement Accuracies: Eagleview's imagery products provide high confidence when measuring between fixed points. Generally, confidence in the accuracy of measurements is related to the accuracy of the imagery. The measurement toolset within EagleView Cloud provides distances to the nearest centimeter. Relative measurement accuracies can be achieved when carefully measuring well-defined features within individually captured orthogonal and oblique frame imagery. Accuracies can be expressed in a simplified format as follows: ***Measurement Precision ± (1.4 x GSD + 0.3% of distance measured).*** Therefore, measurement accuracy includes precision at the point of measurement (1/3 pixel) plus the relative measurement accuracy between points at the distance measured.

Table 1.5 Measurement Accuracy for Eagleview's Imagery:

Measurement Precision (cm)	Relative Measurement Accuracy (cm)	Measurement Accuracy at 200m (cm)	Source Ground Sample Distance (cm)
0.8	±3.5cm + 0.3% of distance measured	5.1	2.5 (1in)
1.7	±7cm + 0.3% of distance measured	14.7	5.0 (2in)
2.5	±11cm + 0.3% of distance measured	19.5	7.5 (3in)
3.3	±14cm + 0.3% of distance measured	23.3	10.0 (4in)
5.0	±21cm + 0.3% of distance measured	32.0	15.0 (6in)
7.5	±32cm + 0.3% of distance measured	45.5	22.5 (9in)