

Amazing Aerial Accuracy Achieved

The **eagleeye®** mapping system was developed to produce extremely accurate mapping from an aerial acquisition platform and it is accomplishing its objective. During the two years since Tuck developed this proprietary helicopter-based mapping system with LiDAR and digital photography, many projects have been completed that achieved vertical accuracies of 1"-2".

The **eagleeye®** system achieves its remarkable accuracy through a combination of technology built into the integrated system and effective acquisition processes created and improved during years of experience and hundreds of projects. Each project is carefully planned to acquire the data and deliver the results that meet the client's needs at a reasonable cost.



Two recent projects for the Virginia Department of Transportation (VDOT) demonstrated the accuracy of the **eagleeye®** system:

- A 57 mile corridor was mapped for the proposed Coalfield Expressway through the Appalachian Mountains. VDOT conducted ground control checks on a section of the corridor and found the aerial mapping has an unadjusted Root Mean Square (RMSE) of 1.2".
- Approximately one mile around an interchange on Interstate 81 was mapped and achieved a RMSE of 1.32".

Vertical accuracy of other recent projects is shown in the table below:

Project Name	Date	Control Sample	RMSE
Lake James Development	Feb., 2006	10	1.2"
Duke Power	March, 2006	100	2.0"
VA Coalfield Expressway	March, 2006	75	1.2"
Calumet Power Plant	April, 2006	25	1.2" - 2.0"
Vogtle Nuclear Power Plant	April, 2006	24	1.32"
Barnes Air National Guard Base	Nov., 2006	25	1.44"
Weaverville Development	Nov., 2006	2100	3.0"
Wise County Airport	Feb., 2006	54	1.31"
VA Route 627	Feb., 2007	14	2.22"
VA I-81 Interchange	Feb., 2007	63	1.32"