



Minnesota Department of Transportation

Photogrammetric Unit

395 John Ireland Boulevard, MS 640

Saint Paul, MN 55155

15 February 2013

Eric Ratcliffe

STARR MT-1 Project Manager

Atkins Global

3901 Calverton Boulevard, Suite 400

Calverton, MD, 20705

RE: Certification of Minnesota LiDAR Quality
Miscellaneous County Projects

Dear Mr. Ratcliffe:

Attached you will find a signed and sealed Certification Statement for LiDAR Data that was collected independently by the following counties: Blue Earth (2006 later recollected by the DNR in 2012), Chisago, Crow Wing, McLeod, Rice and Wright. The Minnesota Department of Transportation, in partnership with these counties, helped prepare Request for Proposals, served on the selection committee and provided guidance through the quality assurance phase of the contract. As part of the quality assurance process, we collected independent test points in order to validate the contract deliverables. Although these were considered individual projects at the time of acquisition, the involvement by the Department and the standards and specifications published by the RFP were essentially the same.

If you have any additional questions concerning the testing process, please contact me at 651.366.3457.

Sincerely,

Peter W. Jenkins, PLS, CFedS
Photogrammetric Unit Supervisor

Enclosures: Certification Letter

cc: S. Jiwani
T. Loesch



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Certification of Minnesota LiDAR Data Quality

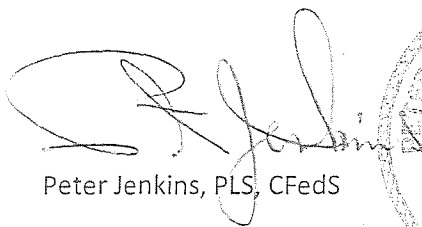
Project Area: Miscellaneous Minnesota Counties

Counties covered: Blue Earth, Chisago, Crow Wing, McLeod, Rice and Wright.

Horizontal Positional Accuracy: All these data products have a horizontal accuracy of 0.40 meters, with a nominal point spacing of 1.0 meters.

Vertical Positional Accuracy: Accuracy of the dataset was verified by a second set of ground control points provided by each County and tested by the State of Minnesota. The Consolidated Vertical Accuracy (CVA) of the TIN as tested by the State of Minnesota of all land cover categories covering the 5 land classes as defined by ASPRS and NDEP were used in this evaluation. The acquisition date, vertical RMSE, 95% Confidence Level, the sample count and flying height above mean terrain (AMT) per county as tested by the State of Minnesota is as follows: Blue Earth, Completed April 6 2012, 0.182m (RMSE), 0.356m (95%), 145 points, 1800m (AMT); Chisago, April 19-29 and May 18-19 2007, 0.098m (RMSE), 0.189m (95%), 214 points, 850m (AMT); Crow Wing, Completed May 9 2007, 0.146m (RMSE), 0.290m (95%), 118 points, 1600m (AMT); McLeod, May 2-17 2007, 0.091m (RMSE), 0.183m (95%), 120 points, 850m (AMT); Rice, April 18-27 2007, 0.104m (RMSE), 0.207m (95%), 208 points, 1500m (AMT) and Wright, April 23 to May 28 2008, 0.134m (RMSE), 0.265m (95%), 121 points, 1600m (AMT). Blue Earth County was also collected in 2006 but that data was considered outside the target window for the funding of the statewide project.

This is to certify that the work summarized above was completed in accordance with sound and accepted surveying practices and meets the accuracy requirements in the USGS's Lidar Guidelines and Base Specifications.



Peter Jenkins, PLS, CFedS

MN PLS # 22683



Photogrammetric Unit Supervisor

Minnesota Department of Transportation

