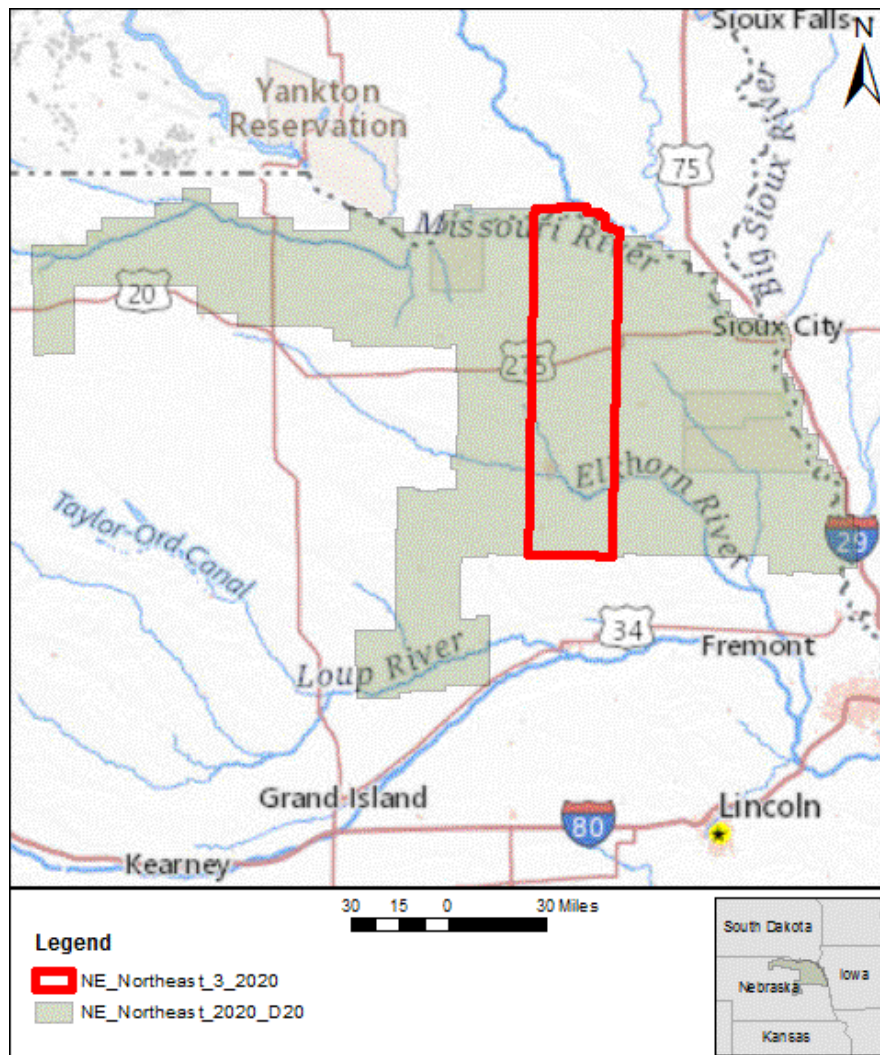


LIDAR Quality Report

from the National Geospatial Technical Operations Center
in Support of the 3D Elevation Program

NE_Northeast_3_2020

2021-02-04



Based on this review, the delivered data is **EXPECTED TO MEET** 3D Elevation Program requirements.

Project Information

WP Name: NE_Northeast_2020_D20	Work Package ID: 191153
WU Name: NE_Northeast_3_2020	Work Unit ID: 205811
Mechanism: GPSC	Lidar Base Spec: 2.1
Quality Level: 2	P-Method: 7 - Lidar
Horizontal EPSG Code: 6343	Vertical EPSG Code: 5703 Geoid Model GEOID 18
The National Map Help Desk Email: tnm_help@usgs.gov	

The U.S. Geological Survey evaluates absolute vertical accuracy of the lidar and lidar-derived bare earth digital elevation model (DEM) data at the work package level. Data are produced to meet 9.8 cm absolute vertical accuracy at the 95-percent confidence level in non-vegetated, open terrain. To review vertical accuracy results, please see the work package report

Classified Point Cloud

Based on this review, the USGS-NGTOC **ACCEPTS** the Classified Point Cloud.

Visual and statistical review is performed on classified .las files to validate adherence to contracted specifications. A comprehensive review is completed to ensure consistency and accuracy across all files, including the spatial reference system. Classification verification is limited to the minimum required by applicable Lidar Base Specification. Classifications beyond the minimum are not verified by USGS. LAS files are evaluated to ensure the public header block, point data records, and variable/extended variable length records are correctly populated. For additional information, please see the work units metadata folder.

Digital Elevation Model (DEM)

Based on this review, the USGS-NGTOC **ACCEPTS** the Digital Elevation Model (DEM).

Visual review is performed on .tif bare earth rasters at a 1:5,000 or larger viewing scale to validate point cloud geometry, raster processing methodology, point classification, and breaklines. Comprehensive review is completed to ensure consistency and accuracy across all files. For additional information, please see this work units metadata folder.

Breaklines

Based on this review, the USGS-NGTOC **ACCEPTS** the Breaklines.

Breaklines are visually reviewed in conjunction with the bare earth DEM for spatial and geometric accuracy. Breaklines are confirmed to be three dimensional (3D) features and that elevations are at or just below the immediately surrounding terrain. Single- and double-line drainages are reviewed to ensure downstream flow. The USGS recognizes that differences in collection methodology, resampling techniques, and other factors that are unique to proprietary production do occur, and these will result in minor horizontal and vertical differences between breaklines derived on the fly.

Content Standard for Digital Spatial Metadata

Based on this review, the USGS-NGTOC **ACCEPTS** the Content Standard for Digital Spatial Metadata.

CSGDM .xml metadata are parsed using the USGS Geospatial Metadata Validation Service and reviewed for accurate information. CSDGM is maintained by the Federal Geographic Data Committee (FGDC).

Contractor-Provided Reports

Based on this review, the USGS-NGTOC **ACCEPTS** the Contractor-Provided Reports.

Reports from the contractor, including calibration, collection, and processing methods, are reviewed for accurate information. For more information, please see the work units metadata.

Contractor-Provided Spatial Metadata

Based on this review, the USGS-NGTOC **ACCEPTS** the Contractor-Provided Spatial Metadata.

Spatial metadata from the contractor, including raster and vector datasets, are evaluated together with pertinent deliverables for geometric fidelity and attribution accuracy. For more information, please see the work units metadata.