

**Project Definition:** The entire collection for a contracted area.

**Work Unit Definition:** A production block of data defined by the National Geospatial Technical Operations Center due to expediency, priority or resource allocation. There can be one or many work units per project.

### Project Information

<b>Lidar Base Specification:</b> 2.1	<b>Primary Contractor:</b> Dewberry Consultants LLC (Dewberry)
<b>Las Version:</b> 1.4	<b>Contract Mechanism:</b> GPSC
<b>P Method:</b> 7 - Linear-Mode Lidar	
<b>Collection Start Date:</b> 08-08-2020	<b>Collection End Date:</b> 11-20-2020
<b>The National Map Email:</b> tnm_help@usgs.gov	

### Vertical Accuracy Results

The U.S. Geological Survey evaluates absolute vertical accuracy of the lidar and lidar-derived bare earth DEM data at the project level

Lidar Point Cloud	Required NVA RMSEz (cm)	Tested NVA RMSEz (cm)	Required NVA at 95% confidence level (cm)	Tested NVA at 95% confidence level (cm)	Required VVA at 95th percentile (cm)	Tested VVA at 95th percentile (cm)
	10.0	<b>7.3</b>	19.6	<b>14.31</b>	N/A	<b>10.79</b>

Digital Elevation Model	Required NVA RMSEz (cm)	Tested NVA RMSEz (cm)	Required NVA at 95% confidence level (cm)	Tested NVA at 95% confidence level (cm)	Required VVA at 95th percentile (cm)	Tested VVA at 95th percentile (cm)
	10.0	<b>7.42</b>	19.6	<b>14.54</b>	30.0	<b>10.81</b>

Please see the vertical\_accuracy folder within the project metadata for more information.

### Classifications Used

Classification verification is limited to the minimum required by applicable Lidar Base Specification. Classifications beyond the minimum are not verified by USGS.	
Classification ID	Classification Type
1	Processed, but unclassified
2	Bare earth
7	Low noise
9	Water
17	Bridge deck
18	High noise
20	Ignored ground (typically breaklines proximity)
22	Temporal exclusion (typically nonfavored data in intertidal zones)

### Sensor(s) Used

<b>Sensor</b>
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Riegl VQ-1560ii - Rotating Polygonal Mirror

Optech Galaxy Prime - Aerial Oscillating Mirror

Optech Galaxy T2000 - Aerial Oscillating Mirror

## Work Unit Information

UT_FlamingGorge_3_2020	Work Unit ID: 229452	Quality Level: 2
Horizontal EPSG Code: 6341	Vertical EPSG Code: 5703	Geoid Model: GEOID18
DEM Ground Sample Distance: 1.0	Hydro Treatment: hydro-flattened	
Collection Start Date: 2020-09-30	Collection End Date: 2020-10-23	

UT_FlamingGorge_2_2020	Work Unit ID: 228003	Quality Level: 1
Horizontal EPSG Code: 6341	Vertical EPSG Code: 5703	Geoid Model: GEOID12B
DEM Ground Sample Distance: 0.5	Hydro Treatment: hydro-flattened	
Collection Start Date: 2020-08-08	Collection End Date: 2020-08-18	

UT_FlamingGorge_1_2020	Work Unit ID: 195625	Quality Level: 2
Horizontal EPSG Code: 6341	Vertical EPSG Code: 5703	Geoid Model: GEOID18
DEM Ground Sample Distance: 1.0	Hydro Treatment: hydro-flattened	
Collection Start Date: 2020-09-14	Collection End Date: 2020-11-05	

UT_FlamingGorge_5_2020	Work Unit ID: 300176	Quality Level: 2
Horizontal EPSG Code: 6341	Vertical EPSG Code: 5703	Geoid Model: GEOID18
DEM Ground Sample Distance: 1.0	Hydro Treatment: hydro-flattened	
Collection Start Date: 2020-08-14	Collection End Date: 2020-11-20	

UT_FlamingGorge_4_2020	Work Unit ID: 300175	Quality Level: 1
Horizontal EPSG Code: 6341	Vertical EPSG Code: 5703	Geoid Model: GEOID18
DEM Ground Sample Distance: 0.5	Hydro Treatment: hydro-flattened	
Collection Start Date: 2020-09-10	Collection End Date: 2020-10-30	