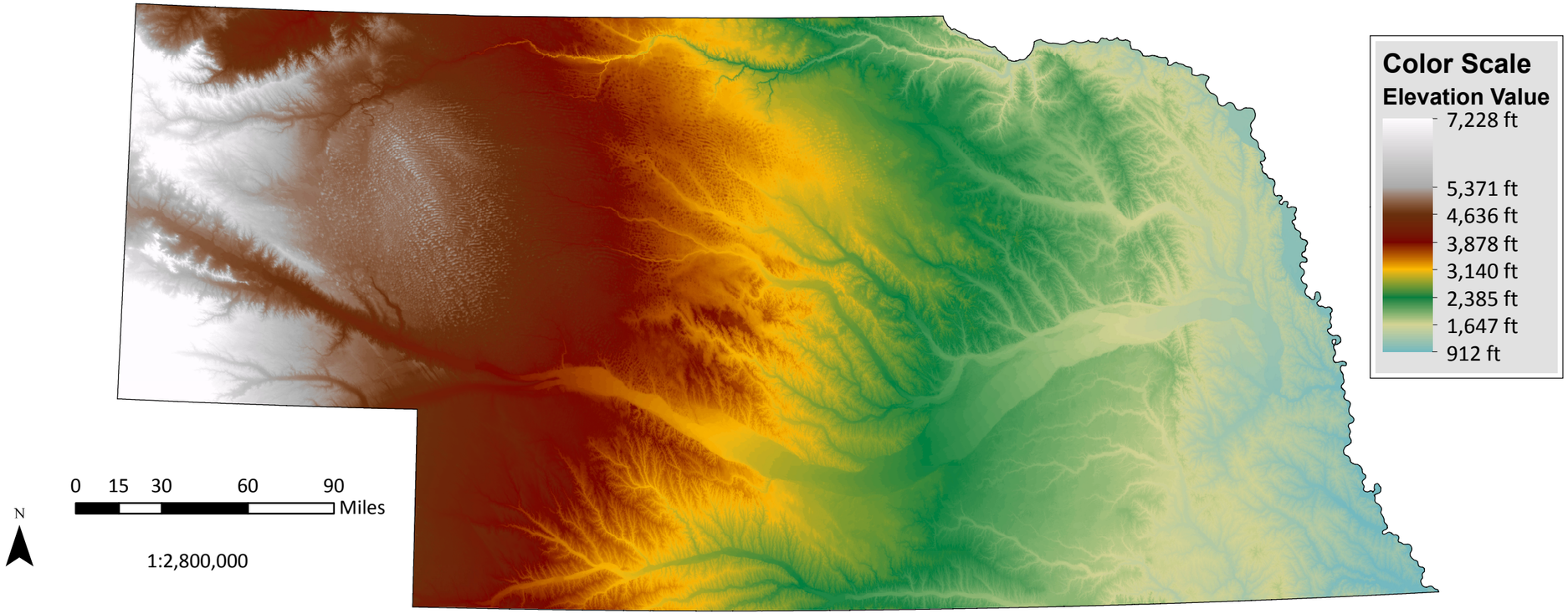
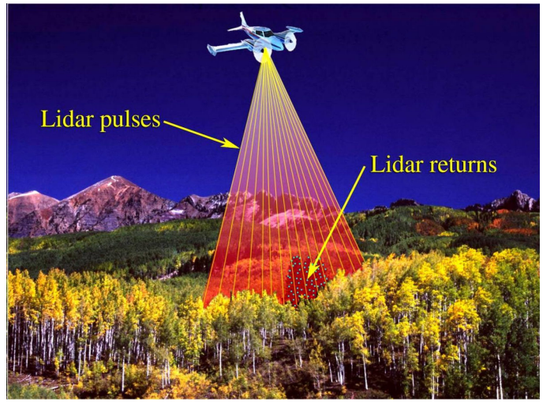
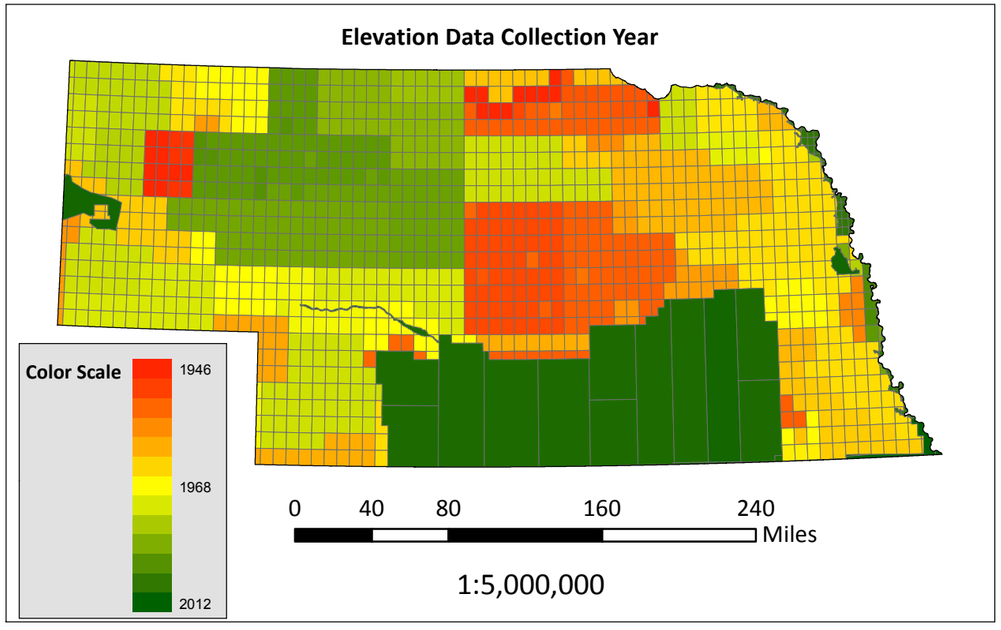
NEBRASKA ELEVATION AND LIGHT DETECTION AND RANGING (LIDAR)





Graphic: Illustration of an airborne LiDAR apparatus.



The Elevation map (above) is a multicolor shading of the Digital Elevation Model (DEM) of Nebraska. The DEM was created by the U.S. Geological Survey by mosaicing historic elevation survey data with more recent bare earth models derived from LiDAR data.

What is LiDAR?

LiDAR is a remote sensing technique used to calculate elevation. LiDAR data is most commonly collected using an aircraft, although a variety of other platforms can be used. The LiDAR apparatus releases light pulses towards the ground. When the light pulses reach a surface, the pulses reflect back to a sensor which records the GPS location and amount of time it took each pulse to return. The distance from the LiDAR apparatus and the ground is calculate based on how long it took the pulse to reach the sensor, which is then used to calculated the elevation.

The collection year map (left) shows the most recent year in which elevation data was collected for each block/region in Nebraska. The oldest data collection year currently being used is 1946, the median year is 1969, and the most recent year is 2012.

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Map Created by Casey Dunn
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Sources: The National Map, U.S. Geological Survey, National Oceanic and Atmospheric Administration, (graphic) vcgi.vermont.gov