



IowaView

Improving Content and Access to Iowa's Remote Sensing Archives 2012 - 2013 Activities

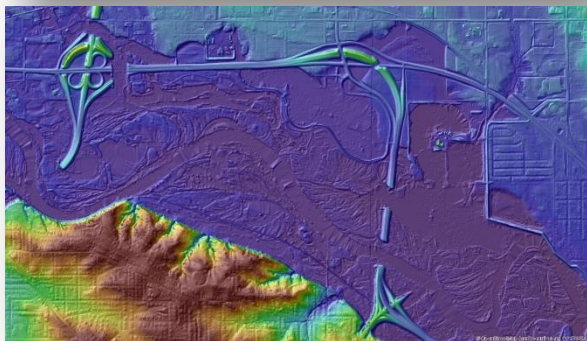


Cedar River near Waterloo, Iowa



**NAIP 2013 –
USDA FSA**

**1 meter color
and color-
infrared
orthophotos**



**Iowa Lidar
Project –
IDNR, IDALS,
IDOT, USDA
NRCS and
USGS**

**3 meter
DEMs, 1
meter
shaded
relief, 2'
contours**



**Flood of
1961 – IDNR,
US Army
Corps of
Engineers**

**1 meter BW
orthophotos**



**1930s
historical
ortho project
– IDNR,
IDOT, U of
Iowa Map
Collection,
USDA NRCS**

**1 meter BW
orthophotos**

Iowa has a very large and unique collection of current and historical orthophotos and lidar elevation data sets that are available free to the public for online viewing, file download or as web mapping services. The collection includes historical aerial photos from the 1930s, 1950s, 1960s, 1970s, 1980s and 1990s, as well as yearly statewide projects from 2002 to 2013.

In 2012-2013 Iowa partners added new remote sensing layers including statewide 2013 NAIP color and color-infrared orthophotos, and completed the Iowa Historical Ortho Project by finishing the 1960s black and white photos for the state. A new project was initiated in 2013 to create orthophotos and mosaics from scans of US Army Corps of Engineer aerial photos of major floods along Iowa's rivers. New mosaics were created to show the 1964 Mississippi River flood of record along the entire Iowa border, and the 1961 flood along the Cedar River in Waterloo and Cedar Rapids.

Iowa's remote sensing archives are used by businesses, governments and the public to answer basic questions about current and past land and water features. Local governments have used the historical aerial photo archive to check features over time and have been used to help resolve land use issues before they require legal action. Photos of actual flood extent are useful to convince land owners and home buyers that floods have occurred in the past and flood insurance may be a good idea. The lidar data archive is used by just about everyone that needs to see the shape and form of the landscape itself. Every year several terabytes of lidar data are downloaded and used by engineers and consultants working for businesses and governments. In a recent return on investment analysis, the value of the lidar data to users was estimated to be at least \$5 million per year. These benefits include reducing the need for topographic and archaeological site surveys, and improving designs for local infrastructure projects, including culverts, road grading, erosion control structures and wetland mitigation.

Partners include the Iowa Departments of Natural Resources, Transportation, Agriculture and Land Stewardship, Homeland Security and Emergency Management, Iowa State University GIS Facility, University of Iowa Map Collection, University of Northern Iowa Geotree Project, Alliant Energy, US Army Corps of Engineers/Rock Island District, USDA FSA and NRCS, and the USGS Geospatial Liaison for Iowa. Over the past 15 years, numerous local governments have also supported imagery projects, and contributed photos to the data archive.

Current and historical orthophoto viewer and map services:

<http://ortho.gis.iastate.edu/>

Lidar data download website:

<http://www.geotree.uni.edu/lidar/>

Iowa DNR GIS Library:

<http://www.igsb.uiowa.edu/webapps/nrgislib/>

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