

## NEBRASKAVIEW REMOTE SENSING ACTIVITIES 2015 - 2016

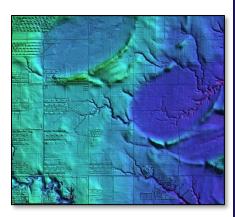


## Remote Sensing Educational Outreach to Nebraska State Agencies

The Nebraska GIS Council (part of the Nebraska Information Technology Commission) established that geospatial resources, especially remotely sensed products, are currently being underused by some state and local entities due to a lack of knowledge regarding available resources and their applications, and a lack of training in application of those resources. NebraskaView, working with the Nebraska GIS Council Education subcommittee, developed a process to identify these imagery and training needs.

To that end, a needs assessment, surveying targeted state agency geospatial data users was developed and implemented. This assessment identified a number of specific geospatial application needs, as well as the current level of technical proficiency and types of imagery that were not being employed due to lack of access or expertise. Specific areas of imagery and training needs included:

- Crop monitoring
- Land classification of crop types
- Identification of irrigated and non-irrigated croplands
- Quantification of land use change over time
- Erosion mapping
- Using LiDAR derivative products to enhance current geospatial applications
- Water quality and quantity monitoring



LiDAR technologies were identified in a NebraskaView needs assessment as an area of particular interest to state and local land management agencies. This example shows how LiDAR is used to analyze subtle topographic differences in central Nebraska farmlands.

A webinar was developed and presented by NebraskaView to provide targeted information about aerial imagery, LIDAR data, and remotely sensed satellite products (Landsat, MODIS, etc.) that could be used to address these needs. The webinar was attended by over 25 participants representing federal, state, and local government agencies, as well as several private geospatial consulting companies.

Feedback solicited from the webinar participants, along with the needs assessment, will guide NebraskaView and the Nebraska GIS Council Education subcommittee in identifying topics for future presentations and targeted technical workshops.

These educational outreach activities show that there is a demonstrated need for educational outreach activities of this kind in Nebraska.



The NebraskaView webinar provided an overview of the science of remote sensing and focused on readily available geospatial imagery products and how to apply them to specific areas of interest.

NebraskaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state.



AmericaView Website:

www.AmericaView.org
Roberta Lenczowski, Executive Director:
roberta.lenczowski@sbcglobal.net

Jarlath.oneil-dunne@uvm.edu

## **BENEFITS TO NEBRASKA**

The geospatial data needs assessment and remote sensing webinar undertaken by NebraskaView:

- Introduced state and local government geospatial data users to the broad variety of freely-available remotely sensed imagery served by the USGS and their many applications.
- Identified key geospatial application needs of various state entities and will assist the Nebraska GIS Council in establishing priorities for image acquisition.
- Identified overlapping imagery needs of state entities creating the potential for coordination and savings in future imagery procurement.
- Identified the necessity for training in the usage of underutilized remotely sensed imagery for achieving goals associated with identified application needs.

NebraskaView will continue to work with the Nebraska GIS Council to develop training opportunities to assist state entities to meet their geospatial data application needs and also to promote greater use of underutilized remotely sensed imagery products.

"The recent needs assessment and educational webinar on remote sensing technologies, led by NebraskaView, has made a direct impact on key decision makers in government and utility entities in our state. This education outreach event helped identify training needs and also potential partnerships for remote sensing data sharing, future data acquisition, and leveraging of statewide resources for imagery and elevation (LiDAR) acquisitions in Nebraska. "

Nathan Watermeier State GIS Coordinator Nebraska Office of the Chief Information Officer

NebraskaView works closely with the state's primary geospatial data coordinating office to ensure that Nebraska state and local agencies have up-to-date access and training in geospatial data technologies.

## NebraskaView Consortium Membership

NebraskaView works closely with the Nebraska GIS Council (<a href="http://nitc.nebraska.gov/gisc/">http://nitc.nebraska.gov/gisc/</a>) and its member agencies (comprised of representatives of all levels of government, local through federal), several Nebraska universities, as well as the U.S. Forest Service to coordinate the development and application of geospatial information technologies in Nebraska.























Federal consortium members identified above do not receive funding from AmericaView.

**NebraskaView Principal Investigator:** 

Dr. Brian Wardlow University of Nebraska-Lincoln (402) 472-6729



http://nebraskaview.unl.edu

bwardlow2@unl.edu