



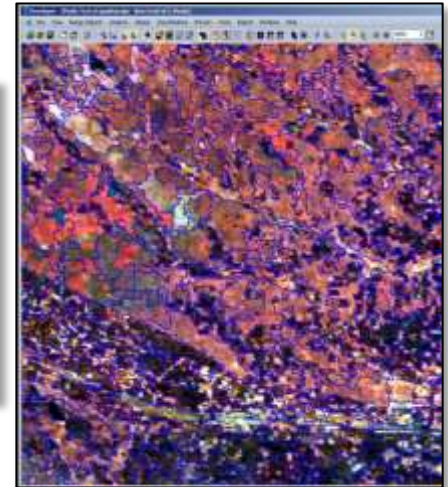
<http://nebraskaview.unl.edu/>

NEBRASKA VIEW REMOTE SENSING ACTIVITIES 2014 - 2015



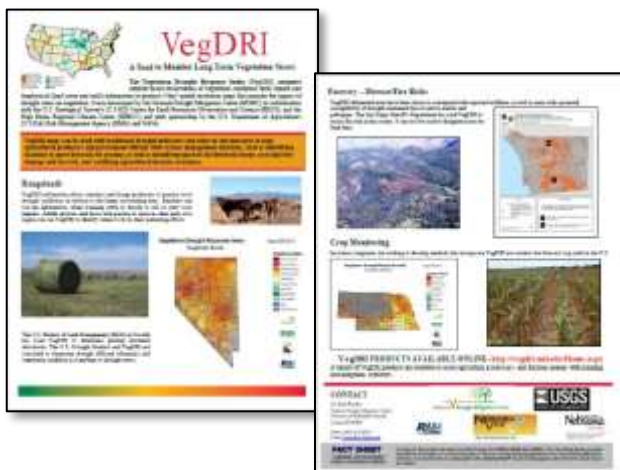
NEBRASKA VIEW STUDENT INTERNSHIP

NebraskaView (NEView) funded an undergraduate student during the summer to work on a project focused on developing analytical techniques to distinguish between irrigated and non-irrigated cropland in Nebraska. This project was part of a larger state-wide classification of land use in Nebraska conducted for the Nebraska Department of Natural Resources (NDNR). The student acquired and analyzed Landsat, MODIS and NAIP imagery for use in object-oriented land use classification and contributed to the development of processes to classify this imagery. The separation of irrigated vs. rain-fed agricultural crops will allow the NDNR to more closely monitor water usage during periods of drought and also plan for future water appropriation in the state. This activity allowed the student to develop skills in processing remotely sensed satellite imagery and also exposed him to real-world applications of geospatial technologies.



NEView student intern (left) uses object-based analytical techniques (right) to determine agricultural land use in Nebraska for a project with the Nebraska Department of Natural Resources

TECHNOLOGY TRANSFER



NEView-developed Fact Sheet used to promote practical applications of the VegDRI satellite-based drought-monitoring tool

NebraskaView, in conjunction with University of Nebraska-Lincoln and National Drought Mitigation Center (NDMC) researchers, developed a new Fact Sheet focused on specific applications of the Vegetation Drought Response Index (VegDRI). VegDRI integrates biophysical (land cover and soils) information to produce 1-km² spatial resolution maps that monitor the impact of drought stress on vegetation. It was developed by the NDMC in collaboration with the U.S. Geological Survey's (USGS) Center for Earth Resources Observation and Science (EROS), and the High Plains Regional Climate Center (HPRCC) with sponsorship by the U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA), NASA, and USGS. The Fact Sheet presents a number of examples of how this tool for monitoring seasonal vegetation stress can be used by land managers for drought-related planning and response in rangeland management, forest disease and fire risk assessment, and crop monitoring. The Fact Sheet was sent to more than 50 identified stakeholders in Nebraska. Feedback is being solicited to understand how the information might be used in decision-making activities and identify specific applications within the state to demonstrate VegDRI's utility.

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

Debbie Deagen, Program Manager:

debbie.deagen@montana.edu

Russell Congalton, Board Chair:

russ.congalton@unh.edu

BENEFITS TO NEBRASKA

These NEView activities benefited the citizens of Nebraska in several ways. NEView provided an educational opportunity for an undergraduate student that otherwise would not have been available to him. Providing specific examples to stakeholders of the utility of a drought-monitoring tool is especially relevant in a predominately agricultural state such as Nebraska.

Other benefits include:

- Fostering collaboration with university research teams to provide technology transfer from research to users in the field
- Using an outreach activity to solicit feedback that can be used to improve a technology tool to maximize its usability in Nebraska
- Providing taxpayers with examples of how federally funded data acquisitions are being used to their benefit
- Promoting research and remote sensing experience at the university undergraduate level to increase numbers and visibility of graduating students with employment skills in remote sensing
- Job training for Veterans (student formerly served with the U.S. Marine Corps)



NEView strives to familiarize Nebraskans with the many ways in which satellite imagery is used to monitor and manage natural resources in the state. (NE State Office Building display, November 2014)

NEBRASKAVIEW CONSORTIUM MEMBERSHIP



GIS Council



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

NebraskaView Principal Investigator:

Dr. Brian Wardlow

University of Nebraska-Lincoln

(402) 472-6729

bwardlow2@unl.edu



<http://www.nebraskaview.unl.edu>