



KANSASVIEW 2018 - 2019



KANSASVIEW HISTORY AND SUCCESSES

KansasView, a charter member of the AmericaView consortium, has promoted the mission and objectives of AmericaView over the past 15 years. During that time, KansasView has built its stateview consortium, promoted remote sensing education, contributed to data development and research programs, and conducted outreach with partner institutions and state agencies throughout Kansas.

Promoting remote sensing education: KansasView has provided research scholarships to its partner educational institutions, sponsored a statewide remote sensing conference, co-sponsored events with state agencies and non-profits, and presented at local and regional conferences. KansasView has developed new remote sensing courses and course activities at both the University of Kansas and Haskell Indian Nations University. Additionally, the KansasView Principle Investigator (PI) has mentored undergraduates in KU's PREP program, a program that facilitates the transition of minority students into graduate school (shown upper right).

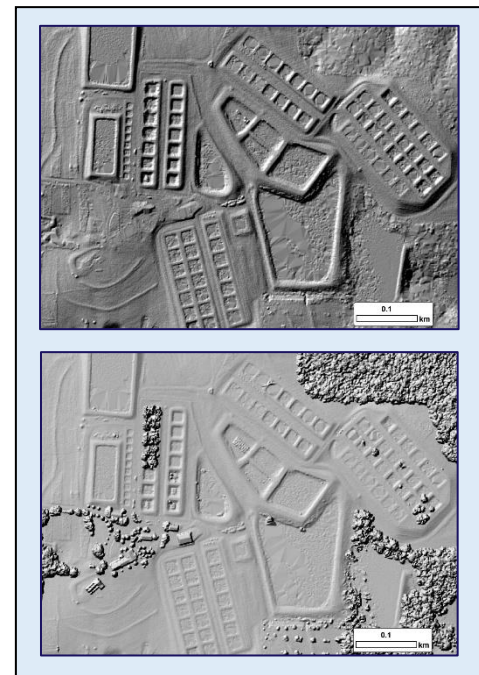
Data and research development: KansasView has helped create, acquire, maintain and assess several key databases for Kansas consisting of remote sensing data that will facilitate and advance the utility of remote sensing data by our state agencies, educational institutions and the private sector. This year KansasView acquired and processed the National Science Foundation's National Earth Observation Network (NEON) data for the KU Biological Field Station to help promote educational and research use of the high resolution remote sensing data collected from an array of instruments on the Airborne Observation Platform (AOP) (shown lower right).

Building partnerships: KansasView partner institutions include the Kansas GIS Policy Board, the Data Access and Support Center at the Kansas Geological Survey, Emporia State University, Fort Hays State University, Haskell Indian Nations University, KU-Edwards, and Kansas State University, now including the Polytechnic Campus.

Participating in the GIS Policy Board, KansasView interacts and collaborates with numerous state agencies including the Water Office; the Division of Emergency Management of the Adjutant General's Office; the Department of Wildlife, Parks, and Tourism; and the Department of Health and Environment. Several agencies have jointly funded projects partially funded by AmericaView.



Cheyenne Sun Eagle, a graduate of Haskell Indian Nations University and a former PREP Program student who is in the last year of her M.A. program, recently won first prize in the student paper competition at the Great Plains Rocky Mountain Regional Meeting of the AAG. Pictured with advisor and KansasView PI, Dr. Stephen Egbert.



KansasView acquired and processed the NEON AOP data over the KU Biological Field Station. 2016 LiDAR digital elevation and digital surface data are shown above. For more information about the data, visit www.ksview.org or the NSF Neon website at www.neonscience.org.

KansasView 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 is funded by USGS grant agreement G18AP00077.



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Introduction to Drone Mapping Course

KansasView's high impact activity for this year focused on the development and offering of a newly revamped course, Introduction to Drone Mapping, at the University of Kansas during the first half of Fall Semester, 2019. Instructors included Dr. Dana Peterson and Dr. Stephen Egbert of KansasView, and Dr. Xingong Li. The overall purpose for developing the course was to create course materials and procedures that could serve as a model for developing similar courses at our partner, Haskell Indian Nations University, and other AmericaView institutions. The primary goals of the course were to give students hands-on experience in flying drones, collecting imagery, and processing aerial data to produce digital surface models, aerial mosaics, and related products.

Specific teaching objectives included helping students understand (1) fundamental FAA rules for drone flights, (2) how to plan a drone aerial photography mission, (3) how to conduct safe flight operations, (4) how to use industry-standard drone mapping software, (5) useful drone apps, and (6) the range of potential drone applications. Class activities included in-class lectures, several sessions of drone flight and data gathering in the field, computer lab exercises, a guest lecture from a drone industry professional, and an independent research paper.

Course instructors had access to athletic practice fields at the University of Kansas for drone flight training and to the Baker Wetlands for drone mapping missions. Baker Wetlands is an extensive area of natural and restored wetlands lying in the Wakarusa River Valley just south of Lawrence, Kansas. The director of the Wetlands, Dr. Irene Unger, enthusiastically supported the use of the wetlands by the drone class, both for the value of the flight training and the resulting aerial photography that will be used for research and for promoting the value of the wetlands.

Redesigned website. With the assistance of Susan Patton of University of Kansas Information Technology, the KansasView website was completely redesigned, including a new look and interface. The new website highlights research, news and events, outreach, and data links.

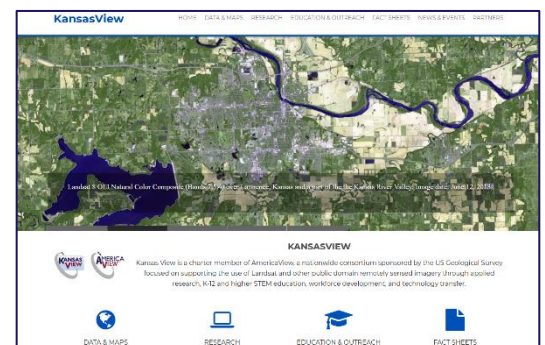
New consortium member. KU –Edwards Campus and Salina Polytechnic Campus at Kansas State University joined the KansasView Consortium this year. K-State Polytechnic is widely known for its extensive Unmanned Aerial Systems training program.



Preparing for a drone mapping mission at the Baker Wetlands south of Lawrence. September 2019.



Oblique aerial view of the Baker Wetlands, looking northwest from the Wakarusa River. September 2019.



Homepage for new KansasView website.

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