

## **KANSASVIEW**



## 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 numerous data development and research programs, and conducted outreach with its 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 other state agencies and non-profits, and presented at local and regional conferences and meetings. 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. One major longterm project co-funded by AmericaView, in conjunction with state and federal agencies, has focused on the development of geospatial flood map libraries for use during flood events (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, and Kansas State University.

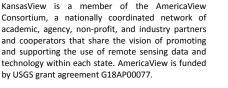


Cheyenne Sun Eagle, PREP Program student and graduate of Haskell Indian Nations University, at a presentation of her research with KansasView PI Stephen Egbert.



The above map represents a range of flood scenarios that can be used to map an actual flood event to support emergency response needs. (Montgomery Co., KS)

Through active participation in the GIS Policy Board, KansasView interacts and collaborates with numerous state agencies including: the Kansas Water Office; the Division of Water Resources of the Department of Agriculture; the Division of Emergency Management of the Adjutant General's Office; the Department of Wildlife, Parks, and Tourism; the Department of Transportation; and the Department of Health and Environment. Many of these agencies have provided joint funding for projects partially funded by AmericaView.



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## **KANSASVIEW CURRENT ACTIVITIES**

KansasView is partnering with KU's Department of Geography and Atmospheric Science, Haskell Indian Nations University, and Tukuh Technologies [a tribally-owned 8(a) technology firm] to develop two new university courses that will utilize Small Unmanned Aerial Systems (sUAS) for aerial mapping applications. Drone imagery has become one of the most rapidly growing areas of remote sensing and offers a wide range of applications from search and rescue to real estate to environmental monitoring.

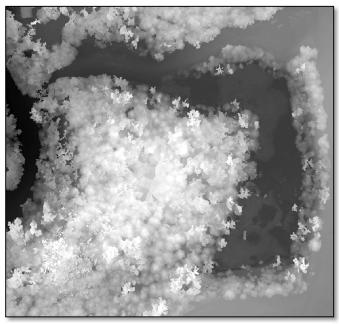
The goal of the new courses is to prepare students to enter a workforce that is rapidly embracing drone mapping technology. Both courses will become integral parts of the GIScience Certificate programs at their respective universities.



Jeff Krecic of Tukuh Technologies giving a drone demonstration at Haskell Indian Nations University to students and faculty of both Haskell and the University of Kansas.

Students in these courses will map and monitor the Baldwin Woods Forest Preserve of the University of Kansas Field Station and the Haskell Wetlands, an environmentally and culturally sensitive area. Drone imagery can be combined with other available data for student-led research. Both of these areas are actively studied by faculty and students, and the addition of drone data will enhance current research and provide opportunities for future research collaborations.





The natural-color drone image on the left was collected by the KansasView PI, Stephen Egbert, over the entrance of the Baldwin Woods Forest Preserve. The image on the right shows the surface height of the same area, with treed areas (lighter) having a higher surface height than non-treed areas (darker). This is an example of how drone imagery can be combined with other data for current and future monitoring and research opportunities.

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